FAIRLIGHT

Xynergi Media Production Centre

User Manual

16 February 2010
Software Version 2.6
Issue 001

Important Notice

Table of Contents

Introduction

Congratulations

You're reading the manual. This is a great way to learn Xynergi.

The early chapters are designed to ease you gently into the system. They are:

- System Diagram – what does your system do?

- The Xynergi Tactile Controller – names of its parts, and their functions, briefly

  This section is a reduced version of the Xynergi Fold-Out, a large printed picture that is included in the Xynergi package. It's a good idea to keep it by you while you're learning the system. Once it gets too tattered to read, you probably don't need it any more.

- The Xplain Help system – how to consult it easily while using the system

- How To … – steps through the operations you do most often

After that we have some more detailed guides to apects of the system.

Organising the Screens

Xynergi is commonly used with two screens, one displaying the Editing Screen, and the other for the Mixer Screen.

The Editing Screen

The Editing Screen is shown full screen, expanding automatically to fit the display size of the monitor. **Note:** Screen bit depth **MUST** be 24 bit.

The Mixer Screen

The Mixer Screen is normally shown full-screen on its own monitor. There are two sets of graphics available, with resolution 1280 x 1024, and 1024 x 768. The bigger ones look best!

Note: Screen bit depth **MUST** be 24 bit.

It is possible to resize the Mixer Screen on the fly, as follows:

Step 1   Open the System Variables screen by typing ctrl+u

Step 2   Select the Window Frame On radio button.

          The screen will immediately show a Title Bar.

Step 3   Close the System Variables window by clicking on its Close button, or typing esc.

Step 4   Using the mouse, click and drag one corner of the screen to change its size.

Step 5   You can also drag the screen to another monitor if desired.

Single Screen Operation

If you start Xynergi with only one monitor connected, the Editing and Mixer screens will both be shown on that one monitor. According to your activity, they will come "forward" to take focus when you perform certain activities.

To make sure that Mixing activities bring the Mixer screen forward, do the following:

Step 1   Open the System Variables screen by typing ctrl+u

Step 2   Select the Auto Show Mixer button.

Step 3   Close the System Variables window by clicking on its Close button, or typing esc.

You can also force the Editing Screen forward by typing ctrl+Editor, and the Mixer screen by typing ctrl+Mixer.

What Else You Need to Know

Installation

If you need to install or re-install the system, please read the manual:

Xynergi Media Production Centre Quickstart.pdf.

This manual is installed on your hard disk, usually in the folder C:\Program Files\Fairlight\Dream II\Docs.

First Startup

Even if someone else has installed the system for you, there are some things you need to do the first time you start the system. The Quickstart manual mentioned in the previous paragraph includes a chapter on this subject, called Launching Xynergi for the First Time. Please read this before using Xynergi, or at least have it standing by in case things get confusing.

Momentary and Latching

What??

Sorry, but this is one of the keys to speed in Xynergi. Many operations can be done two ways.

Momentary means: Hold down a key to open a mode, do one thing in that mode, then let go the key to exit the mode and go back to where you were. This is skilful, because it requires two hands, but it's fast.

Latching means: Press a key to enter (latch) a mode, do some things in that mode, then press the original key again to exit the mode. This is not as fast, but it's easier, being one-handed.

When we refer to momentary operation, you'll see words like **hold down** and **release**.

When we refer to latched operation, you'll see the word **press** or **type** which both mean "press and release".

Some Important Terms

Throughout this manual we will use some terms that you need to understand.

Transport

This refers to the movement of the system along the timeline. For example, when we "put the transport into Play" it means we cause forward movement along the timeline. This applies to the disk audio tracks, Pyxis Track (if enabled), the timecode generator (if enabled), and any machines that are being controlled by the system.

Transport commands include Play, Stop, Record, Jog, Rewind, Shuttle and FF.

The timeline is shown at the top of the Edit Screen.
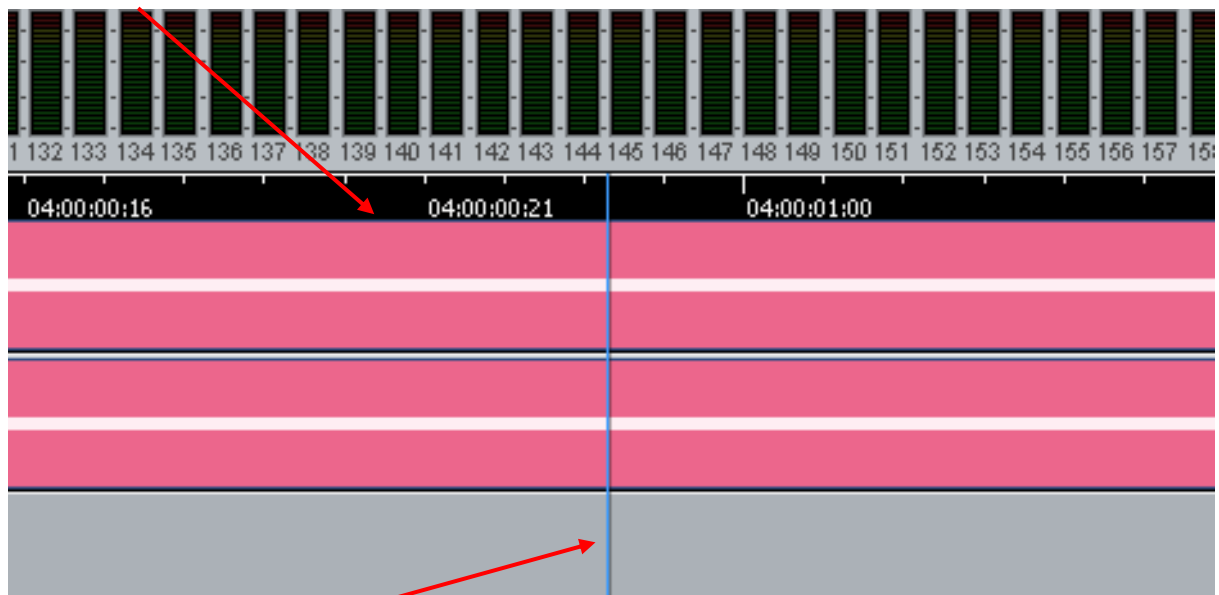
Play Head

The line in the center of the Edit Screen is called the Play Head or Cursor. This is the current point where the system plays audio and video. It is also the point where most edits occur. The timecode display shows the position of the Play Head.

Anything Missing?

There are many topics that are not covered here. They are covered in the Xplain system on-board the Xynergi controller. In many cases that's a much easier way to learn about them. For information about Xplain see page 26.

If you find there's some aspect of Xynergi that is not explained (or Xplained) adequately, please let us know. You can email me: andrew@fairlightau.com

With new releases of software you'll sometimes get a new version of this manual that adds more information. You can also download the latest version from Fairlight's website: www.fairlightau.com

The Xynergi System
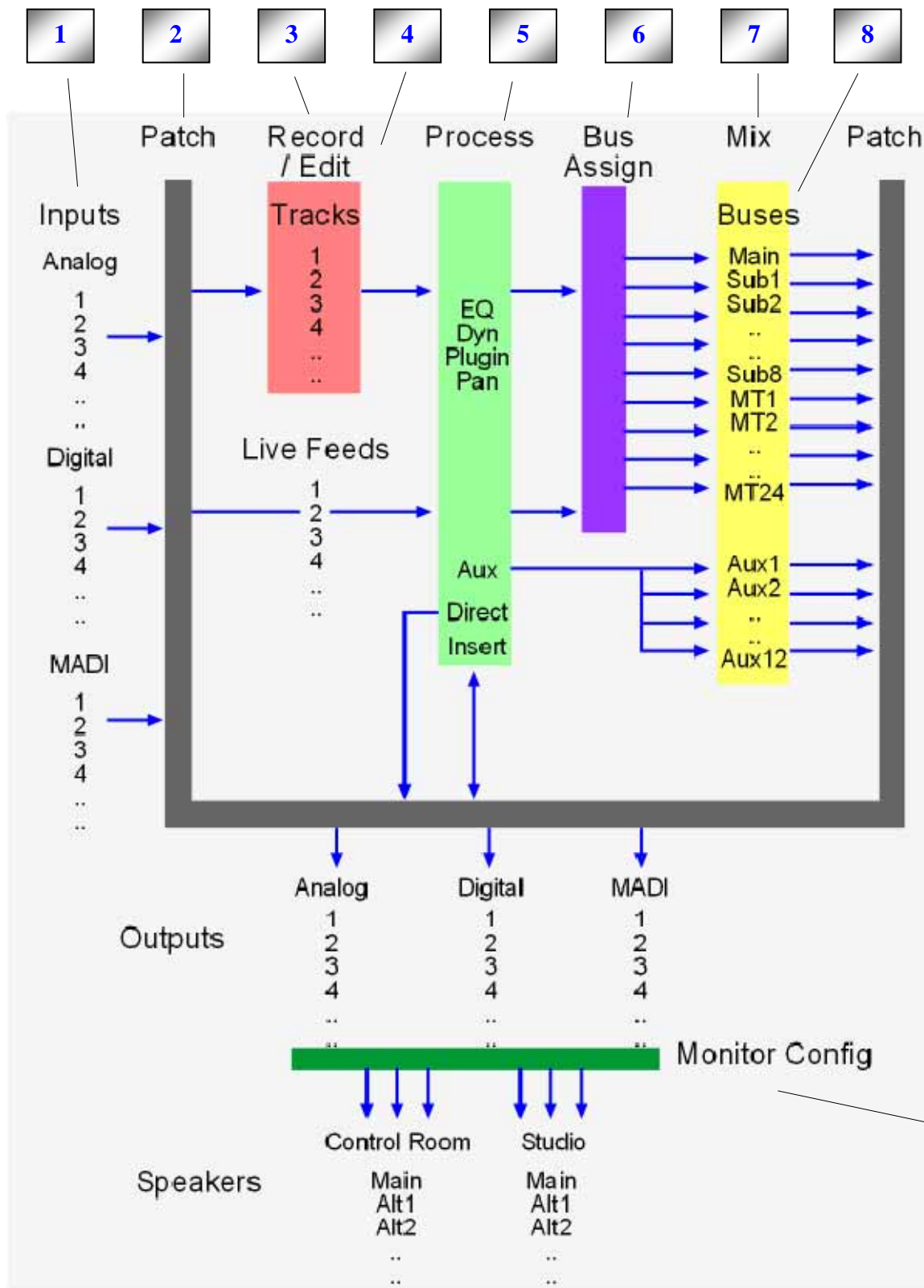
1. I/O Configuration – see page 27.

2. Patching connects paths in the system – see page 32.

3. Recording – see page 30.

4. Editing – see page 72.

5. Processing – see page 56.

6. Bus Assignment assigns channels to Buses – see page 48.

7. Mixing – see page 118.

8. Bus Format (mono, stereo, 5.1 etc) – see 47.

Mix Automation – see page 64.

9. Monitor Configuration sets up speakers for control room and studio – see page 41.

Xynergi Tactile Controller
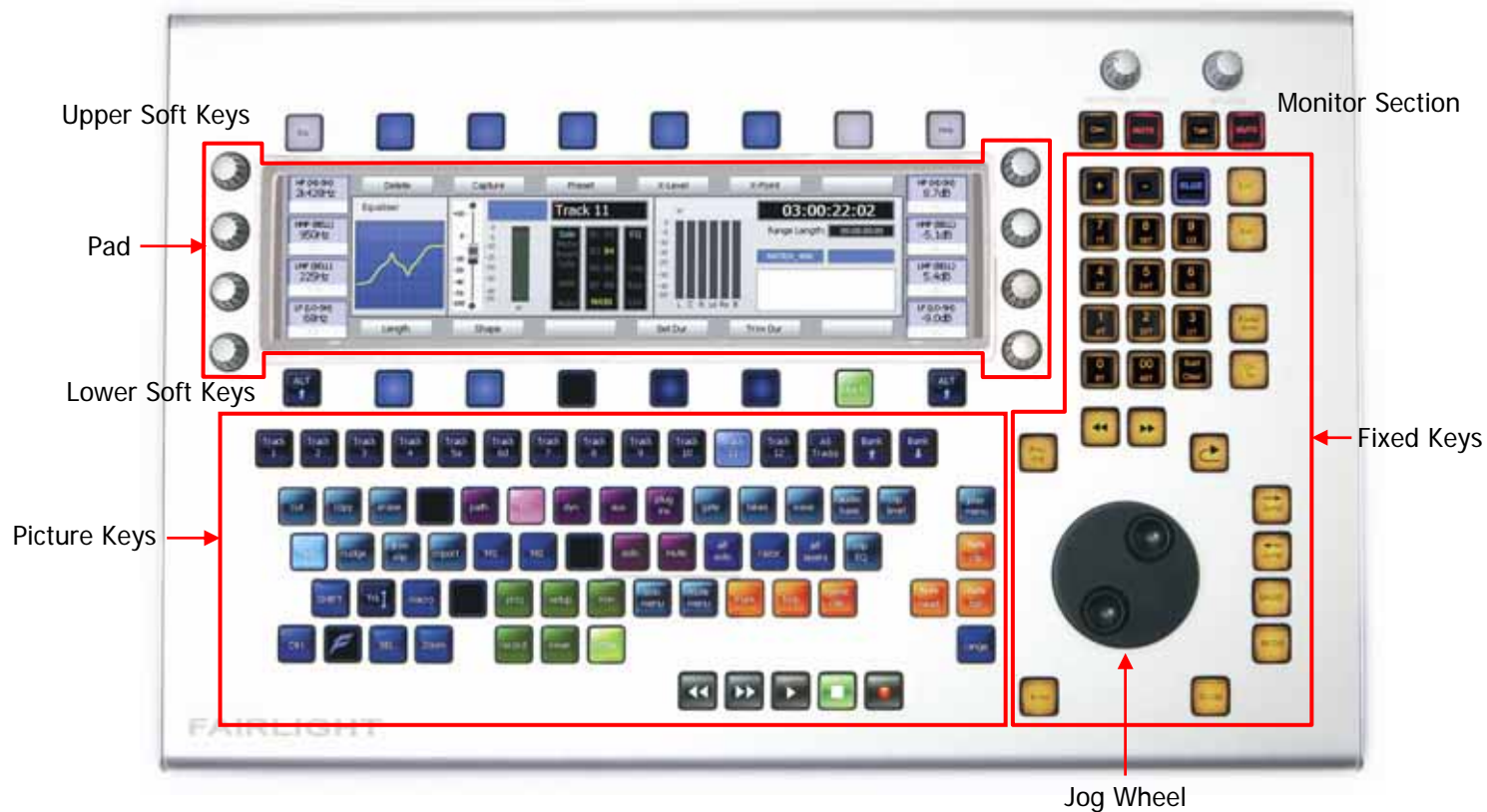
Monitor Section

The rotary pots are used to adjust the Control Room and Studio monitor listening level.

The **Mute** buttons cut the level to their respective monitors.

The **Dim** button reduces the Control Room (CR) monitor level. To control how much the level is dimmed:

Step 1   Stop the transport

Step 2   Hold down the **Dim** button

Step 3   Turn the Jog Wheel. The level is shown in the Pad

Step 4   Release the **Dim** button

Fixed Level Monitoring

Sometimes the monitoring environment must be set to a standard level, and not changed. This is called Fixed Level monitoring.

The **Dim** button is used to fix the CR monitor level. When fixed, it is unaffected by the rotary pot. To turn on Fixed Level monitoring:

Step 1   Stop the transport

Step 2   Hold down the **BLUE** key

Step 3   Press the **Dim** button

To set the level for Fixed monitoring, first set up an SPL meter at an appropriate position.

Step 1   Stop the transport

Step 2   Hold down the **BLUE** key

Step 2   Hold down the **Dim** button

Step 3   Turn the Jog Wheel. The level changes, and is shown in the Pad. Adjust to match the required SPL level.

Step 4   Release the **Dim** button

Step 2   Release the **BLUE** key

Fixed Keys

Fixed keys are "normal" switches with labels that do not change. Their functions change a little, but not as much as the picture keys. LEDs show function and status.

Numeric Keypad (Numpad)

The Numeric Keypad, also known as the Numpad, has many uses. Its function changes when you press the keys surrounding it, like Loc, Set, Fader Sets and so on.

The following functions are available on the Numpad:

Function	Press or Hold Button
Type Numbers	None
Parameter Entry	None
Choose Fader Set	Fader Sets
Choose Number of tracks on Edit Screen	**BLUE**
Go To a timecode, mark or clip name	Go To
Jump by a number of seconds	Jump Left \ Right or REW \ FF
Set Review time	Review
Choose Meter Set	Meters (Setup Megamode)
Capture timecode into a Locator	Set
Move to a Locator	Loc
Set Loop Jog width	Jog Play (hold down)
Macro execution	Macro key (see Chapter "Macros" page 208).

These functions are described in detail in the Chapter "The Numpad"

Type Numbers

When naming channels, clips and other things, these keys type the large number written on them.

Play Jog

Primarily used to enter Jog mode, but also toggles to Play mode if Jog mode is active. This is designed to allow easy transport control without moving your right hand away from the Jog Wheel.

BLUE + Jog initiates Shuttle mode, where the speed of the transport depends on the Jog Wheel position.

The Jog function has many other commands and variations. For details, please see Jog Play, page 110.

REW and FF

These keys are repeats of the keys found in the transport row of the Picture keys.

Both REW and FF can be repeated many times to increase speed.

Pressing REW + FF issues a STOP command.

jog + REW ➔jump left

jog + FF ➔jump right

REW + 0 ➔jump left one frame

FF + 0 ➔jump right one frame

REW + 1 ➔jump left one second

FF + 1 ➔jump right one second

REW + 2 ➔jump left two seconds

FF + 2 ➔jump right two seconds

etc

Review

Jumps back by a few seconds, then starts playing. You can control the number of seconds that it jumps back (hold down Review and press a Numpad key).

Jump Keys

These keys are used to quickly move the transport forward or backwards on the timeline to Jump Targets. These may be the next/previous clip head or tail (point), fade point and/or mark, or to a specific clip name.

While the Jump key is held down, you may press a Numpad key (1, 2 etc) to jump by that many seconds.

See more about Jumping on page 32.

From and To

These keys are used to define the start and end times of a Range.

A Range is a marked period of time in the project. Ranges are used for:

- Editing – the range can be cut, copied, erased, nudged and more

- Recording – a range can be automatically recorded

- Mix Automation – a range can be filled with automation values, or isolated for a **Write** pass

See more about Using Ranges on page 96.

Undo / Redo

Allow a large number of audio edits to be undone/redone.

When you issue an **Undo** or **Redo** command the system will revert to the timecode location, zoom setting and track selection at the time of the edit. You can prevent part of this by changing a preference in the **Setup ➔ General Preferences** dialog. This is found in the menus at the top of the Edit Screen.
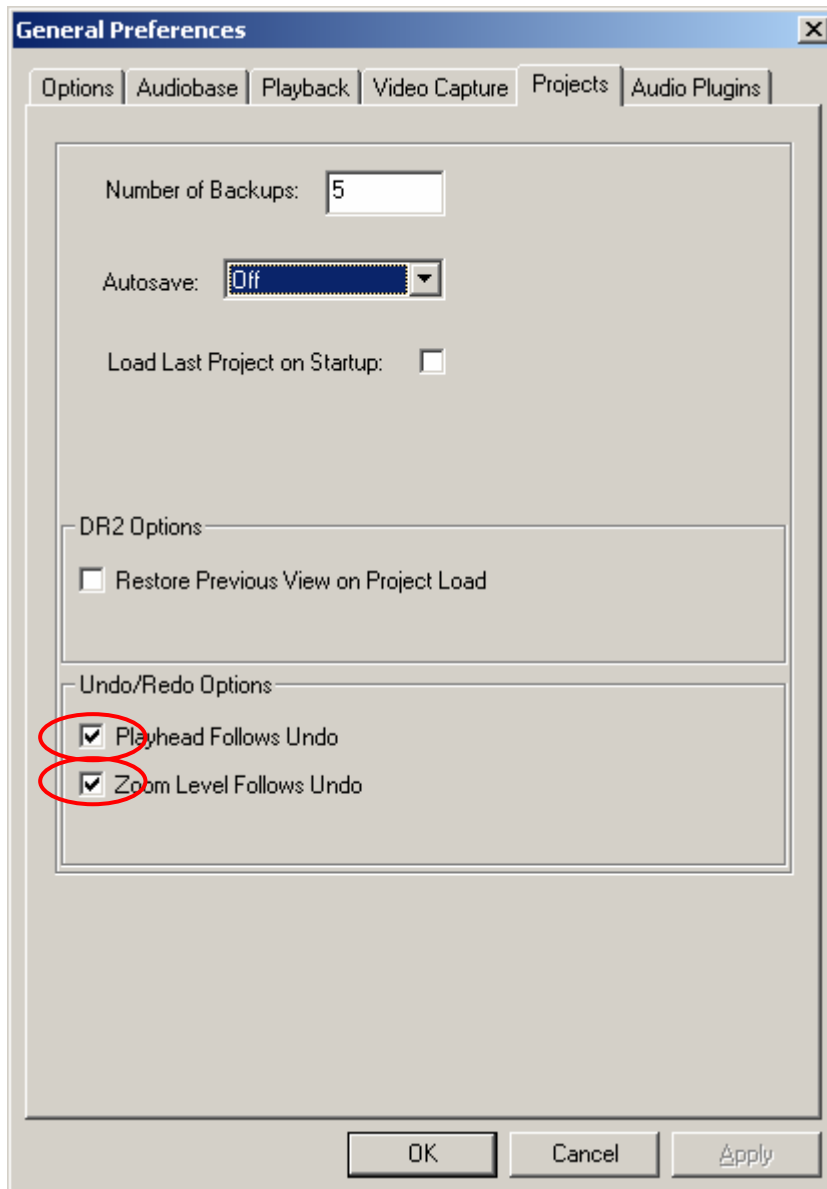
Note: Undo applies only to audio editing, not mixing or automation moves.

Zoom

Hold down `zoom` then turn the `Jog wheel` (or press the `+` and `–` buttons) to adjust the amount of time being displayed horizontally across the Edit screen.

A specific Zoom value can be obtained by holding down `zoom` and pressing a `Numpad key` combination, making a number between 1 and 20, the releasing `zoom`. The Zoom value is shown at the bottom of the Edit Screen.
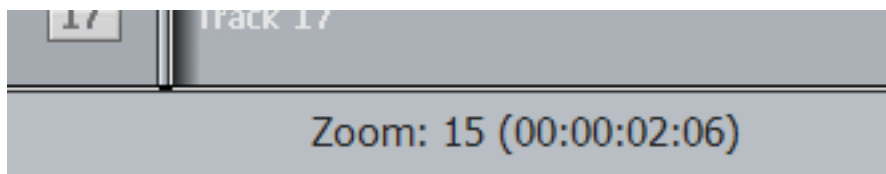
Zooming in and out can also be done using the `wheel` on your `mouse`, when the Edit screen is in focus (if not, click somewhere on it).

Simply pressing and releasing `zoom` toggles between your last two zoom settings.

If **ctrl** and **zoom** are both held down, the Jog wheel adjusts the number of tracks being displayed in the Edit screen. Similarly, holding down **ctrl** and turning the **mouse wheel** makes this adjustment.

Picture Keys

Picture keys change their appearance and function according to what you are doing. Their function is usually clear from the label, and they can also tally on/off states. Some picture keys use animation to indicate warning states.

Layouts

A layout is a group of keys that are presented together. Some layouts include all the keys, and some include only a few, or even one. Layouts can include picture keys and fixed keys.

Picture Keys by Colour

Different colours are used for different types of keys, as shown below.

Megamode Keys

Megamode keys are always green.

Megamodes are layouts that change the whole keyboard. They are used for different areas of operation. Each megamode includes, where possible, all the functions you need to perform its group of tasks. Sometimes the same function appears on more than one megamode, because it is needed in both. In these cases the function always appears on the same button.

See more about megamodes on page 42.

Modes

Mode keys are always teal in colour.

A mode is a specific group of functions. Each mode has a "soft menu" of commands that are displayed on the Soft Keys. Other Picture keys may change when a mode is selected. For example, the **cut** mode causes display of the **cut clip**, **cut head** and **cut tail** keys at the left of the Jog Wheel. Modes are also known as menus because of their soft keys e.g. cut menu or mix menu.

To find out what a mode does, hold down the **Xplain** button while pressing the mode button.

Toggles

A toggle chooses between a pair of options, usually On or Off. Some toggles are actually triggles i.e. they choose amongst three options.

Toggles are always blue in colour.

Path Keys

Path keys are used to select or deselect signal paths. Their colour changes depending on the mode being displayed, and the status of the path. For example, they show dark or light brown in Mute mode, dark or light green in Solo mode, and red or dark blue in Arm mode.

Paths include Tracks, Lives and Buses (Main, Sub, Aux and MT).

Naming Paths

Path keys show the name of the path (note Track 5a in the illustration). You can set your own name for paths using the Name Path function (see page 41).

By default, the path keys will show the names you have given, but you can also choose to show the system name (Track 1, Live 1 etc), or a combination of system and user name. This is done in the Setup Megamode, using the **style** button (a triggle that cycles through the three naming styles).

Showing More Paths

The SEL key can be used to display 48 paths at the same time. It works in momentary mode (hold-down) or latching mode (press and release).

Action Keys

Action keys cause an immediate result. They are always coloured orange.

The Pad

This displays all mixing information relating to the current path (the most-recently-selected path).

It also displays the labels for the soft keys (see below). The ALT keys work with the Pad to extend its functionality.

The Pad is the main input device for processing, mixing and automation. For information about Pad mixing, see page 75. For information about automation using the Pad, see page 83.

Soft Keys

Soft keys display the "soft menu" options for the current mode.

Upper Soft Keys

Lower Soft Keys
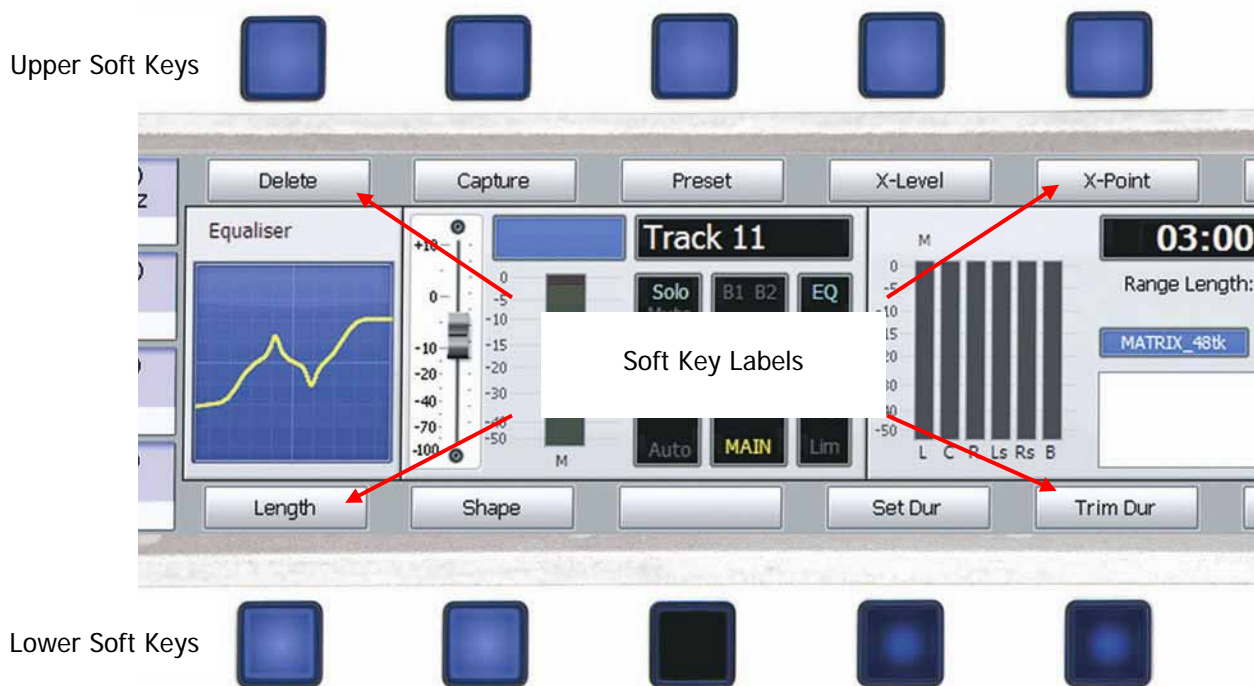
The soft key label immediately above or below the soft key tells you what its current action will be, or shows its current status.

To find out what any soft key will do at a particular time, hold down the **Xplain** button while pressing the soft key.

The Xplain System

What is Xplain?

Xplain is Xynergi's built-in Help system. It's great to use, because you don't need to clutter your desktop with books like this one, and it gives you help about exactly where you are right now.

Xplain places text in the Pad text area. Sometimes this covers up the feature that it is Xplaining – it usually apologises...

Xplain has two systems:

Xplain-Button

Xplain-Button ➔ hold down the **Xplain** button, and press any other button on the keyboard to get a description of what it does. This includes picture keys, fixed keys and soft keys.

Xplain-How-To

Xplain-How-To ➔ step-by-step guides to many of the product's basic procedures. Press the **Xplain** button to start. Now choose a main topic, and then one of its sub-topics. Read the overview and press that button (which is flashing) again.

When you see a flashing button, read the text first, then press the button. Sometimes the text will instruct you to press a button, without flashing it. Go ahead and press the button.

This symbol comes at the end of the topic ⊙ Press **Xplain** again to exit.

How-To's don't care where you are in the system. They will always guide you to the end result by the shortest path. So if you can't quite remember how to do something, and you've gone partway through it, start the How-To, and it will guide you from that point onwards.

How Much does Xplain Cover?

Is Xplain absolutely complete? No, of course not. There are many functions which we have not had time to include.

If you find a key, soft key, or whole routine that is missing, and you feel it should be included, email me at andrew@fairlightau.com

Recommendation

If you are new to Fairlight systems, it's highly recommended that you go through the Xplain-How-To's at least once. Fairlight's user interface is quite different to most others, but after learning a couple of routines, it becomes quite logical and intuitive – and extremely fast.

How To …

In this chapter we will step through a number of common uses for a Xynergi Media Production Center.

Note: these sequences are available through the **Xplain** system on the Xynergi Tactile Controller. When you learn through Xplain, it highlights, in most cases, the next button that you need to press. This makes it easier for you to remember where the keys are.

Note: most of these sequences require a project to be loaded. There is a demo project available on your Xyerngi installation CD. Instructions for installing it are included in the Xynergi Installation Manual, chapter 4, page 20. Instructions for loading it can be found in this manual on page 75. It will be assumed in all these sequences that you have loaded a project.

Basics

Selecting Paths

Overview

Xynergi supports many "signal paths" including track feeds, live feeds and buses.

Feeds are the individual channels that are routed to the mix buses.

Track ➔ contains clips, i.e. edits of recorded audio. You can record directly into tracks.

Live ➔ audio entering the system from a physical input, in real time.

Bus ➔ mix destination. Includes Main, Sub-Buses, Auxes, MTs (multi track buses)

Each feed and each bus element plays one stream of audio. Editing and mixing operations are performed on the selected path(s).

Get Ready

Press the **Editor Megamode** button.

Press the **Cut** button.

How to Select

The top 12 picture keys show the names of 12 signal paths. Press one or more buttons to select them.

Press the **Bank Up** and **Bank Down** buttons to show another 12.

You can select many paths. Try the following shortcuts:

To select just one path, double-press its button.

To select a range of paths, hold one button down and double-press another.

The Current Path

The last path you press is special. It is called the "current path" and is shown in the Pad and the Mixer Screen Fat Channel. All mixing operations are directed at this channel.

The Current Track

If the current path is a Track, its name is shown in Blue on the Edit screen. It is then called the "current track" Some special editing commands are directed at it alone.
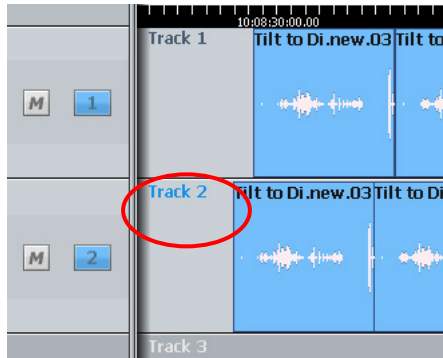
Now we'll access a wider selection.

Using SEL

Press **SEL** to display up to 48 paths. The rules for selection are the same as with the 12-track displays.

Use the **Tracks**, **Lives** and **Buses** buttons to choose the type of signal path you would like to select. If tracks are selected, use the **Bank Up** and **Bank Down** buttons to show another 48.

Press **exit** to leave.

This way of using SEL is called Latched.

There is another way to use SEL, called Momentary. In this mode, you press and hold **SEL**, and use its buttons while holding it down. Then you release , and it exits automatically.

Using Track↕

Hold down **Track↕**. While it's held down you can do the following:

- Turn the **Jog Wheel** to move the whole track selection up and down.

- Press the **+** or **–** button in the Numpad to move the track selection one place up or down.

- Type a number (up to 3 digits) on the Numpad, then release **Track↕** to select that track. This is great for selecting tracks that are not currently visible on the picture keys or the Edit Screen.

Using All Tracks

The **All Tracks** button will cause selection of every track in the project. If you press it a second time i.e. when all tracks are already selected, it will return to the previous track selection.

MULTI

Overview

MULTI allows you to change mixing parameters on many paths at the same time.

When Multi is Off, the Pad controls only the most-recently-selected path.

Pressing **MULTI** changes its display to MULTI REL (relative). All changes made with the Pad now apply to all selected signal paths.

Changes made with rotary knobs are applied relatively i.e. values amongst the signal paths remain different, but rise and fall together. But values "compress" when the reach upper or lower limits. This is demonstrated in the sequence that follows.

Changes made with switches are applied absolutely, even if values amongst the selected signal paths are different at the start.

Get Ready

Press the **Editor Megamode** button.

Press the **path** button.

Press the **Cut** button.

Multi Operation

Press the **Bank** buttons until Track 1 is showing. Double-press **Track 1** then select **Track 2**, so they are the only paths selected. Throughout this How-To, watch the results in the Track 1 and Track 2 tile displays in the Mixer screen.

Turn **MULTI** off. Turn the **Level** and **Pan** knobs. Press the **Mute** button. The values of Track 2 change, but those of Track 1 are not affected.

To set up for Multi ON, set Track 2's **Level** higher than Track 1, and its **L/R pan** further right than Track 1. Also set its **Mute** to the opposite of Track 1.

Multi Rel

Press **MULTI**. The word MULTI appears in **Red** in the Pad.

Multi Rel means "Relative". Turn the **Level** Control knob up and down in the Pad. The faders of Tracks 1 and 2 both move relatively, maintaining their difference.

Press the **Mute** button. Both tracks now have the same value, because switch functions are absolute under MULTI.

Now drive the **L/R pan** control so that both tracks are pushed hard against the left. Their values compress and are now the same. This will remain the case while Multi stays ON.

Take care with Multi. It's very powerful, but also quite dangerous! It's a good idea to switch it off as soon as you've finished using it.

Track Display

Overview

Xynergi can display any number of tracks from 1 to 192 (or the number in the project if less than 192, or if your system is licensed for fewer than 192 tracks). There are several ways of choosing which tracks you want to display.

It is also possible to Zoom the timeline over a wide range, showing from 8 hours down to a few samples.

Get Ready

Press the **Editor Megamode** button.

Press the **Clip Level** button.

Number of Tracks

To display a specified number of tracks on the Edit Screen, hold down the **BLUE** key and press one of the Numpad keys with a label like **2T**, **48T** etc. The number indicates how many tracks will be displayed. This time, press **BLUE**+**4T**.

Now use the **track buttons** on your Xynergi controller to select a track that is not currently shown on the screen. The display group changes to include the newly selected track, keeping the number of tracks the same.

User Tracks Display

To display any set of tracks you like, use the **U** keys, like this:

Hold down **BLUE** and also hold down the **U1** button (Numpad 3)

Keep holding down **BLUE** and **U1**. Press the **Clear** soft key and then select a few tracks. They are displayed on the screen. Release when you have finished reading this item.

You can set up track sets (called User Track Displays) on keys **U1**, **U2** and **U3**. They will be remembered between sessions. While a user track display is current, pressing track buttons has no effect on the display.

Edit Set

The **edit set** button is on the Editor Megamode.

It controls a way of automatically controlling which tracks are shown on the screen. When Edit Set is on, the screen displays all the selected tracks. If you select or de-select a track, the screen will change too.

When Edit Set is off, the screen displays the number of tracks you selected with the **BLUE** key.

Ctrl-Zoom

One more way to change the displayed tracks is to hold down **ctrl** and **zoom**, and turn the Jog Wheel. This increases or reduces the number of tracks, centering the selection on the most-recently selected track.

Zooming

The **zoom** button is used to control the scale of the timeline on the Edit Screen. The system offers a number of Zoom Scales which control the amount of time shown on the screen.

Hold down `Zoom` and turn the `Jog Wheel` (or press `+` or `-`) to change Zoom Scale. Hold down `ctrl` as well, and now turning the Jog Wheel zooms the vertical scale (i.e. number of tracks).

You can select a particular Zoom Scale by holding down `Zoom` and pressing a `Numpad key`.

Press and release `Zoom` to swap between the current and last-used Zoom Scales. This can be used effectively by setting an "editing" scale and a "travelling" scale, and toggling between them.

Transport Commands

Overview

At the bottom of the keyboard you'll find a row of "normal" transport buttons that behave as you would expect.

"Special" commands:

`REW` and `FF` go faster and faster if you keep pressing them

Hold down `Record` to display special commands on the soft keys.

Get Ready

Press the `Record Megamode` button.

Above the Jog Wheel

Above the Jog Wheel is a complete set of transport commands, designed to let you keep your hand in one position for editing.

`Play Jog` ➜ First press is Jog. If already in Jog, pressing this key puts the transport into Play.

`Review` ➜ Jumps back a number of seconds, then plays. Hold down the Review key to select the number of seconds on the Numpad.

`REW`+`FF` ➜ Stop

`BLUE`+`Jog` ➜ Shuttle

`Jog`+`REW` ➜ Jump Left

`Jog`+`FF` ➜ Jump Right

`Jog`+`0` ➜ Toggles linear and loop jog

`Jog`+`00` ➜ Sets loop jog at half a frame

`Jog`+`1` ➜ Sets loop jog at 1 frame

`Jog`+`2` ➜ Sets loop jog at 2 frames (etc)

In Record Megamode only, hold down `Jog` to display a `Record` button on the next key. Press both to go into Record.

The Play Menu

`Play Menu` displays special play commands on adjacent buttons, and on the Soft keys.

`Play Head` ➜ Plays from one second before clip head (on current track)

`Play Tail` ➜ Plays from one second before clip tail (on current track)

`Play Fade` ➜ Plays from one second before clip fade out (on current track)

`Play Again` ➔ Plays from the same point as last time.

Note: `Play Again` appears on the same key, so you can just press `Play Menu` twice for Play Again

Pressing the `Play` key while the Play Menu is active causes Play-with-Preroll from the current position. In other words, the transport backs up by the Preroll amount, then goes into Play.

Alternative Transport Set

For users more accustomed to earlier Fairlight products, an alternative transport layout can be chosen. To do this, press the `play jog` button on the Setup Megamode.

When play jog is toggled on, the keys are coloured violet, and work as shown below:

This is always a play key   This key toggles between Jog and Stop

Jumping

Overview

The `Jump keys` locate the transport instantly to your choice of `Jump Targets`, such as clip heads and tails, fades and marks.

To set the current Jump Target, hold down either Jump Key and use the `soft keys` to choose one or more targets.

To jump by a `number of seconds`, hold down either Jump Key and use the Numeric Keypad to select the length of jump from one to nine seconds. `0` jumps 10 seconds. `00` jumps 1 frame.

Get Ready

Select one of the following megamode buttons for illustration of the `Jump` keys:

`Record Megamode`, `Editor Megamode` or `Mixer Megamode`.

The Jump Menu

While you hold down a `Jump Key`, the soft keys offer the following Jump Targets. Select one (or two) and release to jump there. Next time you use a Jump key it will use the same target (unless you change it)

-`Variable` (jumps by the number of frames shown next to the word Variable) To set the Variable parameter, press its soft key and type in a number on the `Numeric keypad`, or use the `Jog Wheel`. Release the Jump Key when ready to accept the value.

-`Point` (Head, Tail or Sync Point of a clip, on any selected track)

-`Point or Fade` (Head, Tail, Fade Point or Sync Point of a clip)

-`Mark` (stored timecode location in the Project)

Note: `Mark` can be selected with `Point`, or with `Point or Fade`

Jump overrides

The following key combinations extend the Jump functionality

ctrl+**Jump** ➔ jump to next or previous Mark (stored timecode location in the Project)

Shift+**Jump** ➔ jump to next or previous Point (Head, Tail or Sync Point of a clip, on any selected track)

ctrl+**Shift**+**Jump** ➔ jump to the beginning or end of the Project

Range+**Jump** ➔ jump to the Head or Tail of the Range (a Range must exist for this to work)

Jump+**1** ➔ jump by one second

Jump+**2** ➔ jump by two seconds (and so on up to 9 seconds)

Jump+**0** ➔ jump by ten seconds

Jump+**00** ➔ jump by one frame

Jump+**Clear** ➔ jump to the previous frame edge (unless already on one)

Locators

Overview

Xynergi provides three non-permanent Locators to use freely in editing or mixing. They are designed to use quickly, and are not saved with the Project (Marks are saved, see Using Marks.)

Locators are stored using the **Set** key next to the Numeric Keypad, and recalled using the **Loc** key above it.

Get Ready

Make sure the Go To menu is not active.

Storing Locators

To store a location, press the **Set** button, then press **1**, **2** or **3**. While Set is active you can store other locations.

You can also use **Set** in momentary style. Hold it down, press a number, then release it. The system will exit Set mode.

Going to a Location

To locate to a stored location, press the **Loc** button, then press **1**, **2** or **3**.

You can also use **Loc** in momentary style. Hold it down, press a number, then release it. The system will exit Loc mode.

You can leave the **Loc** button latched if you wish to use locators a lot. They can be interrupted temporarily by pressing **Fadersets**, **Go To**, **BLUE** or the **Set** button. But if you wish to use the Numeric Keypad for typing numbers, you must turn **Loc** off.

Using Marks

Overview

Xynergi allows you to create up to 100 timecode Marks, which are stored in the Project file.

To create a mark, press the Mark button at any time. This will put a Mark at the current timecode position.

Marks can be edited and named. They can also be used in Jump and Go To commands as target locations.

This guide will show you how to edit marks, and how to use them for locating.

Get Ready

Press the green `Editor Megamode` button.

Press the `FF` button. While the transport moves, press the `Mark` button a few times. Press `Stop`.

You have made some Marks.

Go to Mark

Press the `Go To` button to display the Go To menu.

In the Go To menu, press the `mark` soft key. The list of marks appears over the Edit screen.
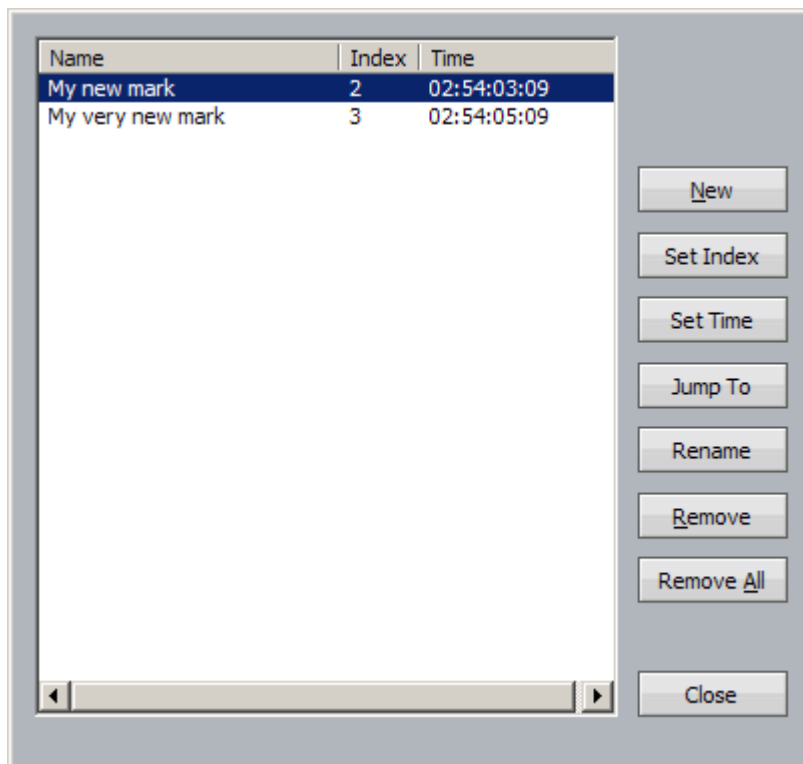
To select a Mark, use the `Jog Wheel`, the `+` and `–` buttons, click with the mouse, or type the index number on the Numpad. Press `Enter` to locate there, or click the `Jump To` button if you want to keep the dialog open.

Jump to Mark

Hold down one of the `Jump` keys.

Press the `Mark` soft key if it's not already on. Just for now, turn the others off. Marks are now your Jump Target.

Release the `Jump` button to locate to the next (or previous) mark in the project. Press the `Jump` button a few more times to keep moving through the marks

Edit Marks

Press the green `Setup Megamode` button and press the `edit marks` button. Alternatively, stay in the Edit Megamode, hold down the **BLUE** key and press the `Mark` button.

A list of marks is shown in a dialog over the Edit Screen.

To select a Mark, use the `Jog Wheel`, the `+` and `—` buttons, click with the mouse, or type the index number on the Numpad. Press `Enter` to locate there, or click the `Jump To` button if you want to keep the dialog open.

Name	Index	Time
My new mark	2	02:54:03:09
My very new mark	3	02:54:05:09

New

Set Index

Set Time

Jump To

Rename

Remove

Remove All

Close
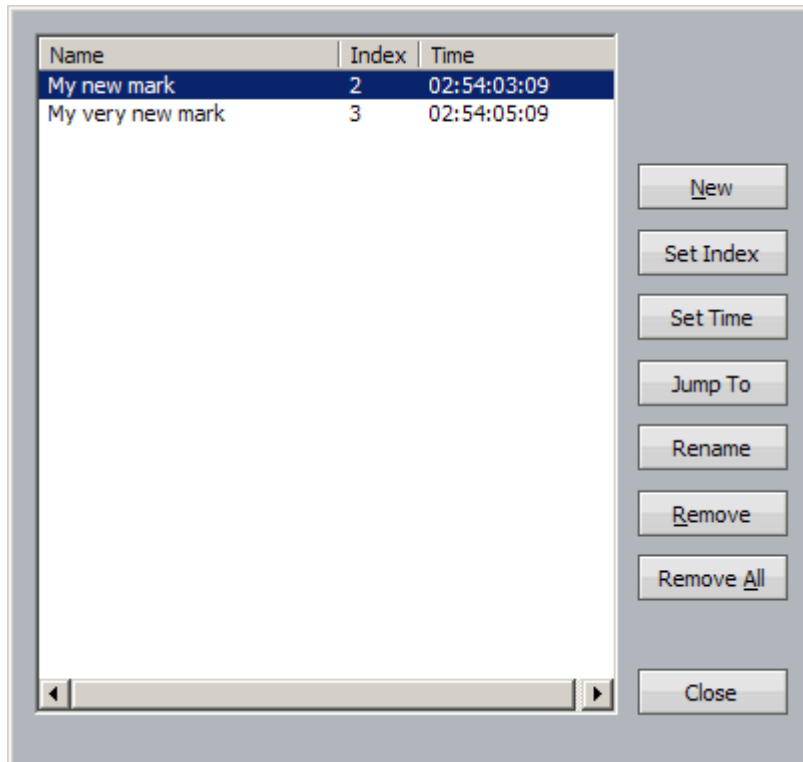
To change the timecode stored in the mark, press the `Set Time` soft key, or click the `Set Time` screen button and type in a timecode, then press `Enter`.

To rename the mark, press the `Rename` soft key, or click the `Rename` screen button and type in a name, then press `Enter`.

To change the mark index, click the `Set Index` screen button and type in a Index number, then press `Enter`.

Other buttons/soft keys allow you to jump to the currently selected mark, or remove it from the list.

Solo and Mute

Xynergi has a number of ways to solo and mute. Briefly, here they are:

Xynergi Surface

Press the `Solo` button in the Editor or Mixer Megamode to toggle solo on the current path.

Hold down the `Solo` button in the Editor or Mixer Megamode for a couple of seconds to display the Solo Menu with 48 signal paths that you can select after releasing Solo.

Press `ctrl+Solo` button in the Editor or Mixer Megamode to toggle the whole selection of soloed signal paths on and off. The `All Solo` button does the same thing.

Press the **Mute** button in the Editor or Mixer Megamode to toggle mute on the current path.

Hold down the **Mute** button in the Editor or Mixer Megamode for a couple of seconds to display the Mute Menu with 48 signal paths that you can select after releasing Mute.

Press **ctrl+Mute** button in the Editor or Mixer Megamode to toggle the whole selection of muted signal paths on and off.

After pressing **SEL**, you can select **Solo** or **Mute** to display the Solo Menu and Mute Menu mentioned above.

Editor Screen

Click a **Solo** button in the Editor Screen to toggle solo on any track.

Click a **Mute** button in the Editor Screen to toggle mute on any track.
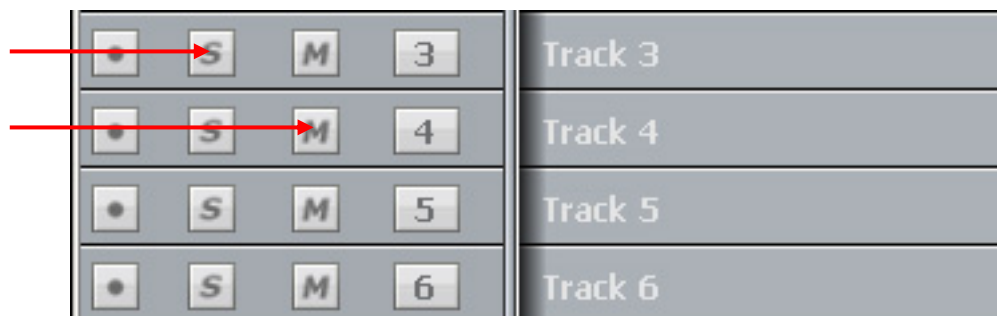
Click a **Solo** button and drag up or down to solo lots of tracks.

Click a **Mute** button and drag up or down to mute lots of tracks.

Mixer Screen

Click a **Solo** button in the Mixer Screen to toggle solo on any track.

Click a **Mute** button in the Mixer Screen to toggle mute on any track.

Solo ON / OFF

Mute ON / OFF
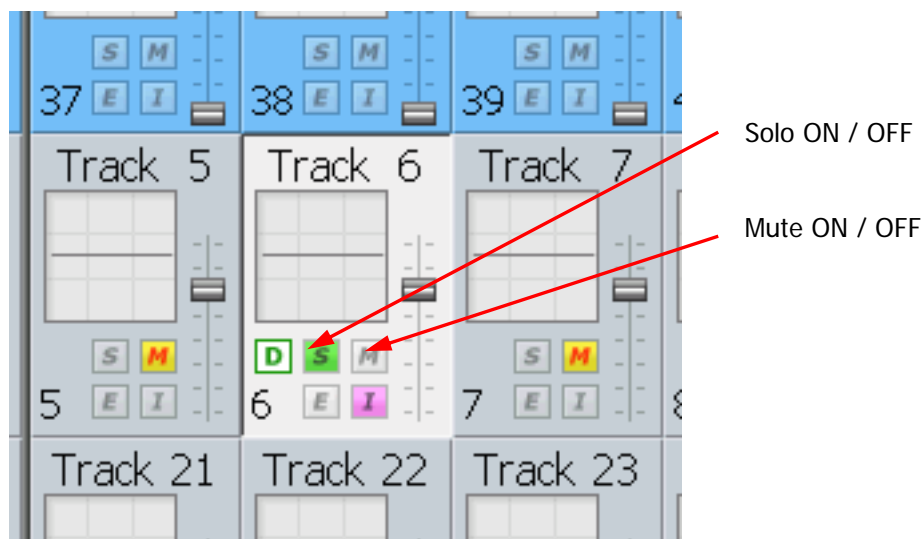
Solo Safe

When a channel is soloed, it works by muting all the other (unsoled) channels. Sometimes you want to prevent this e.g. when channels returning reverb or other signals that affect the sound of the current channel.

Solo safe means "cannot be muted by soloing another channel". Channels can be prevented from being soloed in three ways.

Using the Edit Safe Menu

Step 1   Press the **Edit Safe** button in the Editor Megamode.

Step 2   Select channels to make them safe.

Using the Virtual Channel
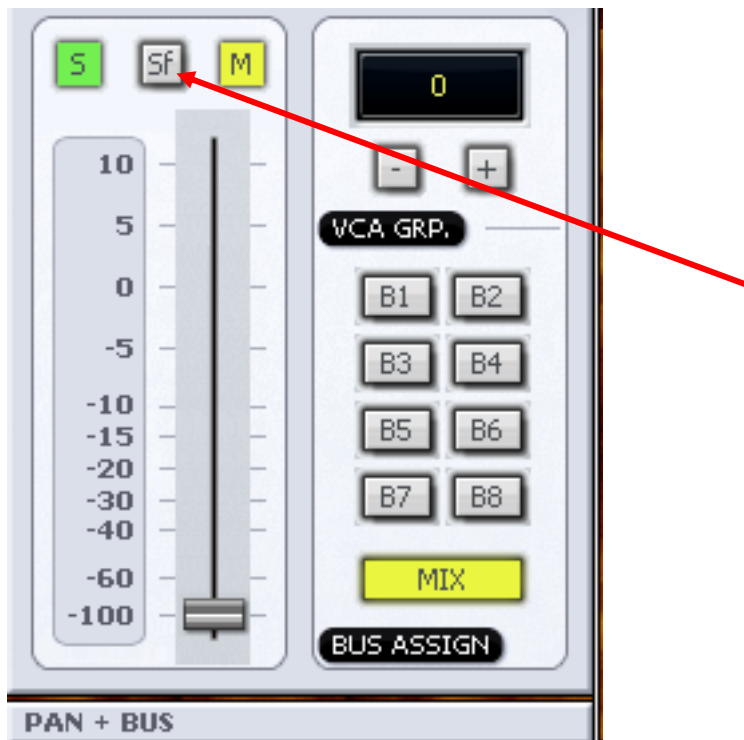
Using the Pad

Step 1   Press the **Path** button in the Editor or Mixer Megamode

Step 2   Press it a second time to engage the PadLock menu.

Step 3   Press the **Solo Safe** soft key.

Using the Fader

Each fader strip includes a Solo button that affects the channel being controlled by the fader.

Solo – Mute Swap

Constellation XCS allows you to swap all your mutes for soloes, or vice versa. This is very useful in a complicated edit session, when you want to isolate a particular set of sounds. You can solo them to make sure you're hearing the right thing, then mute them to make sure the sound is not somewhere else as well.

To move channels from Solo to Mute:

Step 1   Engage the Solo menu by either holding down the **Solo** button, or pressing the **SEL** button and then the **Solo Menu** button

Step 2   Select some channels to be soloed.

Step 3   Hold down the `Solo Menu` button. Two new buttons appear beside it.
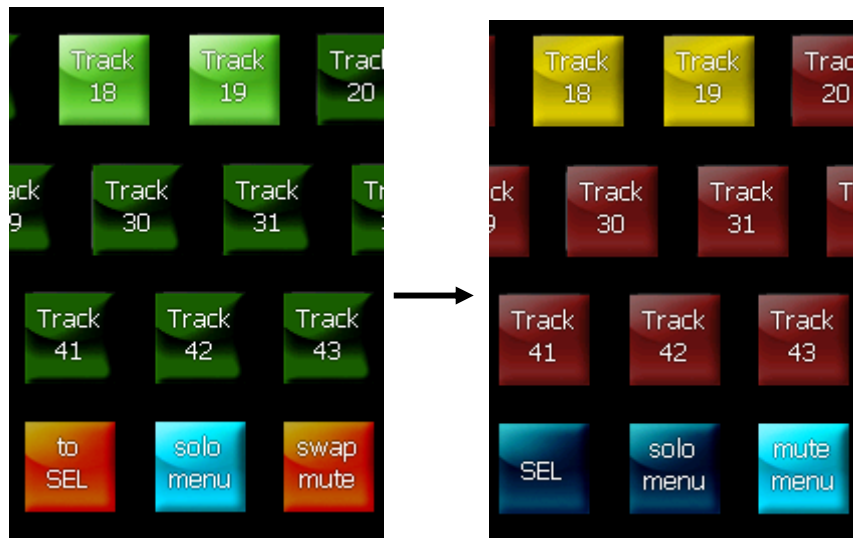
Step 4   Press the `Swap Mute` button. The Mute Menu appears, and the channels that were soloed are now muted. These channels are the ONLY channels muted – if there were other channels muted before, they no longer are.

To move channels from Mute to Solo:

Step 1   Engage the Mute menu by either holding down the `Mute` button, or pressing the `SEL` button and then the `Mute Menu` button

Step 2   Select some channels to be muted.

Step 3   Hold down the `Mute Menu` button. Two new buttons appear beside it.

Step 4   Press the `Swap Solo` button. The Solo Menu appears, and the channels that were muted are now soloed. These channels are the ONLY channels soloed – if there were other channels soloed before, they no longer are.

Solo and Mute to SEL

Constellation XCS allows you to transfer your solo or mute selection into an edit or mix selection. This is useful when you have used solo and mute to isolate a set of channels that need work, and you now want to make some changes to them.

To make your Soloed channels also be the selected channels:

Step 1   Engage the Solo menu by either holding down the `Solo` button, or pressing the `SEL` button and then the `Solo Menu` button

Step 2   Select some channels to be soloed.

Step 3   Hold down the `Solo Menu` button. Two new buttons appear beside it.

Step 4   Press the `to SEL` button. The SEL layout appears, and the channels that were soloed are now also selected. These channels are the ONLY channels selected – if there were other channels selected before, they no longer are.

To make your Muted channels also be the selected channels:

Step 1   Engage the Mute menu by either holding down the **`Mute`** button, or pressing the **`SEL`** button and then the **`Mute Menu`** button

Step 2   Select some channels to be muted.

Step 3   Hold down the **`Mute Menu`** button. Two new buttons appear beside it.

Step 4   Press the **`to SEL`** button. The SEL layout appears, and the channels that were muted are now also selected. These channels are the ONLY channels selected – if there were other channels selected before, they no longer are.

SEL to Solo or Mute

Constellation XCS allows you to solo or mute your selected channels. This is useful for listening purposes.

To solo your selected channels:

Step 1   Engage the SEL layout by pressing the **`SEL`** button.

Step 2   Select some channels.

Step 3   Hold down the **`SEL`** button. Two new buttons appear beside it.
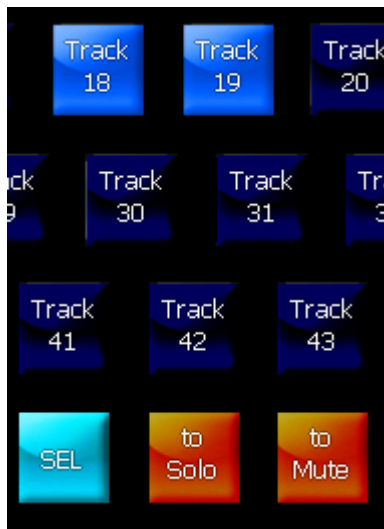
Step 4   Press the **`to Solo`** button. The SEL layout remains, but the selected channels are now soloed. These channels are the ONLY channels soloed – if there were other channels soloed before, they no longer are.

To mute your selected channels is the same procedure, but press **`to Mute`** in Step 4.

Solo Modes

Individual feeds may be soloed into the monitoring system. There are three solo modes which may be entered by pressing the **`SOLO`** key above any fader. These are solo-in-place or SIP, after-fader-listen or AFL, and pre-fader-listen or PFL.

SIP mutes all other feeds leaving only the soloed feeds feeding the bus being monitored. SIP supports monitoring in any format.

AFL and PFL modes replace the current monitor source with a stereo solo bus whenever a feed is soloed. All soloed feeds are routed to the solo bus. Soloed link groups are automatically

downmixed to allow all their members to be monitored in the stereo monitor bus, normal monitor down mixing occurs between the monitor bus and the selected speaker set.

The AFL solo signal is derived after the feed fader and mute. PFL solo is derived before the feed fader and mute.

Setup AFL/PFL bus

By default, there is no AFL/PFL bus set up in the system (this saves you from using up 2 bus elements that you might not need). To create a bus for AFL/PFL:

Step 1   Type `ctrl+SHIFT+U`. The System Variables display is shown.
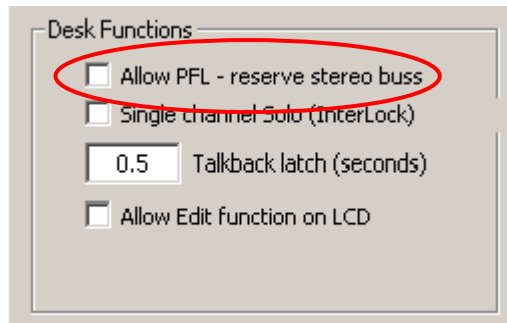
Step 2   Select the checkbox: Allow PFL – reserve stereo buss

Step 3   Click OK

Select Solo Mode

Hold down a **BLUE** key and press the `Utils` key to enter the Utils menu. Press the {Solo} soft key to select the solo system to be used. Unless an ALF/PFL bus has been created, you will not be able to selected these solo modes.

Soloed feeds are shown with a green indicator on the mixer video display.

Solo Clear

The `Solo Clear` button clears all currently soloed paths, press the `Solo Clear` button again to restore the soloed channels.

SIP Defeat

Press the `SIP Defeat` key in the Path Configuration section of the Channel Panel to prevent the selected feed from being muted when other feeds are put into SIP. Alternatively, hold down a **BLUE** key and press the `MUTE` key above any fader to toggle SIP Defeat for that channel. This feature is useful for keeping reverb returns live when channels feeding them are soloed.

SIP Defeat feeds are shown with a grey solo indicator on the mixer video display.

SIP Defeat is sometimes referred to as Solo Safe.

Naming Inputs and Outputs

Inputs and outputs are named outside the Xynergi application. This is because they are a permanent fixture in the studio, and it's best to have their names in a separate file.

WARNING: what follows is a technical operation which can result in loss of resources. Please follow the instructions carefully.

The naming file is called **I-O Config.txt** and can be found in the following folder **c:\Program Files\Fairlight\FMC\Data**

It contains information other than names, and this should not be disturbed. The instructions for naming are contained in the file itself, which can be opened and edited with any text editing application.

System Ports

System output ports can only be accessed from the Monitor Setup Patch Outputs menu. Using system ports for control room monitors prevents the operator from inadvertently patching signals direct to the power amplifier inputs. To define a system port enter an attribute value of 1 as described in the I-O Config file.

Naming Paths

Overview

The Name Path command allows you to name Tracks, Live Feeds, Buses and VCA Masters.

When you are choosing a name, it is advisable to use no more than two words of five characters each, including numbers.

If you do, the complete name will be displayed on the Xynergi picture keys, making it easier for you to choose signal paths.

If you use more than one space character, the first one becomes a breaking space, and the others are put on the second line.

Get Ready

Press the green `Mixer` or `Setup` button.

Choose Path to Name

Select the first signal path you want to name. This could be visible in the top row of the picture keys, or you may be able to access it using the Bank up and down keys. Otherwise, it can be done as follows:

Press `SEL`, choosing a signal path type (`Tracks`, `Lives` or `Buses`) if needed.

Press a signal path button.

Press `exit`.

To choose a VCA Group Master, click its fader on the Mixer screen. If VCA Master Faders are not visible, see Displaying Group Masters on page 69.

Name One Path

Now press the `name path` button (the QWERTY keyboard will be displayed).

Use the QWERTY keyboard to type a name for the signal path. Your typing appears inside the Pad area, in the white box at the right.

Press `DEL` if you want to completely remove the current name.

Press `Backspace` to remove one character of the current name.

When finished, press `ENTER` to apply the name or `Exit` to escape without changing the name.

Naming More Paths

The system keeps displaying paths so you can keep naming them. Choose the `next signal path` you want to name (the QWERTY keyboard will immediately be displayed).

Note: you may need to press the path button TWICE.

Press `exit` when finished

Megamodes

Overview

A megamode is a complete layout of the Xynergi picture keys.

There are six megamodes, triggered by the green keys at the bottom of the controller.

Here is a quick outline of the `Megamodes`.

Editor

This is the main platform for audio editing.

It contains a number of modes, the most useful of which are Cut, Copy, Erase, Trim and Fade.

While any of these modes are active, three action keys at the left of the Jog Wheel give you the main commands needed e.g. `cut tail`, `trim head`, `erase clip`.

For details of the main editing commands, see **How To➜Editing**.

For details of the other modes and button, hold down the `Xplain` key and press the button for which you would like some Xplanation.

Mixer

This is the main platform for audio mixing and automation.

Automation comes alive when the `Mix On` button is pressed. This enables all the automation modes and commands to be displayed and used.

For details of the main mixing commands, see **How To➜Mixing**.

For details of the automation system, see **How To➜Automation**.

For details of the other modes and button, hold down the `Xplain` key and press the button for which you would like some Xplanation.

Setup

Setup is used for all the behind the scenes work. Most functions here are set and left for the duration of the project.

Some of the most important are the Bus-related modes such as Bus Format and Bus Assign, the machine control setups - M1 and M2 setup, and the digital sync environment - Sync.

Many of these are demonstrated in **How To➔Setup**.

For details of the other modes and button, hold down the **Xplain** key and press the button for which you would like some Xplanation.

Record

This is the place to do your recording.

Selecting tracks in this megamode Arms them for recording (but only if they have something to record i.e. a patched input signal).

The ADR menu is also here. It's a great way to manage a post-sync session, or any other list of recording tasks.

For details of the main recording commands, see **How To➔Recording**.

For details of the other modes and button, hold down the **Xplain** key and press the button for which you would like some Xplanation.

Monitoring

This megamode is for setting up your monitor system.

Much of this is setup at installation, but there are also controls for setting up the monitors for a particular session, and switching quickly between different sources and surround formats.

Speaker icons allow you to mute any of the current speakers.

For details of the main monitoring commands, see **How To➔Monitors**.

For details of the other modes and button, hold down the **Xplain** key and press the button for which you would like some Xplanation.

Project

The Project Megamode is for file handling.

This is where you create, load, save and delete your work files.

For details of the main commands, see **How To➔Files**.

For details of the other modes and button, hold down the **Xplain** key and press the button for which you would like some Xplanation.

Recording

Basics

Overview

Constellation lets you record on multiple tracks at the same time, using the standard **Play**+**Record** transport buttons to punch in.

It will punch in from Play or Stop, and can punch out with gapless monitoring of playback.

There are two recording modes, New and Tape Mode. The choice is made with a soft key in the Arm Menu.

In New Mode, each time a track enters record, a new clip is created on that track. If there is already a clip present, the new one goes "on top" of the previous one. The upper clip is always heard on playback.

In Tape Mode, existing audio can be destructively replaced. See the section on Tape Mode below.

To record on a track, it must be armed.

Before being armed, a track must have a source, or patched input.

Get Ready

Once you have a project open, select the Record Megamode by pressing the green `Record` button.

Patching Inputs

Before you can record on a track, it needs an audio source, called an Input. The system has many physical inputs, and you can patch any input to any track. The next section "Patch Inputs to Tracks" explains patching in detail. Here we will just get something patched and move on to recording.

Press the `Patch` button. The Mixer Screen shows a Patching dialog.

We are going to patch (connect) a physical input to the track where it will be recorded.

Ensure `Track Input` is selected at the lower right, then select a `track number` to be recorded, in the upper right.
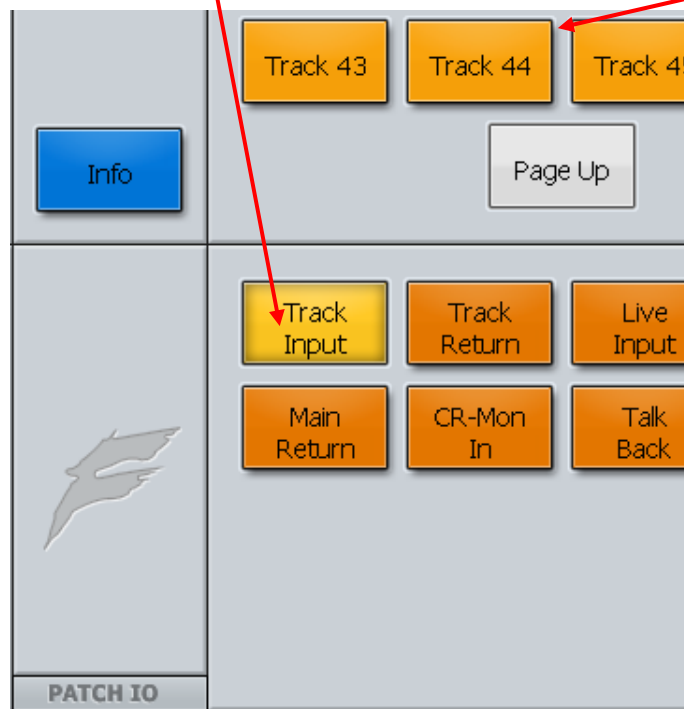
Click `Analog Inputs` or `Digital Inputs` at the lower left of the screen.

Select any `Input` in the upper left of the screen.

Click `Patch` to connect the physical input to the track.

Press the `Patch` button to exit Patch and return to the Arm menu.

Note: Patching is used for all system connections between paths. Please see Patching Signal Paths on page 51 for more details.

Arming Tracks

Tracks can be armed in three different ways. Please try all these now to get familiar with your system:

- Press a Track button when the **Arm** menu is displayed (in the Record Megamode). This track button should turn red

- Click the circular button next to a track number on the Edit screen. The button should turn red.
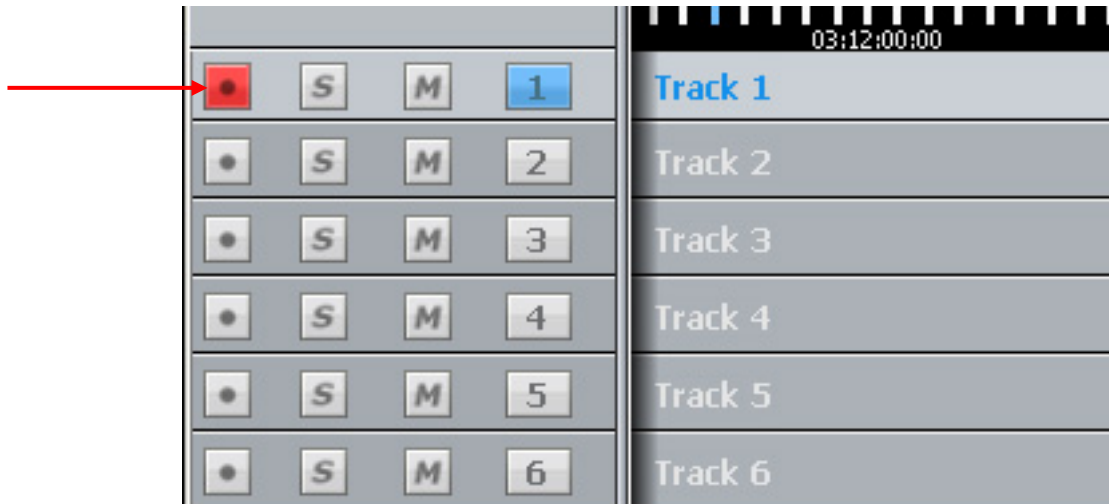
- Right-click a track on the Mixer screen to show the Virtual Channel. It has a number of controls for the selected channel, including an Arm button. This should turn yellow when armed.
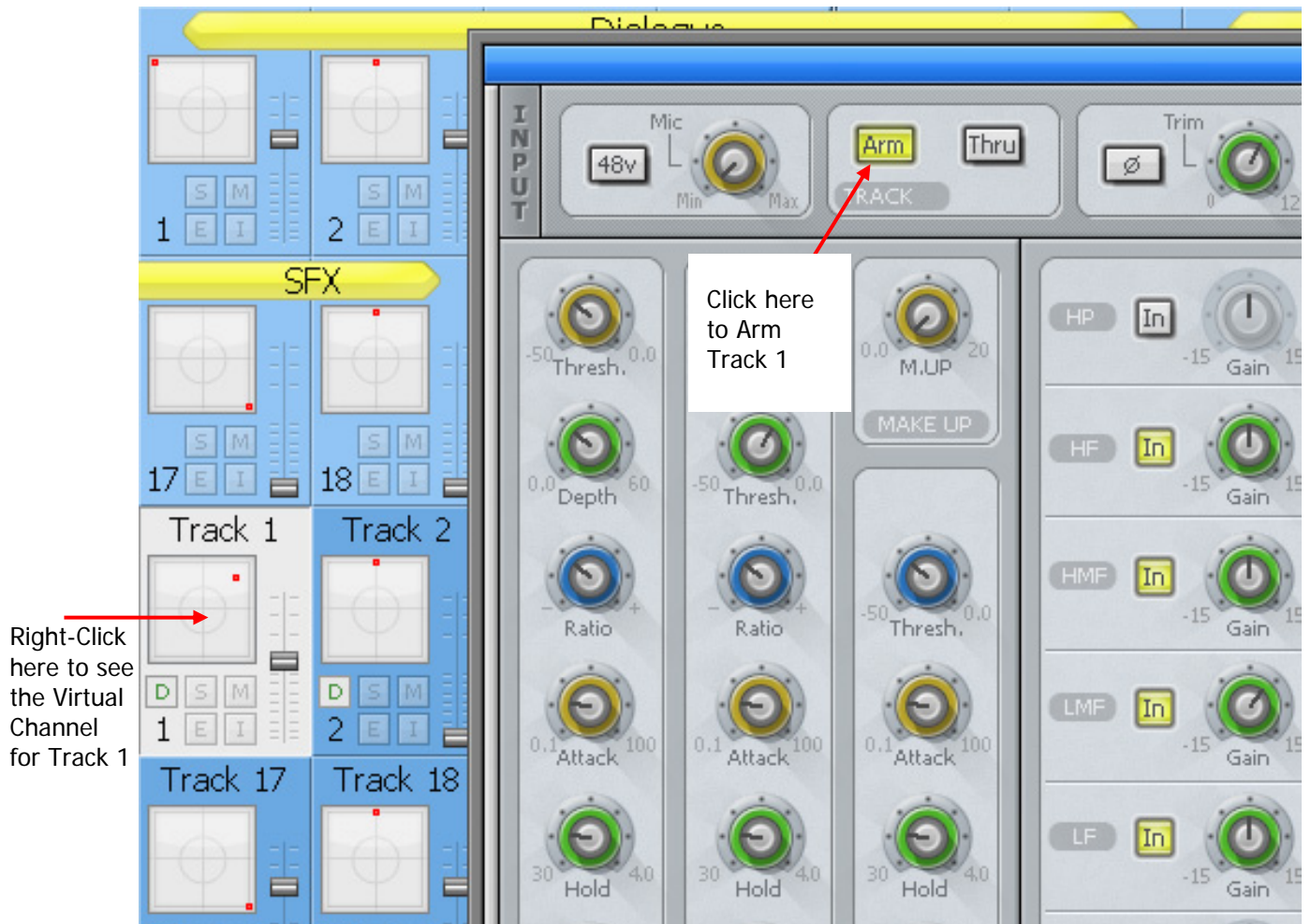
If you try to arm a track and its buttons do not respond by changing colour, the track probably has no audio source. A message will also appear at the bottom of the Edit Screen.
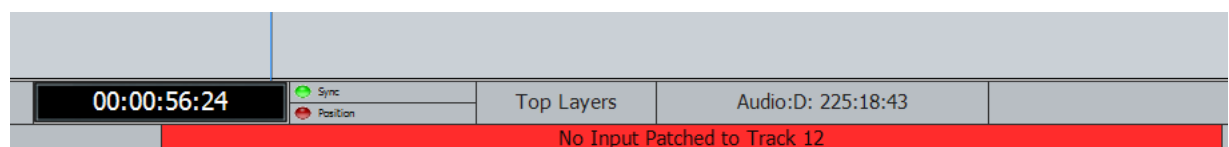
To fix this, go to the Patch page, as described above in "Patching Inputs" and give it a source.

Once a track is armed, use the Play and Record keys to punch into record – Play, Stop, REW, FF or Jog to punch out.

Record Monitoring

Overview

When a track is armed, you can choose whether to listen to its input signal, its playback signal (REPRO), a switched combination, or nothing.

The **Monitor** soft key switches this function.

This guide shows you how to set the Monitor setting, and tells you what the different settings do.

Get Ready

Press the green **Record Megamode** button to access recording functions. The Arm menu will be automatically selected.

To hear the effects of the monitoring changes, you will need to have a track armed, with an audible input connected to it. If you wish to use the Oscillator as a source, press the **patch** button, then select the Oscillator at lower left. Choose **OSC COMMS 2** for the oscillator, or **Noise** for the noise generator. Now select one or more tracks, and click the **Patch** button on screen. Press the **patch** button again to exit the Patch screen.

Monitor Soft Key

Press the **Monitor** soft key to toggle between INPUT and the last other setting you chose (AUTO by default).

To select another setting, hold down the **BLUE** key and press the **Monitor** soft key. Now turn the **Jog Wheel** to cycle through the possibilities. Press **ENTER** to select one of them.

INPUT – always monitors the input to the track.

AUTO – monitors repro in Play or Jog, otherwise input.

RECORD – mutes the track when stopped, otherwise as AUTO

MUTE – mutes the track while in Record, otherwise repro

REPRO – always monitors recorded audio

Tape Mode

Overview

When Tape Mode is selected, you can punch in on existing Tape Mode clips and replace the audio media. This can save filling up disks with unwanted material, and results in a cleaner, simpler project with fewer clips.

Get Ready

Press the green **Record Megamode** button to access recording functions. The Arm menu will be automatically selected.

Record NEW / TAPE soft key

Press this soft key, so that TAPE is displayed.

Using Tape Mode

If you punch into record over existing Tape Mode clips (shown yellow) the audio media will be replaced as you record. If you continue to record past the end of the clip, it will be extended.

If you punch into record in empty track space, or over an Edit Mode clip (shown red or blue) the system will create a new Tape Mode clip.

Creating Tapes

If you would like to ensure that only one clip per track is created by recording, you can start by making a Tape. This means making a Tape Mode clip on each track.

Start by pressing the **Record NEW / Tape** soft key.

Use the `From` and `To` keys to make a range that represents the length of the Tape you want to make.

Arm the tracks where you want to put a Tape Mode clip.

Press the `Setup Tape` soft key. Now you have two choices.

`Blank Tape` will make a blank (zero waveform) Tape Mode clip on each armed track, filling the range.

`Render Tape` will make a single Tape Mode clip on each armed track, copying all the audio that is already in the range on the armed tracks. Afterwards you can replace any parts that are not correct by recording over them.

Both `Blank Tape` and `Render Tape` run quite fast – about 10 seconds for each hour of track time. The advantage of using them is that you do not need to record sequentially – you can move around anywhere in the Tape and replace the parts you are ready to work on.

Add Handle

Overview

A Handle is an extra piece of audio at the beginning of a recording. The system automatically adds this piece, just as if you entered recording earlier.

This can be very useful when trying to capture performances, as it gives you extra time to react.

This guide shows you how to set the length of recording handles.

Get Ready

Press the green `Record Megamode` button to access recording functions. The Arm menu will be automatically selected.

Handle soft key

Press the Handle soft key, then change the displayed number of frames by typing on the `Numeric Keypad`, using the `Jog Wheel`, or pressing the `+` and `−` buttons.

Press `ENTER` to apply the displayed number.

Note: if the transport has not been rolling for as long as the handle before you issue the record command, the system will create a shorter handle.

Auto Name

Overview

Every clip is given an automatic name when you record it. This name consists of a seedname and a number.

The seedname is applied first, then a number is appended, incrementing by one for each new clip.

Each Track has its own seedname.

You can change the seedname for each track, and also set the starting number at any time.

Get Ready

Press the green `Record Megamode` button to access recording functions. The Arm menu will be automatically selected.

Set the Seedname

Select the track(s) whose seednames you wish to change.

[Since you're on the Arm Menu, this will also attempt to arm the tracks, but this won't work unless they have patched inputs – see How to Patch Inputs to Tracks for details. If you want to set seednames for unarmed tracks, see the section below called "Using the Name Menu".]

Press the `seed name` button to display the seed name dialog. Use the QWERTY keyboard to type the name, then `Tab` or `click` the Starting Seed Number, and use the keyboard to set it.

Click `OK` to finish. You can do this while in Record.

If you give more than one track the same seed name at the same time, their clips increment as a group, preventing repeated names.

Using the Name Menu

Press the `name` button to display a selection of all tracks. Select the one(s) whose seednames you want to change.

Press the `seedname` soft key to display the seed name dialog. Use the QWERTY keyboard to type the name, then `Tab` or `click` the Starting Seed Number, and use the keyboard to set it.

Click `OK` to finish. Press `exit` to leave the Name menu.

Clip Naming

Each clip can be given a typed name.

For existing clips, you select them and issue the clip name command.

You can also name clips while they are being recorded.

These facilities are available in the Editor Megamode and the Record Megamode. We only show the latter here, because it is more convenient, especially to name whilst in Record.

Get Ready

Press the green `Record Megamode` button to access recording functions. This includes naming clips.

Name the Clips

Select the track(s) whose clips you wish to name.

[Since you're on the Arm Menu, the system will also try to arm the tracks, but this won't work unless they have patched inputs – see How to ➔ Recording ➔ Patch Inputs for details. If you want to name clips on unarmed tracks, use the Edit Megamode, or see below for "Using the Name Menu".]

For existing clips, they must be touching the cursor, or wholly inside the range. In either case they will be coloured **Red**.

Press the `clip name` button. If any clip is **red**, or if the transport is in Record, the clip name dialog is displayed.

Use the QWERTY keyboard to type the name, then press `ENTER` or click `OK` to finish.

Note: If you select more than one clip, or more than one track in record, the affected clips will all get the same name.

Using the Name Menu

Press the **name** button to display a selection of all tracks. Select the one(s) whose clip names you want to change.

To rename clips, they must be touching the cursor, or wholly inside the range. In either case they will be coloured **Red**.

Press the **clip** soft key to display the name dialog. Use the QWERTY keyboard to type the name, then press **ENTER** or click **OK** to finish. Press **exit** to leave the Name menu.

Record menu

Overview

The record menu gives you some recording shortcuts.

These include record head, record clip, record here and record again. These are explained in the next step.

Get Ready

Many record menu commands use a Pre-Roll. The Pre-Roll time can be set in the ADR menu (press the green **Record Megamode** button then **ADR**, then use the on-screen dialog).

Using the Record Menu

Hold down the **Record** button in the transport section (lowest row on the console).

The Pad displays the Record Menu soft keys.

head ➔ prerolls, then punches in at the nearest clip head on the selected track

clip ➔ prerolls, then records the length of the nearest clip on the currently selected track

here ➔ prerolls, then punches in at the current position

range ➔ prerolls, punches in at From and out at To. This command is shown only when there is a range.

again ➔ prerolls, then repeats the last recording you made

Punch individual

Overview

The **Record** button punches all armed tracks into and out of record.

What if you want to punch individual tracks in and out, without affecting others?

Using the track arming keys, you can have individual control of which tracks are in record.

Get Ready

Press the green **Record Megamode** button to access recording functions.

Patch inputs to a number of tracks, but don't arm them yet (see How to ➔ Recording ➔ Patch Inputs for details).

Punch Individual Tracks

Put the transport into record by pressing `Play` and `Record` together. Nothing is recording yet, because nothing is armed.

Now press one of the `track key`s of the patched tracks. That track will go into record.

Press another track key. The second track will go into record. Press it again – it comes out of record, while the first track continues to record.

Auto Rec

Overview

Constellation allows you to record sections of track automatically, with the transport doing the pre-roll, punch in and punch out.

This is done by making a range, using the From and To keys, then using the Record Range command on the Record menu.

Get Ready

Press the green `Record Megamode` button to access recording functions.

`Patch` inputs to a one or more tracks, and arm them (see How to ➜ Recording ➜ Patch Inputs for details).

Auto-Rec uses a Pre-Roll. The Pre-Roll time can be set in the ADR menu (press the green `Record Megamode` button then `ADR`, then use the on-screen dialog).

Auto Rec Operation

Make a range as follows:

Locate to the desired in point and press the `From` key.

Locate to the desired out point and press the `To` key.

The `rec range` button is displayed to the left of the Jog Wheel.

Press the `rec range` button to do an automatic recording of the range.

Patching Signal Paths

Overview

The previous topic mentioned patching inputs to tracks. This section deals with the subject in more detail.

Before a track can be armed, it must have some type of input signal, or source. Normally this will come from a Physical Input (analog or digital). It may also be a Bus Output, the system Oscillator, the Direct Output of another signal path, an Insert Send, and so on.

Patching (connecting) any of these signals to the input of a track (or to some other destination) is done on the Patch dialog. This is accessed from the Record, Mixer or Setup Megamodes. To get there, press one of the green buttons with these labels.

The Patch Dialog

Press the `Patch` button to display the Patch dialog.

This is an overlay to the Mixer screen, where the mouse is used to select sources and destinations, then patch them together.

You can patch one source to many tracks, but not vice versa.

Sources are shown on the left of the screen, while destinations are shown at the right.
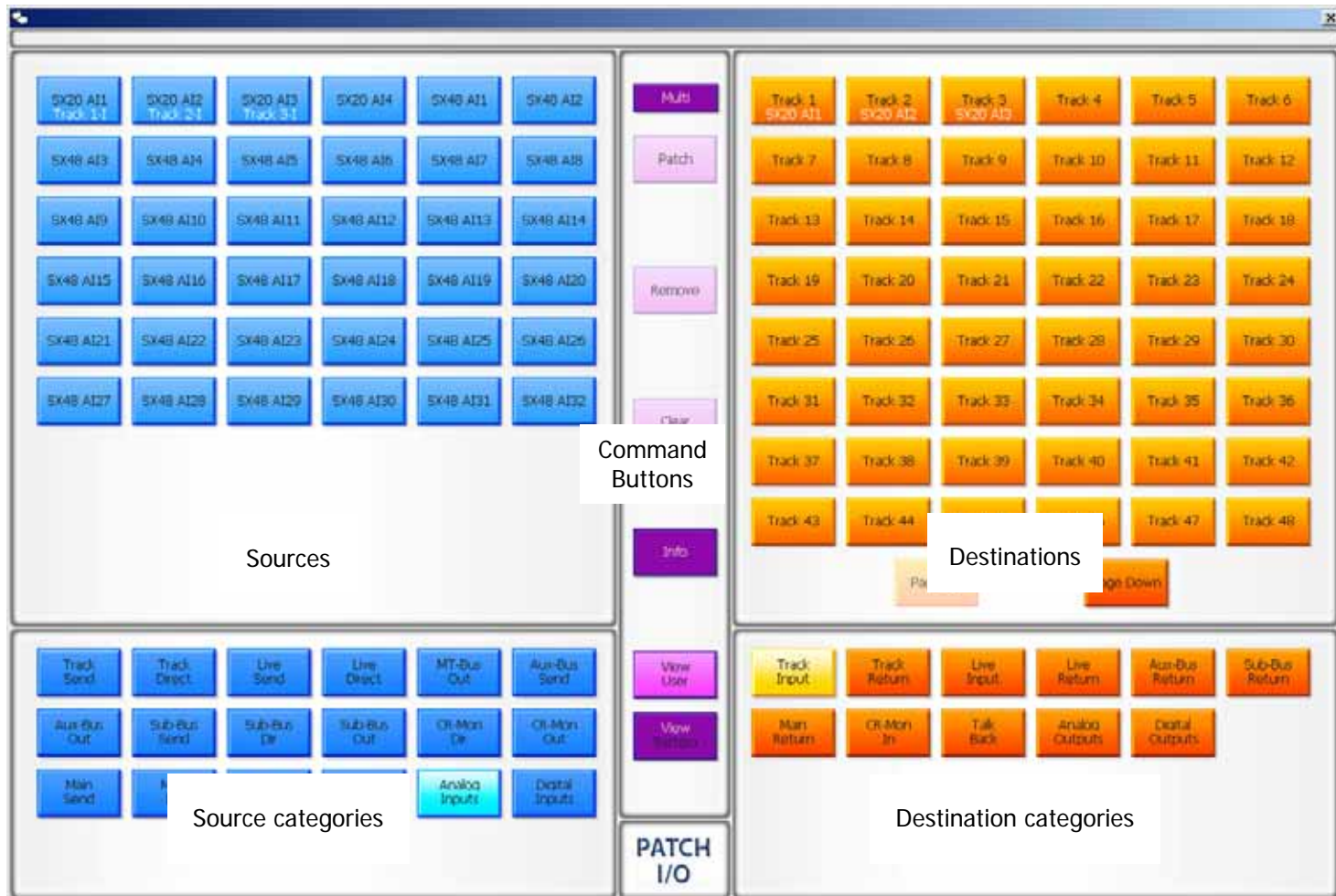
Source Categories

Categories of signal paths are selected in the lower part of the screen.
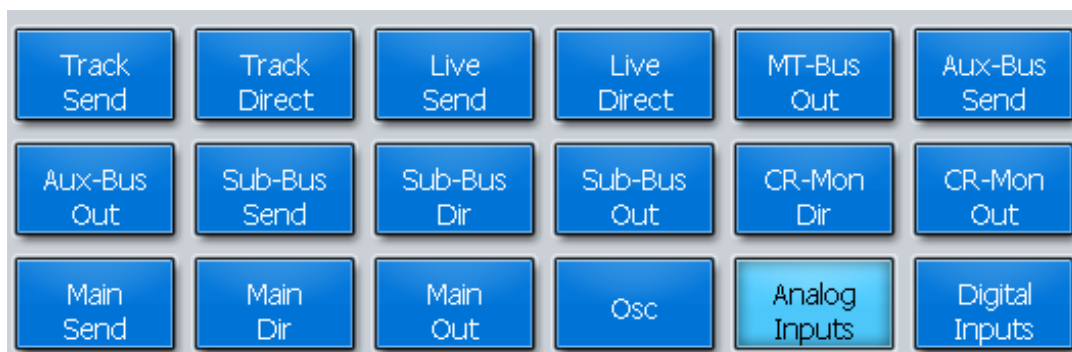
Source categories

Selecting a category of sources expands the category in the upper left of the screen.

Input 1 SX20 AI1 Track 1-I	Input 2 SX20 AI2 Track 2-I	Input 3 SX20 AI3	Input 4 SX20 AI4	Input 9 SX48 AI1	Input 10 SX48 AI2
Input 11 SX48 AI3	Input 12 SX48 AI4	Input 13 SX48 AI5	Input 14 SX48 AI6	Input 15 SX48 AI7	Input 16 SX48 AI8
Input 17 SX48 AI9	Input 18 SX48 AI10	Input 19 SX48 AI11	Input 20 SX48 AI12	Input 21 SX48 AI13	Input 22 SX48 AI14
Input 23 SX48 AI15	Input 24 SX48 AI16	Input 25 SX48 AI17	Input 26 SX48 AI18	Input 27 SX48 AI19	Input 28 SX48 AI20
Input 29 SX48 AI21	Input 30 SX48 AI22	Input 31 SX48 AI23	Input 32 SX48 AI24	Input 33 SX48 AI25	Input 34 SX48 AI26
Input 35 SX48 AI27	Input 36 SX48 AI28	Input 37 SX48 AI29	Input 38 SX48 AI30	Input 39 SX48 AI31	Input 40 SX48 AI32

In this case Analog Inputs have been selected.

Destination Categories

Track Input	Track Return	Live Input	Live Return	Aux-Bus Return	Sub-Bus Return
Main Return	CR-Mon In	Talk Back	Analog Outputs	Digital Outputs	Main Meters
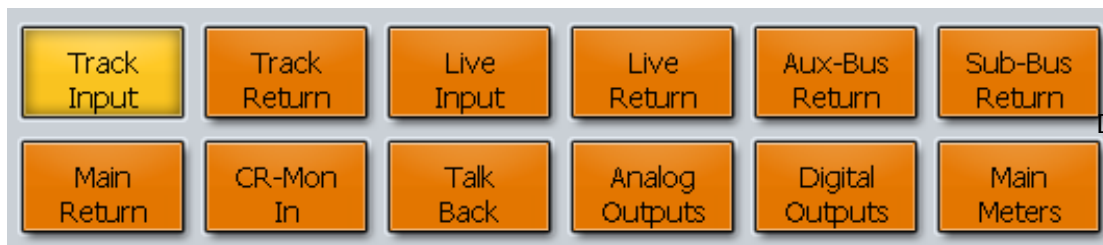
Destination categories

Selecting a category of destinations expands it into the upper right of the screen.
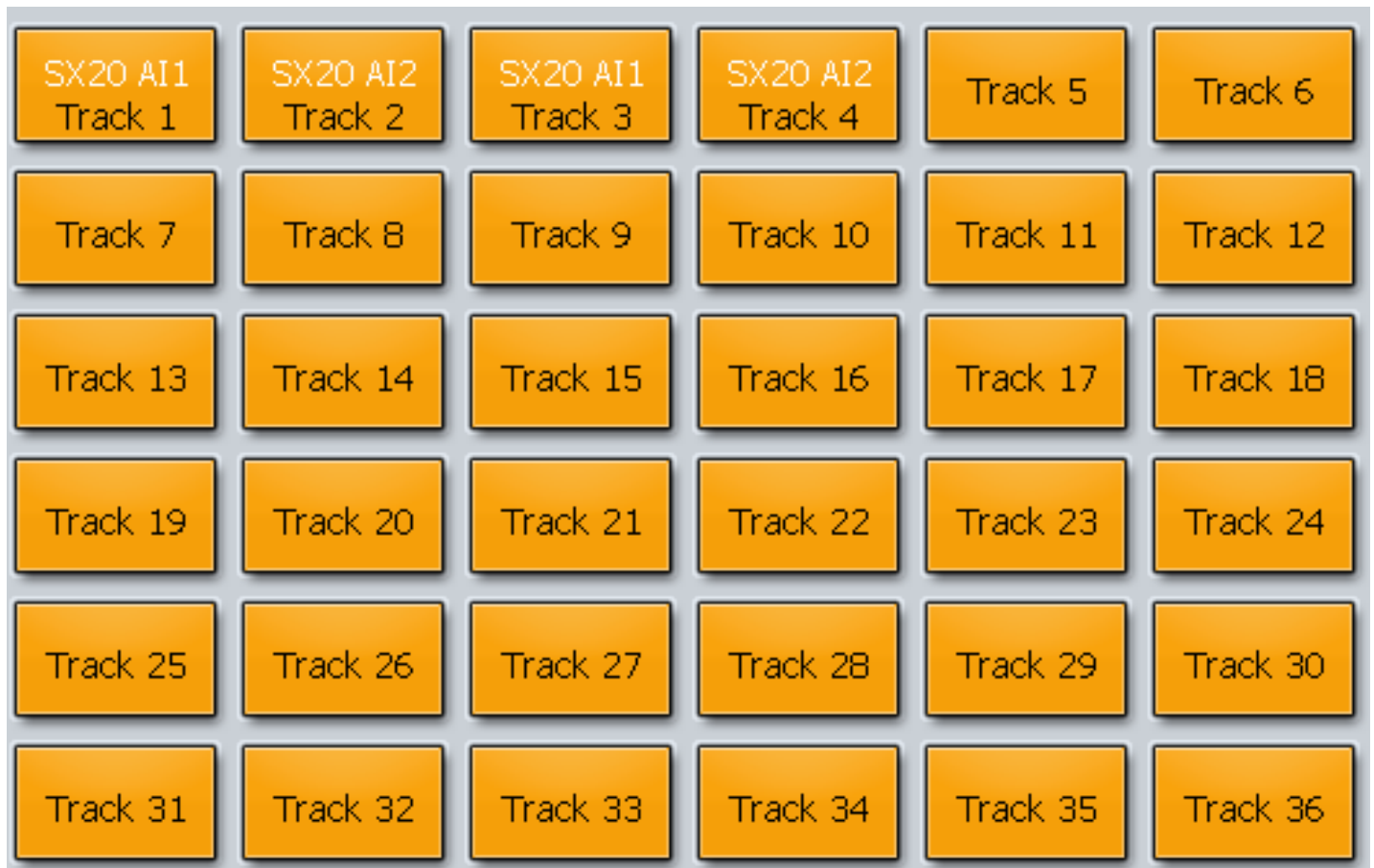
In this case Track Inputs are shown.

Making a Patch

Select a source and a destination then click the Patch button in the center.
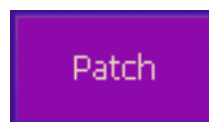
Afterwards the tiles used in the patch will show the results. Source is always shown above destination.
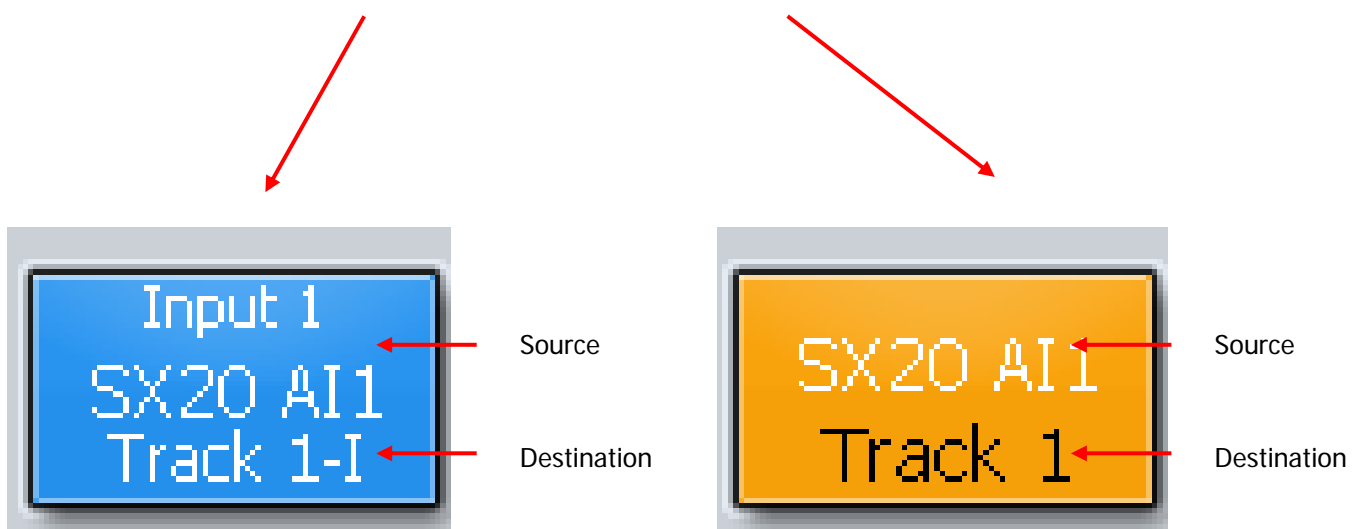
Notes: You can select multiple sources and multiple destinations and patch them all with one command. For example, select Analog Inputs 1 to 8 and Track Inputs 9-16, then click the Patch command once.

Any source can be patched to any destination. For example a Bus Element can be patched to a Track Input, for recording purposes. To illustrate, select the Category Sub-Bus Out (the outputs of all the Sub Busses.) The expanded view will show the Sub-Bus elements separately, and they can be selected and patched to track inputs for recording.

To deselect all the signal paths you have selected, touch the Clear button.

The Multi Button

Clicking the Multi button allows you to patch the same sources multiple times.

Normally after a patch, both sources and destinations are deselected, but if Multi is ON, the sources remain selected through as many patchings as you like.

View Buttons
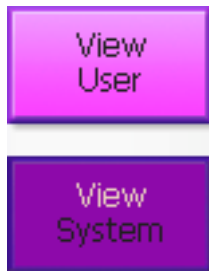
The View buttons control which names appear on the tiles.

If you choose View System, the names shown are the functional system names like Track 5, Live 3 etc.

If you choose View User, the names will be the ones you have given to these signal paths. For signal paths where you have not given a name, the system name is used.

The Info Button
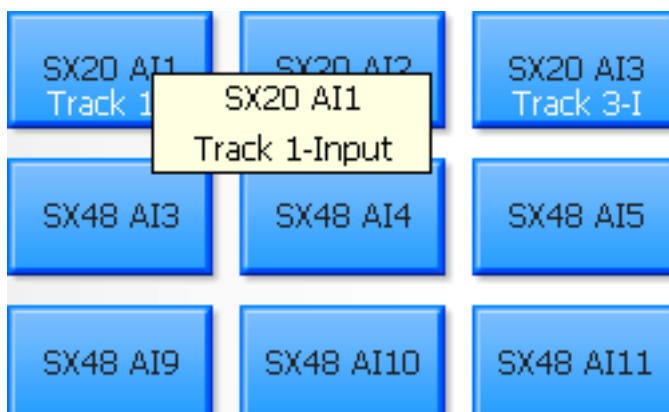
Pressing the Info button allows you to see more detail about specific tiles. To do this, press Info, then click on any tile. The system will show a box with information about the source and destination patching associated with that tile.

What are the Categories?

Each category name has two parts. The first part can be

Track	– a recording track
Live	– a Live Feed, which is a full-featured channel bringing audio directly to a bus
Main	– the Main mix bus
MT-Bus	– a Multi-track bus, as used in traditional mixing systems
Sub-Bus	– a multi-Element bus used for extra mixing functions
Aux-Bus	– a mono or stereo bus, tied to the Auxiliary sends on the channels
Mon	– shows the elements of the Control Room and Studio monitor paths
Analog	– an analog physical input or output
Digital	– an AES-EBU physical input or output
MADI	– a MADI physical input or output
Osc	– the system oscillator and noise generator

The second part can be:

In	– the input of a signal path (not a physical input)
Out	– the output of a signal path (not a physical output)
Direct	– each signal can have a Direct Output
Send	– Insert Send from a signal path
Return	– Insert Return to a signal path
Talkback	– the Talkback system – shows Comm1 and Comm2
Inputs	– physical inputs (analog or digital)
Outputs	– physical outputs (analog or digital)
Meters	– the components of the current Meter Set (see Meters page 202)

So, for example Analog Inputs means the physical analog input ports, while Aux-Bus Send means the Insert Sends from the Aux Busses.

Reverse Patching

Overview

There is a quick way to perform simple patching i.e. choosing sources for recording. It's called "reverse patching" because you select the destination first.

You can patch to multiple tracks at the same time, but the only allowed sources are the Physical Inputs on the SX-20, and the system buses.

Get Ready

Press the green **Editor** button.

Selection

Press and release the **SEL** button. Xynergi displays 48 tracks.

Select the tracks to which you want to patch inputs.

Patching

Hold down the **Set Source** button. You can now see all the system buses, other than those with zero format, and below them, the four analog and four digital inputs from the SX-20.

Some of the source may be lit – that means they are patched to one or more of the selected tracks.

Press the source that you want to patch to the selected tracks. This source is now patched to all of the selected tracks, subject to the following rules:

If the source is a bus, its elements are patched sequentially to the selected tracks and their neighbours. For example, Sub 1 is a stereo bus, and Tracks 3, 5 and 6 are selected. After pressing Sub 1, the patching will be as follows:

Sub1 Left ➔ Track 3

Sub1 Right ➔ Track 4 (though it wasn't selected – it just happens to be Track 3's neighbour)

Sub1 Left ➔ Track 5

Sub1 Right ➔ Track 6

Monitors

Toggle Main and ALT Speakers

Overview

The system allows you to define many speaker sets. There is always a Main set, usually your large Control Room monitors. You may also create many other sets and choose them whenever you like.

The system remembers the last non-Main one you chose, and calls it the Alternative (ALT) Speaker Set.

Toggle Main and ALT Speakers

Press the Control Room **Dim** and **MUTE** buttons together. This will toggle between the MAIN and alternative monitor speakers.

The Mon Megamode button indicates when any alternative monitor function (ALT Speakers, ALT Format, ALT Source) is being used.

You can still use the MUTE and DIM buttons for their normal functions.

Choose Speakers

Overview

The system allows you to define many speaker sets. There is always a MAIN set, usually your large Control Room monitors. You may also create many other sets and choose them whenever you like.

This guide shows you how to select any defined speaker set. This will become the Alternative (ALT) Speaker Set.

Get Ready

Press the green **Mon** button.

Press the **Mon Setup** button if it's not already lit.

Choose Speakers

Choose one of the speaker sets named on the Soft keys. MAIN refers to the main speakers, and the others can be called SpkrSet1, 2 etc, or may have been given names.

You can only choose speaker sets that have been defined i.e. given physical outputs. These sets have a dim light in their soft keys.

To define more speaker sets, press the **Config Monitors** soft key and work on the Mixer Screen

For details about this see How to ➔ Monitors ➔ Config Speakers.

Configure Monitor Speaker Sets

Overview

The system allows you to define many speaker sets. There is always a MAIN set, usually your large Control Room monitors. You may also create many other sets and choose them whenever you like.

This guide will show you how to set up the formats, outputs and names of your speaker sets.

Get Ready

Press the green **Mon** button.

Press the **Mon Setup** button if it's not already lit.

Configure

To configure speaker sets, press the **Config Monitors** soft key and work on the Mixer Screen
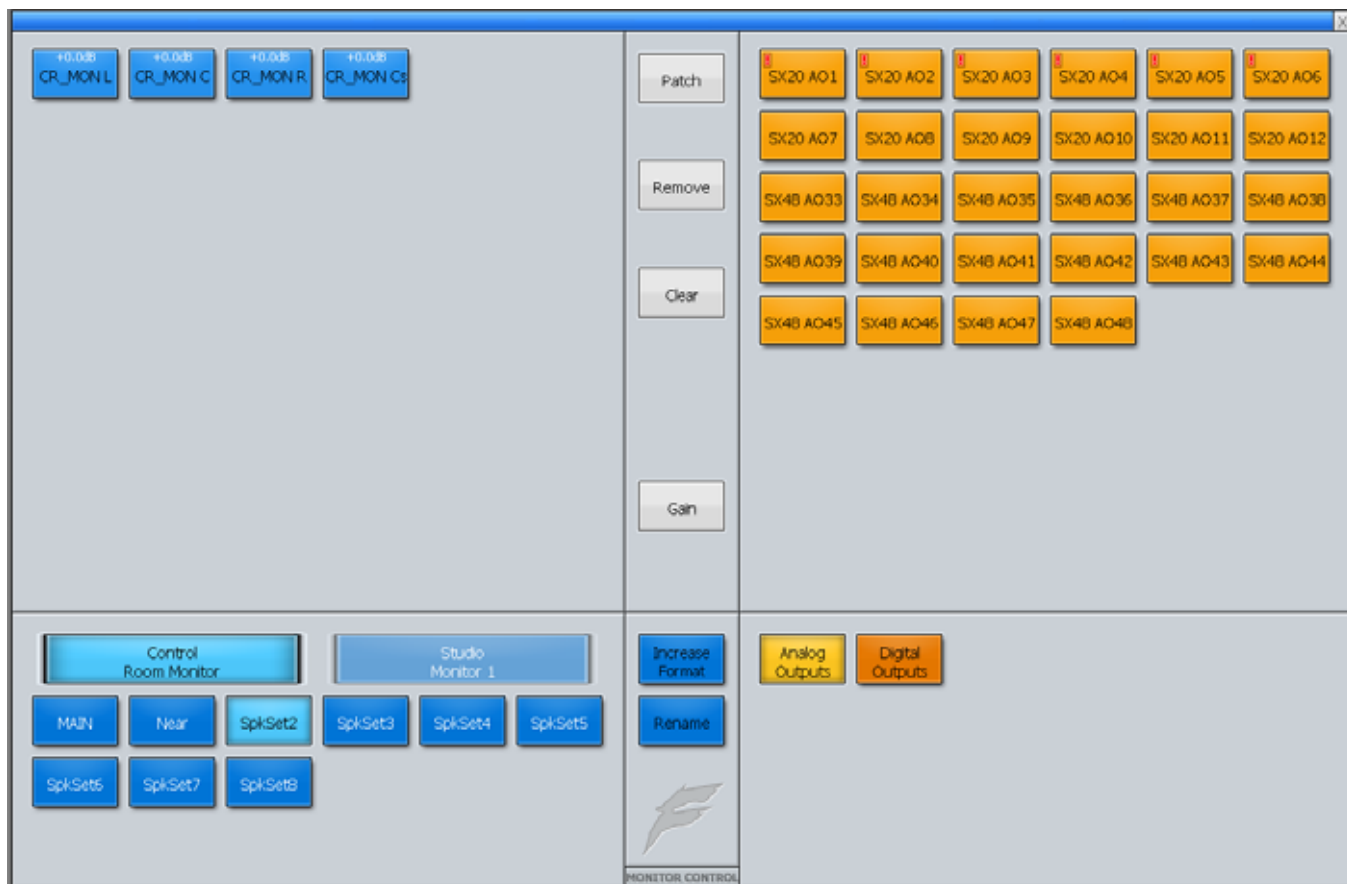
Choose a **Speaker set** at the lower left.

Click the **Increase Format** button until you see the desired format for this speaker set.

Select all its Elements (Left, Center, Right etc) at the top left.

Click Analog (or Digital) outputs at lower right.

Choose the right number of free outputs to match the number of speakers. Click **Patch**.

Click **Name** if you want to name the Speaker set

Press the **end** soft key to leave the Config Monitors screen.

Choose Monitor Speaker Outputs

Overview

The system allows you to define many speaker sets. There is always a MAIN set, usually your large Control Room monitors. You may also create many other sets and choose them whenever you like.

This guide will show you how to choose outputs for any of your speaker sets.

Get Ready

Press the green **Mon** button.

Press the **Mon Setup** button if it's not already lit.

Set Outputs

Press the **Config Monitors** soft key and work on the Mixer Screen

Choose a **Speaker set** at the lower left.

Select all (or one) of its Elements at the top left.

Click **Analog** (or **Digital**) **Outputs** at lower right.

Choose the right number of free outputs to match the number of selected elements. Click **Patch**. Repeat as needed.

Press the **end** soft key to leave the Config Monitors screen.

Change Monitor Listening Format

Overview

You can tell the system to play into a narrower format than your current speaker set. This is called "folding down".

For example, you can listen to your 5.1 mix in stereo, without changing speaker sets, by changing the Listening format.

The system remembers the last non-standard listening format you used, and calls it the Alternative Format. This can be heard at any time by pressing the ALT Format button in the Mon Megamode (press **mon** then **ALT Format**)

This guide will show you how to choose a listening format.

Get Ready

Press the green **Mon** button.

Press the **Format Setup** button.

Choose Format

Select any of the formats shown on the **soft keys**. The system immediately switches to that format.

Note: choosing a format wider than your current Speaker Set has no effect. You cannot "fold up" to a higher format!

Choose any other mode to leave the Format Setup menu.

Note: Stereo and Mono compatibility are immediately available as toggles on the `Stereo Comp` and `Mono Comp` switches, unless the current speaker set already has this format.

Configure Monitor Sources

Overview

The standard source for monitoring is the MAIN system bus.

You can choose many other sources, including other system buses, or External Source Sets, which are used for your CD player, video machine etc.

The system remembers the last non-standard source you chose, and calls it the Alternative Source. This can be toggled using ALT SOURCE in the Mon layout (press `Mon`, then `ALT SOURCE`)

This guide shows you how to choose an alternative monitor source, and configure External Sources.

Get Ready

Press the green `Mon` button.

Press the `Mon Setup` button if it's not already lit.

Choose Source

System buses can be chosen for immediate listening on the picture keys. To access and configure External Sources, press the `Source Setup` button. Choose any defined External Source using the Soft keys.

Source Config

To define or change an external source, press the `Source Config` soft key.

Choose the external source you wish to define, and the monitor set that will play it (Control Room or Studio Monitor).

Choose Analog Inputs or Digital Inputs at the lower left.

Choose the inputs you want to use at the upper left and their destination Monitor Elements at the upper right. Click `Patch`. Click `Rename` to name the set. Repeat as required.

Choose any other mode to exit Source Setup.

ALT Switches

Overview

The ALT switches in the Mon Megamode allow you to quickly change from standard settings to alternative ones.

The standard monitoring situation is:

Main speakers, playing Main bus, listening to all appropriate speakers.

You can choose an alternative speaker set, an alternative source, and/or an alternative listening format. This guide shows you how.

Get Ready

Press the green `Mon` button.

Details

To toggle to an alternative set of speakers, press `Alt spkr`.

This will toggle to the last non-standard speaker set you used (or the first defined set if you haven't used any yet). **Note:** you can also do this by pressing `MUTE` and `DIM` together.

To toggle to an alternative monitor source, press `Alt source`.

This will toggle to the last non-standard source you used (or the first defined External Source set if you haven't used any yet).

To toggle to an alternative monitor format, press `Alt format`.

This will toggle to the last non-standard format you used (if any)

Setup

Frame Rate

Overview

Timecode Frame Rate can be changed at any time while a project is open, and the timecodes of all clip heads and tails, Marks and other time-based items will update to match.

This guide shows you how to change frame rate.

Get Ready

Press the green `Setup` button.

Press the `sync` key. This displays the Sync Smart Panel above the Edit Screen.

Note: you can also select the Sync Smart Panel at any time using the mouse with the View menu above the Edit Screen, as follows:

View ➔ Smart Pane ➔ Sync Setup

Details
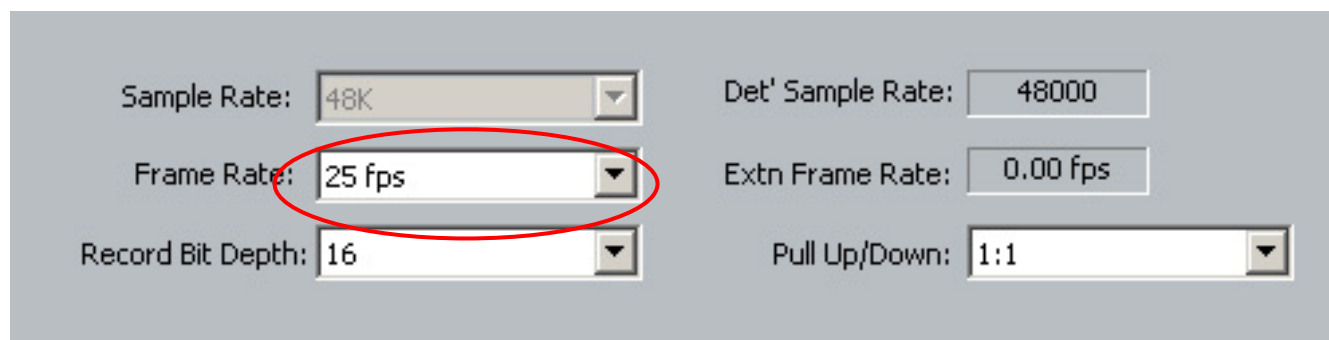
Use the pull-down menu to choose frame rate.

Other fields include:

Extn Frame Rate ➔ if you are using a video reference to drive your SX-20, set this field to the frame rate you are feeding it.

Pull Up/Down ➔ used to compensate for differences between 29.97 and 30 frames per second.

Det' Sample Rate ➔ detected sample rate. This will vary according to pull up or down, and external frame rate.

Sample Rate

Overview

Sample rate is set when you create a project. It cannot be changed afterwards.

See How to ➔ Files ➔ New Project

Sync Source

Overview

The sync source driving your system is normally a clock connected to your SX-20.

This guide shows you how to select sync source.

Get Ready

Press the green `Setup` button.

Press the `Sync` key. This displays the Sync Smart Panel above the Edit Screen.

Note: you can also select the Sync Smart Panel at any time using the mouse with the View menu above the Edit Screen, as follows:

View ➔ Smart Pane ➔ Sync Setup

Details
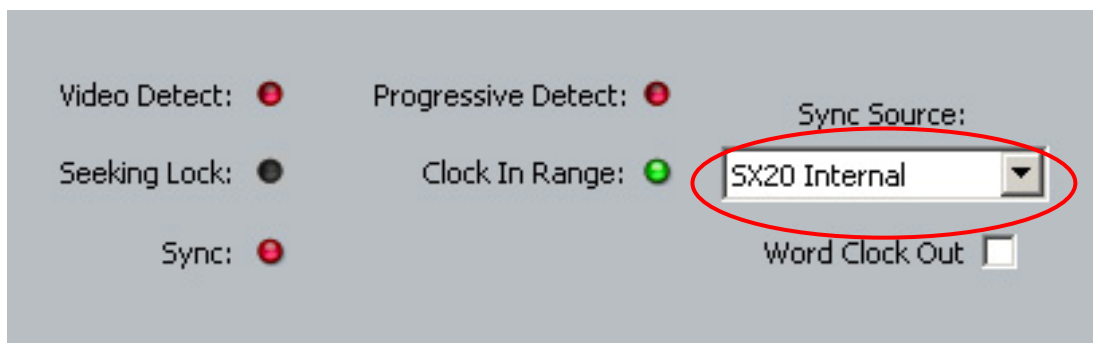
Use the pull-down menu to choose sync source. Choices are:

SX-20 Internal ➔ runs from a crystal inside the SX-20

SX-20 Video ➔ synchronises to the video signal connected to the rear of the SX-20.

SX-20 WCLCK ➔ synchronises to the word clock signal connected to the rear of the SX-20.

SX-20 S/P-DIF 1/2 ➔ synchronises to the S/P-DIF signal connected to inputs 1 and 2 at the rear of the SX-20.

SX-20 S/P-DIF 3/4 ➔ synchronises to the S/P-DIF signal connected to inputs 3 and 4 at the rear of the SX-20

Preroll and Postroll
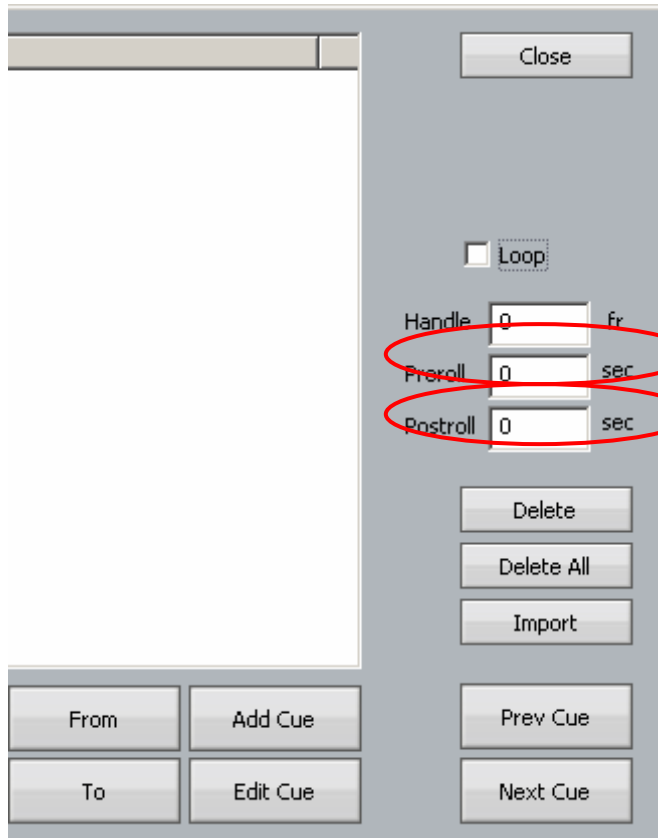
Overview

Functions where the system drives the transport automatically often use a pre-roll and post-roll to create breathing space around an activity range.

This guide shows how to set pre-roll and post-roll

Get Ready

Press the green **Record** button. Now press the **ADR** button and use the dialog in the Edit Screen.

Click in the **Preroll** or **Postroll** field in the ADR dialog.

Type in a number of seconds for the desired length of roll.

Press the **ENTER** key or click in another field to apply the time you typed.

To exit the ADR dialog, choose another mode or megamode.

See a later chapter on ADR for more details.

Bus Format

Overview

Xynergi supports four types of buses (mix destinations)

MAIN - the main bus. Can support any format from mono to 7.1. Cannot be turned off.

Sub-Buses 1 to 8 - extra buses with format from OFF to mono to 7.1. Also support Bus Reduction for simultaneous mixing in more than one surround format.

Auxes 1 to 12 - support formats from OFF to mono to 7.1

Multi-Track (MT) buses 1 to 24 - OFF or mono only.

This guide shows you how to set formats for your buses.

Note: The total number of bus elements is finite!

Get Ready

Press the green `Setup` button.

Press the `Bus Format` button.

Set Bus Formats

Main, Subs and Auxes can be selected. Press the `Bus/MT` toggle to access MT buses (`deselect everything` first!)

Select a `bus`. Current format is shown as a bright Soft key, and by speaker icons below. Press a dimly lit soft key to change format.

If you select multiple buses with different formats, no soft key will be lit brightly, and speakers will appear foggy. But you can still set them to any available format – then the speakers become clear.

The Pad shows how many Bus Elements are left.

Bus Reduction

To learn about Bus reduction, select a Sub-Bus with non-zero format, and press `Reduct'n Mode`.

Bus Reduction is used when you need to mix to more than one format simultaneously. Every channel that goes to the Main Bus can also be assigned (manually or automatically) to the Sub-Bus that will be used for Reduction (see How To ➔ Setup ➔ Bus Assign later in this section).

In addition, you can offset the level of a channel going to the Reduction Bus, compared with its level going to the Main Bus.

In Reduction Mode, a Sub-Bus has its own fader on each channel. These are controlled using Faders To... Sub-Bus faders may be set pre or post the Main channel fader, using Bus Params (see How To ➔ Setup ➔ Bus Params later in this section). All faders default to 0dB – in post fader mode they offset Reduction fader levels from Main levels.

Use the soft keys to set the Reduction Mode:

`Normal` ➔ no reduction. Sub-Bus level = Main level.

`Reduce` ➔ reduction is on. Path is assigned to the Reduction bus automatically when assigned to Main.

`Free` ➔ reduction is on. Path assignment is independent.

Press `end` to exit.

Bus Assign

Overview

Assigning a path to a bus means sending it to that mix destination. Every path in the system has separate assignment to every bus, meaning that you can choose which paths go to which buses.

Bus-to-bus assignment is limited. Sub-Buses can be assigned to the Main Bus, but not to each other. Main, Aux and MT Buses cannot be assigned to any other bus.

The Bus Assign screen is designed to assign multiple paths to one bus. If you wish to do it the other way around (one path to multiple buses) use the **Path** layout in the Pad. This is visible in the Editor and Mixer Megamodes.

This guide will show you how to assign paths to Buses using the Bus Assign screen.

Get Ready

Press the green **Setup** button.

Press the **Bus Assign** button.

The Bus Assign Screen
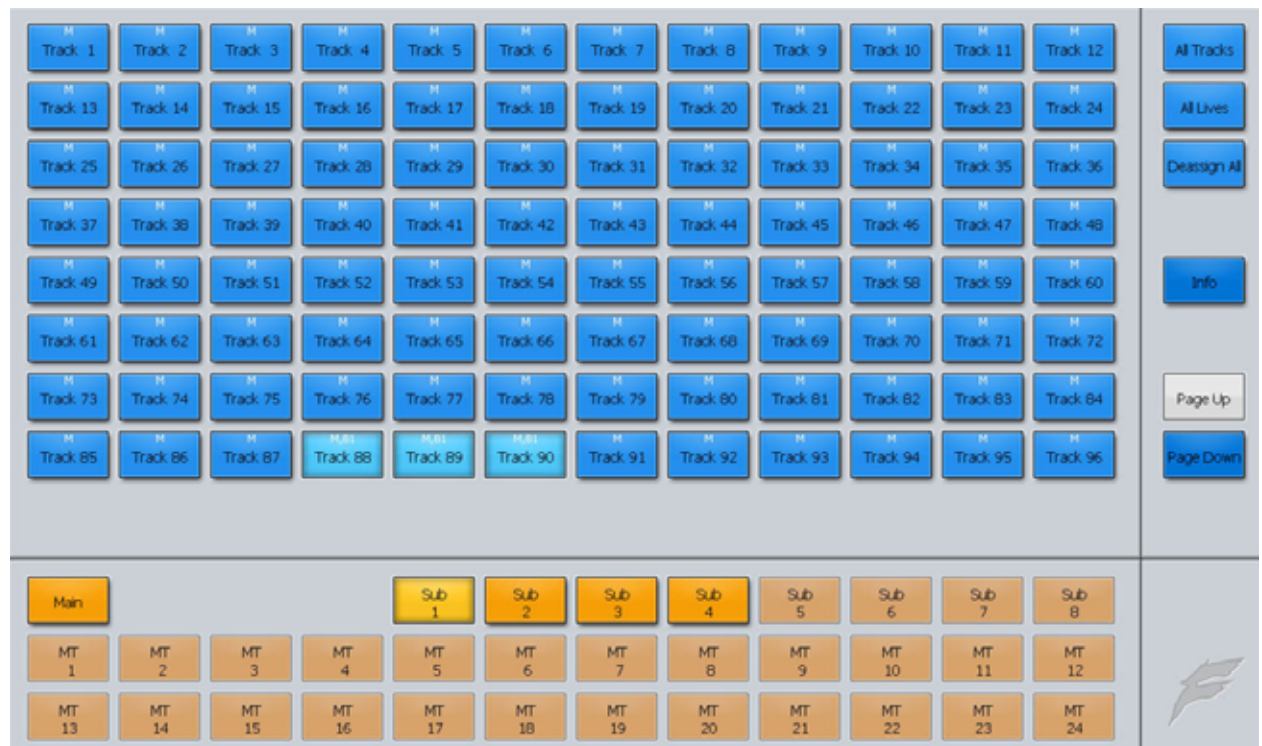
Select a destination bus at the bottom of the screen (in the picture, Sub 1 is selected). Each path already assigned to that bus is highlighted (tracks 88 to 90 are highlighted). Each path shows the buses to which it is currently assigned.
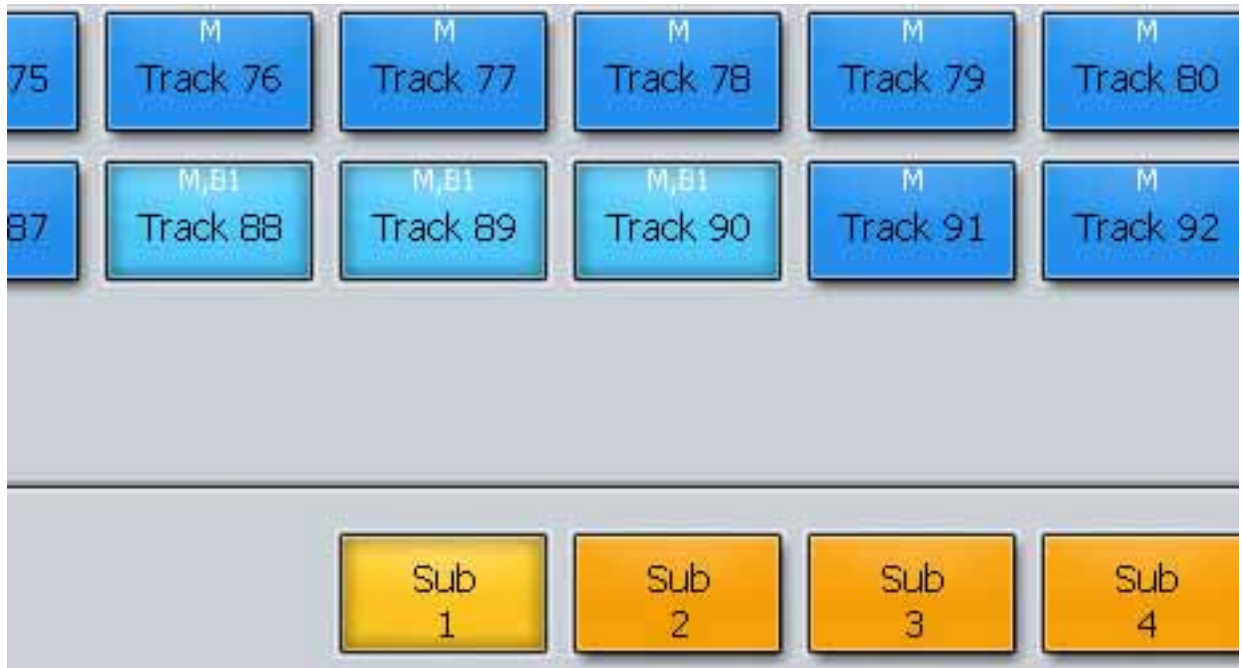
Click any **path** to toggle it on or off the destination bus.

To toggle multiple paths, click and drag the mouse over them.

Use **Page Up** and **Page Down** to reach more paths. Sub-Buses are at the bottom of the second page. They are grayed out unless Main is the selected destination.
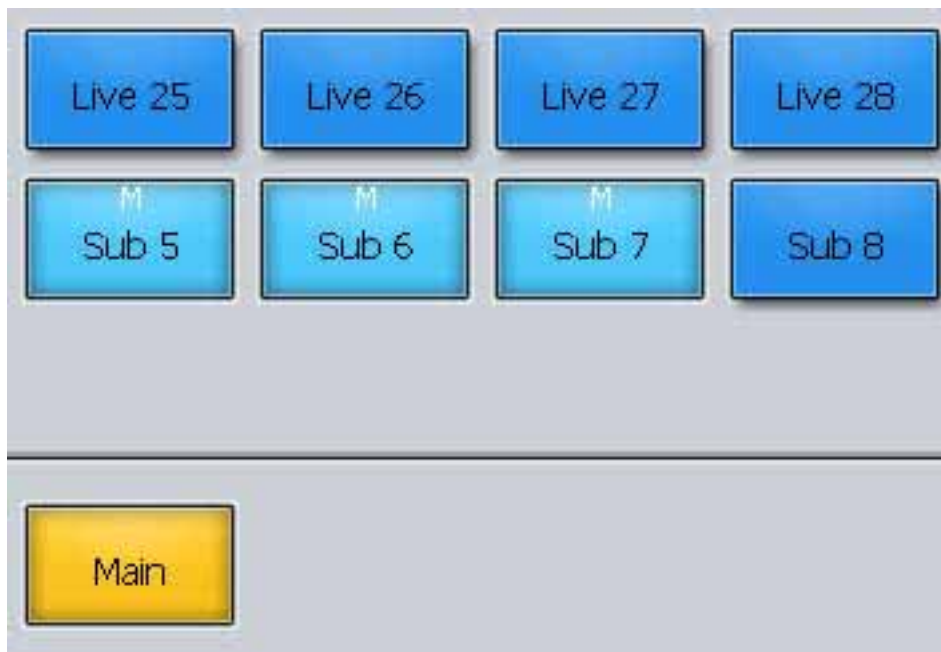
Assigning Subs to Main (this picture is distorted to save space).

Stem Assign

Overview

Sometimes it's necessary to assign a path to part of a bus.

In a 5.1 mix, for example, you want to pan some effects left and right, but avoid the center, to keep the dialog clear. To achieve this, you de-assign these effects from the Center Element of the bus.

This guide will show you how to de-assign paths from selected elements of a Bus.

Note: you must assign the paths to the Bus before using Stem Assign.

Get Ready

Press the green `Setup` button.

Press the `Stem Assign` button.

Operation

Select the `destination bus`.

Select some `Tracks` or `Live Feeds` that are already assigned to that bus.

The speaker icons below represent the Bus Elements. Press a `speaker` and it gets a red cross. That element is no longer assigned.

Use `Bank` and `Tracks` or `Lives` to reach more paths.

Note: if the red crosses won't go away when you select your bus and your paths, they are probably not assigned

Bus Params

Overview

Bus Params allows you to toggle pre post for a number of paths at the same time.

For Aux Buses, pre means that the aux send goes before the channel fader send, and before the channel mute button. Post means the opposite.

For Reduction Buses, pre means the send to the reduction bus is completely independent of the Main bus, while post means that the Reduction Bus fader is an offset to the Main bus fader.

In both instances, post is the more common setting, except where Aux buses are being used for headphone cue mixes, in which case they are usually independent of the main mix.

Get Ready

Press the green `Setup` button.

Press the `Bus Params` button.

Operation

Select the `destination bus`. Note that all Aux buses are shown, but Sub-Buses are only shown if they are Reduction Buses.

Select some `Tracks` or `Live Feeds`.

Use the PRE POST soft key to toggle pre post. The `>` symbol shows which is selected. If the setting is not the same for all the selected paths, the `>` is displayed twice, and the soft key flashes. Pressing the soft key will make them the same.

Use `Bank` and `Tracks` or `Lives` to reach more paths.

Link Groups

Overview

A Link Group is a collection of up to 8 paths which are selected, edited and mixed as one entity.

A Link Group must be all Tracks or all Live Feeds, never a mixture, and must be contiguously numbered.

Selecting one member of a Link Group selects all members.

This guide shows you how to set up Link Groups.

Get Ready

Press the green **Setup** button.

Press the **Link Gp** button.

Creating a Link Group

To create a new Link Group, press the Track or Live Feed that you wish to be the first member of your Link Group (or the last).

To remove or change defaults for an existing Link Group, select one of the green or brown buttons, which denote membership of a Link Group.

The system highlights 7 paths before and 7 after, which are the limits for selection of your Link Group.

Press the last (or first) member for your Link Group.

Now choose the application of defaults:

Default Pans ➔ pans the members as though going directly to a surround bus e.g:

- Two members ➔ pan hard L and R.

- Three members ➔ pan L, C and R.

- Six members ➔ pan L, C, R, LS, RS, and de-assign the sixth member from all bus elements except Boom.

Feed Params ➔ copies all settings (except panning) from the first member to the others.

All Defaults ➔ executes default pans and copies feed parameters

Modifying or Removing a Link Group

Press the **Link Gp** button.

To remove or change defaults for an existing Link Group, select one of the green or brown buttons, which denote membership of a Link Group.

Use one of the following soft keys to unlink the group:

Unlink ➔ unlinks the members without reassignment

Unlink and reassign ➔ unlinks the members. If the Link Group had a Boom member that was de-assigned from all other Bus Elements, it is reassigned to them.

Alternatively you may use the soft keys change the defaults as explained in creation of Link Groups.

Fader Groups

There are 10 VCA-style Fader groups on Constellation. Members of a Fader Group have their fader levels controlled by a Master, and can also be accessed individually to set relative levels within the group.

Control

Faders in a group are controlled relatively by the Group Master fader. To do this, you must either CALL the Group Master to the Channel Panel, or add it to a fader set.

Displaying Group Masters

The Mixer Screen optionally shows VCA Group masters. To control this:

Step 1   Open the System Variables window by typing `SHIFT+ctrl+U`

Step 2   In the Screen Layout section, select Show VCA Groups + Automation, or Show VCA Groups + Timecode, or Show all three.

Step 3   Close the System Variables window by typing `esc` or clicking `OK`.
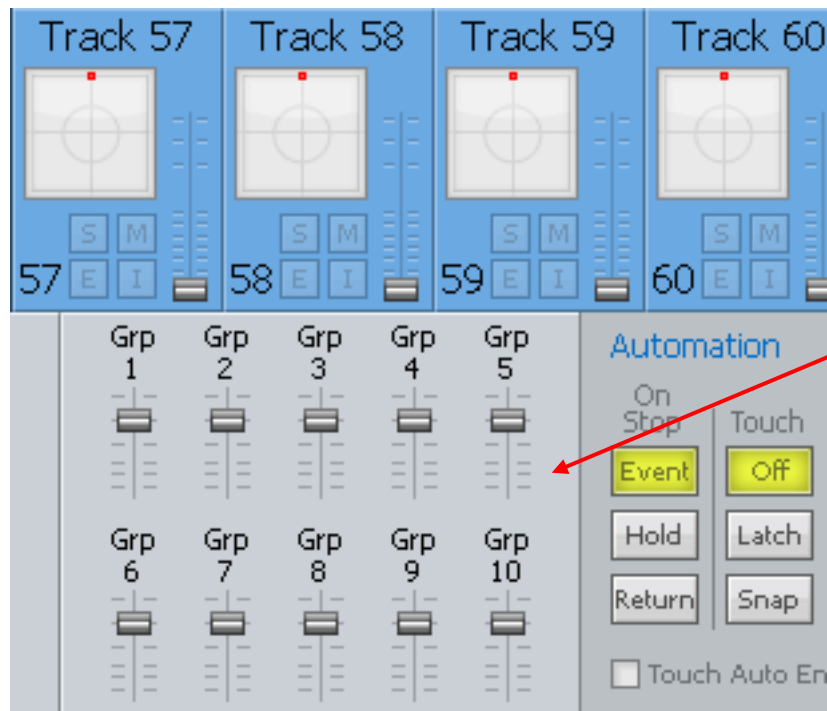
This setting will be remembered for future sessions.

Members of a Fader Group are indicated on the Main Screen graphics with the inclusion of fader group indicator, located immediately below the Track/Live channel number.
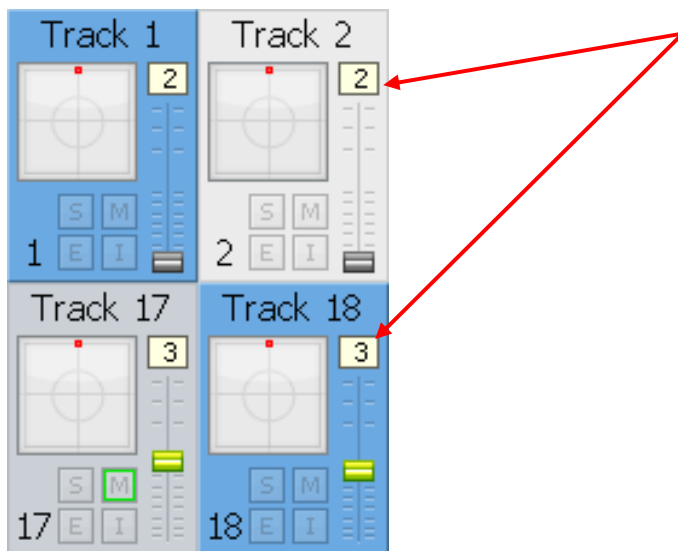
Global Assignment

Fader Group membership can be controlled globally using the Grouping Window. To open this, click on the Mixer screen and type **SHIFT+ctrl+V**

To use this window:

Step 1   Select a VCA group at the bottom of the window.

Step 2   Toggle signal paths in and out of the group.

Step 3   Use Page Up and Page Down to access more Tracks and Live Feeds.

Step 4   To close this display, type **SHIFT+ctrl+V** again or **esc**, or right-click on the window.

Individual Assignment

To add/remove tracks and lives to/from a fader group:

Step 1   Call the desired feed

Step 2   Press & hold the FADER GROUP key (top right corner of the Channel Panel)

Step 3   Toggle the feed in/out of a group using the fader set keys 1-9.

Membership of fader groups can also be controlled in the Virtual channel, which is accessed by right-clicking a channel tile in the Mixer screen.

Click here to change the Fader Group of the called channel.

Zero means no Fader group membership.
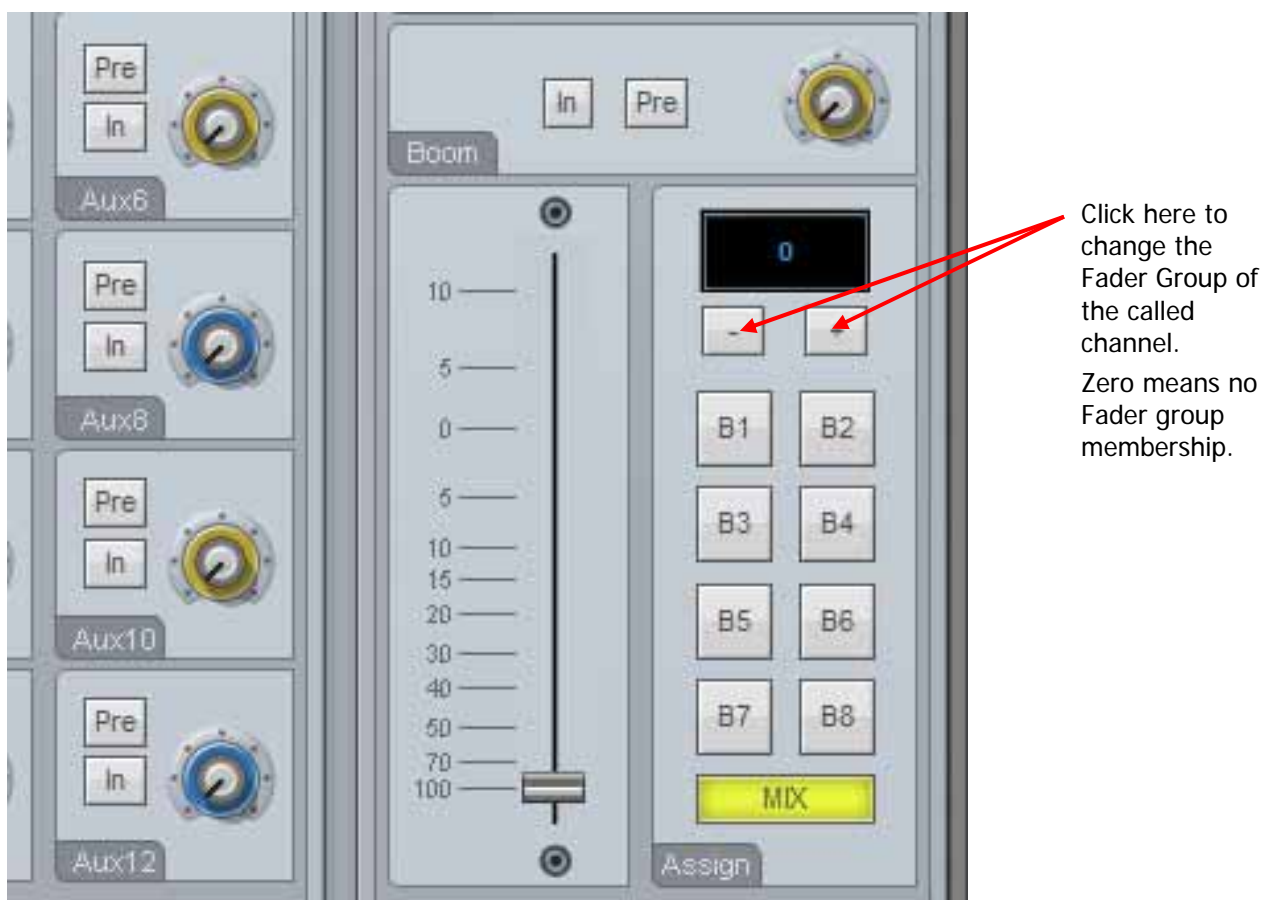
Calling a Group master

To CALL a group master, click its fader on the Mixer Screen. If not visible, see Displaying Group Masters, above.

Files

Create a New Project

Overview

The project is a file containing your instructions about what audio to play, how to mix the audio, what plug-ins to use, etc.

In fact it contains everything about today's job except any Automation Files you have recorded (see How to ➜ Files ➜ Save Automation for details)

When you create a new project, you must specify details about its contents. Some of these cannot be changed later.

See the next step for details.

Note: you can bypass this procedure using the mouse, and go directly to the `File ➜ New` command above the Edit screen.

Get Ready

Press the green `proj menu` button.

Press the `Proj` button, if not already selected.

Operation

Press the `new` soft key in the Pad.

If you already have a project open, the system will prompt you to save it. Respond, and a New Project form will appear on the Edit Screen.

Type a name for your new project, then fill out the rest.

Note: The number of tracks and the sample rate cannot be changed after you set them here.

Choose the DREAM II Project Type unless you are planning to interchange with owners of older Fairlight QDC systems.

Click `OK` to create the new project.

Open Project

Projects you have already saved are accessed via a Windows dialog. You can get there using the Xynergi controller as follows.

Press the green `proj megamode` button. Press the `proj` button, if not already selected.

Press the `open` soft key in the Pad. This opens a Windows Open dialog.

Use the mouse to navigate the Open dialog showing on the Edit Screen.

Click OK when you have found the project you want.

Or: select from the list of recently used files.

Note: you can bypass the Xynergi controller and use the mouse directly, by clicking `File` ➔ `Open` above the Edit screen.

Import project

Overview

Importing a project is like opening one, where the file format is non-Fairlight.

It is done through the Windows File menu, which is above the Edit Window.

You must have a project open before importing a third-party file, so that it has somewhere to go.

Operation

Click `File` on the menu bar above the Edit Screen, and select the `Import` command.
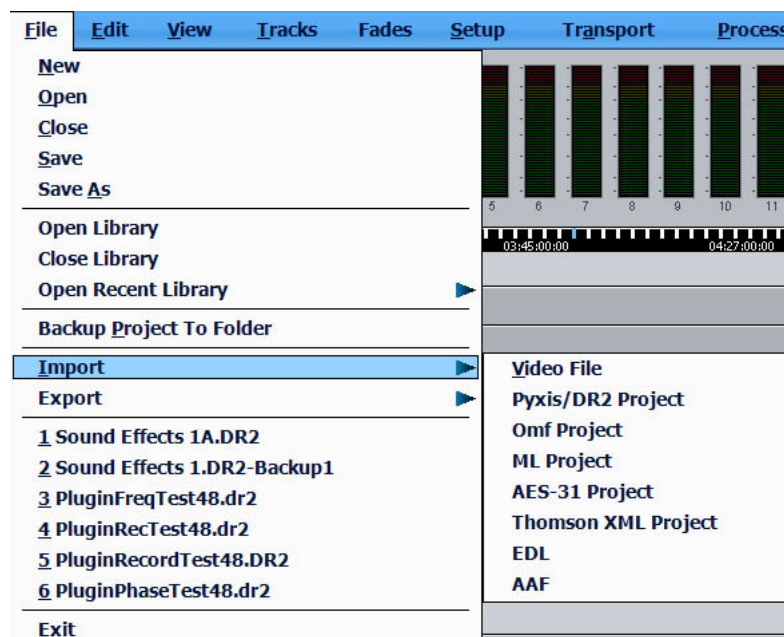
Select the right file type from the list, then navigate to the file you want to Import. Click `OK`.

Save Project

Overview

You must save your project, or you will lose all the work you have put into it.

This is done via the `Project` menu in the Proj Megamode.

Alternatively you can use the mouse, and go directly to the **File➔ Save** command above the Edit screen.

Get Ready

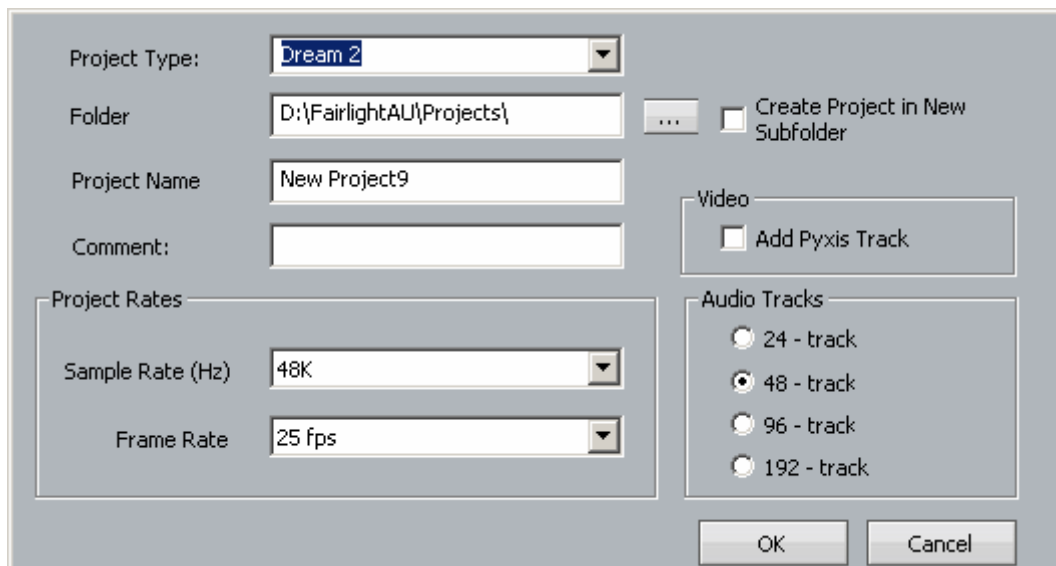Press the green **proj menu** button.

Press the **Proj** button, if not already selected.

Operation

Press the **save** soft key in the Pad. This saves the project immediately.

Alternatively, press the **save as** soft key. This displays a dialog where you can enter a new name and save an alternative version of the project.

Note: when using Save As, none of the audio in the project is copied, only references to that audio. This may reside in the original project, in external files, or both.

What you are Saving

The save command always saves the Edit List, which includes references to all the media being accessed by your project (these are saved automatically when recorded). Also saved are the Bus Formats, Bus Assignment, Monitor setup, path names, seed names and other configuration data.

The Mix information is optionally saved, and can also be manually saved at any time (see Save My Automation Data below)

To ensure that Mix information is automatically saved when you save the Project, do the following:

- Go to the Mixer Megamode

Select **Mix On** to display automation commands

- Press the **file** button to open the Mix File menu

Press the **System Mix** soft key so that it displays ON.

When System Mix is on, the system saves, with every project save command:

- A static mix of all parameters including Faders, Mutes, EQ, Dynamics, Plug-ins (not solos)

- The current automation mix, if any

In addition, when System Mix is ON, these same items are loaded when a project is opened (if they were saved in the file, otherwise default settings are loaded).

Save My Automation Data

Overview

Automation data must be saved independently from the rest of the project. This allows it to be copied from project to project as needed.

This guide shows you how to save automation data.

Get Ready

Press the green **Mixer** button.

Press the **Mix On** button to display automation commands.

Press the **file** button to display the Mix File menu.

Operation

Press the **Save** soft key.

The system displays a suggested name for the new file with an incrementing number as the suffix. After optionally editing this name, press **ENTER** to save the mix.

Note: Each time you save the automation data, a new file is created. Even if you choose the same name as another saved mix, the system will not delete any old mix.

To get rid of saved mixes, you must select and delete them in this File Menu.

Load the Demo project

Overview

The demo project is included with the system software.

It contains audio clips and mixing information that you can use to learn how the system works.

During installation you were advised to place it in a known location. This item will guide you to that location.

Operation

Press the **open** soft key in the Pad. This opens the Windows Open dialog.

Use the mouse to navigate as follows:

Click on the "Look in:" list box and select Audio(D:), or whichever is your designated Audio drive.

Double-click "FairlightAU"

Double-click "Projects"

Double-click "Xynergi_Demo"

Double-click "Xynergi_Demo.DR2"

The project should open.

Mixing

Using the Pad

Overview

The Pad is used to set all signal processing parameters.

In this guide you will see its general workings, using the EQ control as an example.

Note: an alternative to using the Pad is to right-click with the mouse on any Channel Tile in the Mixer screen. This displays a Virtual Channel where all parameters can be seen and controlled.

Note: information about the Pad's behaviour under automation can be accessed via How to ➔Automation➔Pad Overview

Get Ready

The Pad rotary controls are always available. To choose what type of controls are active, we must select the Edit or Mix Megamode, or the SEL layout.

For now, choose the Edit Megamode by pressing the green **Editor** button.

We will use the EQ display to show how the Pad works. Press the `EQ` button.

Operation

Normally the rotary knobs control the upper function in the box, which relates to the chosen type of signal processing, i.e. `Path`, `EQ`, `Dyn`, `Aux` or `Plug-ins`.

In the EQ case they control EQ frequencies and gains. These parameters are shown in **Black** type, with a blue background. The lower set are shown grayed out.

The ALT key

Now hold down the `ALT` key.

While `ALT` is held down, the lower parameters become active. These parameters relate to the upper parameters e.g. the word IN below Band 1 Gain toggles Band 1 IN.

Many `ALT` functions, like Band 1 IN, are switches. These are toggled by `touching` the rotary knob. Others, like Q-factor, are controlled by `turning` it.

In addition, the Pad Soft Keys are displayed. The upper ones are toggles like EQ IN, while the lower ones are alternative pages of controls.

The Pad Soft Keys can be locked into place using the `Pad Lock` button in the Mixer Megamode, or by double-pressing `Path`, `EQ`, `Dyn`, `Aux` or `Plug-ins`.

See How to ➔Mixer➔ Pad Details for more information

Using SEL

Press and release the SEL button.

While SEL is active, the `Path`, `EQ`, `Dyn`, `Aux` and `Plug-ins` buttons are available. This means that SEL is a kind of all-purpose mixing environment where any path can be selected, and any mix parameters can be accessed.

Pad Details

Overview

The Pad is used to set all signal processing parameters.

In this guide we'll look at all the functions of `Path`, `EQ`, `Dyn` and `Aux`. The `Plug-ins` button has the effect of displaying a graphical user interface created by the manufacturer of the Plug-in.

Get Ready

Press the green `Mixer` or `Editor` button.

Note: Some signal paths do not have all signal processing capability – these include sub-buses, MT-Buses and monitor speakers. For the purpose of this guide, please select a Track on the upper 12 picture keys. If no track is visible, do the following:

Press `SEL`, press `Tracks`, press a track number button, press `exit`.

EQ

There are four modes for EQ. To switch, `ALT` + `lower soft keys`.

Mode 1. Bands 1 to 4 are shown, with Gain controls at the right and Frequency at the left.

Mode 2. Bands 1 and 2 are shown in more detail.

In the detailed mode, SHAPE refers to the type of filter being used for that band, with a choice of Notch, Bell Hi-Shelf or Lo-Shelf.

Range refers to the frequency range in which the band operates, with a choice of low frequency (LF), low mid (LM), high mid (HM) or High Frequency (HF).

Mode 3. Bands 3 and 4 are shown in the detailed mode.

Mode 4. Hi and lo-pass filters are shown. Filter bands In/Out at left, Hi/Lo selector at right

Hold down the ALT key for more functions.

EQ – ALT

EQ In/Out is toggled by an upper soft key. When EQ is in circuit, its graph line changes from grey to heavy yellow, and the EQ In button has a bright LED above it.

The four EQ modes are selected on the lower soft keys.

Path

Level is the main channel fader. Shown as OFF if below -99dB.
BLUE + Touch Level knob (or Fader) ➔ set level to 0 dB

Pan values ➔ percentage left/right or front/back of center.
BLUE + Touch Pan LR knob ➔ set Pan LR to center

Spread applies only to Link Groups. It is a measure of how wide the elements are panned into the Surround field.

Divergence measures how tightly signal is panned to one position.

Rotate allows a signal path or Link Group to be rotated in the Surround field.

Hold down the ALT key for more functions.

Path – ALT

Level ON / MUTE is the main channel MUTE switch.

Solo ➔ main channel solo

Solo Safe ➔ prevents path being muted when another is soloed.

Insert IN ➔ needs physical insert send and return paths defined.

MAIN ➔ assigns or deassigns path from MAIN system bus

Armed ➔ path must be a Track and have a patched input

Bus 1 - 4 ➔ extra mode where path can be assigned to Sub-buses 1 to 4 on the upper soft keys.

Bus 5 - 8 ➔ as above for buses 5 to 8

Dyn

There are three modes for Dynamics. All three stages of Dynamics may be active at the same time (except for buses, which have no Expander / Gate stage). To switch between modes, ALT + lower soft keys.

Mode 1. Compressor

Mode 2. Expander / Gate. To toggle between Expander and Gate, ALT + Dyn Type soft key

Mode 3. Limiter

Threshold, Ratio / Range and Makeup Gain controls at left and Hold, Attack and Release times at right.

Hold down the **ALT** key for more functions.

Dyn – ALT

For each mode, the IN / OUT switch is an **upper soft key**

The three Dynamics modes are selected on the lower soft keys.

Aux

There are three modes for Auxiliary send control. To switch between modes, **ALT** + **lower soft keys**.

Each mode handles 4 of the Aux sends.

Level is shown as OFF if below -99dB.

Pan values ➔ percentage left/right of center.

Hold down the **ALT** key for more functions.

Press the **Path**, **EQ** or **Dyn** buttons for their details.

Aux – ALT

The three Aux modes are selected on the lower soft keys.

Aux sends are Muted using the ON / MUTE button.

Path Copy

Overview

Path Copy allows you to copy all or part of the settings from one path to another.

It works by first copying the all the settings from a source path into the clipboard, then pasting the desired parts into a destination path.

This guide shows you how to perform a Path Copy.

Get Ready

Press the green **Mixer** button.

Press the **Path Copy** button.

Operation

Select the source path.

Press the **COPY** soft key.

Select the destination path. Press one of the **Paste** soft keys.

Library

Overview

Xynergi's library provides storage for groups of settings that you can recall at any time and apply to any signal path.

The library can be operated on screen with the mouse, or using the Pad soft keys. This guide will show you how to do it with the mouse.

Get Ready

Press the green **Mixer** button.

Press the **Lib** button.

Operation

To store a new library item, do the following on the Mixer screen:

Select the **source path** by clicking on it. Click the **path type** (Track, Live, Aux-Bus etc) if necessary.

Select the type of setting you would like to save (EQ, Dynamics, Whole Channel, Whole Console or Plug-in). Click the **Save As** button and supply a name. Press **Enter**

To overwrite an existing library item, select it and click the **Save** button. Items are displayed at the upper left.

To apply a library item, select the type of setting, select the item, select the **destination path(s)** and click **Apply**.

Inserts

Overview

Inserts can be switched on and off in the Path display using the Pad Soft Keys (when holding down the **ALT** button, or when the Pad Lock mode is active).

Inserts are used for getting signals out of the system and back in again. They are also used to place Plug-ins in a signal path.

The first step in working with an Insert is to set its physical input and output. This guide shows you how to configure these, and how to insert plug-ins.

Get Ready

Press the green **Mixer** button.

Select the path whose inserts you wish to configure. Press the **Insert Config** button.

Operation

To work on insert sends, press the **Sends Returns** toggle so that the > points to Sends. For insert returns, do the opposite.

To set up the physical I/O for a send or return press the **Patch** soft key. Operation is the same as How To ➔ Recording ➔ Patch Inputs.

To insert a Plug-In, press the **Add Plug-In** soft key, then use the Jog Wheel to scroll through the list of available items. Press the **Add** soft key to apply. The graphical controls for the Plug-in will be displayed on the Edit Screen.

Plug-ins can be organised into a list of favourites by pressing the **Add to Fav** soft key. Press the **Fave** soft key to display only this list.

Press the **Plug Ins** button at any time to toggle the Plug-ins editor

You can select another path while the Insert Config layout is active.

Direct Outputs

Overview

Direct Output levels are controlled in the Path display.

This guide shows you how to configure the physical I/O for Direct Outputs.

Get Ready

Press the green `Setup` button.

Select the path whose inserts you wish to configure. Press the `Direct Config` button.

Operation

Before you can work on a Direct Output, it must be given a physical output. To do this, press the `Patch Outputs` soft key. Click `Analog Outputs` or `Digital Outputs`, choose an output, click `Patch`. Operation is the same as How To ➜ Recording ➜ Patch Inputs

Press the `Patch Outputs` soft key again to exit.

To change the gain of the Direct Output, press the gain soft key. Use the `Jog Wheel` to change the displayed number. This will be expressed as REL (relative) if more than one output is active i.e. when a Link Group is selected. Press `Enter` to apply.

The `ON/OFF` toggle and the `PRE/POST` toggle are available once the output is defined.

Oscillator

The system oscillator is toggled on and off in the Mixer or Record Megamode, using the `osc` button.

To set Oscillator frequency and level, use `Utils` in the Setup Megamode.

To route the Oscillator to a bus, first `patch` it to Talkback 2 on the Patch Screen (press `patch` in the Mixer or Record Megamode), then connect Talkback 2 to the desired bus as follows:

- Hold down **BLUE** and press `Talk`
- Select the `Bus(es)` to be destinations for Talkback 2.
- Press `Exit`.

Noise Generator

The system noise generator is toggled on and off in the Mixer or Record Megamode, using the `osc` button.

Patching the noise generator to any point in the system is done using the Patch page, in the same way as for the oscillator.

Using Faders

Overview

Xynergi supports two types of external faders.

1. Fairlight Fader Side Car (12 faders). Xynergi will support up to two of these.

2. Mackie Control Extender Pro (8 faders). Xynergi will support one of these systems.

You can create up to 9 Fader Sets. To learn about this, see
How to ➔Mixer➔9. Map Faders

This guide will explain more about using faders.

Get Ready

Faders are used in all megamodes. To play with the automation functions, you will need to be in the Mixer Megamode. Press the green **Mixer** button.

Press the **Mix On** button to display automation functions.

Configuration

The system needs to "know" about connected faders. To set this up, use the mouse to access the following:

Start ➔ All Programs ➔ Fairlight ➔ Xynergi ➔ Utils ➔ Configure Xynergi
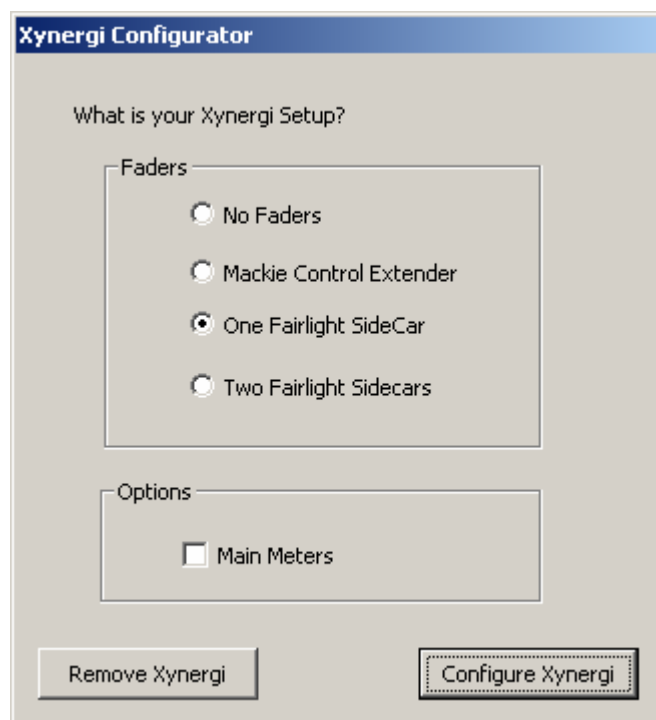
Select your configuration, then click **Configure Xynergi**.

Fairlight Sidecar Operation

Pressing the **CALL** button on a Sidecar Fader brings its signal path to the Pad and the Fat Channel. It behaves as though it is the most-recently-selected path. If it is a track this does not select it for editing.

Pressing the **SOFT** button adds or removes the signal path from the automation selection.
This means the channel will go into **Write** if the **IN** button on the Xynergi controller is pressed (it is available in the Mixer Megamode when Mix On is selected.)

The physical fader, Mute button, Solo button and panpot on the Sidecar affect only this signal path. The Xynergi Pad Controls, on the other hand, affect the most-recently-selected path, or, if MULTI is ON, all selected paths.

Similarly, the Fader's Auto button puts this path into Automation **Write**, while the Xynergi Auto button does it for the most-recently-selected path, or, if MULTI is ON, all selected paths.

Mackie Operation

Pressing the `Select` button on a Mackie Fader selects its signal path, like pressing its key on the Xynergi Tactile Controller.

If MULTI is on, the signal path is added (or removed if already ON) from the selection. The physical fader, Mute button, Solo button and panpot on the Mackie controller affect only this signal path. The Xynergi Pad Controls, on the other hand, affect the most-recently-selected path, or all selected paths if MULTI is on.

There is no button on the Mackie faders for putting the signal path into Automation **Write**. If the path is selected, the Xynergi `IN` button on the Mixer Megamode puts it into **Write**. The Xynergi `Auto` button puts it into **Write** if it is the most-recently-selected path.

If MULTI is on, all selected paths are put into **Write** by the Auto button.

Map Faders

Overview

You can create up to 9 Fader Sets. Each of these is a mapping (or distribution) of signal paths to the faders.

To select a Fader Set, turn on the `Fader Sets` button (Numeric Keys glow violet or blue) and select a number from 1 to 9.

If faders are properly configured using the Xynergi Configure application: Start ➔ All Programs ➔ Fairlight ➔ Xynergi ➔ Utils ➔ Configure Xynergi, new projects will open with the Tracks and Live Feeds nicely distributed over the fader sets.

You will need to create your own mappings for different types of projects. This guide shows you how to map faders to a Fader Set.

Get Ready

Press the green `Setup` button.

Make sure the Fader Sets button is illuminated, and choose the fader set you wish to map.

Now press the `map faders` button.

Operation

The system is mapping the Fader Set whose number is illuminated.

The picture keys show path names. Choose `Tracks`, `Lives` or `Buses` (which include Fader Group masters)

Select a path for the first fader. The fader displays the name of that path.

The selection point moves to the next fader. Continue with this process.

Return to any point in the mapping by pressing the `CALL` button (or `Select` button for Mackie) on a fader.

Press Exit at any time to complete the mapping, or press another Fader Set number to start mapping that set.

Note: when you start mapping a second or subsequent set, the selection point may not start at the first fader. Please map something to the selected one, then select or call the first fader to bring the selection point back to it.

Automation

Using the Pad to write Automation data

Overview

For writing automation data with the Pad, here is a check list:

- Mix On must be lit (in the Mixer Megamode)

- Select path(s) (the last one is shown in the Pad)

- Enable at least one mix parameter (fader, mute, EQ etc)

- Select **Write** (not **Trim**).

- Select your On Stop setting.

- Put the path into Write using the Auto Button (see Touch later).

- Data is written while the transport is in play or record.

- Stop writing by stopping the transport or pressing Auto.

This guide takes you through this process.

Get Ready

Press the green **Mixer** button.

Press the **mix ON** button so that it is illuminated.

We will use Faders and Pans to illustrate writing automation data.

Press the **path** button to access them.

Enable Parameter(s)

Press the **Enable Params** button.

In the enable layout, you choose parameters for writing automation data. When a path enters **Write** (or **Trim**) only enabled parameters will have their values stored.

You can choose them individually, like EQ In, in groups, like EQ ALL, or choose everything with All Params.

A second press of All Params will turn everything off.

For this How To, enable only **Fader** and **Pan**.

If you are making a baseline pass for all paths, press **All Chans** (but not for this How To).

Press **Exit** to return to the Mix menu for the next item. Note that the Fader and Pan controls have **blue** triangles next to them, showing that they are enabled for automation.

On Stop Setting

The **ON STOP** soft key controls what happens to automation values after you stop writing e.g. when you press STOP during an automation pass. Press the soft key repeatedly to cycle through the options:

Return ➔ the last value you wrote is ramped to the previous value of the parameter, using the Glide Out Time (see Utils menu)

Hold ➔ the last value you wrote is held until the end of the Project, erasing all following changes.

Event ➔ the last value is held until the next event i.e. change in value that you wrote previously, using the Glide Out Time (see Utils menu).

Set the value you want.

Working With the Pad

Select signal path(s). Turn **MULTI** on if you want to change values on all the selected paths simultaneously.

Press the **Write-Trim** button until Write is selected.

Press **Play** and then **AUTO** (or vice versa). The Level and Pan backgrounds go **red** and begin writing values.

Move knobs, then press **Stop**. Enabled controls go into **read**.

Press **Play Menu** twice to review what you have just written.

Press the **Undo Pass** soft key to remove the new automation data. Note: there is only one level of undo.

Fader Control

Overview

The steps in working with faders are similar to working with the Pad, except that enabling the path is done locally, on the fader itself.

This procedure applies to Fairlight sidecars, but not to Mackie faders.

- Mix On must be lit (in the Mixer Megamode)
- Select On Stop setting.
- Enable at least one mix parameter (fader, mute, EQ etc)
- **Write** or **Trim** can be selected with external faders.
- Put each fader into Write using its own Auto button.

Operation

Perform the following from the previous section:

- Enable Parameters
- On Stop setting

Choose **Write** or **Trim**.

Press **Play** and then the **Auto** button on any fader (or vice versa). Fader knobs go **red** on the Mixer screen. Level and Pan values begin writing.

Move controls, then press **Stop**. Enabled controls go into **read**.

Press **Play Menu** twice to review what you have just written.

Press the **Undo Pass** soft key to remove the new automation data. Note: there is only one level of undo.

Touch write

Overview

Touch write allows you to begin writing just by grabbing a control. This pinpoints one specific control to write, instead of a whole group. For example, you can write just the Frequency of EQ Band 1, instead of all Band 1's controls.

Touch is exactly like pressing the `Auto` button, but only on one control at a time.

Touch works on all Pad controls and on all external faders. On Fairlight Sidecars, it works on the Pan Controls and Mute switches as well.

Get Ready

Press the green `Mixer` button.

Press the `mix ON` button so that it is illuminated.

Press `Enable Params` and enable faders and panpots.

Signal paths must be selected before their parameters are available for touch selection. Select one or more paths. If you are using Faders, use the Soft buttons (on a Fairlight Sidecar) or the SELECT buttons (on a Mackie).

In this item we will deal with manual touch options. Please toggle the `AutoTouchEn` soft key OFF.

Please also see How To ➔ Automation ➔ Touch AutoEnable.

Operation

Press the `touch` button (labelled touch off, touch latch or touch snap), and select one of the following:

`touch off` ➔ Touch Write does nothing

`touch latch` ➔ Touching an enabled control puts it into **Write**. It continues writing after you let go, for the whole automation pass.

`touch snap` ➔ Touching an enabled control puts it into **Write**. Releasing the control puts it into **Read** immediately.

Choose `latch` or `snap`. Enabled parameters in the Pad now show a red triangle.

Touch one of the controls you have enabled. It goes into **Write**. (Use the `OUT` button or the `All Read` soft key if you wish to get controls out of write before the transport starts moving.)

Press the `Play` button and `touch` controls to put them in and out of **Write**.

Touch AutoEnable

Overview

Auto Touch Enable simplifies Touch Write by enabling a path as soon as you touch one of its controls.

So all you have to do is enable the parameters you want to write. Then put the transport in Play, and any enabled control will go into **Write** as soon as you touch it.

The ultimate version of this: Enable all parameters, and then touch any control in the system to automate it. **WARNING:** this is dangerous, because nothing is protected from being over-written.

Note: you can use Auto Safe to protect paths. You can also use Isolate to completely remove paths from the Automation system. See How To ➔ Automation ➔ Isolate.

Get Ready

Press the green **Mixer** button.

Press the **mix menu** button.

Press the **mix ON** button so that it is illuminated.

Press **Enable Params** and enable faders and panpots.

Signal paths must be selected before their parameters are available for touch selection. Select one or more paths. If you are using Faders, use the Soft buttons (on a Fairlight Sidecar) or the SELECT buttons (on a Mackie).

Toggle the **AutoTouchEn** soft key ON.

For non-Auto Touch write, please see How To ➔ Automation ➔ Touch Write.

Operation

Press the **touch** button (labelled touch off, touch latch or touch snap), and select one of the following:

touch off ➔ Touch Write does nothing

touch latch ➔ Touching an enabled control puts it into **Write**. It continues writing after you let go, for the whole automation pass.

touch snap ➔ Touching an enabled control puts it into **Write**. Releasing the control puts it into **Read** immediately.

Choose **latch** or **snap**. Enabled parameters in the Pad now show a red triangle.

Touch one of the enabled parameter controls on any path, or any external fader. It goes into **Write**. (Use the All Read soft key if you wish to get controls out of write before the transport starts moving.)

Press the **Play** button and **touch** controls to put them in and out of **Write**.

Automating Plug-ins

Overview

Plug-in parameters are no different from those of any other processing block, except for one thing – enabling them.

The names and types of plug-in parameters vary according the manufacturer and product, so the enabling cannot be done from a dedicated layout. For this reason, you must use touch to enable plug-in parameters. Here's how you do it.

Get Ready

Press the green **Mixer** button.

Press the **mix ON** button so that it is illuminated.

Press the **mix menu** button.

Press the **auto enable** soft key so that it is illuminated.

Press the **touch** button so that it reads Latch or Snap.

Load a plug-in as follows:

Press the **plug ins** button.

Press the **Add Plug** soft key.

Use the **Jog Wheel** to roll through the list of plug-ins, then press the **Add** soft key to load one.

If desired, press the **plug ins** button again to place the graphics in the Pad.

Operation

Press the **play** button.

Grab one of the Pad controls affecting the plug-in parameters, and change its value. Its pad area will go red, indicating **Write** status. Alternatively, grab the on-screen control and move it with the **mouse**. The result is exactly the same.

Continue to write parameter values until happy with the results, then press the **stop** button (or any other transport button). The pad area should now go green, indicating **Read** status.

To review your results, press the **Play Menu** button twice.

Auto Punch

Overview

Auto Punch performs an automation pass, pre-rolling, then punching in and out at the Range start and end points. In brief:

- Set up to record automation data in the usual way (see How To ➔ Automation ➔ Pad Control)

- Create a range

Press **Active IN** and/or **Active Out**.

Press **Auto Punch**.

Note: Without Active IN pressed, the system will still preroll the Range start. You can then punch into **Write** manually with the **Auto** button, and the system will punch out automatically.

Without Active OUT pressed, the system will preroll and punch in at the Range start. Press **STOP** manually to go back into **Read**.

Operation

Select paths

Enable faders and pans

Set On Stop setting

Press the **Path** button to acess faders and pans.

Choose **Write** or **Trim**. Trim is only used with physical faders.

Locate to the desired IN point and press **From**.
Locate to the desired OUT point and press **To**.

Press **Active IN** and/or **Active Out**. They light up in **red**.

Press `Auto Punch` to perform the automation pass

Preview

Overview

Preview is a system mode that allows you to suspend automation **Read** for particular controls while you find new settings for them.

After finding the new settings you can punch them into the track, or fill a range with them.

Before using preview you must:

`Enable` paths.

`Enable` parameters.

- Engage Preview.

- Press the `AUTO` button to put the enabled items into Preview.

This guide shows preview in detail.

Get Ready

Press the green `Mixer` button.

Press the `mix menu` button.

Press the `mix ON` button so that it is illuminated.

Operation

To enable signal paths, select them.

Press the `param enable` button and select faders and pans. Press `exit`.

Press `preview`. The preview button pulses. The AUTO button on Xynergi or on a Fairlight Sidecar will now put its corresponding path into Preview mode.

Press `AUTO`. The Level and Pan backgrounds go `yellow`, indicating that those parameters are in Preview.

You can now move these controls, which would not be possible if they were in **Read**. The `punch IN` command also becomes available. This takes the system from Preview to **Write**.

Having obtained the settings you want, use `punch IN`, `auto punch` or `fill range` to write those values to the automation. In the first two cases (punch in and auto punch) the previewed values will start writing when you first punch in, but you can change them freely afterwards. See below for more information about `fill range`.

Join

Overview

Join allows you to "carry" parameter values from one place to another.

In brief:

- Write some data into the automation

- Locate to another timecode.

- Press the Join soft key and continue writing with the same values as when you last stopped.

Details

Whenever the system comes out of Write mode, it remembers the values of all the parameters that were being written.

Pressing Join causes the system to re-enter **Write** mode, and also to assert all the remembered values. This is useful for setting a scene or section balance as follows:

- Starting writing automation anywhere in a scene or section.

- Adjust parameters until you are happy with the sound.

- Now go back to the head of the scene and press {Join} then `Play`.

Write Recalls

Overview

Used with the Library and touch settings, to make presets trigger the automation.

When {Write Recalls} is toggled on, any enabled parameter that changed by loading a Library preset behaves as though physically touched. This means that, if Touch write is on and the parameter is enabled for the relevant signal path, it will go into Write.

This is a handy way of writing snapshots into the automation, like this:

- Create a series of snapshots (presets) of the whole console, containing mixes of different sections of the project. To save a preset, press `Mixer Megamode` ➔ `Lib` ➔ `Console` ➔ `Save`, then give your preset a name.

- Prepare to record automation by enabling all the parameters in your snapshot, turn on Touch AutoEnable in the Mixer Menu, and turn on Touch Latch in the Mixer Megamode.

- Locate to the timecode where you want to write a snapshot.

- Turn on the `Write Recalls` soft key.

- Press Lib ➔ Console, click the snapshot you want at this timecode and click `Apply`. The system will go into **Write** with your snapshot loaded. Press `Play` and then `Stop` to write the values. Now move to the next timecode and repeat this step.

Fill Range

Overview

Fill Range converts Previewed parameters into Written parameters across the range, as though an instant automation pass had been performed.

In brief:

- Put paths into Preview

- Change the values of enabled parameters

- Make a range

Press the `fill range` soft key to write the new values over the range.

Get Ready

Press the green `Mixer` button.

Press the `mix menu` button.

Press the `mix ON` button so that it is illuminated.

Details

Enable a path by selecting it.

Press `enable params` and select faders and pans. Press `exit`

Locate to the desired IN point and press `From`.
Locate to the desired OUT point and press `To`.

Press `Preview` to toggle it on. The preview button pulses. The AUTO button on Xynergi or on a Fairlight Sidecar will now put its corresponding path into Preview mode.

Press `AUTO`. The Level and Pan backgrounds go `yellow`.

Change the static values of Level and Pan as desired.

Press the `fill range` soft key.

Note: `Write` / `Trim` has no effect. Values are always written by `fill range`.

Isolate

Overview

Isolate is a way of disconnecting the automation from selected signal paths.

When a path is isolated, all its controls are manually operated, and no automation data can be written for them.

Get Ready

Press the green `Mixer` button.

Press the `mix ON` button so that it is illuminated.

Operation

Pressing `isol` brings the SEL display to the screen.

Any path you select will be isolated from the Automation system.

You may need to select `Tracks`, `Lives` or `Buses` first, then press the path buttons that you want to isolate.

Press `exit` to return to the Mix menu

Auto Safe

Overview

Auto Safe prevents signal paths from entering **Write** or **Trim**.

Safe paths still **Read** their automation data, if any exists.

Get Ready

Press the green `Mixer` button.

Press the `mix ON` button so that it is illuminated.

Operation

Pressing `auto safe` brings the `SEL` display to the screen.

Any path you select will be safe from changes to Automation data.

You may need to select `Tracks`, `Lives` or `Buses` first, then press the path buttons that you want to isolate.

Press `exit` to return to the Mix menu.

Files

Overview

Automation data is treated separately from other Project files.

This guide shows you how.

Get Ready

Press the green `Mixer` button.

Press the `mix ON` button so that it is illuminated.

Press the `file` button.

Operation

The `file menu` uses a list of files shown in the Pad. Use the `file menu` soft keys as follows:

`System Mix` ➔ if YES, saves the current mix with the Project. This includes a statix mix, plus the most recent version of the automation i.e. the one currently in memory (if any).

`Sort` ➔ determines the display order of mix files

`Save` ➔ Press this soft key, then type a name and press ENTER.

`Load` ➔ Loads the mix currently showing in the Pad list.

`New Mix` ➔ Zeroes all automation data

`Delete` ➔ Removes the mix file currently showing in the Pad.

`Carry Over` ➔ lets you load a new Project with the current mix

Automation Curves

Automation data for tracks can be shown on the Edit Screen using the following command sequence:

View➔Smart Pane➔Automation, or by pressing the `Curves` soft key in the Mix Menu.

Click to toggle automation graphs on or off

Click to remove automation display parameter

Pull down menu of automation display parameter

Preset controls

Edit Controls

To display automation curves on one or more tracks:

Step 1   Select the tracks where the automation is to be displayed

Step 2   Click the **Display** button

Step 3   Select the parameter to be displayed – use either the pull down menu or a preset

Note that each track may show its own selected parameter. The Display button is also used to turn the curves off.

Presets

Presets are used to quickly access a particular parameter. The first six buttons are provided with factory presets, but you can replace them with your own.

To apply a preset, simply click on it when the Display button is selected.

To create a preset:

Step 1   Turn the **Display** button on if necessary

Step 2   Select a parameter to be displayed using either the pull down menu

Step 3   Click the Save button

Step 4   Click a preset button

Step 5   The system will request a name for the preset. You may use the suggested name or choose your own.

The Curve Display

Automation data is shown as a green line, with the name of the parameter to the right of the cursor.

For switched parameters like Mutes, the line is shown high when the channel is on, and low when it is muted, as shown below.

When writing automation, the graph is shown in red. Existing automation data is shown in green, allowing you to target punch out points easily.

Note that, in this case, the red line continues past the cursor. This shows accurately what will happen when Write is exited, because the system On Stop setting is EVENT, meaning the current value will be held until the next change in automation value.

Here is how it looks when On Stop is set to HOLD:

In this case the red line continues at the same value to the end of the screen, because this value will be written to the end of the project.

Editing Automation Curves

Automation data can be edited graphically using the mouse. To do this, click the **Edit** button.

There are two ways to edit, Events and Draw.

Events

To edit Events, click on the **Events** button.

Events are shown as red squares. Note that each event is a value of the parameter. After an event the value stays constant until just before the next event, when it ramps up or down to the next value. When events are close together, as shown above, they are joined by a smooth line, reflecting this ramp. Otherwise the values are held constant and shown with a horizontal line.

While Events are displayed you may do any of the following:

- Move an individual event with the mouse.

You may change the event value (move up or down) or its timecode (move left or right). The timecode position is bounded by the next and previous events.

The timecode and current value of the event are shown in the Automation Edit group of the Smart Pane.

- Select one or more events by making a box (marquee) with the mouse. Selected events may be:

  - Dragged up and down or left and right. Left and right movement is bounded by the next and previous events. The value of the highest point is shown in the display above.

  - Deleted using the Del key

- Create a new event by clicking where there is currently no event.

- Combine moving and creating by clicking above or below the line. If there is no point at the timecode where you clicked, one will be created, but if there is one within a quarter-frame of where you clicked, it will be raised or lowered to your mouse position.

Drawing

Drawing allows you to create automation data using the mouse. To begin drawing, click the **Draw** button.

Now click and drag on any selected track to create or replace automation data.

Undo

Automation changes made by editing or redrawing can be undone by pressing the **Undo Mix Pass** soft key in the Mix Menu.

There is only a single level of Undo, so only the last change you made can be reversed.

Editing

Cut and Paste

Overview

In this menu, we cut audio to the clipboard, then paste it using the **Enter** key.

The cutting action is performed by the **cut head**, **cut tail** and **cut clip** (or **cut range**) buttons.

Note: copy and paste is performed exactly the same way as cut and paste, except that you start by pressing the **copy** mode button instead of the **cut** mode button.

Note: **erase** is similar to **cut** (without the paste) except that the clipboard is not used.

To use this Help item, you need to load a Project containing clips. The system comes with a demo project. To load it, consult the following Xplain item: How to ➔ Files ➔ Load Demo

Get Ready

Press the green **Editor** button.

Press the **cut** button to access the Cut menu.

Press the **range** key to turn it OFF.

For help with ranges, see How to ➜ Editing ➜ Using ranges

Operation

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the `Bank` key.) The target clip should now be the only **red** clip on the screen. **Red** means ready to edit.

Press the `cut clip` button. The clip is now on the clipboard. Move the transport. The clip's "ghost" shows where it can be pasted. Press another track number. The ghost moves to the new track. Press `Enter` to paste the clipboard contents (once or many times).

Now press `cut head` (or `cut tail`). The front (or back) of the clip is now on the clipboard. Press `Enter` to paste the clipboard contents.

Using Ranges

Overview

A range is the time span between two points, called the IN and OUT points, or the From and To points.

When a range is present, the button labelled `cut clip` or `copy clip`, `erase clip` etc. changes to `cut range`, `copy range`, `erase range`. In this situation, the basic editing commands, `cut`, `copy`, and `erase`, target the parts of clips that lie inside the range.

Some other commands, like `Nudge`, `Fade` and `Clip Level`, target only whole clips that lie inside the range.

Pressing the `range` button toggles the range on and off.

Get Ready

Press the green `Editor` button.

Press the `cut` button to access the Cut menu.

Press the `range` key to turn it OFF.

Operation

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the `Bank` key.)

Press `from`. A range is begun at that point. Now `Jog` to the right. The range is extended, and the clip goes **red** inside it. Press `to`. The range is now fixed.

Investigate `cut range`, `cut head`, `cut tail` (use `undo` in between).

From and To Menu

Now hold down the `from` button

If you now pressed the `mark` soft key, the system would display a list of marks that you could choose as the from point.

Instead, press the `time` soft key. Now use the Numeric Keypad to type a timecode from point. The numbers will be displayed over the Edit Screen. Now press `Enter` to lock in your from point.

Razor Cuts

Overview

Normal (non-razor) editing targets **red** clips, but does not affect other clips. This works well for video-based editing where the sound is synchronised to fixed picture frames.

When working on radio spots, interviews and music pieces, we sometimes need to cut time as well as audio. This is just like people used to do on tape.

The razor mode causes time to be manipulated as well as audio.

When you cut audio, the time it occupied is removed from the track, and everything afterwards moves earlier.

When you paste audio, the time it occupies is inserted into the track, and everything afterwards moves later.

Razor editing always uses a range.

Get Ready

Press the green **Editor** button.

Press the **cut** button to access the Cut menu.

Operation

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the **Bank** key.)

Create a range within the clip using **from** and **to**. (For help with this, see How to ➔ Editing ➔ Using ranges)

Press **razor**. Press **cut range**. The width of the range is cut out of the track, like a piece of tape, and downstream clips move forwards. Investigate **cut head** and **cut tail** (use **undo** in between).

Move inside another clip and press **Enter**. The clipboard is pasted, and the time it occupies is inserted into the track, like splicing tape.

Trimming clips

Overview

A clip is the visual representation of a real piece of recorded audio, located on hard disk. Editing a clip means changing which part of the recorded audio is played.

When cutting or erasing parts of a clip, you are reducing the amount of accessed audio.

Trimming a clip also means changing which part is accessed, but you can increase or decrease the length that is played. This is done by relocating the clip's **head** and **tail** , thereby exposing more or less of the stored audio.

Get Ready

Press the green **Editor** button.

Operation

Press the **trim** button. If the word slip is highlighted, press it again so that trim is highlighted.

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the **Bank** key.)

Press and release **trim head**. The head of the clip is trimmed back to the cursor location. Jog back a bit and press **Enter**. The head is extended to the new position.

This time, press and hold **trim head**. The system exposes the whole head of the original recording. While holding down **trim head**, Jog over the exposed audio and choose where to trim it. Release **trim head** when ready. The clip is trimmed to your current position.

Slipping clips

Overview

Slipping clips is an alternative to Cut and Paste (see How to ➜ Editing ➜ Cut n Paste). It has the advantage of leaving the clipboard undisturbed, but does not allow moving clips to other tracks.

We can also **slip** the **sync** of a clip. This means that the clip stays in the same place, but the audio inside the clip slips earlier or later. This means exposing a different portion of the original recording.

Note: another quick way to slip a clip is to drag and drop it with the mouse. You can drag it to another track as well. Holding down the SHIFT key holds sync while you drag to another track.

Get Ready

Press the green **Editor** button.

Operation

Press the **trim / slip** button. If the word trim is highlighted, press it again so that slip is highlighted.

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the **Bank** key.)

Press **slip clip**. Jog forward by about one second and press **Enter**. The clip moves by the distance you jogged. Jog some more and press **Enter** again. You can keep doing this.

This time, press and hold **slip clip**. Keep holding it down, Jog forward, then release. This is a faster way of doing the same thing.

Press the **Sync Point** soft key. Now, when you Jog and press **Enter**, the audio inside the clip is slipped.

Track Selection

Overview

Most editing operations work on multiple tracks at the same time.

All the **red** clips or parts of clips are affected.

This guide will show you how to select tracks.

Get Ready

Press the green **Editor** button.

Operation

The picture keys display 12 tracks while the Editor Megamode is active. Press a Track button to toggle it in and out of the Track Selection. Use **Bank Up** and **Bank Down** to access blocks of 12 tracks.

To select just one track, double-press its button.

To select a range of Tracks, hold one Track button down and double-press another.

To slide the current track selection up and down, hold the **Track Up**/**Down** button, and turn the **Jog Wheel**.

For a wider track selection, press **SEL**.

Sel Operation

In **SEL** mode, the picture keys display 48 tracks. Use **Bank Up** and **Bank Down** to access another block of 48.

You have the same selection methods e.g. using double-press, as in the normal Edit Megamode.

SEL mode has two ways of working: momentary or latched.

For latched mode, press and release **SEL**. Make your selection of tracks, then press **exit**.

For momentary mode, press and hold **SEL**. Make your selection of tracks, then release **SEL**.

Fade and Crossfade

Overview

In the fade menu we can place level ramps at the begining (fade-in) and end (fade-out) of each clip. A fade-in starts from silence and ends at the full level of the clip, and a fade-out does the opposite.

Crossfades between two clips are created by first layering one clip on top of another, then putting a fade in the upper clip. This induces a complementary fade in the lower clip.

For clarity while reading this Help item, turn on Display Layering by clicking **View ➜ Display Layering** above the Edit Screen.

We can also control the fade profile i.e. its shape, using the X-Level and X-Point parameters. To find out about these, use Button-Help i.e. hold down the **Xplain** key and press the appropriate Soft Key.

Get Ready

Press the green **Editor** button.

Operation

Press the **fade** button.

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the **Bank** key.) The target clip should now be the only **red** clip on the screen. **Red** means ready to edit.

Press the **fade head** button. The clip now fades from its beginning to the cursor position. Move the transport a little to the right and press **fade tail**. These two commands are used to create most simple fades. Press **UNDO** (this will simplify the next step).

Now press the **copy** button.

Locate to the middle of the clip where you placed fades. Press the **copy clip** button.

Now **jog** about half the clip's length to the right and press **Enter**. You have pasted a copy of the clip on top of itself.

The beginning of the newly-pasted clip now interacts with the clip underneath, inducing a crossfade. You can see the line of the crossfade in the lower clip. Move the top clip backwards and forwards to see how the fades interact. Also, go back to the Fade Menu and experiment by changing the fade-in point.

Fades are explored in much more detail in the chapter called Editing.

Clip EQ

Overview

The clip eq menu allows you to add a four-band equalizer to every clip.

The display of clip eq is shown in the Clip EQ Smart Pane, above the Edit Screen. This comes on automatically when you enter the clip eq menu.

In Clip EQ only one track is active. Even if many tracks are selected, only the most-recently selected will be affected. This track has a blue label in the Edit Screen.

Clip EQ does not use a range.

Get Ready

Press the green **Editor** button.

Operation

Press the **clip eq** button.

Locate the transport so that the cursor crosses the middle of (at least) one clip. Identify the track containing that clip, and double-press its button to make it the only selected track. (If necessary, use the **Bank** key.) The target clip should now be the only **red** clip on the screen. **Red** means ready to edit.

Press the **edit** soft key. At the top of the Edit Screen, the value grid shows the EQ parameters of the red clip. Press a **number** in the Numeric Keypad to access the same position in the value grid. Now use the **Jog Wheel** to change it. You can hear the changes by playing over the clip. Hint: while over the clip, hold **loop** and press the **clip** soft key.

When all parameters are set, press the **apply** soft key or **Enter**

Clip EQ is explored in much more detail in the chapter called Editing.

Acceleration

Overview

Normal cut and paste can go much faster using modifier keys.

The modifier keys are: ctrl, SHIFT, Track⇕ and Zoom. To increase your speed, practise using them with your left hand, while your right hand uses the Jog Wheel and the Clip, Head and Tail keys.

Get Ready

Press the green **Editor** button.

Press the `cut` button.

Please press the `range` button until it is OFF.

Operation

Getting the right location, track selection and view use at least half of your editing time. This can be speeded up as follows:

Jog Speed: hold down `Ctrl` or `SHIFT` or `both` to `jog` ever faster.

Track Selection: hold down `Track up`/`down` while `jogging`.

Time Zoom: hold down `Zoom` while `jogging`.

Track Zoom: hold down `Ctrl` and `Zoom` while `jogging`.

Locate the transport so that the cursor crosses the middle of a clip. Make its track the only selected one. (If necessary, use the `Bank` key.) The target clip should now be the only **red** clip on the screen. **Red** means ready to edit.

- Hold down `Track⇕` and press `cut clip` / `head` / `tail`. Keep holding while turning the Jogger Wheel to move to another track. Release `Track⇕` to drop the cut clip.

- Press and hold `cut clip`. `Jog` forward and release `cut clip` to drop the cut clip. You can do the same with `copy`, `slip` and `trim`.

These moves feel awkward at first, but remember your first mouse click-and-drag? With practise you'll become a virtuoso editor!

The Numpad

The Numpad, or Numeric Keypad, is the center of a great deal of Xynergi activity. This chapter explains how to use it, and gives more detail about its surrounding keys.

Parameter Entry

Often you need to enter a numerical value. This is normally terminated by pressing the Enter key. The Jog Wheel and the **+** and **–** keys can often be used to raise or lower a value. [In the picture they are swapped. Sorry.]

Loc and Set

The system maintains three Locators. They are very useful for quick marking of positions and returning to them. They are not saved with projects, nor remembered between sessions.

The **Set** and **Loc** buttons are used to store and retrieve these locators. They can be used in both momentary (hold down) or latched (press and release) mode.

To store the current timecode into a location (momentary mode):

Step 1　　Hold down the **Set** button

Step 2　　Press the **1**, **2** or **3** button

Step 3　　Release the **Set** button

The same thing in latched mode:

Step 1　　Press the **Set** button

Step 2　　Press the **1**, **2** or **3** button

Step 3   While **Set** is latched, you may store other timecodes by pressing the **1**, **2** or **3** button

Step 4   Press the **Set** button to unlatch it

To retrieve (locate to) the timecode stored in a location (momentary mode):

Step 1   Hold down the **Loc** button

Step 2   Press the **1**, **2** or **3** button

Step 3   Release the **Loc** button

The same thing in latched mode:

Step 1   Press the **Loc** button

Step 2   Press the **1**, **2** or **3** button

Step 3   While **Loc** is latched, you may locate to any stored timecode by pressing the **1**, **2** or **3** button

Step 4   Press the **Set** button to unlatch it

Notes: Before you Set a timecode into a Location, its value is zero (and can be used to locate there)

The stored timecodes include only whole frames, so you can only use them to locate to frame edges. This makes them inappropriate for holding fine edit points. For these you should use Marks (see Using Marks in the How To Chapter, Basics section).

Fader Sets

When used with external faders (Fairlight Xe6, Sidecar or Mackie fader blocks) it allows different combinations of channels to have their faders mapped to the control surface.

To activate a fader set (momentary mode):

Step 1   Hold down the **Fader Sets** button

Step 2   Press a button from **1** to **9**

Step 3   Release the **Fader Sets** button

The same thing in latched mode:

Step 1   Press the **Fader Sets** button

Step 2   Press a button from **1** to **9**

Step 3   While **Fader Sets** is latched, you may choose any fader set by pressing a button from **1** to **9**

Step 4   If desired, press the **Fader Sets** button to unlatch it – if you prefer, you can keep the Fader Sets layout handy for more changes.

Mixer Set

Mixer Set is an option that takes over some of your faders and automatically places selected channels on them. As you select and de-select channels, they dynamically come and go from the faders. This makes it very easy to mix a large number of channels with a small number of faders.

By default, 12 faders are allocated to the Mixer Set (but you can change this as explained below). If you have more than 12 faders, the remaining ones continue to display the contents of whichever Fader Set you have chosen. So you can have some fixed allocations, and some dynamic ones.

To toggle Mixer Set on or off:

Step 1   Hold down the **Fader Sets** button

Step 2   Press the **0** button.

Step 3   Release the **Fader Sets** button

The same thing in latched mode:

Step 1   Press the **Fader Sets** button

Step 2   Press the **0** button.

Step 3   If desired, press the **Fader Sets** button to unlatch it – if you prefer, you can keep the Fader Sets layout handy for more changes.

Note: There is also a Mixer Set button in the Xe-6 Fader set. To use this, hold down the **BLUE** button and press **MSET**.

To choose the number of faders dedicated to Mixer Set, do the following:

Step 1   Press the **Fader Sets** button

Step 2   Hold down the **0** button for a couple of seconds.

The numbers 1 to 24 appear on the track keys. The selected number corresponds to the number of faders in your Mixer Set.

Step 3   Choose a number from **1** to **24**. If you choose a number that is greater than the number of faders in your system, Mixer Set will not work correctly.

Step 4   If desired, press the **Fader Sets** button to unlatch it – if you prefer, you can keep the Fader Sets layout handy for more changes.

Meter Sets

The system supports up to 9 meter sets, each containing 8 (mono) audio sources. The meters are displayed in the right half of the Pad, and also on the Mixer screen.

To select a meter set:

Step 1   Go to the Setup Megamode by pressing the green **Setup** button

Step 2   Press the **Meters** button

Step 3   Press the **Numpad** number corresponding to the meter set you want.

To learn more about meters, please see the chapter Meters on page 202.

Go To

Used to quickly locate to either a Timecode position, a specific clip name or a stored Mark.

General Go To Usage

Step 1   Press the **Go To** button

Step 2   Select an option from the Soft keys (note: Timecode is selected by default)

Go To Timecode

Step 1   Press the **Go To** button

Step 2   Type a timecode address using the Numpad keys

The number you are typing is shown on the Edit Screen

If subframes are displayed, type ten digits, otherwise type 8 digits

Numbers wrap around if you keep adding them

Press Clear to reset all numbers to zero

Press + [or −] to add [or subtract] what you have typed from the existing number

Step 3   Press the **Go To** button again (or **ENTER**) to locate to the displayed timecode, or **Play** to locate and go into play immediately, or press **Esc** (upper left key) to close the dialog without locating anywhere

Capture Timecode

Sometimes you need to capture the current timecode and then do something with it. For example you might want to move the transport exactly 2 seconds and 3 frames backwards. To capture timecode:

Step 1   Hold down the **BLUE** key

Step 2   Press the **Go To** button

Step 3   Release the **BLUE** key

You may now continue with the Go To Timecode procedure. To complete our example of going back by 2 seconds and 3 frames, continue like this:

Step 4   Type the **−** button

Step 5   Type the numbers **203** (if subframes are not being displayed, otherwise **20300**)

Step 6   Press the **Go To** button again (or **ENTER**), **Play** or **Esc**

You might press the **Esc** key if you simply wanted to capture the current timecode for another purpose, such as setting an Edit Range.

Go To Mark

A Mark is a stored timecode. Marks are created by pressing the **Mark** key, which is visible in the Edit Megamode. You can press it at any time, in any transport mode. Marks are shown above the track display in the Edit Screen, as yellow pointers.

To locate to a Mark:

Step 1   Press the **Go To** button

Step 2   Press the **mark** soft key

Step 3   The Marks dialog appears on the Edit Screen.
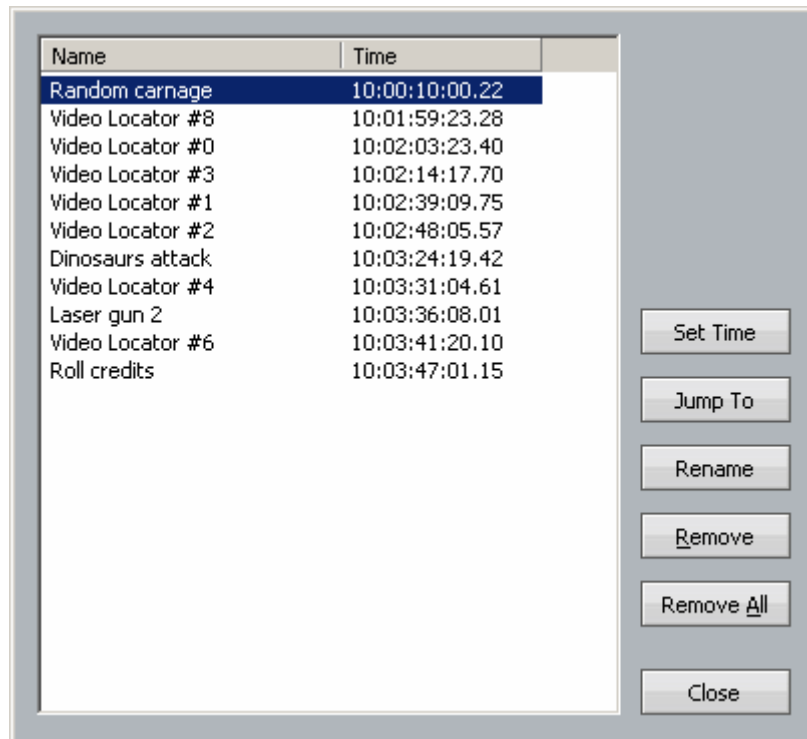
There you can choose a Mark with the mouse (or scroll down to it with the Jog Wheel, or step down to it with the **+** key.

Step 4   Having chosen your Mark, press the **Go To** button again (or **ENTER**) to locate to the displayed timecode, or **Play** to locate and go into play immediately, or press **Esc** (upper left key) to close the dialog without locating anywhere anywhere.
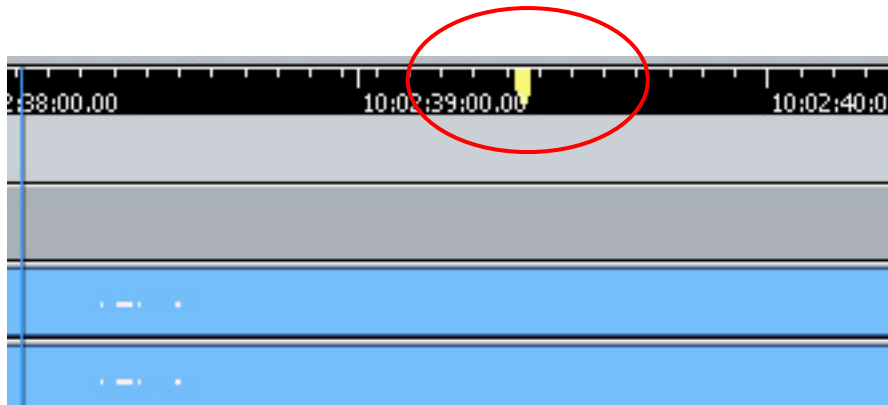
While the Marks dialog is open, you can do all sorts of other things to Marks, like rename them, change their timecode location, remove them from the list, and so on. This requires mouse clicking, and uses familiar dialogs.

Note: double-clicking with the mouse on a mark locates you there without closing the dialog. This can be very useful.

Go To Clip

A Clip is a piece of audio. Clips are created by recording and editing. They all have names.

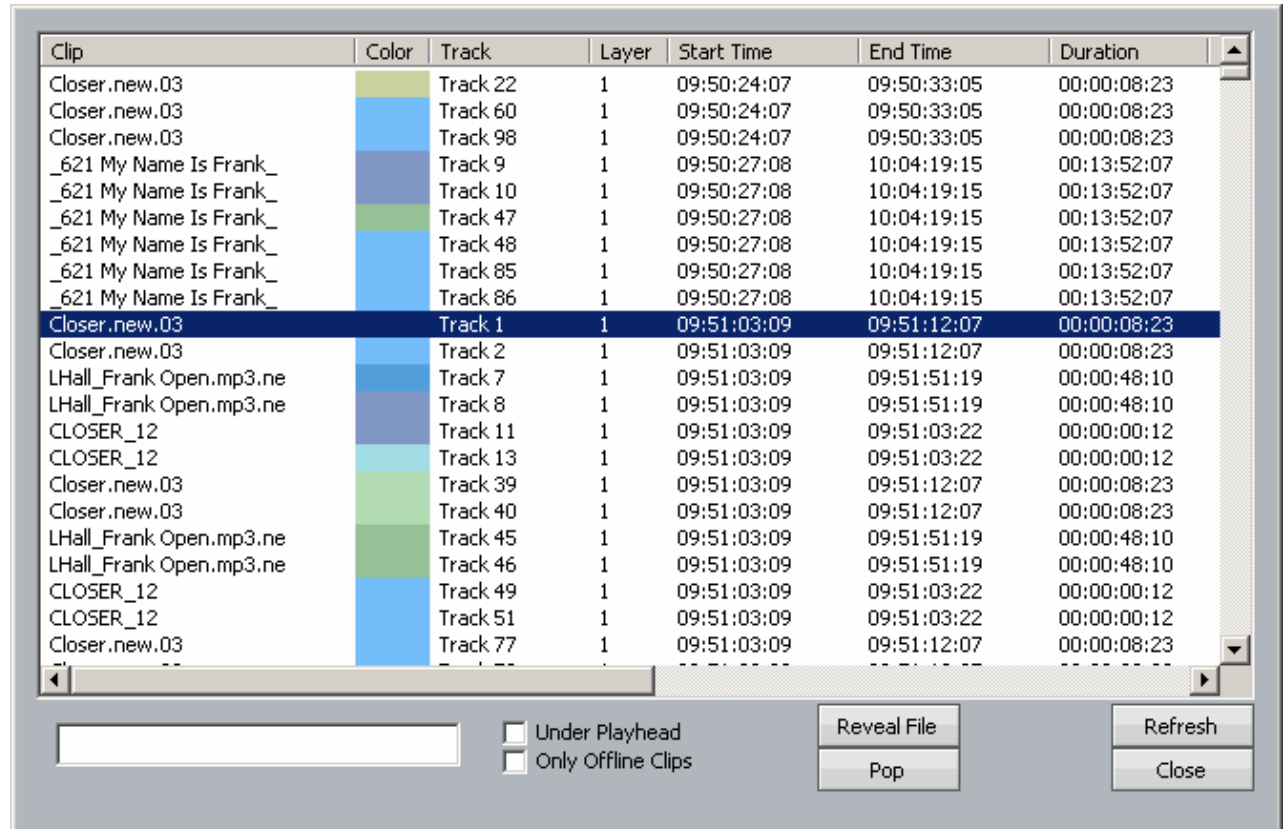Go To Clip allows you to display a list of clips in the project, then choose one and locate to it. Like this:

Step 1   Press the **Go To** button

Step 2   Press the **clip** soft key

Step 3   The Clip Search dialog appears on the Edit Screen..

This dialog displays every clip in the project. You can filter it (reduce the number of clips displayed) in a number of ways. The most important is to type in all or part of a name, into the Search box (as shown above). This will hide all clips except those with names containing what you typed. In the example, shown above, all the clips contain the letters "pa".

Step 4   Having chosen your clip, press the **Go To** button again (or **ENTER**) to locate to the clip's start timecode, or **Play** to locate and go into play immediately, or press **Esc** (upper left key) to close the dialog without locating anywhere anywhere. Or you may double click on the name of any clip to locate to its position.

While the Clip Search dialog is open you can:

- Filter the list by typing a sequence of characters in the text box. Only clip names containing that sequence will be displayed. To quickly move the cursor into the Search field, press the **Search** soft key.

- Sort the clips in track order, start order, end order or duration or clip colour, by clicking on the column header. Clicking the header a second time reverses the sort order.

- Double click any clip to locate to its timecode.

- Press the **Playhead** soft key, or select the **Under Playhead** checkbox, to display only clips touching the cursor. This is updated as the transport moves.

- Press the **Pop** soft key, or select the **Pop** button, to bring the currently selected clip to the top layer on its track. This can be used to manage multiple takes of the same recording, layered on a single track.

- Press the **Offline** soft key, or select the **Only Offline Clips** button, to reduce the list to only those clips for which media are not currently available.

- Click the **Reveal File** button to display a Windows Explorer window, showing the file containing the media for the clip.

- Resize the dialog by dragging with the mouse on any of its sides.

- Change the order of displayed fields by dragging the field names horizontally with the mouse.

The Clip Search dialog can be displayed at any time using the Edit Screen menus:

View ➔ Clip Search

This allows you to keep it on the screen while you do other types of editing.

Jump by Seconds

The Jump commands move the transport to special destinations, including marks and clips.

You can also use **Jump** with the **Numpad keys** to move by a number of seconds, by a single frame, or to an exact frame edge.

To jump by seconds:

Step 1   Hold down **Jump Left** (to go backwards) or **Jump Right** (to go forwards)

Step 2   Press a button from **00** to **9**

Step 3   Press more **numpad** buttons if you want to make more jumps

Step 4   Release the **Jump** button

              If you press 1, the transport jumps by one second

If you press 2, the transport jumps by two seconds (and so on)

If you press 0, the transport jumps by ten seconds

If you press 00, the transport jumps by one frame

If you press Clear, the transport jumps to the previous frame edge (unless it's already on one)

The REW and FF buttons can also be used to Jump by seconds.

This has two advantages over using the Jump keys a) it's faster because there is no menu change or numpad layout change b) it has priority over all other numpad functions except Blue, which means it will work any time regardless of what is displayed on the numpad. This makes it great for use in macros.

Review

The Review button causes the transport to jump back by a number of seconds, then start playing. It allows you to play over editing work that you have just completed.

When the system starts up, Review is set to 4 seconds. You can change that using the Numpad, as follows:

Step 1   Hold down **Review**

Step 2   Press a button from **1** to **9**

Step 3   Press more **numpad** buttons if you like

Step 4   Release **Review**

The review time is set to the number you pressed, and the review command is issued each time you press a number.

Play Jog

Play Jog toggles between playing and jogging.

If the transport is in any mode except Jog, this key initiates Jog mode. When Jog is active, the key is illuminated in blue.

If the transport is already in Jog, this key initiates Play mode. When Play is active, the button is bright yellow.

If the **BLUE** key is held down when Play/Jog is pressed, the transport goes into Shuttle mode (constant speed, forward or reverse, controlled by the Jog Wheel). When Shuttle is active the key flashes blue.

When Jog mode is active, the transport moves as you turn the Jog Wheel. Audio is heard on all tracks, up to about four times play speed (depends on number of tracks playing, and speed of disk system).

Jog Speed

Jog Speed depends on Zoom setting – the wider you zoom, the faster you jog. This can be changed in two other ways:

Hold down **Jog** and select **Jog Gear** on the soft keys.

- Hold down **Zoom** and press-and-release **Jog** – this sets the jog gear ratio to three turns per second = play speed, at the current zoom setting..

While in Jog mode,

ctrl + **Jog Wheel** ➔ go 5 times faster.

SHIFT + **Jog Wheel** ➔ go 64 times faster.

SHIFT +**ctrl** + **Jog Wheel** ➔ go 512 times faster.

Shuttle

BLUE + **Play Jog** button ➔ enter Shuttle mode.

When Shuttle is active, the transport moves forward or backward, using the Jog Wheel as a speed dial. Audio is heard with shuttle speeds up to about four times play speed (depends on number of tracks playing, and speed of disk system).

While Shuttle is active, the **REW** and **FF** buttons show which direction the transport is moving, and can be pressed to change direction while maintaining constant speed. When shuttle speed is equal to play speed, the **Play** button lights up. When shuttle speed is zero, the **Stop** button lights up.

Loop Jog

Jogging has two types: linear and loop.

Linear jogging is just like playing, but with variable speed depending how fast you turn the Jog Wheel.

Loop jogging plays a tight loop, repeating the same section over and over at normal speed. The default loop length is one frame, which means one frame of audio is repeated. As you turn the Jog Wheel the transport moves forwards or backwards, and so does the playback loop.

Loop jogging sounds quite harsh, but it is a very useful analytic tool for editing. It allows you to hear the tone or pitch changing in a piece of audio, for example the onset of sibilant speech, or a chord change in an orchestral piece. You can position the loop up to, over or after the Cursor position i.e. the Play Head, where editing is normally performed. In other words you can hear the audio up to a cut point, or over the point, or after it.

You can also set the length of the loop from half a frame up to 20 frames. Here's how:

Step 1   Hold down **Jog**

Step 2   Press a button from **00** to **9**

Step 3   Release **Jog**

If you press **0**, the system toggles between linear jog and loop jog (at your last loop width)

If you press **00**, the system sets loop jog at a width of half a frame

If you press **1**, the system sets loop jog at a width of one frame

If you press **2**, the system sets loop jog at a width of two frames (and so on up to **9**)

If you press **+**, the system sets loop jog and increases width by one frame

If you press **−**, the system sets loop jog and decreases width by one frame

The Jog Menu

Jog behaviour can also be controlled as follows:

Step 1   Hold down **Jog**

Step 2   Use soft keys to control behaviour

- Loop on / off – toggles loop and linear jogging

- Loop width – can be set in milliseconds (minimum 20 ms)

- Jog Gear – changes gear ratio for linear jogging

- Jog Dim – allows the level to be dropped automatically in loop jog

Editing

Introduction

This chapter goes into more detail about Xynergi editing.

Edit Modes

Xynergi editing uses six main modes, selected in the Edit Megamode:

Copy   copies the selection to the clipboard (Enter pastes it into the tracks)

Cut   cuts the selection to the clipboard (Enter pastes it into the tracks)

Erase   erases the selection.

Trim   retracts or extends the heads or tails of clips.

Slip   one-step movement of clips through time (not using clipboard).

Fade   fades or cross-fades the selection.

Once a mode is selected, it remains current until another mode is selected.

The Cursor

Most edits are performed at the Play Head or Cursor. This is the vertical line in the center of the Edit Screen.
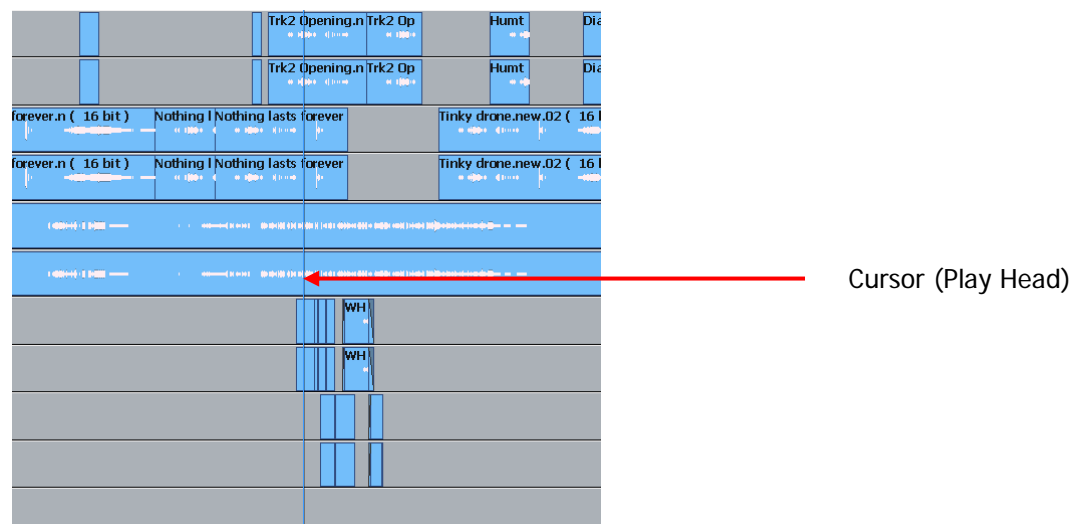
Cursor (Play Head)

Normally the Cursor is stationary, and the clips scroll across the tracks. The audio you hear is the waveform passing the Cursor (hence its name – Play Head).

Moving Cursor

Many products show stationary waveforms with a moving cursor. To show this in Dream II, select **Setup** ➔ **Locked Playhead** from the Edit Screen menu bar.

When this item is ticked, the cursor is stationary, but otherwise it moves.

While the cursor is moveable, you can reposition it by right-clicking anywhere in the Edit Screen and dragging the mouse right or left (audio is not played while you do this) or press the Jog command and use the Jog Wheel (audio is scrubbed if the movement is less than four times play speed).

When re-locking the cursor, its current position is held. This allows you to place it away from the middle of the screen, which can be useful for seeing more of the incoming audio, for example. But if you want to get it exactly back to the center, use the command **Setup** ➔ **Reset Playhead**

Cut and Paste

Whole Clip

To cut and paste a clip:

Step 1   Select a track and move a clip under the cursor.

The clip is red because it is touching the cursor.
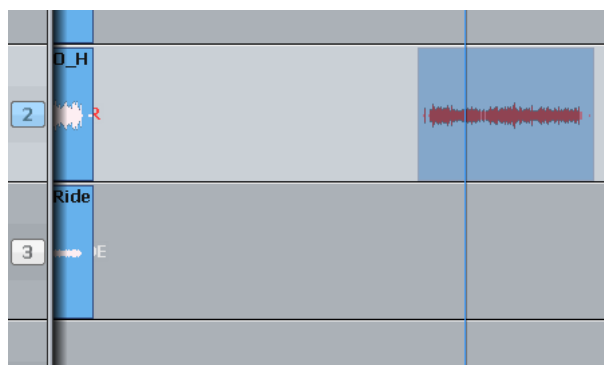
Step 2   Press the **cut** key (if not already selected).

Step 3   Press the **cut clip** key

We see the clip's "ghost". It's a picture of the clipboard ready to be pasted in.

Step 4   Select another track (and/or move to another location)

The ghost shows where the clipboard contents can be pasted.

Step 5   Press the **Enter** key to paste the clipboard.

The clip is pasted.

Head

This time we'll only work with the Head of the clip. That is the part before the cursor.

Step 1   Select a track and move a clip under the cursor.
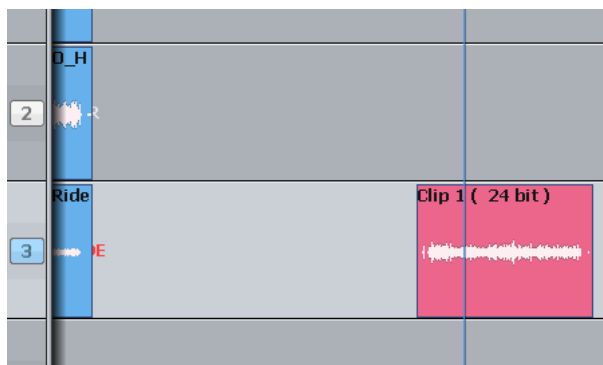
The clip is red because it is touching the cursor.

Step 2   Press the `cut` key (if not already selected).

Step 3   Press the `cut head` key
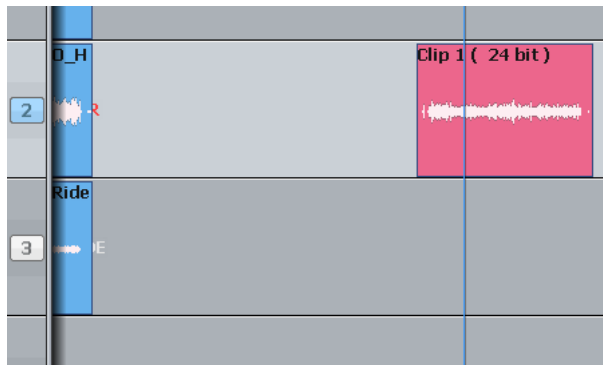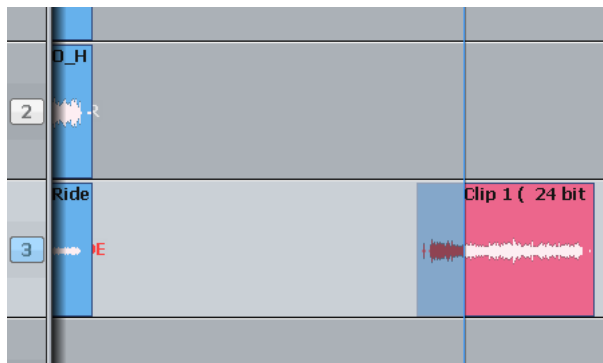
Only the head goes on to the clipboard.

Step 4   Select another track (and/or move to another location)
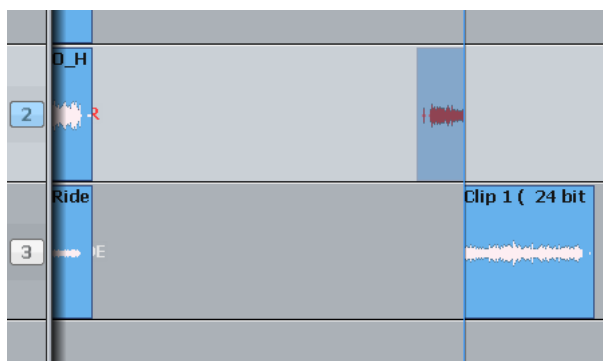
The ghost shows a head-shaped clipboard ready to be pasted. The original tail is now Blue, because its track is not selected.

Step 5   Press the **Enter** key to paste the clipboard.

The clipboard (former head) is pasted.

Range

You can make a range that specifies exactly which part of the clip is affected. The easiest way is like this (more about ranges later):

Step 1   Move the transport where you'd like to start the range.

Step 2   Press the **from** key

Step 3   Move the transport where you'd like to end the range.

Step 4   Press the **to** key
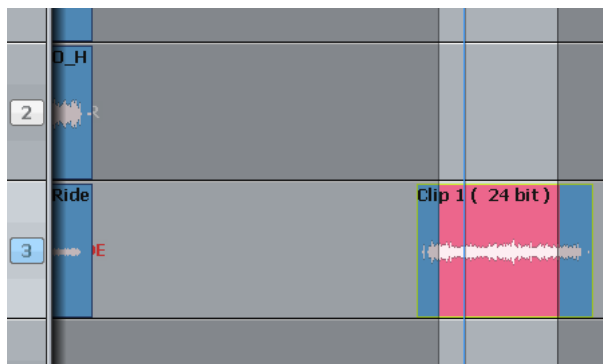
The range is marked in red.

Now we'll cut and paste the audio in the range.

Step 1   Choose the track and set the range (we've just done this)

Step 2   Press the **cut** key (if not already selected)

Step 3   Press the **cut range** key

The audio in the range is moved to the clipboard. We see the ghost.

Step 4   Select another track (and/or move to another location)

The ghost moves to the new track.

Step 5　　　　Press the **Enter** key to paste the clipboard.
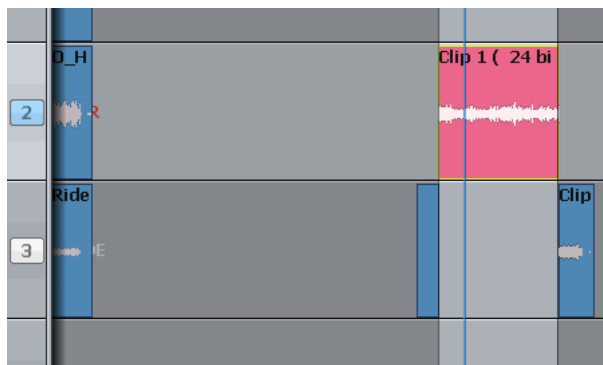
The clipboard (former range) is pasted. The range persists after the edit.
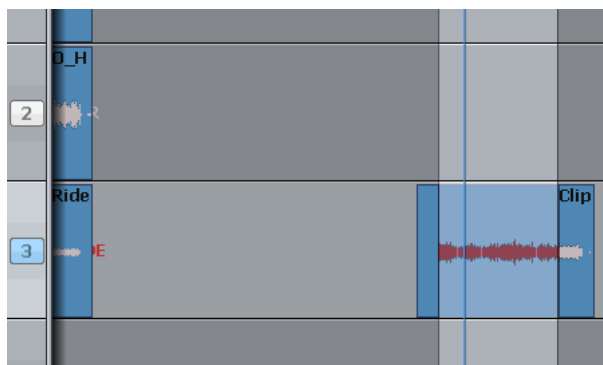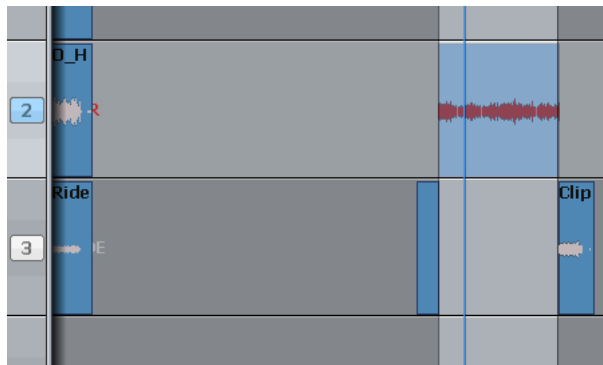
Notes about Cut and Paste

Cut Tail

Works the same way as **cut head**, but cuts the later part of the clip

Range and Head

When a range is active, pressing the **cut head** key cuts the audio from the start of the range to the cursor. This will not work if the cursor is not in the range.

Range and **cut tail** work similarly together.

Multiple Clips and Tracks

When there is no range, the target for editing is all the clips on selected tracks that are touching the cursor. It's easy to tell which, because they are always red.

When there is a range, the target is all the clips (and parts of clips) on selected tracks that are inside the range. Again, the target clips are always red.

An exception – with a range you can use the mouse to deselect a clip. To do this, hold down the **Ctrl** key and click with the mouse. The clip will turn blue, showing that it is no longer selected.

You can also extend the selection using **Ctrl-mouse-click** on a clip. This will cause the range to expand so that it includes the newly selected clip, and it will preserve the existing selection as well.

Pasting

Pasting the clipboard (use the **Enter** key) means putting a copy of it at the current position, on whatever tracks are selected.

You can paste the clipboard contents at any time, not just after a cut operation, and as often as you like.

If there are already clips at the place where you paste, the clipboard is placed "on top" of the existing clips. Only the top layer is heard, unless there is a crossfade between layers (more about that later).

The "shape" of the clipboard's track selection is preserved when pasting, regardless of track selection at that time. For example, if you copy clips on tracks 1 and 3, then select only track 8 and press Enter, the clipboard will be pasted on tracks 8 and 10. The first track on the clipboard is always pasted on the lowest-numbered track in the selection.

Variations

There are a few extra keys which change the functions of Cut and Paste.

All Layers

Sometimes clips are stacked in layers. Of course we only hear the top layer, or crossfades between the top and second layers (more about crossfades later).

You have the choice of cutting only the top layer, or all the layers. The **all layers** key controls this choice. When it is on, you will cut all the layers, and they'll be placed on the clipboard, ready to be pasted. When it is off, you will cut only the top layer.

Note that **all layers** only works with a range.

Hint: if you want to see all the layers, hold down the **takes** button and select the **on/off** soft key, or simply double-press the **takes** button.

Razor

Sometimes it is useful to cut the time out of a track, not just the audio. This is similar to cutting tape.

To cut time as well as audio, turn on the **razor** button. This will automatically turn on **range** and **all layers**.

As soon as you cut something (Head, Tail or Range) the time they occupied is also cut, and all the following clips move earlier.

When you paste (press **Enter**) with **razor** switched ON, the clipboard audio is inserted into the track, pushing all the following clips later. This is true even if **razor** was not ON when the clips were cut to the clipboard. (**cut** and **paste** are really independent commands, each responsive to the **razor** setting.)

Track Sel

A handy device for moving between tracks is the **track up/down** button. If you hold it down and turn the Jog Wheel, the whole track selection will move up or down. You can also use the **+** or **−** keys with the **track up/down** button

Two-Handed Editing

Using two hands for cut and paste can save a lot of time. The key is to hold down the "action" key – **cut head**, **trim tail**, **copy clip**, **erase range** etc – then select the destination timecode and tracks – then release the action key to paste the clipboard.

Example 1

Press down the **cut clip** key (don't release it yet!)

With your other hand, jog the transport forward

Release the **cut clip** key – the clip you cut is now pasted where you jogged.

Example 2

Press down the `cut clip` key

With the same hand, press down the `track up/down` button

With your other hand, turn the jogger wheel to change the track selection

Release the `cut clip` key – the clip you cut is now pasted on a different track.

With practice, two-handed editing can substantially increase your efficiency at repetitive editing tasks.

Copy

`Copy` works exactly the same way as `Cut`, except that the audio is not removed to place it on the clipboard, only copied. Pasting after `copy` is the same as after `cut`.

Erase

`Erase` works exactly the same way as `Cut`, except that the audio is not placed on the clipboard.

The clipboard remains unchanged, so its previous contents are ready to paste at any time.

Edit Soft Key Commands

The following soft keys are available when the `cut`, `copy` or `erase` modes are current.

`split clip`
Cuts the clip into two pieces at the cursor position.

`mute clip`
Silences the clip

`cleave clip`
Removes the link between stereo linked clips.

`reverse`
Creates a reversed version of the audio in the selected clip(s) and replaces the original with this reversed version.

`Ghost On`
Toggles the "ghost" image on and off. Some people prefer working without it.

Range On Soft Key Functions

The following additional commands are available when the `cut`, `copy` or `erase` modes are current, if a Range is present.

`split range`
Cuts any clips lying across the ends of the range into two pieces at those range ends.

`fill`
The fill} function is used to automatically repeat a section of audio to fill a Range on a track to create background fills or buzz tracks. The audio used for the fill is the clip currently on the clipboard from the last cut or copy function. Multiple copies of the source may be needed, in which case an overlap is used (see below).

`b/f fill`
Reverses the audio in every second copy of the clipboard used for filling. This can give a smoother effect.

`overlap`
Controls the length of overlap between pieces of audio used in the `fill` command.

To use the `fill` function:

Step 1   Copy (or Cut) the desired audio to the clipboard. The cursor's sync point will be maintained

Step 2   Create a Range encompassing the area to be filled.

Step 3   Press the **fill** soft key.

Razor Soft Key Functions

When **Razor** is ON selected the LCD menu changes:

insert fill   The filled audio is inserted into the track, not written over the original audio in the range.

insert b/f fill   The backwards/forwards filled audio is inserted into the track, not written over the original audio in the range.

overlap   Controls the length of overlap between pieces of audio used in the **fill** command.

insert space   Silence will be inserted from the start of a Range for the duration of the Range.

Paste Special

Instead of pasting the clipboard contents at the cursor position, it is possible to paste characteristics of a clip into other clips.

Step 1   Copy some clips to the clipboard using the Copy menu, the mouse, or the keyboard shortcut (ctrl+c)

Step 2   Select the destination clips for the paste. They can be on multiple tracks and may use a range. You may select All Layers, or only the top layer.

Step 3   On the Cut Menu, Copy Menu or Erase Menu, press the **Paste Special** Soft key. Now choose from the alternatives shown on the lower soft keys. Pressing one of these executes the Paste immediately.

Step 3a   Alternatively: click and hold the screen command **Edit ➜ Paste Special**

The system displays this dialog:
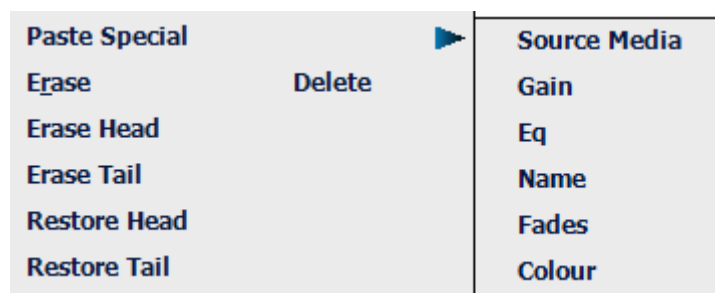
Now choose which characteristic to paste.

Notes:

- The clip whose characteristics are copied is the earliest (in timecode) on the lowest numbered track copied to the clipboard.

- The special paste targets every clip that is wholly within the range, on selected tracks.

Trim

Trimming allows clips to be resized. Trim commands are used to set the head and tail of clips, to determine how much of the original recording is played by the clip.

Trimming may shorten a clip, or extend a clip if it is playing less than all of the original recording. This will be the case if the clip was imported with handles or if the original clip has been edited.

Head

Trim Head and Trim Tail are the most common uses of Trim

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the Trim key (if not already on)

Step 3   Press and release the Head key

Step 4   Move the transport forward a few frames (jog or play)

Step 5   Press Enter

The head of the clip is placed at the cursor, which is now shorter. The effect is just like erasing the head of the clip. Its sync remains as before, but it starts at a later time and a later point in the audio.

Step 6   Jog backward a few frames and press ENTER

Now the head is moved earlier, revealing more of the audio. You can keep jogging and pressing ENTER as long as you like, until you are satisfied with the position of the head.

Two Handed Trimming

This is a more powerful method, which is worth learning.

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the Trim key (if not already on)

Step 3   Press the Head key (and hold it down) – the head is extended to show the full extent of the original recording.

Step 4   Jog or play the transport – you can listen to the audio and choose the right position.

Step 5   Release the Head key – the head is placed at your current position.

Limit to Trim

When extending a clip, the end of the recorded audio will be reached eventually. After that it is not possible to extend the clip further.

Tail

Same as Head, but the later part of the clip is trimmed.

Clip

Trim clip changes both ends of the clip at once. Its purpose is to preserve the length of the clip, but access an earlier part of the recorded audio. Not commonly used.

Range

Ranges cannot be used with Trim.

Multiple Tracks

Works as expected. All the red clips will be trimmed to the same point in time.

Soft Keys in Trim Mode

sync point   Pressing the **sync point** soft key creates a sync marker within the selected clip(s) at the cursor position. This is shown as a yellow mark in the clip, and can be used to visually locate an important moment.

To change the sync point, press **sync point** at the new location. There is only one sync point per clip.

Trim Edit Options

Trim is usually applied to a single clip or selections across tracks therefore, no options are available.

range is not supported in Trim Mode.

all layers is not supported in Trim Mode.

razor is not supported in Trim Mode.

Slip

slip mode moves clips to a new time location. Slipping the head moves the head of a clip to the cursor while maintaining the position of the tail. Slipping the tail moves the tail of a clip to the cursor while maintaining the position of the head.

slip is accessed on the same button as Trim. Press it once for Trim, twice for Slip. You can also swap between the two modes using soft keys.

Slip Clip

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the **trim** key (if not already on) then press it again so that **slip** lights up.

Step 3   Press the **trim clip** key

Step 4   Jog or play the transport

Step 5   Press **Enter** – the clip is moved by the amount you just moved the transport.

Two Handed Slipping

This is a more powerful method, which is worth learning.

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the **trim** key (if not already on) then press it again so that **slip** lights up.

Step 3   Press the **slip clip** key (and hold it down)

Step 4   Jog or play the transport

Step 5   Release the **slip clip** key – the clip is moved by the amount you just moved the transport.

Head

Can be used one-handed or two-handed.

The result (when **Enter** is pressed or the Head key released) is that the Head of the clip is slipped to the cursor position, while the Tail position is preserved. The clip gets shorter or longer, and the sync moves by the difference in position between the Head before and after the edit.
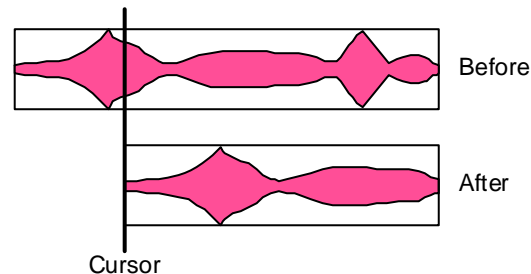
Tail

Same as **slip head**, but the tail is slipped to the cursor position.

Range

Ranges cannot be used with **slip**.

Multiple Tracks

Works as expected. All the red clips will be slipped by the same amount.

Soft Keys in Slip Mode

sync point

Pressing the Slip Sync soft key allows the audio within the clip to be slipped, without changing the positions of the head and tail.

To do this, press the Slip Sync soft key, move the transport, and press ENTER. The audio within the clip will move by the amount you just moved the transport.

There are limits to slipping sync. Eventually the end of the recorded audio reaches the end of the clip, and after that it can go no further.

Slip Edit Options

Trim is usually applied to a single clip or selections across tracks therefore, no options are available.

range is not supported in Slip Mode.

all layers is not supported in Slip Mode.

razor is not supported in Slip Mode.

Nudge

The **nudge** function is closely related to **slip**. The **nudge** function slips clips by a predetermined amount of time. **nudge** can operate on one or many tracks affecting clips that lie under the cursor, or within a Range. **nudge** can operate in fixed steps of plus or minus one frame, or in **Variable** steps from 1 to 99 sub-frames (a sub-frame is 1/80th of a frame).

Using Nudge

Step 1   Press the `nudge` button.

Step 2   Locate the cursor over the clips and select the appropriate track(s).

Step 3   Press the `- var`, `+ var`, `- 1 fr` or `+ 1 fr` soft keys to slip the clip(s) by the selected amount.

           When there is no Range, only the top layer of clips highlighted under the cursor is nudged.

The `- var` and `+ var` keys move selected clips by an amount controlled by the `Variable` soft key. It is usually set to a small amount e.g. a few subframes, for very fine control of clip position.

Nudge with A Range

Follow these steps to perform a NUDGE with a range selected:

Step 1   Press the `nudge` key, to the left of the LCD.

Step 2   Use the `from` and `to` keys to select a Range that includes all clips to be nudged.

Step 3   Press the `- var`, `+ var`, `- 1 fr` or `+ 1 fr` soft keys to slip the clip(s) by the selected amount.

           When a Range is selected, all layers of clips within the Range are nudged, including those which are completely buried.

NOTES:

Nudging is possible while the transport is in play.

When nudging a Range, clips not wholly within the Range are not affected. However, the Range itself is also nudged, so it is possible to keep nudging the Range without resetting the From and To points. This can be used, for example, to "phase" the audio with a guide track, using Variable nudge with a small value.

Fade and Crossfade

The `fade` button allows fades to be applied non-destructively to the heads and tails of clips. The fades are performed by the system in real time as the audio is output from the machine. Fades can be created "on the fly" relative to the playhead, or they can be created and/or modified on multiple clips at once.

Fades are applied from the picture keys, soft keys, and from the PC screen.

The Editing screen displays fade information in the Smart Pane at the top of the monitor. This is used to issue commands as well as illustrate fade shapes (curves).

Using Picture Keys

Fade Head

One of the simplest fades can be achieved as follows:

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the `fde` button (if not already on).

Step 3   Press the **fade head** button.

This creates a fade from the start of the clip to the cursor position. The shape of the fade can be seen above (this will be described later), but the Duration is not used. Instead, the duration is set by the cursor position.

If you are happy with your current fade shape, using **fade head** is a fast and simple way to get a lot of work done.

NOTES:

- If you do not want to apply the Smart Panel shape shown above to the Head, turn off the **shape** soft key.

- If you ONLY want to apply the shape, and not to change the length of the head fade, turn off the **length** soft key.

Fade Tail

Same as **fade head**, but it fades from the cursor to the end of the clip.

Fade Clip

Applies the numbers in the Head Duration and Tail Duration fields, shown in the Smart Pane.
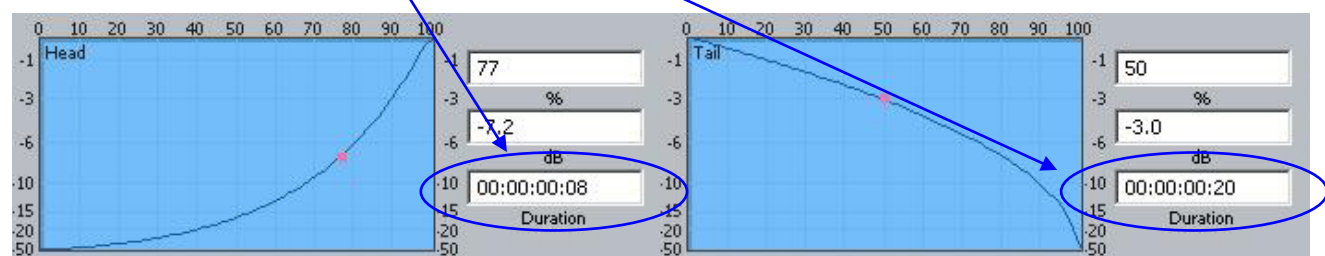
Using Multiple Tracks

If multiple tracks are selected, the simple Fade Head and Fade Tail commands will apply to all clips touching the cursor on selected tracks.

Using a Range

If a range is present, the **fade head** command applies the Head Duration field value, and the **fade tail** command applies the Tail Duration field value, to all red clips (those wholly inside the range on selected tracks).

Using Soft Keys

Advanced fade editing can easily be performed using the soft keys.

Setting Fade Duration

Fade duration can be set numerically as follows:

Step 1   Press the **set dur** soft key. Turn off the **shape** soft key if you do not wish to apply the Smart Panel fade shape to the selected clips.

Step 2   Press the **fade head**, **fade tail** or **fade clip** key. This determines whether the duration you set will apply to the head, the tail or both.

Step 3   Set the Duration value using the Jogger Wheel (press Stop if it is jogging the transport), by typing numbers in the Numeric keypad, or using the QWERTY keyboard.

Step 4   Press the **Enter** key to apply the fade duration(s).

Trimming Fade Duration

Fade durations can be trimmed from their current values. This is particularly useful because it can be applied to a range of clips with one command.

Step 1   Press the **trim dur** soft key. Turn off the **shape** soft key if you do not wish to apply the Smart Panel fade shape to the selected clips.

Step 2   Press the **fade head**, **fade tail** or **fade clip** key. This determines whether the duration you trim will apply to the head, the tail or both.

Step 3   Set the Trim value using the Jog Wheel (press Stop if it is jogging the transport), by typing numbers in the Numeric keypad, or using the QWERTY keyboard. Trim values can be positive or negative. Note: the Numeric Keypad must not be engaged for another purpose at the time – check that its colour is dull yellow.

Step 4   Press the **Enter** key to apply the fade duration(s).

NOTE: Trim values can be positive or negative. To type in a value like minus twelve frames, you can use the Numeric Keypad – type **Minus**, then 12 (or the other way round) then press **Enter**. Using the QWERTY keyboard, you can use the Down Arrow to go from zero to -1 frame, then type in a value to be used negatively.

Fade Shape

A fade's shape includes the following parameters:

X-Point – this controls the percentage of the fade's duration when it reaches the Crossover Point.

X-Level – controls how loud the fade is (compared to the full Level of the clip) at the Crossover point.

Duration – the total length of the fade, in frames. (Duration is not really part of the shape, but its control is close by).

Example: Percentage = 30%, Attenuation = -3 dB, Duration = 20

This means that the fade will last for 20 frames. The crossover point will be 6 frames into the fade, at which time the level will be -3 dB compared with full Level.

Adjusting Fade Shape

To adjust the fade shape of the currently selected clip(s):

Step 1   Press the **X-Level** soft key or the **X-Point** soft key

Step 2   Press the **fade head**, **fade tail** or **fade clip** key to choose which end(s) of the clip you wish to change.

Step 3   Use the Jog Wheel to adjust the **X-Level** or **X-Point**.

You can see the change in the shape, as well as the value you are jogging, by looking at the Fade Panel in the upper part of the Editing Screen.
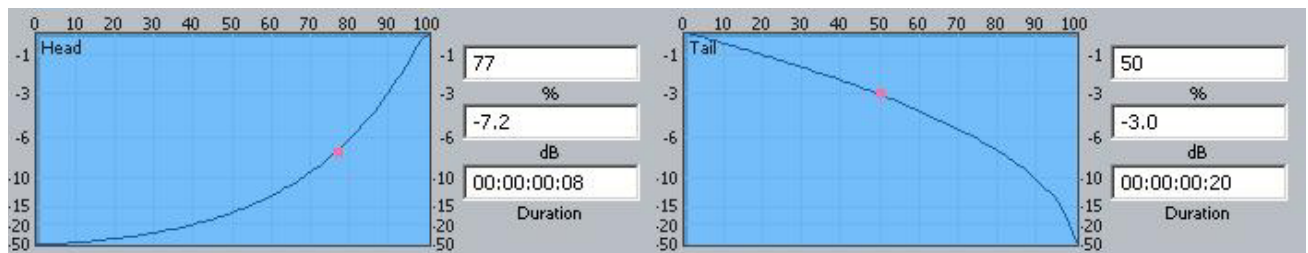
You can also type values into the **X-Level** or **X-Point** field using the Numeric Keypad or the QWERTY key numbers. Always start with a minus when typing X-Level values, as they are always negative.

Step 2   Turn off the **length** soft key if you do not wish to apply the Smart Panel fade durations to the selected clips.

Step 3   Press the **Enter** key to apply the fade shape as specified.

Capturing Fade Shapes

To capture a fade means to extract all of its parameters, making them available to apply to other clips.

Step 1   Press the **capture** soft key.

Step 2   Press the **fade head**, **fade tail** or **fade clip** key to capture the fade length and shape from the current clip. The current clip is the clip currently touching the play head on the active track.

Having captured those values, you can apply them to any other red clip by pressing the **fade clip** key. Turn off **shape** or **length** if you don't want to apply it.

Deleting Fades

Step 1   Press the **delete** soft key, then press the **fade head**, **fade tail** or **fade clip** key to delete fades. Pressing the **fade clip** key affects fades at both the Head and Tail of each selected (red) clip, while pressing **head** affects only fades at the head and **tail** affects only fades at the tail.

Presets

Presets are used to save fade shapes only, not lengths. The system provides a number of Fade Presets, and you can also save your own Custom presets.

To recall a system preset:

Step 1   Press the **Preset** soft key, then press keys **1-9** on the numeric keypad to choose one of the 9 factory fade presets.

Step 2   To apply the recalled shape to a clip, turn off the **length** soft key and press the **fade head**, **fade tail** or **fade clip** key, depending which part(s) you wish to apply.

To recall a custom preset:

Step 1   Press the **Preset** soft key, then press the **custom preset** soft key, then use the Jog Wheel to scroll through the list of custom presets.

Each of the custom presets (if any exist) will be shown in turn, and its shape displayed in the Fade panel.

Stop scrolling when you have loaded the preset you want.

To save the current shape to a new custom preset:

Step 1   Press the **Preset** soft key, then press the **save preset** soft key.

Step 2   Type a name for the new custom preset, then press the **Enter** key on your console (not on the QWERTY keyboard).

To change the shape stored in a custom preset:

Step 1   Recall the custom preset as described above.

Step 2   Adjust the shape at the head or tail of the clip, or capture new ones from a clip.

Step 3   Press the **Preset** soft key, then press the **save preset** soft key.

Step 4   Now immediately press the **Enter** key to save the current values over the selected preset. This will overwrite the preset, and the software will give no warning.

A special preset can be created called "default". Whenever the Clip EQ display is opened for a clip with no EQ, this preset will automatically be loaded into the display.

Using the Mouse and Screen

While the Fade mode is active, the screen displays shapes and controls for creating and editing fades.
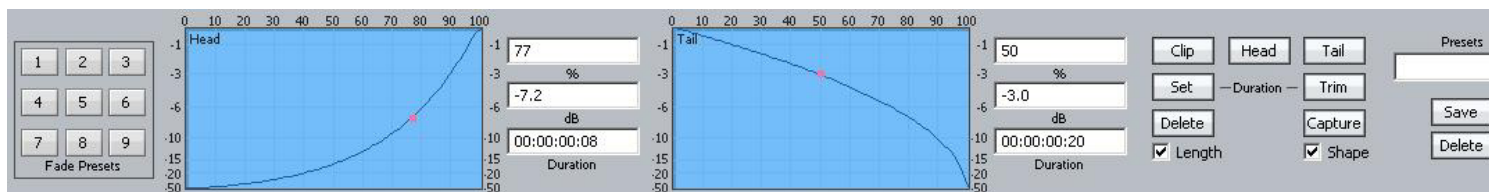
Fade Head

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the **fade** button (if not already on).

Step 3   Click the **Head** button in the screen display (it's near the upper right).

Step 4   Adjust the shape of the Head fade (described below).

Step 5   Click the **Apply** button. The fade described in the shape is applied to the head of the clip.

Note that the fade duration is set by the cursor position, as when using the picture keys.

Length and Shape

The **Length** and **Shape** tickboxes allow you to choose what to apply. You can untick the Length tickbox if you only want to apply the shape, and vice versa.

Fade Shape

Using the mouse and screen method allows you to set the fade shape before applying it. The shape includes the following parameters:

Percentage (X-Point) – this controls the percentage of the fade's duration when it reaches the Crossover Point.

Attenuation (X-Level) – controls how loud the fade is (compared to the full Level of the clip) at the Crossover point.

Duration – the total length of the fade, in frames. (Duration is not really part of the shape, but its control is close by).

Example: Percentage = 30%, Attenuation = -3 dB, Duration = 20

This means that the fade will last for 20 frames. The crossover point will be 6 frames into the fade, at which time the level will be -3 dB compared with full Level.

NOTE: The fade shape can be changed directly with the mouse, by dragging on the red buttons in the graphs.

Fade Tail

Same as Fade Head, but the fade is applied to the end of the clip.

Fade Clip

If both Head and Tail are selected when you click Apply, both ends of the clip can be faded at the same time.

Using a Range

If a range is present when the **Apply** key is clicked, all clips that are wholly inside the range will be affected by it.
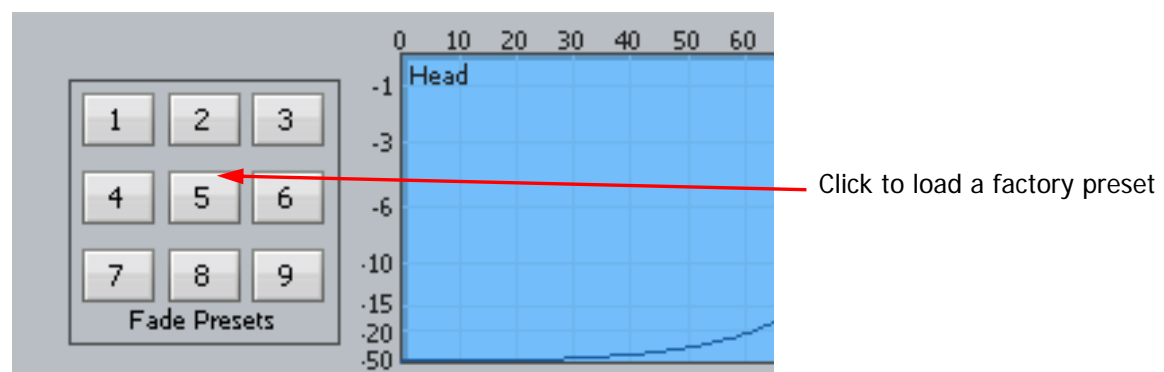
Fade Presets

The system provides nine convenient fade shapes as presets. These can be recalled instantly by clicking on the keypad at the left. Having recalled a preset, it can be applied to the Head and/or Tail of the currently selected clips using the Apply button.

Presets

A preset is a saved shape for head and tail. Factory presets are provided for your use. Custom presets are saved by you.

To load a factory preset, press the **Preset** soft key, then press keys **1-9** on the numeric keypad to choose one of the 9 factory fade presets. The preset is loaded into the Shape graphs, and can be applied to clips in the usual way. Alternatively, click a number in the preset pad at the left of the display.

Click to load a factory preset

To load a custom preset:

Step 1   Press the **preset** soft key

Step 2   Press **custom preset**.

Step 3   Turn the Jogger Wheel, and as each custom preset is displayed it is also loaded. Stop when you have loaded the one you want.

Alternatively use the custom presets pulldown menu in the Fades display.
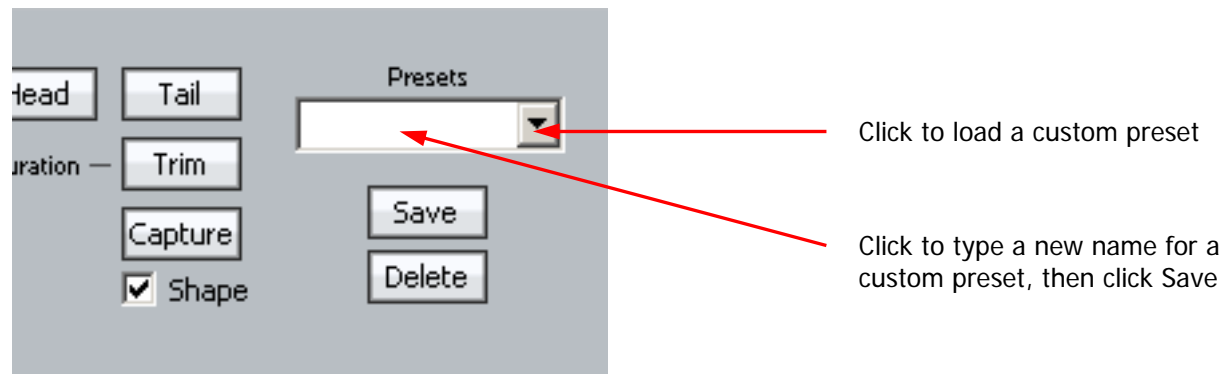
To save a custom preset:

Step 1   Set up the fade shapes you want to save.

Step 2   Press the **preset** soft key

Step 3   Press **save preset**.

Step 4   Type a name for the new custom preset and press the Enter key.

              Alternatively use the custom presets pulldown menu in the Fades display, as shown above.

Capturing Shapes

To capture a fade means to extract all of its parameters, making them available to apply to other clips.

Step 1   Click the **capture** button. This will cause it to flash.

Step 2   Click the **Clip**, **Head** or **Tail** button to capture the fade length and shape from the current clip. The current clip is the one currently touching the play head on the active track.

Having captured those values, you can apply them to any other red clip by clicking the **Clip** button. Untick **shape** or **length** if you don't want to apply it.

Cross-Fades

If a fade is placed on a clip and there is another clip layered underneath, a cross-fade between the two will automatically be "induced". Cross-fade parameters can be modified with the soft key menu functions.

Induced crossfades are complementary – that is to say, the clip underneath is faded with exactly the opposite shape to the clip on top.

If the clip underneath already has its own fade, overlapping the time of the upper clip's crossfade, then no induced fade occurs. In the following illustration, clip layering has been turned on (double press the **takes** button or View ➔ Display Layering).
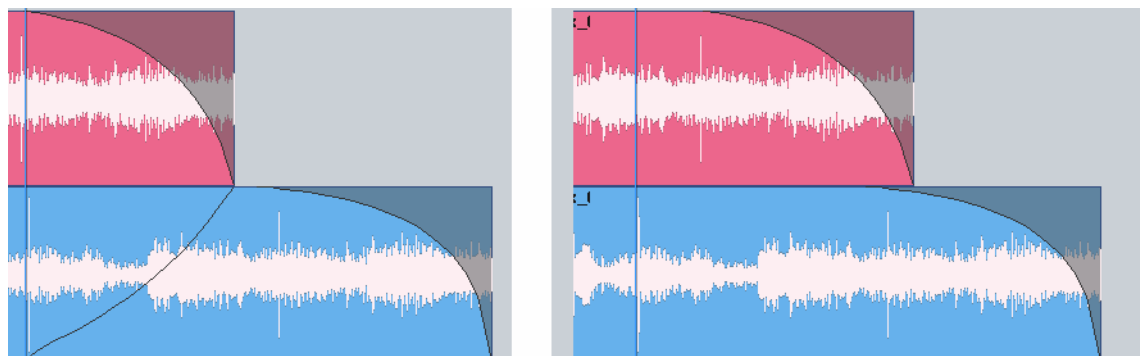
Induced crossfade – note lower curve   No induced fade – lower fade overlaps

Fade Options

Layers On

all layers is not supported in Fade Mode.

Razor

razor is not supported in Fade Mode.

Soft Edit

Every clip has a small fade at the head or tail to make it sound smoother. This is called a Soft Edit, and you can control its length. To do this, click the **Setup Menu** on the Track screen and select General Preferences. In the dialog that is displayed, click the Playback tab.

Step 1   Click the Setup Menu on the Track screen

Step 2   Select General Preferences.

Step 3   Click the Playback tab.

Step 4   Change the value for Soft Edits

The current value for Soft edits is shown in the Audio Options group. A value of 72 samples is generally useful when the Project sample rate is 48 kHz, but you may set this according to your own taste.

Creating Smooth Level Changes

By pasting a copy of a section of a clip onto itself, you are able to change the level of the copy to create a level change. If the copy is cross-faded with the original, a smooth level transition results. When using the copy and paste functions, be sure to be in stop otherwise a slight movement of the jogger wheel may result in phasing during the fades.

The same technique can be used to fade one clip EQ setting to another, within the same piece of audio.
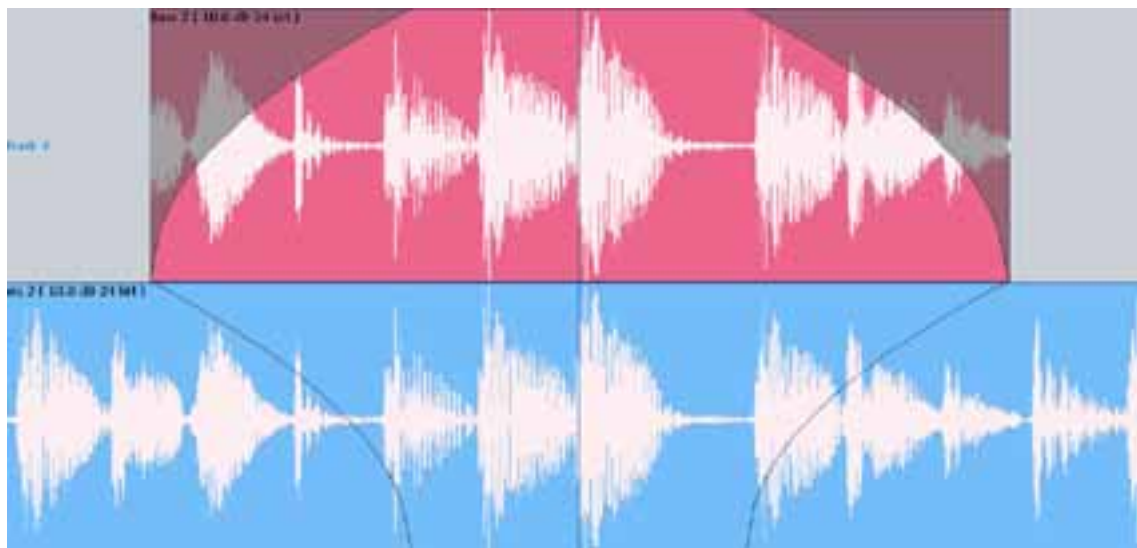
In the above illustration, the top layer plays the same audio as the bottom layer, but may have different level or EQ settings. During the fade-in and fade-out, the settings will effectively crossfade.

Editing on Multiple Layers

Clips in Dream II form layers on each track, with the most recently pasted or recorded clips sitting "on top" of the others. During playback and record, only the top layer is heard, or a crossfade between the top and second layers.
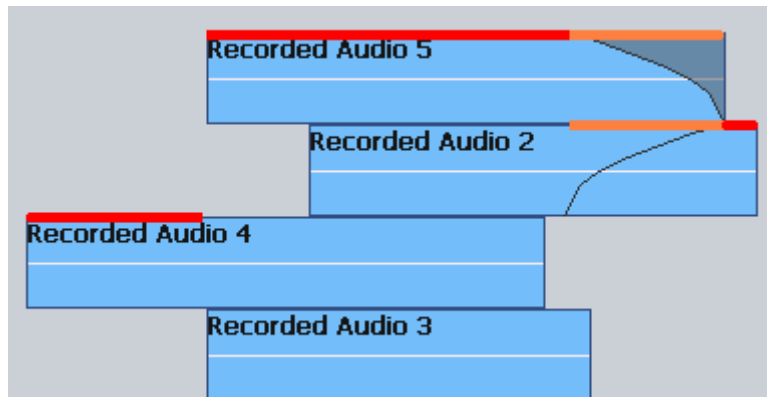
In the above example, the sections that are played are indicated in red and orange (this is just indicative, not part of the user interface). The orange sections form a crossfade between the top and second clip in the stack.

This layered view can be toggled on and off by double-pressing the Takes button, or by the command **View ➔ Display Layering**. Many editing functions target only the top layer, and some target all the layers, as explained previously. To access a particular clip below the top layer, we use the Takes Menu.

Takes menu

 To display the Takes menu, press **BLUE-Takes**

The system displays a Smart Panel showing the individual layers on the current editing track. For the configuration shown above, the Takes display looks like this (when the cursor runs through the middle of all the clips).

As the transport moves to different places, or as you select different tracks, the Takes display updates at regular intervals to show the current stack of clips at the cursor position.

The top layer is selected, but you may move the selection downwards using the **Jog Wheel** or the **+** and **–** buttons. Pressing the **pop** soft key, or clicking the on-screen **pop** button, brings the selected clip to the top of the stack, making it audible.

Other soft key commands in the Takes menu:

{Rotate} sends the top clip to the bottom.

{Reverse Rotate} brings the bottom clip to the top.

{On/Off} toggles Clip Layering on and off. **Note**: you can use all the commands whether or not Clip Layering is displayed.

The Track Menu

Xynergi offers a group of commands that work between tracks, called the Track Menu.

To access the Track Menu, use **BLUE**+**Nudge**.

Swap

This command uses a range exclusively. It swaps all layers of audio between the source and destination tracks.

Step 1   Select the source track for swapping

Step 2   Create a range in which you want to swap the audio with another track, using the **From** and **To** buttons.

Step 3   Press the **swap** soft key

Step 4   Choose the destination track for swapping

The audio in the range (all layers) is swapped between the source track and the destination track you selected in Step 4

Numbers

This command swaps the positions of two tracks, including their names and all audio. It does not swap the automation data.

Step 1   Select the first track

Step 3   Press the **numbers** soft key

Step 4   Select the second track

Move

This command uses a range exclusively. It moves all layers of the audio from the source track to the destination track, replacing the audio that was there.

Step 1   Select the source track

Step 2   Create a range in which you want to move the audio to the destination track, using the **From** and **To** buttons.

Step 3   Press the **move** soft key

Step 4   Choose the destination track

The audio in the range is moved from the source track, leaving it blank within the range, and placed on the destination track, replacing the audio that was there.

Copy

This command uses a range exclusively. It copies all layers of the audio from the source track to the destination track, replacing the audio that was there.

Step 1   Select the source track

Step 2   Create a range in which you want to copy the audio to the destination track, using the **From** and **To** buttons.

Step 3   Press the **copy** soft key

Step 4   Choose the destination track

The audio in the range is copied from the source track to the destination track, replacing the audio that was there.

Xynergi's Quick Edit Layout

The Quick Edit Layout provides a faster way to perform basic edit functions. It combines a number of the most-used commands into one layout, to reduce the number of keystrokes needed.

To use the Quick Edit Layout, do the following:

Step 1   Start with the Cut or Copy menu active (press the `Cut` or `Copy` button in the Editor Megamode)

Step 2   Hold down the `SHIFT` button and press the green `Editor` Megamode button. The Quick Edit layout is shown.
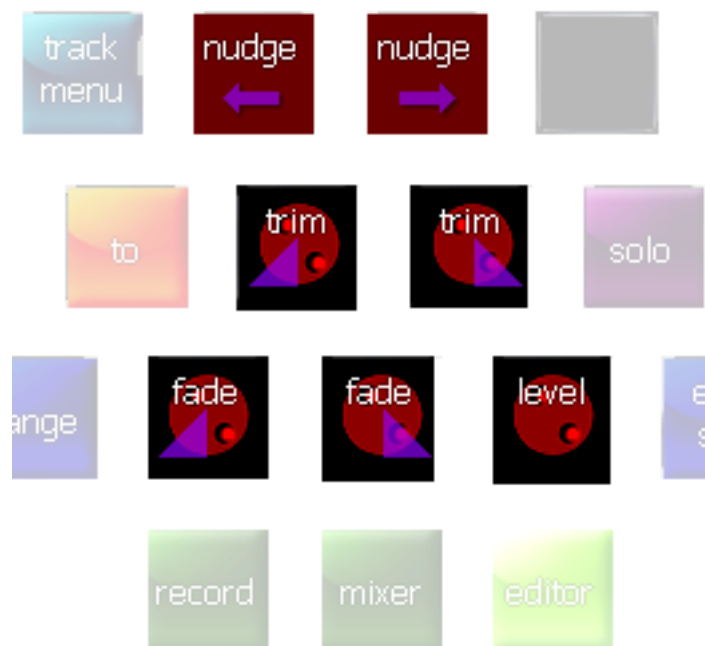
This layout contains only seven buttons (though it may be increased in the future).

Nudge Left / Right

These keys move the currently targeted clips one frame earlier or later.

Their action is exactly the same as the corresponding commands in the Nudge Menu, but it is not necessary to go there.

Trim Left / Right

These keys combine the Jog Wheel and the Trim function. To use the Trim Left button:

Step 1   Start with the cursor touching a clip whose head you wish to trim.

Step 2   Press and hold the `Trim Left` button.

This will cause the head of the selected clip to extend fully.

Step 3   Use the `Jog Wheel` (or any transport control) to locate to the point where you want to trim the head.

Step 4   Release the `Trim Left` button to make the edit.

Note: Clips on multiple tracks can be trimmed at the same time.

Fade Head+Curve / Fade Tail+Curve

These keys combine the Jog Wheel and the Fade function. To use the Fade Head+Curve button:

Step 1   Start with the cursor touching a clip where you want the Fade In point.
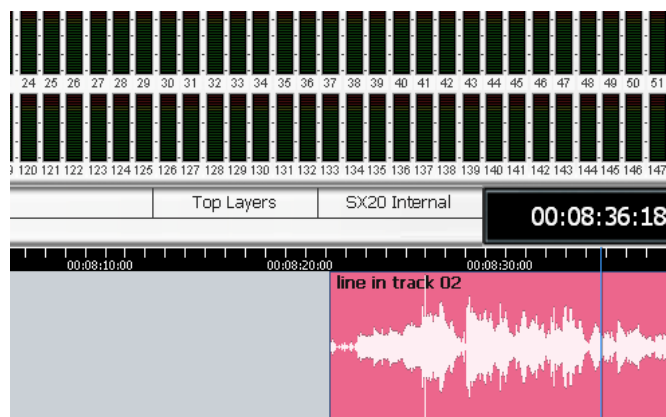
Step 2   Press and hold the `Fade Head+Curve` button.

This will cause the Fade display to show in the Smart Pane.

Step 3   Turn the `Jog Wheel` to adjust the displayed curve.

Step 4   When ready, release the **Fade Head+Curve** button to apply the fade.

Note: Clips on multiple tracks can be faded at the same time. If a range is present, all clips wholly inside the range will be affected, using the number in the Duration field as the length of their fade-in.
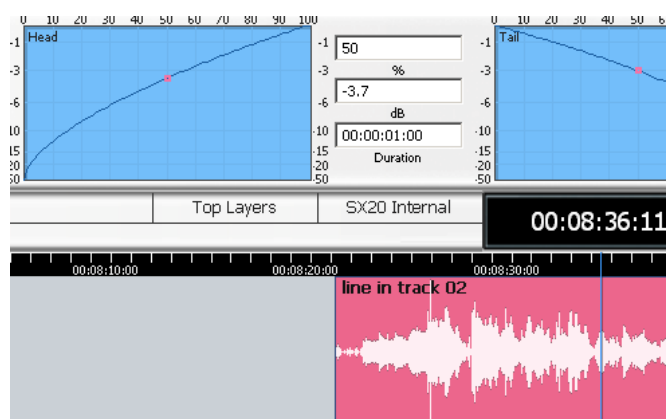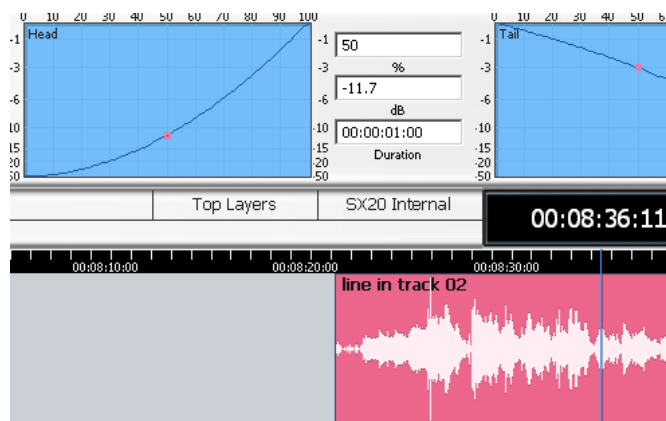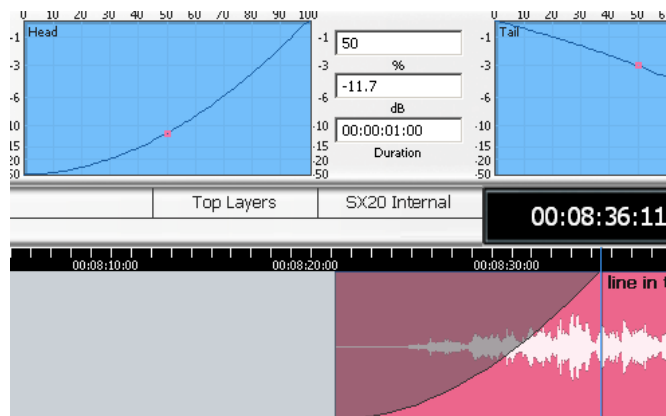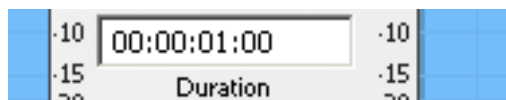

Level Adjust

This key combines the Jog Wheel and the Level Trim function. To use Level Adjust:

Step 1   Start with the cursor touching a clip whose level you wish to trim.

Step 2   Press and hold the **Jog Level** button.

Step 3   Turn the **Jog Wheel** to adjust the level trim displayed in the dialog box.

              At the same time, the clip waveform will change amplitude.

Step 4   When ready, release the **Jog Level** button to apply the level change.

Note: Clips on multiple tracks can be level-adjusted at the same time. If a range is present, all clips wholly inside the range will be affected.

Importing Clips from Other Projects

The Import Menu allows you to copy clips from other projects, into the current one.

The clips continue to reference the same media files as they did in their original project.

To import clips from another project, do the following:

Step 1   Open the Import menu using **Import** in the Edit Megamode

Step 2   Choose a file from the Open dialog and click OK.

           This opens the Import File (i.e. the one from which you will import)

Step 3   Move around the Import File and locate the clip(s) you want to import.

           You can use a range or not, and select one or more tracks. The targeted clips will be red.

Step 4   Press the Copy soft key.

           This will copy the targeted clips to the clipboard, and re-open your original file.

Step 5   Locate to the position where you want to paste the copied clips, and press ENTER.

           The clips are pasted. The system immediately goes back to the Import File, allowing you to find and copy more clips. It will continue to alternate between the Import File and your current project until you select another mode.

The clips will be sample rate converted on import to match your current project.

Clip Level

Each clip has a volume level that you can set. This is a quick and easy alternative to fader automation for many situations.

To set the level of a clip:

Step 1   Select a track and move a clip under the cursor.

Step 2   Press the **clip level** button (if not already on).

Step 3   Press the **Clip Set** soft key.

Step 4   A dialog in Edit screen shows the current clip level. Change it using the **Jog Wheel** (not if the transport is in Jog mode) or the **Numeric Keypad** (it must be available for parameter entry i.e. not used by Loc, Set, Fader Sets etc)

Step 5   Press the **Enter** button.

It is also possible to trim the clip level i.e. move it up and down rather than set an absolute value. Use the **Trim Clip** command for this.

When using a range, all the clips that are wholly inside the range can be affected. Clip Set or Clip Trim can be used.

Jog Level and Jog Display

A quick way to change clip level or display amplitude is to use the Jog Level and Jog Display buttons. These appear next to the Jog Wheel whenever the Clip Level menu is active.

To quickly change clip level:

Step 1   Start with the cursor touching a clip whose level you wish to trim.

Step 2   Press and hold the `Jog Level` button.

Step 3   Turn the `Jog Wheel` to adjust the level trim displayed in the dialog box.

              At the same time, the clip waveform will change amplitude.

Step 4   When ready, release the `Jog Level` button to apply the level change.

Note: Clips on multiple tracks can be level-adjusted at the same time. If a range is present, all clips wholly inside the range will be affected.

To quickly change clip display amplitude:

Step 1   Start with the cursor touching a clip whose amplitude you wish to trim.

Step 2   Press and hold the `Jog Disp` button.

Step 3   Turn the `Jog Wheel` to adjust the amplitude trim displayed in the dialog box.

              At the same time, the clip waveform will change amplitude.

Step 4   When ready, release the `Jog Disp` button to apply the amplitude change.

Note: Clips on multiple tracks can be amplitude-adjusted at the same time. If a range is present, all clips wholly inside the range will be affected.

Clip Level Layout

If you are doing a lot of Clip Level editing, try pressing the `Clip Level` button a second time. This will cause a special layout to appear, with many different level changes that can be applied instantly.

The Clip Level Layout will disappear when you select other menus, but its prescence will be remembered when you return to the Clip Level menu. To remove it, press the `Clip Level` button again.
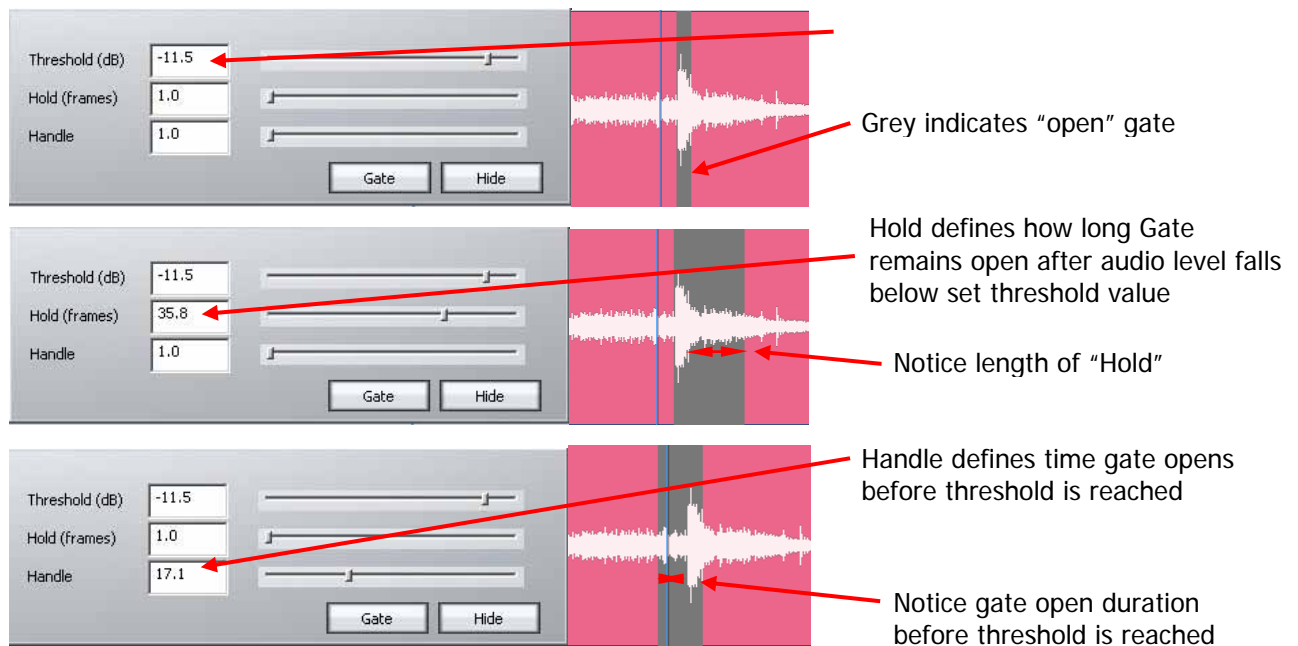
Gating Clips

A rough but useful and quick way to remove unwanted silence or near silence from clips is with the Gate Clips function.

Using the Gate Clips Function

First you will need to select the track(s) using the track feed keys and select the clip(s) either by selecting a range or by parking the playback head over the desired clips. You are now ready to perform the Gate Clips function. To do this:

Step 1   Press the `gate` button. The gate preview window is displayed automatically.

Step 2   Your selected clips will now be shaded in grey. The grey areas mark the audio that will be retained after the Gate Clips operation is performed. Start by moving the "Threshold" slider slowly to the right.

Step 3   Depending on the type of audio contained in the clip, areas will begin to be shaded in pink. This indicates the areas that will be removed when the Gate Clips function is performed.

Step 4   Once you have adjusted the threshold so that the undesired portions of the clip are highlighted in pink, adjust the hold time and pre handle time to fine tune the gating process(see below).

                                                    Threshold defines when the gate
                                                    "opens" to preserve audio in clip

Grey indicates "open" gate

Hold defines how long Gate remains open after audio level falls below set threshold value

Notice length of "Hold"

Handle defines time gate opens before threshold is reached

Notice gate open duration before threshold is reached

Step 5 When you are happy with the amount retained versus the amount removed from the graphic representation, press the "**Gate**" button to process your settings. All pink areas in the clip will be removed, retaining the grey areas.

NOTE: As with many other editing functions in Dream II, the original audio is not affected by clip gating, only the clips that reference it. Any audio removed by gating can be recovered using the Trim function (see Trim Function, under the chapter on Editing).

Replacing Audio Media

As mentioned elsewhere in this manual, a clip is a "reference" to a piece of media on disk. Editing the clips is non-destructive to the media – it simply changes the portion of the media being played by the clip.

Sometimes it is also valuable to change the media played by a clip. This can be done in two ways:

- Replace the media of the selected clips

- Replace the media of all project clips using a particular piece of media at the moment

Step 1 Select one or more clips by the usual methods. You can use All Layers to affect the clips on all layers, and you can use a Range to select multiple clips horizontally – in this case only clips lying entirely inside the range will be affected.

Step 2 Issue the command **Process ➔ Change Media – Selected Clips**

The system displays a dialog where you can browse for a media file.
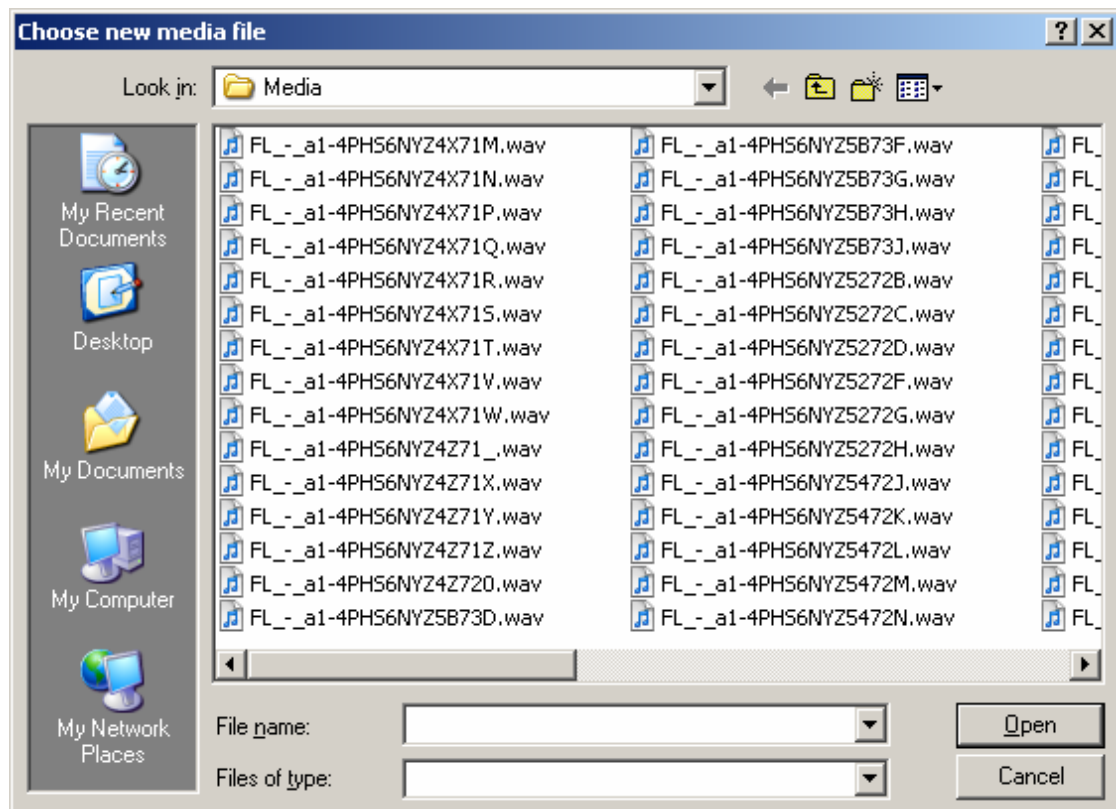
Step 3   Browse to find the media you want, and click the Open button. The system replaces the media in the selected clips.

To replace the media of clips using that media file, do the same as above, but use the command **Process** ➔ **Change Media – All Related Clips**

Undo and Redo

If en edit function has been performed that you are not happy with, pressing **undo** on your console or Undo in the Edit Menu will revert the project to its state before the undesired edit. Similarly, **Redo** will reinstate the edit.

Undo List

In the Edit Menu, there is an undo list showing all undoable functions which you have performed in your current session. You can choose one of these operations to undo, but be warned it will also undo all operations you have performed *since* the operation you chose to undo to.

Undo Follow

By default, when you undo an edit, the system returns to the position and view from which the edit was performed. This can make it easier for you to correct that particular edit. If you don't want the system to follow, you can turn it off as follows:

Step 1   Click the Setup menu item at the top of the Edit Screen

Step 2   Select General Preferences

Step 3   Click the Project tab

Step 4   At the bottom of the dialog, check the Playhead Follows Undo and/or Zoom follows Undo controls

Mouse-Based Editing

The mouse can be used to select clips, make ranges and move clips in time and across tracks. This can be done irrespective of which editing or mixing mode is selected.

Selecting Clips

As explained previously, the mouse can be used to select and deselect individual clips within the range, by Ctrl-clicking on them. If no range is present this can still be done. When you Ctrl-click a clip when no range is present, a range will be created which includes all the previously selected clips, plus the one just added. If the track containing the clip was not selected, it becomes selected automatically.

Mouse-Based Ranges

The mouse can be used at any time to create a range. Simply click an empty space (one where there is no clip) and drag an area on the Track display, and a range will be created.

At the same time, any clips or parts of clips *on already selected tracks*, that are inside the area you dragged, will be selected. All other clips will be deselected.

Selecting clips when creating a range with the mouse does not select tracks, but selecting clips by directly Ctrl-clicking them does select tracks.

To remove the current range, click (but don't drag) anywhere with the mouse.

Moving Clips

Clips can be dragged horizontally and vertically with the mouse. This changes the clip timecode and track respectively.

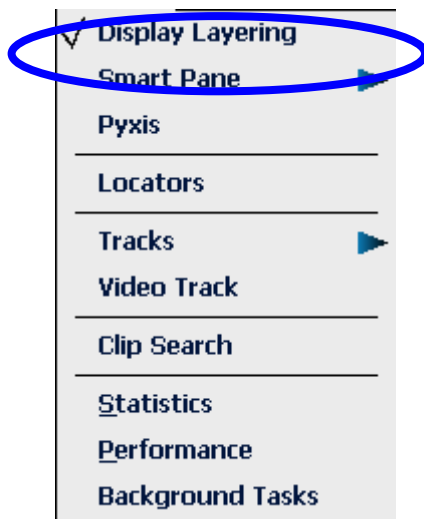When there is no range, simply click and drag any single clip to another time or track.

When there is a range, click on any selected (red) clip and drag it – all other red clips will also be dragged along with the one you clicked.

Summary of Mouse Editing Actions

Action	Result
Click on unused trackspace	Removes range
Ctrl-Click on a clip	If unselected, adds it to the selection (makes it red). Also selects its track, if not already selected.
	If already selected, removes it from the selection (makes it blue)
With no range, click on a clip and drag it	The clip moves to any track and time where you drag it
With a range, click on a selected clip and drag it	All selected clips move across tracks and time as you drag them.

Display Layering

When clips are placed "on top" of each other, only the uppermost is heard, or at most a crossfade between the top and second layers. The software allows you to see all the layers by selecting Display Layering from the View menu or by double-pressing the `takes` button in the Editor Megamode.

Display Layering

Smart Pane ▶

Pyxis

Locators

Tracks ▶

Video Track

Clip Search

Statistics

Performance

Background Tasks

The layers of clips are shown on all tracks, with the clips becoming thinner as needed to fit the available space.
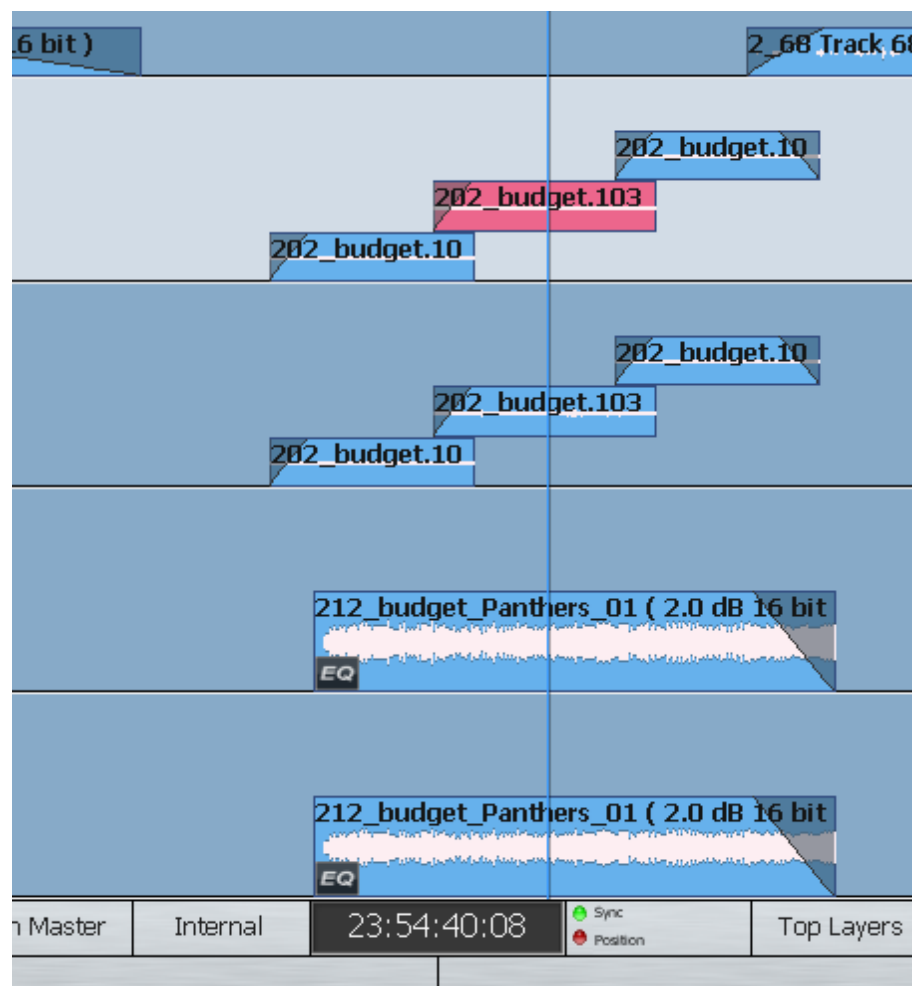
The mouse can be used to change the order of clip layers. To do this, simply click and drag a clip from one level to a higher or lower level. Changing levels in this way can be combined with dragging a clip to a different track or timecode.

Note that there is always a space at the top of each track, equal to the width of one clip. This is to allow room for you to drag a clip into the top position.

Mouse Edit Menu

The screen Edit Menu provides many commands that are available elsewhere in the system. The mouse can be used to access these commands.

Mouse Edit Menu

Menu Item	Shortcut	Description
Undo	Ctrl+Z	Undoes the last edit
Redo	Ctrl+Y	Redoes the last edit that was undone
Undo List	▶	Shows a list of the edits that can be undone
Redo List	▶	Shows a list of the edits that can be redone
Cut	Ctrl+X	Cuts the selected clip or range to the clipboard
Cut Head		Cuts the head of the clip at the cursor position, to the clipboard
Cut Tail		Cuts the tail of the clip at the cursor position, to the clipboard
Copy	Ctrl+C	Copies the selected clip or range to the clipboard
Copy Head		Copies the head of the clip at the cursor position, to the clipboard
Copy Tail		Copies the tail of the clip at the cursor position, to the clipboard
Paste	Ctrl+V	Pastes a copy of the clipboard at the current position
Paste Special	▶	Allows characteristics of the first clip on the clipboard to be pasted.
Erase	Delete	Erases the selected clip or range
Erase Head		Erases the head of the clip at the cursor position
Erase Tail		Erases the tail of the clip at the cursor position
Restore Head		Extends the clip head to use all the recorded audio
Restore Tail		Extends the clip tail to use all the recorded audio
Split Clips	S	Cuts the selected clips into two at the cursor
Join Split		Heals split in audio clips (must be positioned together)
Cleave Multi-Channel Clips		Unlinks linked clips
Rotate Layers		Cycles clip layers, sending top layer to bottom.
Reverse Rotate Layers		Reverse cycles clip layers, bringing bottom to top.
Set Clip Colour	▶	Opens a palette of colours for directly applying to clips
Clip Level		Allows the level of selected clips to be set
Phase Invert Clips		Inverts the audio phase of selected clips
Rename		Allows the selected clips to be renamed
Resync to record time		Syncs the selected clips to their record timecode
Reverse Clips		Reverses the audio in the clips
Set Sync Point		Positions the Sync point in the clip. Can be used for Jumping
Range	▶	Controls Range On/Off and sets head and tail of range
All Layers		Controls the number of layers affected by edits
Razor On		Turns Razor edit on and off
Range Selection	▶	Toggles range selection type between inclusive and exclusive
√ **Snap Editing**		Turns Snap Editing On or Off
Snap To	▶	Defines where clips snap to when mouse editing
Jump To	▶	Defines Jump destination points for speedy project navigation
Flip Video Clip Field		

Fade Menu

Fades can be applied to clips using the binnacle keys as described in the Chapter on Fades on p.139. It is also possible to apply fades using the Fades Menu.

This is located at the top of your Dream II window and looks like this:

Auto Fade	Uses Playback head location on a clip to guess desired fade
Fade Head	Fades to head of Clip(s)
Fade Tail	Fades to tail of Clip(s)
Make Cross Fade	Makes a one second overlap by pulling out the head and tail of butted clips

Automation

Introduction

The Xynergi automation system provides simple, flexible and comprehensive facilities for recording and editing mix automation data. All feed and bus mix parameters can be automated and played back in perfect synchronisation with the project audio. In addition to the channel parameters, bus assignments, inserts and direct outs may also be recorded.

The Constellation automation system is designed to allow the operator to record all the static and dynamic parameter changes involved in balancing the mix of tracks played back from the disk recorder and live feeds from external sources. Mix moves may be recorded on one or more parameters or channels at a time. More moves may be added with each pass, resulting in complex and detailed mixes that can be played back identically every time the project and mix are loaded.

This chapter does not cover basic operation of the mixer. Refer to the chapters on "Patching and Routing", "Faders" and "The Channel Panel" for a complete overview of mixer operation. "Automation Basics" below provides an in depth discussion on the fundamentals of the automation system. Example procedures are detailed later in the chapter.

Automation Basics

Write, Trim and Read

In Automation, we use the terms Write, Trim and Read.

- Write means to record absolute values of parameters.

- Trim means to record changes to stored values of parameters.

- Read means to play back the parameter values that have been written.

The word "record" is used in this chapter to mean "Write or Trim".

The Mix Item

A mix item is one parameter for one signal path. Examples are:

Track 47   –   Main Bus Fader Level

Live 11   –   EQ Band 1 Q-factor

Sub Bus 2   –   Mute

There are literally thousands of mix items in the Xynergi system. The automation system can write the changing values or states of every mix item over the duration of your project, and read it starting at any position. These written values and states are called mix automation data.

Mix ON

When the **Mix ON** key is OFF, all mixing and routing functions are manually operated and the mixer will not write or read automation.

When the **Mix ON** key is ON, all mix items for which automation data is written will read that data, and the user has no manual control of them. Mix items with no written automation data can be manually controlled by the user.

Mix Duration

The automation data for a project starts at a timecode location one frame after timecode midnight and finishes one frame before midnight. However, the system requires a minimum preroll of at least one

second and it is advisable to start projects at a location of at least one minute after midnight to provide adequate preroll.

Static Snapshots

Project Snapshot

Every project contains a snapshot of the state of the mixer when the project was last closed. When a project is opened, the mixer state is updated and all parameters are recalled.

Mix Snapshot

Every saved mix contains a snapshot of the state of the mixer when the mix was saved. When a mix is loaded the mixer state is updated and all mix items are recalled. So it is not necessary to write automation data for non-critical items – they will be reset to their correct static values when the mix is loaded. See "Data Storage" on page 157 for more details.

Many complete mixes can be saved within a project.

How to Use Automation

Here is a set of general methods for using the automation. Details will follow.

Using the Auto Button

Step 1   Enable parameter(s) – see Enable Parameters below

Step 2   Press the `Auto` button – this puts the currently selected channel into WRITE (or TRIM – see below)

Step 3   Press `Play` to move the transport – automation data starts writing

Step 4   Press `Stop` – automation stops writing and Auto buttons are extinguished

The mix items that will be recorded are those for the enabled parameters/signal paths.

Notes:

- You can press **Auto** before or after pressing **Play**.

- You can take a signal path out of record by pressing **Auto** again, while play continues, or take everything out of record by pressing the `{all read}` soft key in the Mix menu.

- See Leaving Automation Record below, for other ways to exit record.

Using the Fader Auto Buttons

This only applies if you have a Fader Sidecar attached to your system.

Step 1   Enable parameter(s) – see Enable Parameters below

Step 2   Press `Auto` on one or more Faders – this puts them into WRITE (or TRIM – see below)

Step 3   Press `Play` to move the transport – automation data starts writing

Step 4   Press `Stop` – automation stops writing and Auto buttons are extinguished

The mix items that will be recorded are those for the enabled parameters/signal paths.

Notes:

- You can press **Auto** before or after pressing **Play**.

- You can take a signal path out of record by pressing **Auto** again, while play continues, or take everything out of record by pressing the {all read} soft key.

- See Leaving Automation Record below, for other ways to exit record.

Using the In Button

Step 1   Enable parameter(s) – see Enable Parameters below

Step 2   Select signal paths – see Select Signal Paths below.

Step 3   Press **Play** to move transport

Step 4   Press **In** – automation enters record and starts writing

Step 5   Press **Out** – automation stops writing

The mix items that will be recorded are those for the enabled parameters/signal paths.

Notes:

- You can press **In** before or after pressing play.

- You can take a signal path out of record by pressing an **Auto** button, while play continues, or take everything out of record by pressing the {all read} soft key.

- The enabled signal paths and parameters remain enabled, so you can enter automation record again at any time by pressing the **In** key.

Using Touch - Snap

Step 1   Press the **Touch** button until Snap is illuminated

Step 2   Enable parameter(s) – see Enable Parameters below.

Step 3   Enable signal paths – see Enable Signal Paths below.

Step 4   Press **Play** to move transport

Step 5   Touch and move the control of any enabled mix item – it enters record and starts writing automation.

Step 6   Release the control – it leaves record.

The mix items that will be recorded are only those you have touched, and only while you were touching them.

Notes:

- Only enabled mix items can be written by this method.

- See Touch – Auto Enable below for a more powerful version.

Using Touch - Latch

This is the same as Touch – Snap, except once a control is touched, it stays in record even after you release it.

Use **Stop** or other standard methods to exit all recording, or press **Auto** to take the current signal path out of record.

Using Touch – Auto Enable

In this mode you enable parameters, but not signal paths. Touching the control of any enabled parameter will do it automatically.

Press the **Touch** button until Snap or Latch is illuminated

Enable parameter(s) – see Parameter Enables below

Press the **Mix** button to open the Mix menu, and press the {Touch AutoEn} soft key until its light comes on.

Press **Play** to move transport

Touch the control of any enabled parameter, on any signal path. It enters record and starts writing automation.

You can touch a control and put it into record before or after pressing play.

The rest is the same as the normal Touch modes.

Enabling Mix Items

Typically mix items are recorded a few at a time, often only one. To put a mix item into automation record, we must first enable it, then put it into write or trim (this is just like arming tracks before recording audio on to them.)

Enabling mix items requires enabling their parameters and their signal paths, as outlined below.

Enable Parameters

Parameters can be enabled by pressing the any of the blue oval **Param Enable** key and selecting one or more parameters. Then press **Exit**.

Enabling Plug-ins

You can select plug-ins in the Param Enable layout described immediately above. This enables all plug-in parameters

When you are ready to record data for a particular parameter, use Touch Write to access it (described below).

Enable Signal Paths

Enabling signal paths for automation allows the operator to limit the range of paths on which automation may be recorded.

To enable Signal paths:

Step 1   Press the **Mix** button to activate the Mix menu.

Step 2   Select paths on the Xynergi path keys, either using the 12-track display or pressing the **SEL** button to access more channels.

This includes Track Feeds, Live Feeds, Main Bus, Sub-Buses, Aux Buses, Multi Track Buses (press Multi Track and use Live Feed keys).

OR

Press the Soft key on faders whose signal paths you want to enable.

This selection of enabled signal paths is also referred to as the "mix mask".

Press the **ALL CHANS** key in the **Param Enable** layout to quickly enable all signal paths. This feature should be used with caution!!

Mix Item Status

Mix items can be in one of five states: Read, Write, Trim, Isolate and Preview. The current state of each parameter is displayed by coloured illumination surrounding all rotary encoders, illumination in the bottom half of all switches, and text indicators next to each fader. Note that the text indicators next to the faders display the status of the fader level parameter, not the status of the entire signal path.

The five parameter states are described below.

Read

When mix items are in Read the automation system takes control of their values and the physical position of their controls. Controls are illuminated **green**.

A mix item can be in Read whenever any automation data has been recorded for it, anywhere in the project.

Write/Trim

Mix items must be explicitly placed in Write or Trim. The **Write/Trim** key is toggled to the Write or Trim position, for the whole console.

WRITE: automation is armed for record and absolute values are written for the selected mix items. Indicators are illuminated **red**.

TRIM: automation is armed for record and relative values are written for the selected mix items. Indicators are illuminated **amber**.

In trim mode, moving a control applies an offset to the values already recorded for that mix item. For example, in trim mode, increasing a fader level by 10dB will add 10dB to the previously recorded fader levels retaining all the relative changes in the previously recorded data.

In Trim mode the control continues to move as it follows the previously recorded data. As soon as the control is touched it becomes stationary, and any changes made to the control's position are written as offsets to the underlying data. If the control is touched but not moved no changes are made. If the control is moved then released, when not in Touch Snap, the system continues to playback the original moves at the offset or trimmed level. If the system is in Touch Snap, the system drops back into Read.

Isolate

When mix items are Isolated the user can manually control them, and the automation system does not affect them. The controls have no illumination.

All mix items are effectively isolated until data is written for them.

To isolate Signal paths:

Step 1   Press the **Isol** button.

Step 2   Choose signal paths for isolation.

Note that all parameters on the isolated signal paths become isolated. There is no way to pick specific parameters for isolation.

Preview

Preview is a combination of isolation and enablement. The mix items that are in preview are not controlled by the automation system, so they respond manually to their controls. But when the console enters automation record, they all go into Write (or Trim).

Typically, preview is used to audition new mix settings for one section of the project, while other sections already have automation data. It prevents the automation system from moving the controls that the user is trying to balance for the new section. As soon as the user is happy with the new balance, it can be written to the new section.

Preview state is engaged on enabled mix items by first pressing the **Preview** key and then enabling mix items using Touch Latch for individual parameters, or the **AUTO** key next to a fader to enable the mix items for all parameters on the selected feed.

When enabled in Preview, mix items are illuminated in flashing **red**. Once in preview mode the mix items can be placed into Write (or Trim) by dropping in manually with the **In** key or automatically using the **Active** In and Out points (see Programmed Automation).

Once enabled for Preview, mix items remain in that state regardless of transport starts and stops. This is different from putting mix items into automation record, which must be done again after each transport stop.

Safe

When mix items are in Safe mode they cannot enter automation record. They are always in READ.

To put Signal paths into Safe mode:

Step 1   Press the Safe key.

Step 2   Use the Selection Panel to set signal paths Safe.

In addition, the Safe menu defines an Active Zone, outside of which no automation data can be written for ANY signal path..

Recording Mix Data

Mix Events

Mix data is recorded as discrete events. Each event occurs at a specific timecode location and relates to a specific mix item. When a new mix is started there are no events recorded and all controls will remain static as the project is played. Once mix data is recorded, it is played back or read when the transport runs past the timecode at which the event is recorded. If the transport is located to any point in the project, the mixer state will reflect the result of all the events that have occurred from the start of the project to the current timecode.

The static snapshot recorded with every mix preserves the basic setup and balance of the mix. Dynamic move events are added to this to create the final complete mix.

Entering Automation Record

There are four methods of entering automation record:

- Press the **AUTO** key next to any fader. Enabled parameters on the channel are put into record irrespective of which signal paths are enabled. Pressing the AUTO button on the Xynergi console puts the current channel into record.

- Use Touch mode and move any fader, pot or switch on your Sidecar or the Xynergi Pad. The mix item it controls is put into Write or Trim if it is enabled. If Touch Auto Enable is OFF, the signal path and parameter must both be enabled for mix items to enter record. If Touch Auto Enable is ON, the signal path need not be enabled, but the parameter must be.

- Punch in manually on enabled tracks with the IN key, or punch in automatically at the Active In point using PUNCH or the PLAY key. (Details in Programmed Automation below.) All enabled mix items are put into record.

- Use Prime mode and the transport Recording or ADR functions to record automation on selected signal paths. (Details in Programmed Automation below.) All enabled mix items are put into record.

Leaving Automation Record

There are seven methods of leaving automation record:

- Press any illuminated AUTO key to take its signal path out of record.

- Cause the transport to leave PLAY (or REC) using any transport command.

- When in Touch Snap mode, release any fader, pot or switch.

- Punch out manually with the Out key, or punch out automatically at the Active Out point after pressing PUNCH or the PLAY key (see Programmed Automation). This works for enabled signal paths, but not for ones where the AUTO key was used to put it in record.

- In Prime mode, use ADR or the PLAY key to punch out.

- Press the All Read soft key in the Mix menu to instantly place all mix items in Read.

- Press the Mix ON key to disable the mix automation system (desperate measure, but it works).

Transitions – Using Glide

When the automation system makes a transition from Write or Trim to Read, Glide out data will be written to smooth the parameter transition as described below. The Glide Out transition starts at the point where the system leaves record and finishes at the Out point plus the Glide Out time.

When a transition is made from Preview to Write, Glide In data will be written. The Glide In transition starts before the point that the system entered record (In point minus Glide In time) and finishes at the point where the system entered record.

Glide times are set in the **Utils** menu.

On Stop

Mix items currently in Write or Trim return to Read when the system leaves automation record. The data that is written after the mix item returns to Read is determined by the {On Stop} menu item in the Mix menu.

If {On Stop Hold} is selected, all the following mix events are deleted, so the last written value remains in force for the rest of the project.

If {On Stop Return} is selected, the parameter ramps to the previously recorded value over the Glide Out time.

If {On Stop Event} is selected, the last written value remains in force until a previously recorded event is encountered. At this point the parameter value ramps to the new value over the Glide Out time.

Read to Write/Trim

When a parameter is punched in to Write from Preview, the mix item ramps to the newly recorded value prior to the drop in point over the Glide In time set in the **Utils** menu.

For all other methods of entering automation record, the mix item value is always the current Read value, so there is no transition.

Automation Playback

The DREAM II automation system ensures that your mix will always play back exactly as recorded. There are two main forms of automation data recorded in a project. The first is the static snapshot of all parameters which is recorded whenever a mix is saved. The second type of data are the dynamic auto-

mation events that are recorded every time a parameter is modified while the system is writing or trimming automation.

Once a dynamic event has been recorded on a feed or bus, that parameter will be in READ whenever **Mix ON** is engaged and the transport is in **PLAY**.

When the system detects that a parameter control has changed while in Write or Trim, a dynamic event is recorded that stores the previous value and the new value (FROM value and TO value) of that specific parameter at a specific timecode location.

When **Mix ON** is engaged and the transport is located to any position on the time line, the automation system looks back and forward in time to find any events previously recorded for the parameter. If no dynamic events have been recorded for the parameter, the parameter is set to the value recorded in the mix snapshot.

The current value for any parameter is determined in the following order:

The parameter is set to the TO value of the most recent previous event.

If no previous event exists, the parameter is set to the FROM value of the next future event.

If no future or previous event exists, the parameter is set to the value recorded in the mix snapshot.

Programmed Automation

The entire automation system can be punched into record, at which time all enabled mix items will start to write automation data. This can be done manually or automatically.

Manual Punch In

The **In** and **Out** keys can be used to enter and leave automation record. The keys can be pressed while the transport is in **STOP** or **PLAY** to manually drop in or out of Write (or Trim if selected) on the enabled mix items.

Automatic Punch In

You can punch in and out of automation record at pre-defined In and Out points. The basic steps are:

Step 1   Set the In and Out points.

Step 2   Make them active.

Step 3   Perform the punch, explicitly (using Punch) or implicitly (by playing over the active points.)

To set In and Out points:

Step 1   Select the Mixer Megamode and press the **Mix On** button to turn on automation.

Step 2   Move the transport to the required In point and press the **From** key to capture the In point. The In point timecode location is displayed in the Pad when the **Mix Menu** is active.

Step 3   Move the transport to the required Out point and press the **To** key to capture the Out point. The Out point is displayed below the In point in the Pad when the **Mix Menu** is active.

To make the In and Out points active.

Step 1   Press the **Active In** button to make the automation In point active. The **Auto Punch** key appears.

Step 2   Press the **Active Out** button to make the automation Out point active. The **Auto Punch** key appears, if not already displayed.

Note: you do not need to activate both In and Out points. See below for consequences.

To enter record explicitly:

Step 1   Press the **Auto Punch** Key.

The transport will preroll the In Point, go into automation record when it reaches the In Point (if active), then exit record at the Out Point (if active).

If the In Point is not active, the transport will still preroll and pass it, allowing you to punch in when ready, by pressing the **In** key.

If the Out Point is not active, the transport will go into record at the In Point, then stay in record until you manually exit.

The transport continues to play after the Out point. The punch preroll time is set in the System_Variables file, see "Setting the Automation Punch Preroll" on page **Error! Bookmark not defined.**.

To enter record implicitly:

Step 1   Move the transport to a location before the In point and press **PLAY**. The automation system will enter **WRITE** or **TRIM** when the transport moves past the In point (if active), and return to **READ** when the transport moves past the Out point (if active).

Note: The Active In and Out points become inactive once the system has dropped in or out.

Once the transport has moved over the In or Out point, they are made inactive. This means you can quickly audition the changes you have just recorded by pressing the **Play Menu** {Again} key sequence without having to first disable automation. To perform another automation pass, the In and Out points must be made active again by pressing **Active In** and/or **Active Out**.

Link Audio and Mix Recording with PRIME

The PRIME function links the automation to the audio recording controls. This means that, whenever you enter normal recording on the transport controls, the automation system also enters recording.

This is particularly useful if your working method is to record your mix progressively as you go through a project, because you will automatically be recording the automation moves at the same time. It's also useful if you gain some facility with the recording controls, including the ADR menu, which offers some very sophisticated rehearsal and automatic recording features.

To use the PRIME function, press the **Prime** key. While it is on:

Press the **PLAY** and **REC** transport keys to drop in to record. Note that the enabled Mix Items enter Write, and armed tracks enter record.

Press **STOP** or **PLAY** to drop out of record. The enabled tracks return to Read.

NOTE: It is not necessary to have any tracks armed for recording, in order to use PRIME. It also allows you to use Record Again and other automated record functions, as triggers for Automation Record.

Saving and Loading Mixes

Up to 256 complete mixes may be saved in each project and recalled later. Mixes must be saved before closing a project, or any unsaved mix data will be lost. The available space left in the project file for new mixes or mix data is displayed in the Mix menu. When the space left falls below 2% the Save soft key becomes disabled.

Saving a Mix

Step 1   Press the **File** button.

Step 2   Press the **Save** soft key in the LCD menu.

Step 3   Type a unique name for the mix on the PC keyboard and press `Enter`.

Alternatively, type a name with a numeric suffix, (e.g. `Demo Mix 1`). The next time you press `Save`, a new name will automatically be generated with an incremented suffix (e.g. `Demo Mix 2`). Press `Enter`, to save the mix with the new name.

Loading a Mix

Step 1   Press the `File` button.

Step 2   Turn the jog wheel to scroll through the previously saved mixes.

Press the `Sort:` soft key to select `TIME` or `ALPHA`. ALPHA sorts the saved mixes in alpha-numeric order. TIME sorts the saved mixes in the order in which they were saved, with the most recently saved mix at the end of the list.

Step 3   Press the `Load` soft key in the LCD menu to load the selected mix.

Step 4   Confirm by pressing the `Yes` or `No` soft key.

Deleting a Mix

Step 1   Press the `File` button.

Step 2   Turn the jog wheel to scroll through the previously saved mixes.

Step 3   Press the `Delete` soft key in the LCD menu to delete the selected mix.

Creating a New Mix

Follow these steps to create new empty mix with no automation data:

Step 1   Press the `File` button.

Step 2   Press the `New Mix` soft key in the LCD menu.

This new mix must be saved once new data has been written.

Copy a Mix Between Projects

Mix Carry Over allows the static snapshot and dynamic mix data from a single mix to be copied from one project to another.

Step 1   Step 1 Press the `File` button and use the `Save` or `Load` soft key to save your current mix or load a previously saved mix.

Step 2   Press the `Carry over` soft key in the File menu. The Carry over key flashes when carry over is active.

Step 3   Close the current project.

Step 4   Open the destination project.

Step 5   Hold down a **BLUE** key and press `File` key and use the `Save` soft key to save the mix in the new project.

Mix Undo

The automation system supports one level of mix undo.

Step 1   Press the `Mix Menu` button.

Step 2   Press the **Undo Pass** soft key in the LCD menu.

UNDO PASS deletes all mix automation data written between entering **PLAY** and **STOP** during the last mix pass. UNDO PASS can be used until new automation data is written. If UNDO PASS is pressed during a mix pass the soft key flashes to indicate that all data written during that pass will be ignored.

Undo Pass also reverses the effect of graphical mix editing.

'System Mix' - Save function

The 'System Mix' function is available from the FILE menu. When switched on, the current mix pass will automatically be saved when the project is closed, and will likewise automatically be loaded when the project is opened.

Step 1   Press the **File** button.

Step 2   Press the SYSTEM MIX ON soft key in the LCD menu.

AutoSave

Also from the FILE menu, there is an "AutoSave" feature available, with user-definable timing from 5 to 60 minutes.

The Mix Menu

Only mix menu items that are dimly lit are available in DREAM II software release 2.0

Press the **Mix Menu** key to display the Mix menu. When the mix menu is active, the feed and bus selection keys are used to enable specific paths for automation. The **From** and **To** keys can be used to set the In and Out points for automation punch In and Out points which are displayed at the left of the LCD. The available mix memory is displayed in percent. The current mix name is displayed at the right of the LCD.

Target   Controls whether editing targets automation data.

When set to audio, all clip editing functions affect only the audio.

When set to both, clip editing functions like copy-paste, nudge and slip will affect the automation data as well as the audio clips. See Automation-follows-editing, later in this chapter.

undo pass   Undoes the last automation pass. **Note:** there is only one Undo.

all Read   All parameters are instantly dropped in to Read.

On STOP   Determines what data is written after leaving automation record by pressing the **STOP** key or pressing the **Mix ON**.

Hold - erases all events from the current position to the end of the project.

Return - returns to the previously recorded value at the current location.

Event - holds the current value until the next event is encountered.

Touch Auto Enable

ON - When a Touch mode is engaged (SNAP or LATCH), any enabled parameters that are touched are automatically put into Write or Trim. It is not necessary to first enable the feed or bus.

OFF - When a Touch mode is engaged (SNAP or LATCH), only feeds or buses that have been enabled in the mix menu will be put into Write or Trim when their enabled parameters are

touched.

Note: Touch Auto Enable is selective by parameter. For example, if the EQ section is enabled, and you touch only one control, only it will go into Write or Trim. The other EQ controls will remain in Read until you touch them.

Join   Allows you to "carry" written values from one place to another.

Each time the system comes out of Write mode, it remembers the values of all parameters that were enabled. Now, if you locate to any other time and press {Join} the system will immediately go back into Write, with the remembered values set.

This is useful for setting a scene or section balance as follows:
Starting writing automation anywhere in a scene or section. Adjust parameters until you are happy with the sound. Now go back to the head of the scene and press {Join} then **Play**.

Write Recalls

Used with the Library and touch settings, to make presets trigger the automation.

When {Write Recalls} is toggled on, any enabled parameter that changed by loading a Library preset behaves as though physically touched. This means that, if Touch write is on and the parameter is enabled for the relevant signal path, it will go into Write.

This is a handy way of writing snapshots into the automation.

Fill Range   Used in conjunction with Preview. Causes the current values of previewed parameters to be written through the range.

The Utils Menu

Glide In   When a parameter transitions from one READ value to a new RECORD value discontinuously, as when dropping in from PREVIEW to RECORD or when merging one mix into another, this value is used to define a ramp from the previous data to the new data.

Press the `Glide In` soft key and use the jog wheel, numeric keys or +/- keys and press **Enter** to change the Glide In value.

Glide Out   When a parameter transitions from one RECORD value to a new READ value discontinuously, as when dropping out of RECORD or when merging one mix into another, this value is used to define a ramp from the previous data to the new data

Press the `Glide Out` soft key and use the jog wheel, numeric keys or +/- keys and press **Enter** to change the Glide Out value.

Update Sys-File

Saves the following system settings to the following files:

Monitor_Sources.TXT - patching and formats of external monitor sources.

Speaker_Sets.TXT - patching and formats of all speaker sets.

Setup_Variables.TXT - Call Follow state and Constellation brightness.

Automation with Link Groups

Link groups are useful for dealing with groups of feeds carrying audio in a multi-channel format such as stereo or 5.1. See "Grouping" on page 212 for an overview of link groups.

Link groups should be established before any automation is written. If members are added to a group when automation data is present on either the master or the members, the data on the members is erased. If the link group is destroyed or unlinked after automation is recorded for the group, the automation data remains on the group master but not the slaves.

Only the parameters on the link group master can be automated – the slave member's parameters follow the master.

Mix Editing

Mix Copy

Mix Copy allows a selection of automated mix parameters to be copied from one time location to another.

Step 1   Press the **MIX ON** key to enable mix automation.

Step 2   Select the mix items you wish to copy by selecting parameters and signal paths in the usual way.

Step 3   Use the **From** and **To** keys to select the range from which you want to copy. The IN and OUT points are displayed on the LCD.

Step 4   Press the **Mix Edit** soft key in the Mix menu.

Step 5   Locate the cursor to the destination where you want to paste the mix automation data.

Step 6   Press the **Copy Mix** soft key to perform the mix copy operation.

Step 7   Press the **Back to Mix** soft key to return to the Mix menu.

Automation-follows-Clip Editing

In addition to the 'Mix Edit' functions, it is also possible to edit automation data whilst editing the audio. For Clips, or Ranges of Clips, their corresponding mix data can be "Copied" or "Cut" to another position if Data is included on the Edit Target key.

Step 1   Press the **Mix Menu** button.

Step 2   Press the **Target** soft key until "both" is selected.

Step 2   Edit audio in the usual ways, and all automation data for the sections of track you are editing will also be edited.

Note: When a range is selected, automation data is cut, copied and pasted for the entire range, whether or not clips are present. Undoing the audio edit will also undo the automation change.

Data Storage

All the mix data of the current mix is stored in system memory. This data must be explicitly saved to disk as a named mix. If a new project is loaded, the previous mix data is retained in memory and may be saved as a mix in the new project.

Mix "Thinning"

Constellation offers a Mix "thinning" algorithm that "ignores" identical static mix data, This is especially useful for large amounts of mix data as it can largely reduce the actual number of mix events. When automation is written, there can be events that are nothing more than a block of "static" information e.g. nothing more than an "in and out" point with no "dynamic" information in between. These neutral events can nonetheless add up to a lot of data. With Mix Thinning turned on, multiple identical events of

this nature are only identified once therefore creating less events data in the global mix. The feature operates transparently.

If desired, this functionality needs to be turned on:

Instructions:

Step 1   Hold down a **BLUE** key and press the `Utils` key to enter the Utils menu.

Step 2   Update your Sys file by pressing the `Update Sys File` soft key.

Step 3   Type <Shift-Pause-Q-Y> on the keyboard to quit out of the FMC console software program.

Step 4   Navigate in Windows to \Fairlight\FMC\Data and open the file System_Variables.TXT

Step 5   There is a line in that file:

              MIX_THINNING_ENABLED, 0

              Set the 0 to a 1 and save the file.

              Restart the system, and Mix Thinning will be operating.

On-Screen Mix Controls
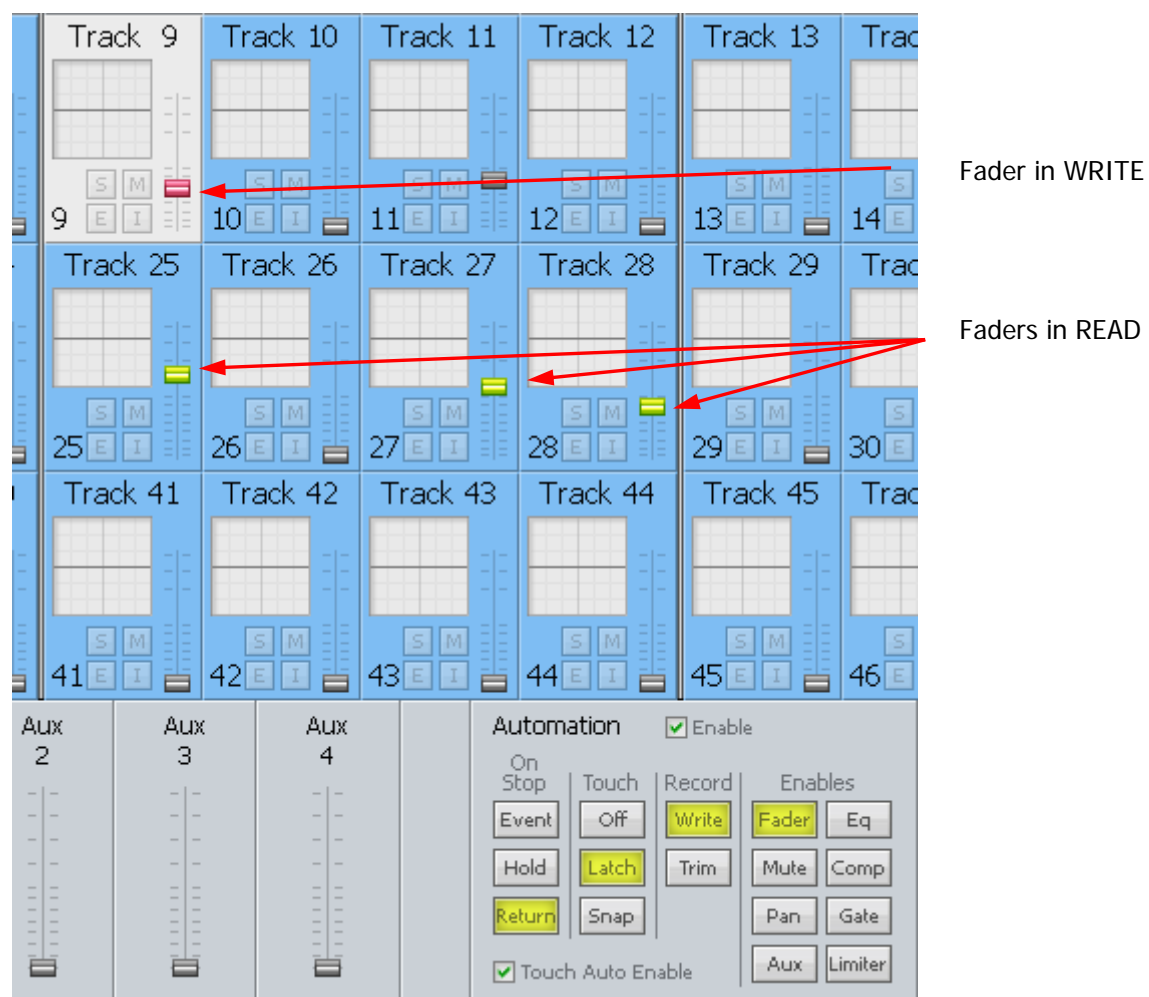
The controls in the lower right of the screen correspond with controls in the menus and on the console surface.

The Automation Enable checkbox is equivalent to the Mix On button.

Automation Curves

Automation data for tracks can be shown on the Edit Screen using the following command sequence:

View➔Smart Pane➔Automation, or by pressing the {Curves} soft key in the Mix Menu.

Click to toggle
automation
graphs on or off

Click to remove
automation
display
parameter

Pull down menu
of automation
display
parameter

Preset controls

Edit Controls

To display automation curves on one or more tracks:

Step 1   Select the tracks where the automation is to be displayed

Step 2   Click the **Display** button

Step 3   Select the parameter to be displayed – use either the pull down menu or a preset

Note that each track may show its own selected parameter. The Display button is also used to turn the curves off.

Presets

Presets are used to quickly access a particular parameter. The first six buttons are provided with factory presets, but you can replace them with your own.

To apply a preset, simply click on it when the Display button is selected.

To create a preset:

Step 1   Turn the **Display** button on if necessary

Step 2   Select a parameter to be displayed using either the pull down menu

Step 3   Click the Save button

Step 4   Click a preset button

Step 5   The system will request a name for the preset. You may use the suggested name or choose your own.

The Curve Display

Automation data is shown as a green line, with the name of the parameter to the right of the cursor.

For switched parameters like Mutes, the line is shown high when the channel is on, and low when it is muted, as shown below.

When writing automation, the graph is shown in red. Existing automation data is shown in green, allowing you to target punch out points easily.

Note that, in this case, the red line continues past the cursor. This shows accurately what will happen when Write is exited, because the system On Stop setting is EVENT, meaning the current value will be held until the next change in automation value.

Here is how it looks when On Stop is set to HOLD:

In this case the red line continues at the same value to the end of the screen, because this value will be written to the end of the project.

Editing Automation Curves

Automation data can be edited graphically using the mouse. To do this, click the **Edit** button.

There are two ways to edit, Events and Draw.

Events

To edit Events, click on the **Events** button.

Events are shown as red squares. Note that each event is a value of the parameter. After an event the value stays constant until just before the next event, when it ramps up or down to the next value. When events are close together, as shown above, they are joined by a smooth line, reflecting this ramp. Otherwise the values are held constant and shown with a horizontal line.

While Events are displayed you may do any of the following:

- Move an individual event with the mouse.

   You may change the event value (move up or down) or its timecode (move left or right). The timecode position is bounded by the next and previous events.

   The timecode and current value of the event are shown in the Automation Edit group of the Smart Pane.

- Select one or more events by making a box (marquee) with the mouse. Selected events may be:

- Dragged up and down or left and right. Left and right movement is bounded by the next and previous events. The value of the highest point is shown in the display above.

- Deleted using the Del key

- Create a new event by clicking where there is currently no event.

- Combine moving and creating by clicking above or below the line. If there is no point at the timecode where you clicked, one will be created, but if there is one within a quarter-frame of where you clicked, it will be raised or lowered to your mouse position.

Drawing

Drawing allows you to create automation data using the mouse. To begin drawing, click the **Draw** button.

Now click and drag on any selected track to create or replace automation data.

Undo

Automation changes made by editing or redrawing can be undone by pressing the **Undo Mix Pass** soft key in the Mix Menu.

There is only a single level of Undo, so only the last change you made can be reversed.

Time Domain Processing

Introduction

Xynergi provides powerful Time Compression and Expansion via Serato's Pitch 'n Time FE (Fairlight Edition), and automated dialog alignment via Synchro Arts Vocalign Project.

Time Compression/Expansion

Serato Pitch 'n Time FE provides the industry's finest time compression and expansion. Change length without changing pitch, or pitch without changing length, and hear the result in real time as you jump from clip to clip. Pitch 'n Time FE is fully integrated with Dream II's Binnacle controller, allowing for fast, intuitive operation.

** Note: Pitch 'n Time FE requires an iLok USB Security Key and a valid license. Licenses can be purchased at http://www.serato.com

Step 1   To enter the Wave Menu, press the **WAVE** key.

Step 2   Press the Pitch 'n Time soft key. The Pitch 'n Time FE popup appears.
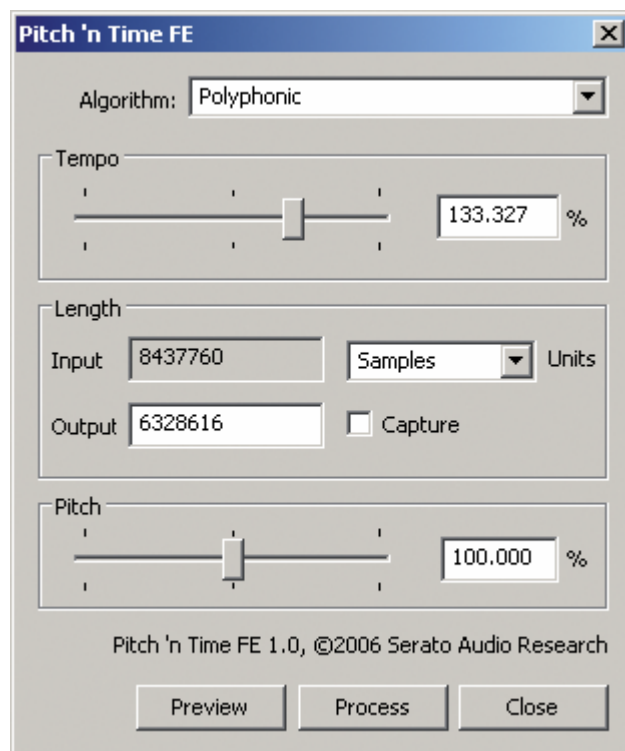
Use the keyboard and mouse to adjust parameters:
- Select an Algorithm

    o   Polyphonic – best suited for music

    o   Vocal – best suited for voice

    o   Varispeed – varispeed mode

- Press the `preview` soft key or "Preview" button to audition your settings in real time.

- Tempo changes speed without changing pitch. Use the tempo slider to set the desired tempo *or* press the `fit range` soft key to capture the current range length *or* press the `edit` soft key to edit the output duration or type a value in the "Output" box.

- Pitch changes pitch without changing tempo. Use the pitch slider to set the desired pitch.

- Press the `process` soft key or "Process" button to render your changes back to the timeline. A new clip will be created, and the original clip will be muted and preserved in the layer underneath.

Using VocAlign Processing

** Note: Vocalign Project can be purchased at http://www.synchroarts.co.uk/. Dream II systems will recognize Vocalign Project after it has been installed and run at least once.

Step 1   To enter the Wave Menu, press the **WAVE** key.

Step 2   Select two tracks for VocAlign Processing. The first selected track serves as the guide track. VocAlign will attempt to match the second track to the guide track. Note that VocAlign cannot process clips longer than 120 seconds
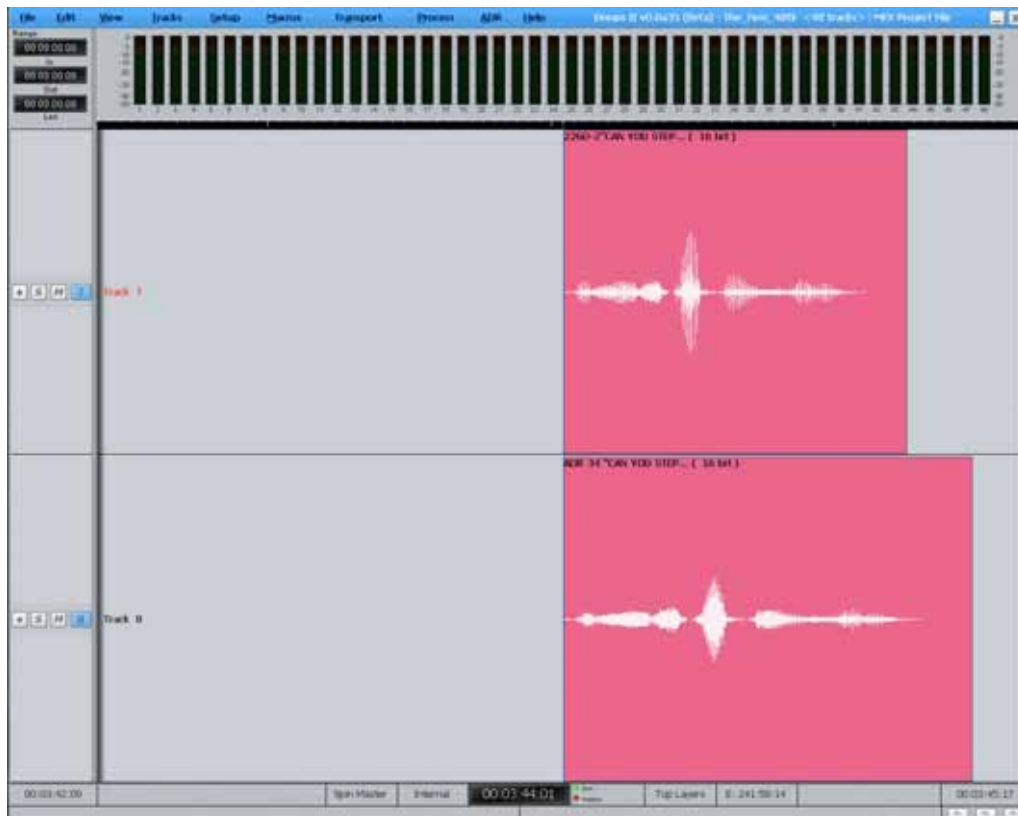
Step 3   Press the {`VocAlign`} soft key. The VocAlign popup will appear.

Render
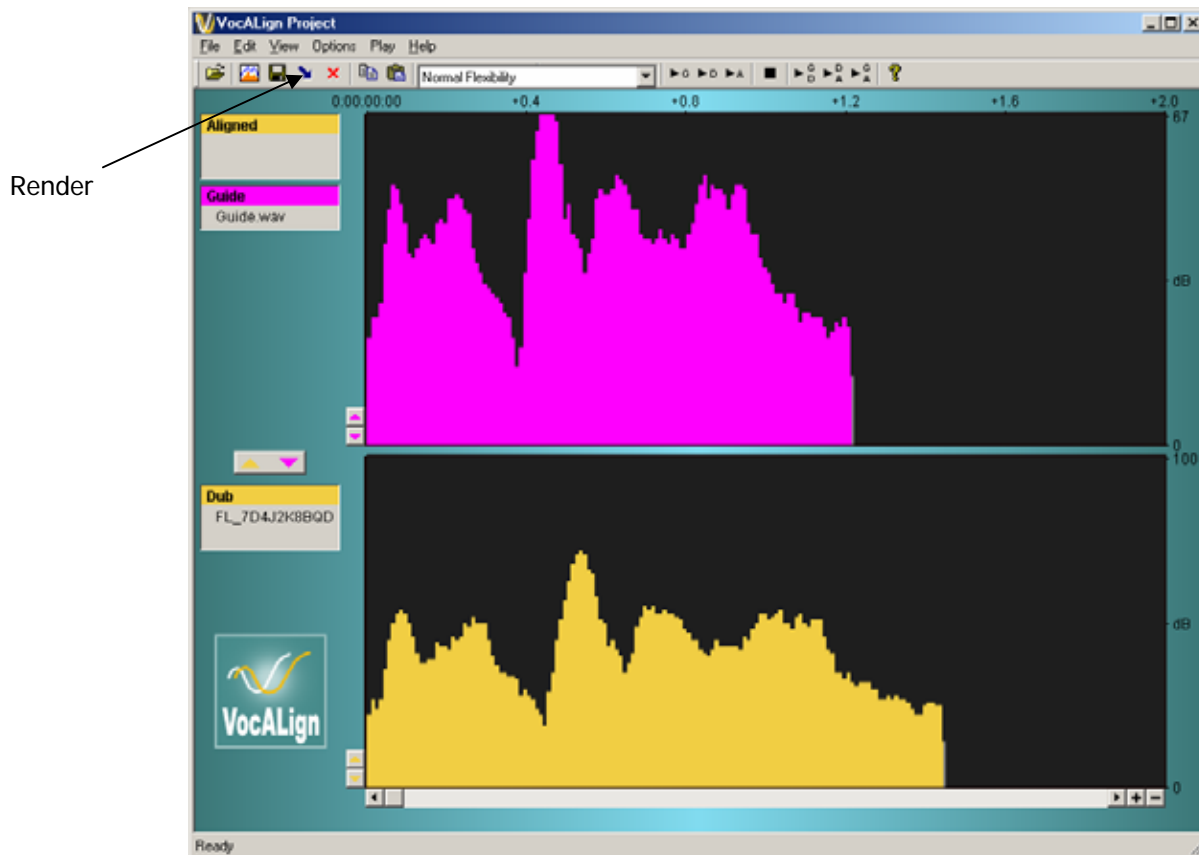
Step 4   Adjust VocAlign parameters or use defaults (see the VocAlign manual for details). When you are ready, press the "Align" button or the `align` soft key. A new clip will be created on the Dream II timeline, and the original clip will be muted and preserved in the layer underneath

Removing Clicks

Clicks in audio media can be removed by rewriting waveform data using a simple linear smoothing algorithm.

Step 1   To enter the Wave Menu, press the `WAVE` key.

Step 2   Select the track where the click is found.

Step 3   Identify the click by zooming in very close, and position the click exactly under the cursor.

Step 4   Press the `Remove Click` soft key.

Step 5   The `Width` soft key becomes active. This should be set to match the number of samples occupied by the click. To do this, turn the `Jog Wheel` until the red range on the screen matches the width of the click.

Step 6   When the width is correctly set, press the `Enter` key to execute the command.

Note that the click must not be in the fade-in or fade-out area of a clip, and that the command does not work on linked clips (i.e. Multi-Channel clips).

Undo is available after using the Remove Click command.

Tracks & Transport

Introduction

Xynergi provides up to 192 disk recorder tracks routed via dedicated track feeds. In addition to the track feeds it supports live feeds which may be used for effects returns or any other real-time signal source.

Displaying Tracks

Number of Tracks

Disk recorder tracks are displayed on the video screen. Select the number of tracks to display by holding down the **BLUE** key, and pressing one of the numeric keys labeled `1T`, `2T`, `4T`, `8T`, `16T`, `24T`, `32T` and `48T`. The most recently selected track always appears in the track display.

Step 1   Hold down the **BLUE** key

Step 2   Press the desired **Track Display** key

You can also select the desired track view in the onscreen View Menu, Tracks Submenu.

A new method using the Jog Wheel is provided as follows:

Step 1   Hold down the ctrl or **BLUE** key, and the `Zoom` key

Step 2   Turn the Jog Wheel

The number of tracks will change, always keeping the most-recently-selected track visible.

User Selection of Tracks

In addition to the track selections described above, you can display any number and selection of tracks, including discontiguous numbers. There are three User Sets, labelled U1, U2 and U3, which can be set and recalled at any time.

To create a User Set

Step 1   Hold down the **BLUE** key

Step 2   Press the **3, 6** or **9** key, and hold it down.

Step 3   Select the tracks that you want in this set. Deselect tracks that you do not want in this set.

Step 4   Release the **3, 6** or **9** key.

To access a User Set

Step 1   Hold down the **BLUE** key

Step 2   Press and release the **3, 6** or **9** key.

To return to a contiguous track set, simply select one.

NOTE: When a user set is displayed, the last-selected track does not automatically appear on screen.

Pyxis Track – Displaying Video

Full details about Pyxis Track are given in the chapter Pyxis Track, on page 256.

Track Colours

Each track has a colour that is shown at the left, and which can be given to the clips on that track. Selected clips are always shown red, i.e. those touching the cursor or in a range, on selected tracks.

Tracks show colour tabs

Selected clips are always red

Clips normally show the track colour.

Clips can also be given special colours
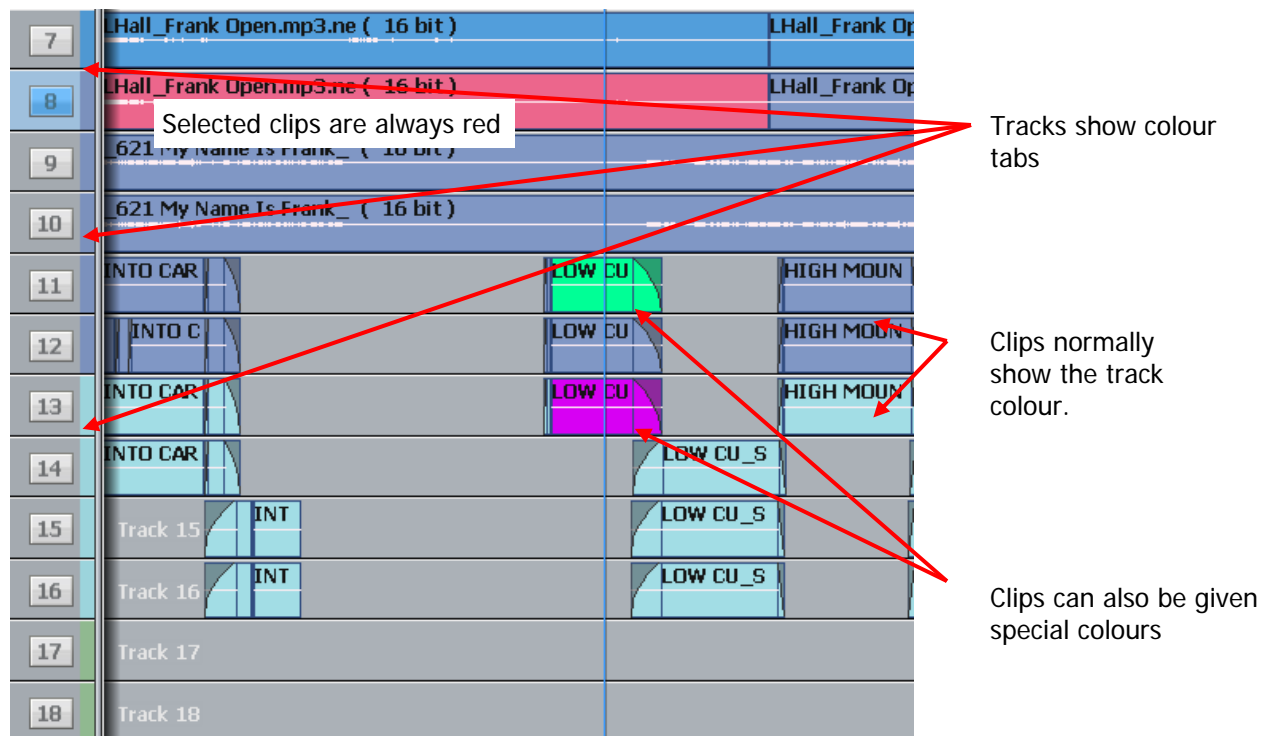
To select track colours,

Step 1   Select tracks you want to colour.

Step 2   Use the menu: Tracks ➔ Set Track Colour

Click to choose a colour for all selected tracks.

Click to force all clips on a track to adopt its colour, regardless of what they are now.
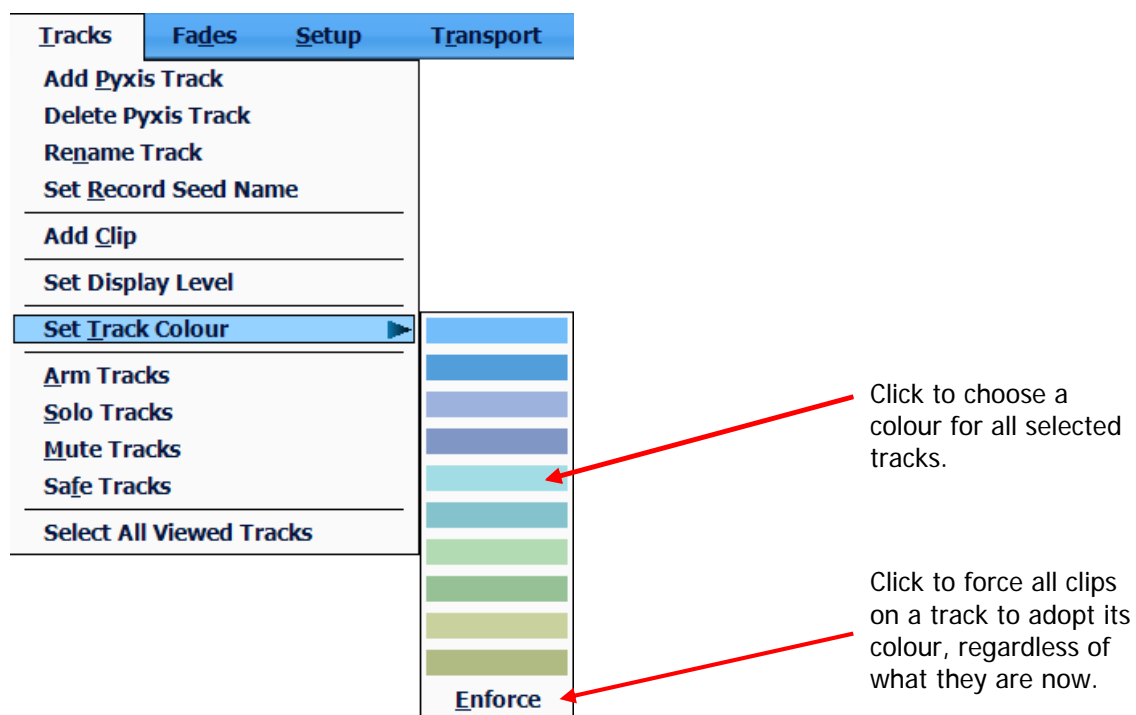
When you choose a track colour, all clips on the track that currently have its old colour are given its new colour. This applies to all clips for which you have never explicitly chosen a colour.

The Clip

When audio is recorded or imported into Xynergi it is displayed as a clip. The clip is a reference to the audio data stored on disk. Clips can be cut, copied or moved without affecting the original audio data.

When new clips are recorded or pasted above existing clips, the clips become layered one above the other. Normally only the top clip is seen and heard during play-back. DREAM II now allows all layers to be seen simultaneously. To do this,double-press the **Takes** button in the Editor Megamode, or select/deselect Display Layering in the onscreen View menu.

While Display Layering is on, you can drag clips from one layer to another using the mouse.

The left end of the clip is known as the head. The right end is the tail.

Clips also contain information about the original timecode location of the audio data when recorded, and the current timecode location of the displayed clip.

If a clip shows only a portion of the associated audio data on disk, it may be trimmed to show more.

Add Clip

You can create a new clip in a few ways:

- Recording into the system (see Chapter 11 – Recording)

- Importing clips from other projects (see Chapter 12 – Editing)

- Directly adding a clip

To directly add a clip, use the Track menu as follows:

Step1   Use the command **Track** ➔ **Add Clip**

   The system displays the following dialog:
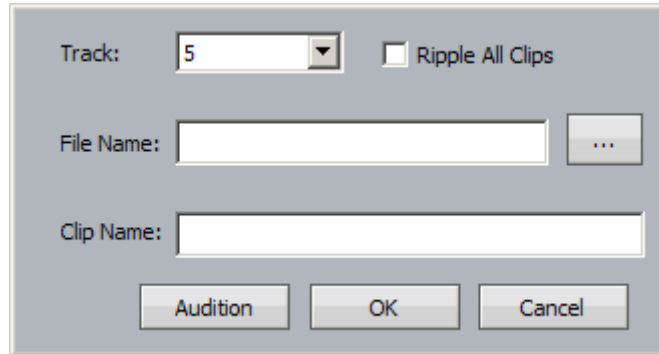
Step2   Choose the track where you want the clip to be placed

Step3   Choose the audio file that will be played by the clip.

   You may type in the name of the file if you know it, including its full path

   Alternatively, click the Browse button (labeled "…") and find the file in your disk storage

Step4   Choose a name for the clip.

Step5   You may audition the clip at any stage to confirm that you have the right audio

Step 6   Click OK to create the clip. It will be placed at the current timecode position, on the track that you chose.

Clip Display Information

You can choose which information is displayed in clips using the command: **View** ➔ **Displayed Clip Information**. The system displays a dialog like this:
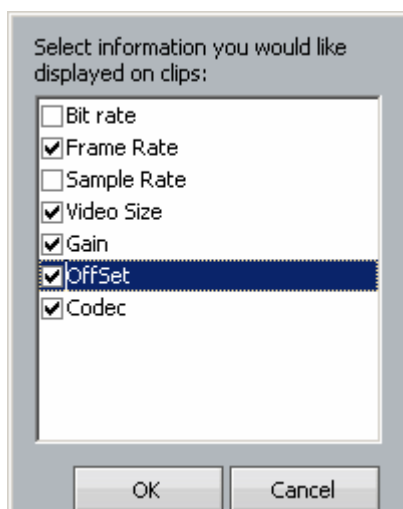
Note that Frame Rate, Video Size and Codec are only shown on Video clips (see Chapter 34 – Pyxis Track, on page 256, for details about video).

Choosing Clip Colours

To explicitly choose clip colours, do the following:

Step 1   Select tracks containing the clips you want to colour.

Step 2   Move the transport so the clips are under the cursor, or make a range using the From and To keys. The clips should be red.

Step 3   Use the menu: **Edit ➤ Set Clip Colour**

Click to choose a colour for all selected (red) clips.

There are two extra colours just for clips, useful for reminding you that they need attention.

Click to return the selected clips to their track colour.
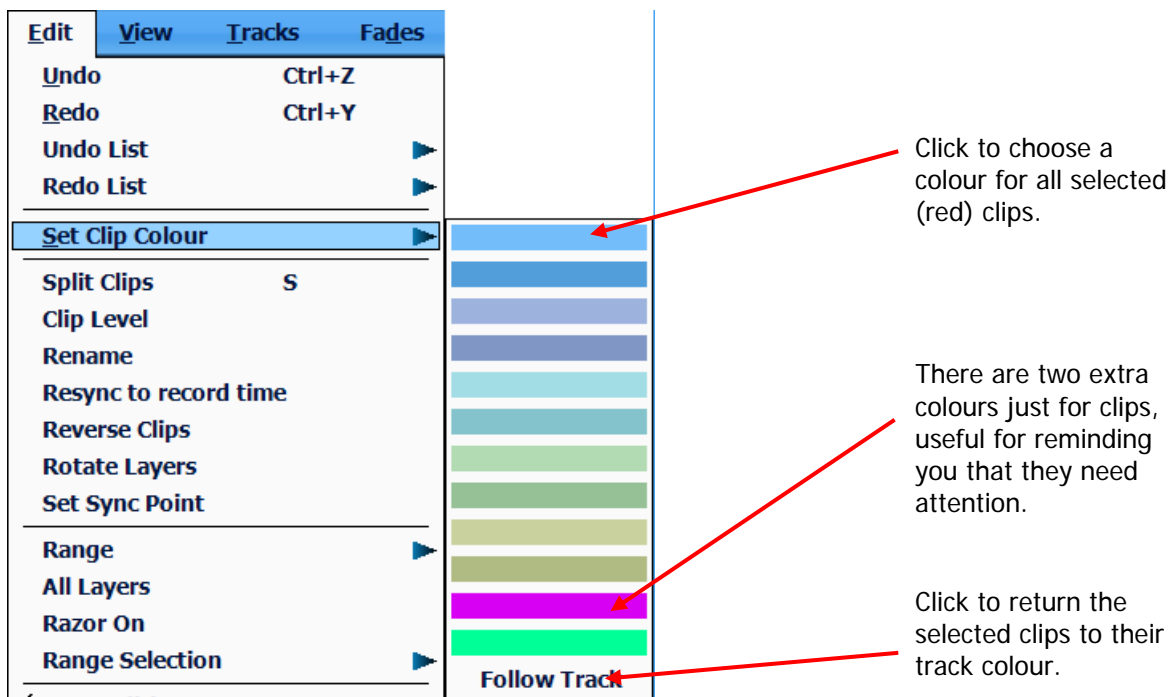
Multichannel Clips

Multichannel clips are linked for editing operations. They are displayed with no separating line, and a little smaller in height.

The picture below shows two stereo multichannel clips.
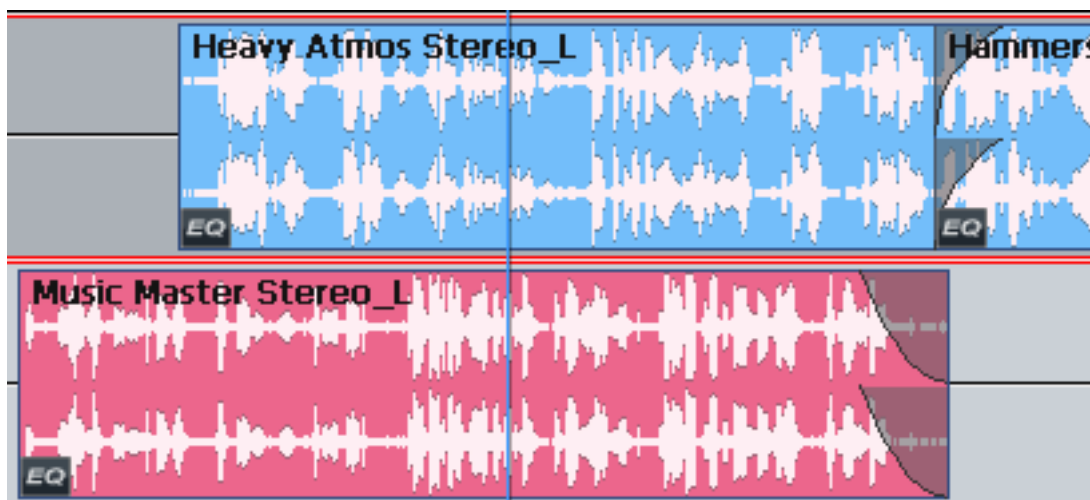
You can create multichannel clips in two ways:

- By importing a multi-channel Wave or other file

- By Recording into a Link Group of tracks

Once a clip has been defined as multichannel, operations on one channel of the clip (eg – EQ) affect all other channels.

Multichannel clips can be broken apart using the command **Edit ➔ Cleave Multi-Channel Clips**.

Clips that have previously been cleaved can be restored using **Edit ➔ Restore Multi-Channel**.

Selecting Tracks

In most layouts, 12 keys beneath the soft keys allow track selection. The Bank keys at the ends allow selection of any group of 12 tracks.

Using Track Keys

Press a dark track selection key to add that track to the selection.

Press a lit track selection to remove that track from the selection.

To select a range of tracks, press and hold down the first track select key and double click the last track selection key you wish to be active. All other selections will be deselected.

To select a single track, double click on the desired track selection key. All other selections will be deselected.

Selecting a track which is a member of a link group will select all tracks in the link group.

The track selection may also be changed by holding the **Track Sel** key, to the left of the jog wheel, and turning the jog wheel or pressing the **+** or **-** keys. This is useful for moving selections from one track to another.

The most recently selected track is always displayed.

The SEL Key

The SEL key is used to display 48 signal paths at once. You can use the Bank buttons to move its focus through all the tracks in the project.

Using the Mouse

Press a dark onscreen track selection key to add that track to the selection.

Press a lit onscreen track selection to remove that track from the selection.

Click and drag your mouse in the onscreen track selection pane to select/deselect multiple tracks.

Click here to select the video track for editing

Click here to deselect Track 4

Click here to select Track 9
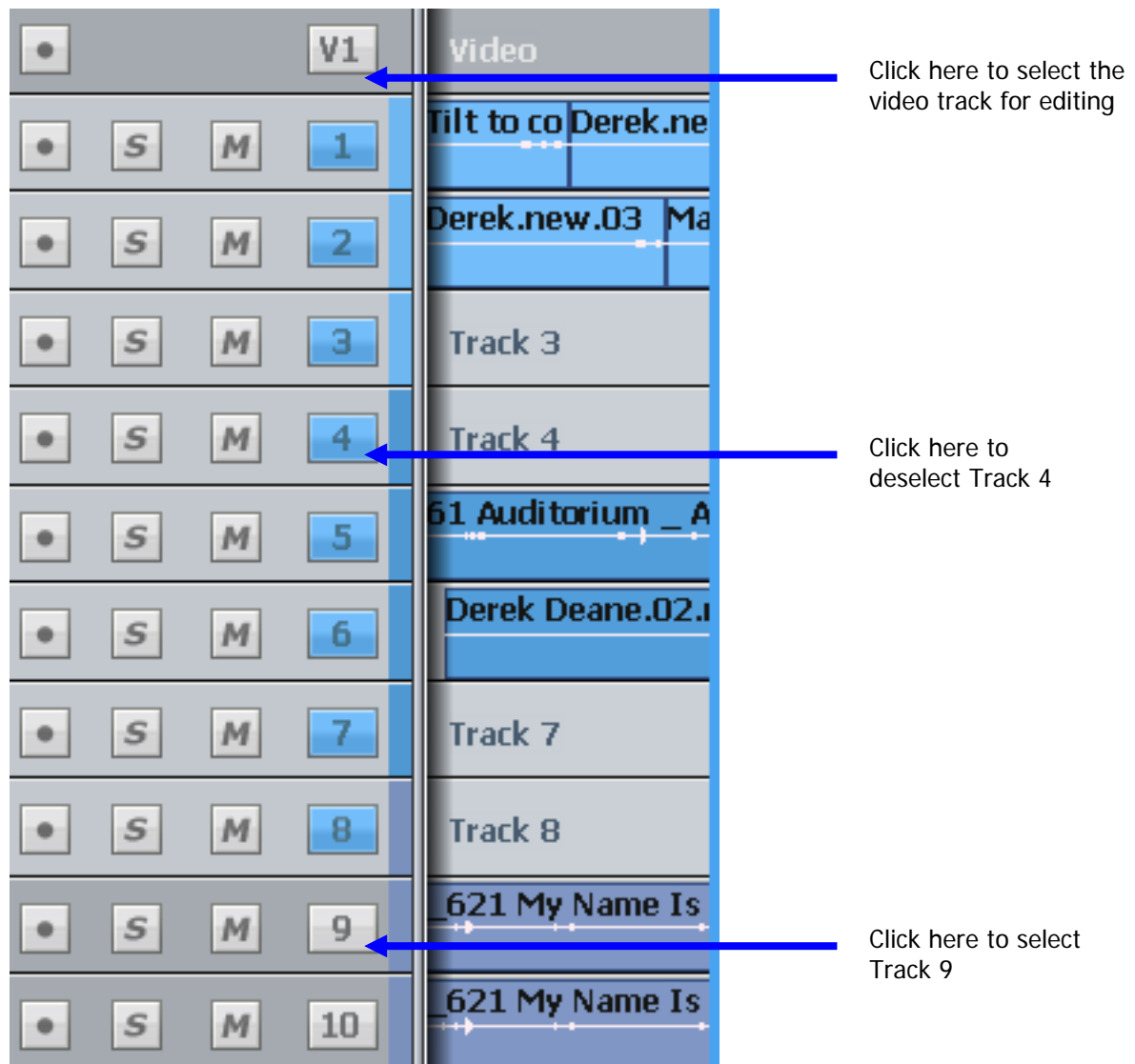
To select a single track, double click its number. All other tracks will be deselected.

Another way of selecting a track is to ctrl-click on a clip. This cannot be used to deselect a track. Ctrl-clicking will also select the clip, and create a range (or extend the current one) to include that clip.

Note: the mouse can also be used to:

- Mute or unmute a track – click the M

- Solo or unsolo a track – click the S

- Arm or disarm a track – click the button at left (the track must have an input patched to it, before it can be armed)

Time Scale and Display Zooming

The track display represents a 24 hour continuous loop. The timescale can be zoomed from a few samples across the screen to eight hours. The Zoom number and screen width are shown at the bottom left of the screen.
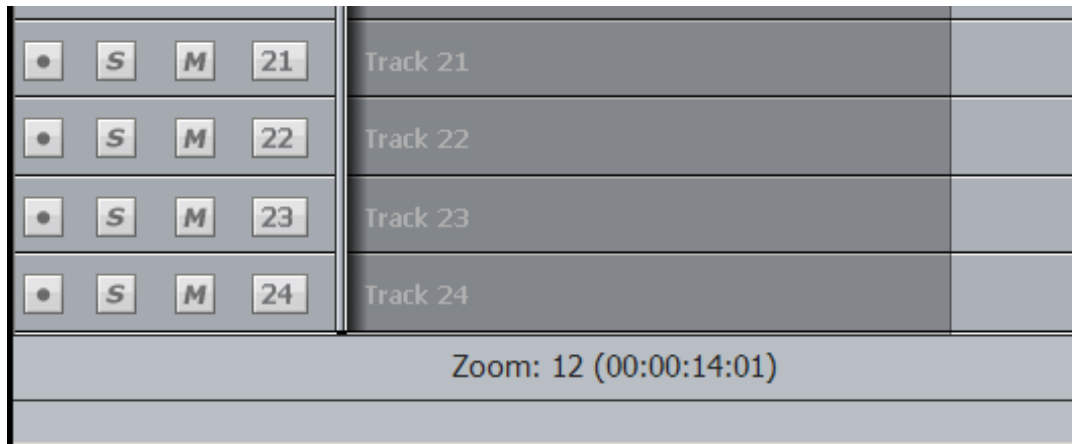
To change zoom range:

Step 1   Hold down either of the **zoom** buttons

Step 2   Turn the jogger wheel to zoom in and out

Alternatively:

Step 1   Hold down a **zoom** button

Step 2   Press a **Number** key on the Numeric Keypad.

Alternatively:

Step 1   Hold down a **zoom** button

Step 2   Press the **+** or **–** key.

The Mouse wheel can also be used to zoom the display (click on the Edit Screen first, to put it in focus). Float the mouse over the track display while turning the wheel.

Track display selection and zooming is possible while playing and recording.

Timescale display

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

To toggle between whole frames and frames with subframes, hold down the **BLUE** key and press the **Subf/Clear** key in the Numeric Keypad.

For all other timescale choices, select View ➔ Timescale and choose one of the options.
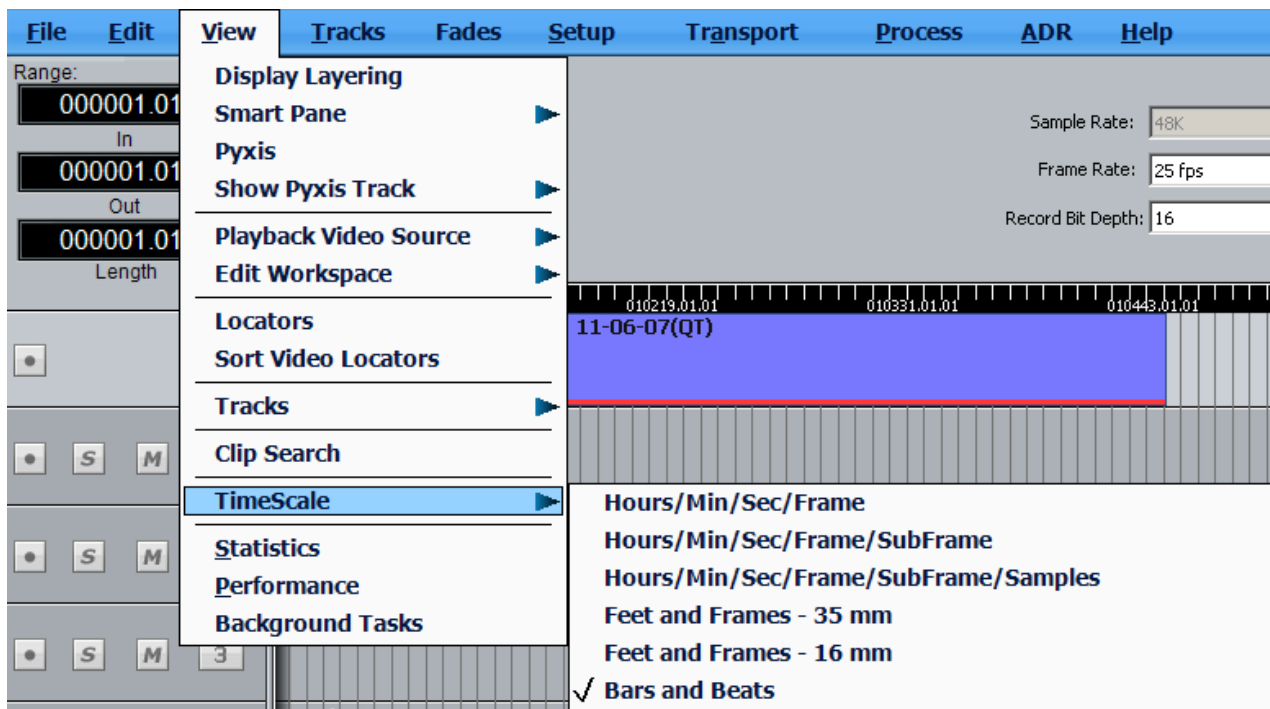
Bar/Beat display

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

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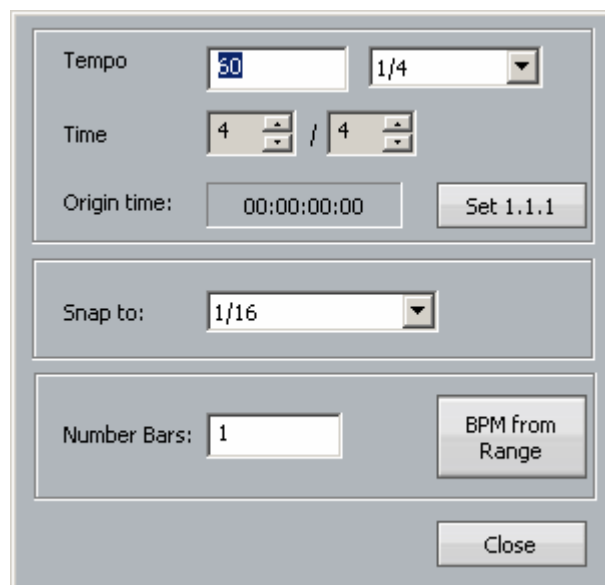
Tempo

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

Time

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

Origin Time

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

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

Snap

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

BPM from Range

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

Audio Scrollers

Audio Scrollers give you an optional close-up waveform view of one or two tracks that can be useful for editing or mixing.
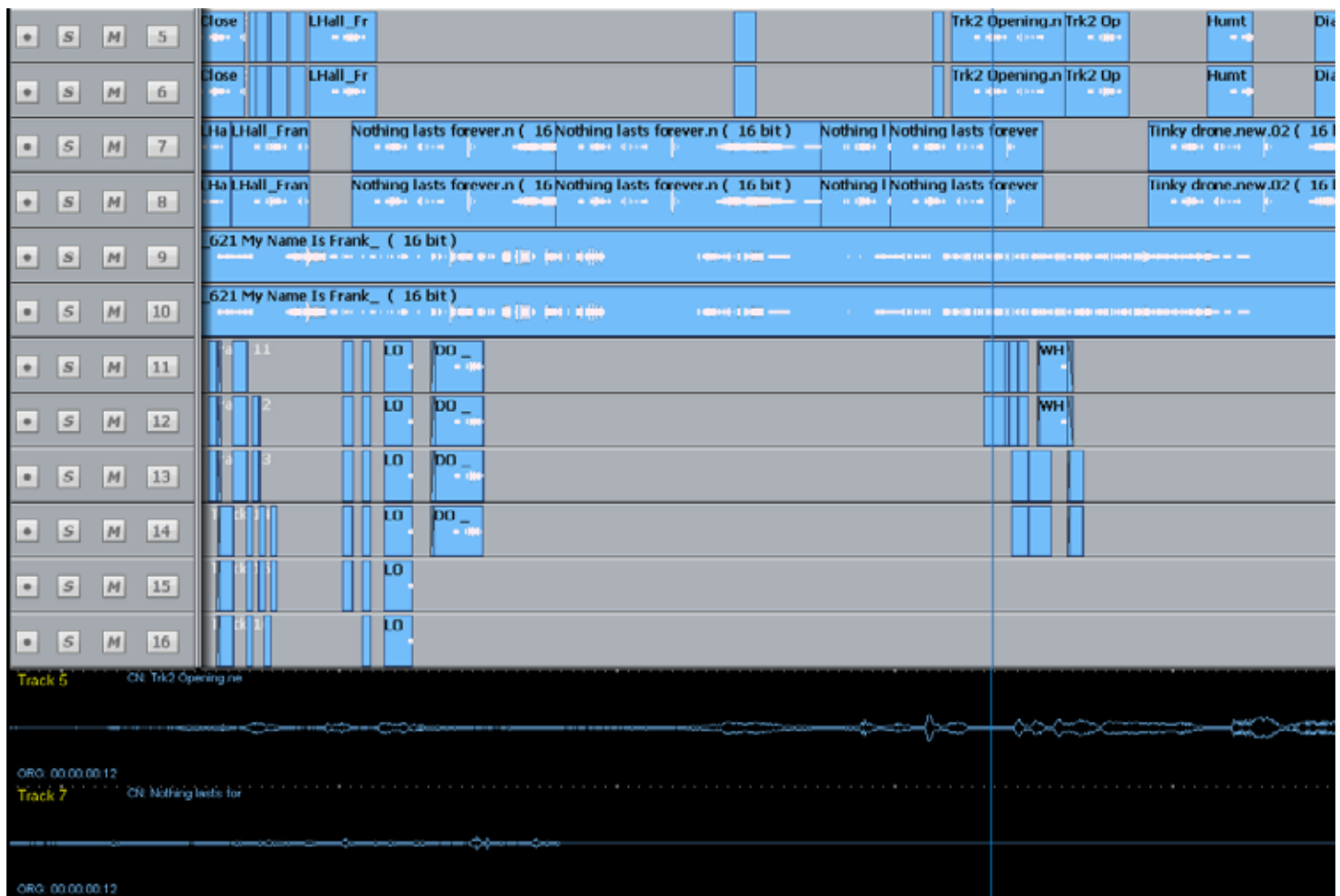
They effectively provide an extra zoom range to use on tracks of particular interest, while the rest of the screen gives more contextual information.

You can select tracks for scrollers by holding down **shift** and pressing **zoom** (you can now release Shift) and select scrollers on the track keys. No more than two tracks may be selected.

You can also do it this way:

Setup ➔ General Preferences ➔ Scrollers
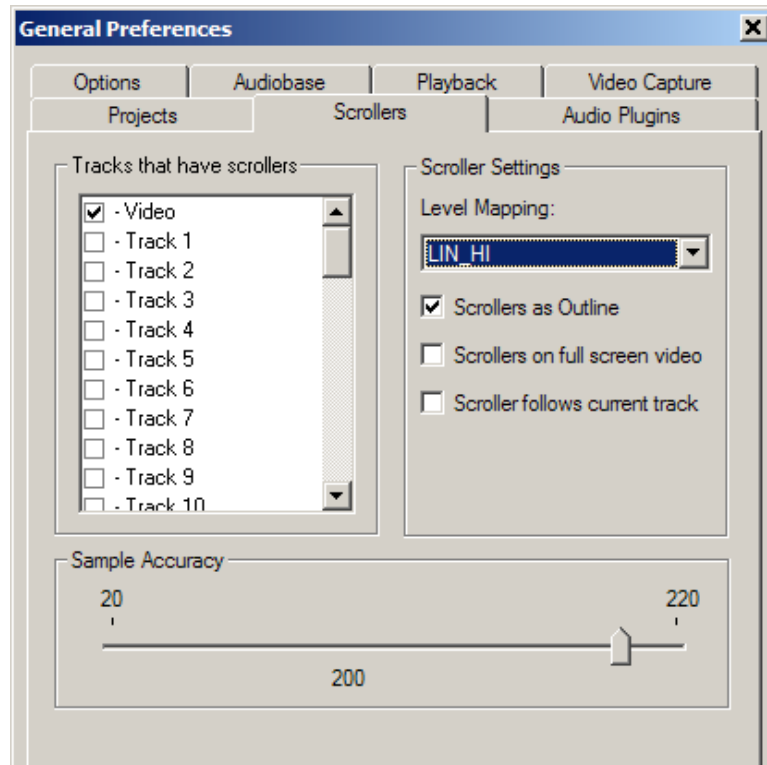
Select the tracks you wish to see. Only two tracks may be displayed.

You can also select tracks for scrollers by holding down Shift and pressing Zoom (you can now release Shift) and toggle scrollers on or off with the track keys.

You can only select a track if less than two are already on the screen.

While audio scrollers are displayed you can:

- Click at any point to locate to that position.

- Click and drag the scroller to move the transport.

- Zoom the scroller by floating the mouse above it and turning the mouse wheel. Alternatively, hold down the Shift and Zoom keys, then turn the Jog Wheel or press + and – buttons.

Other scroller preferences:

- Scrollers as outline – you can display the scroller waveform in solid or outline format.

- Scrollers on full screen video – you can choose to have the scroller display present when full screen video has been chosen. This is useful for moving the timeline.

- Scrollers follows current track – the scroller automatically chooses the most-recently-selected track for display.

Note: the Video Scroller is described in the chapter called Pyxis Track.

Transport Controls

The **PLAY**, **STOP**, **FF** and **REW** controls work in a similar manner to a tape machine. An additional feature is increasing the fast-forward and rewind speeds by pressing the respective keys multiple times. This accelerates through 8, 24, 60, 150 and 360 times play speed.

To enter record press the **REC** and **PLAY** keys together.

The play command can be accessed also by pressing the **Jog Play** Button.

The Space bar on the QWERTY keyboard can also be used to toggle the transport between Play and Stop, while the Track Display is in focus (click anywhere on the Track display to give it focus.)

Jog Commands

Pressing the **Play Jog** key enters Jog mode, unless already in Jog, in which it enters Play.

Holding the **BLUE** or **ctrl** key while jogging increases the jog speed by five times.

Holding down the **SHIFT** key while jogging increases the jog speed by 64 times.

Holding down the **SHIFT** and **ctrl** keys while jogging increases the jog speed by 512 times.

Loop Jog

Loop Jog is a unique transport mode where jogging becomes a playspeed loop, which is moved backwards and forwards. It's great for detecting pitch changes in music, sibilance in speech, or other changes in tone.

To toggle this on and off, hold down the **Jog** key and press the **Loop** soft key to choose Loop On or Off. Other options in this menu:

Follow Zoom	Toggles follow zoom on and off. When on, the gear ratio of the jog wheel is affected by the zoom setting (this is the default mode).
Loop On	Toggles the loop on and off
Loop Width	sets the size of the loop in milliseconds. About 40 ms seems best for most things, but occasionally very long loops are good for setting clip EQ or fade values.
Align	sets the position of the loop in relation to the cursor. The most common setting is pre, where the loop comes up to the cursor from before it, but the other values can also be useful.
Gear	this setting affects how fast the Jog Wheel needs to be turned to achieve a particular transport speed.
Dim	Loop Jogging is very useful, but it sounds quite harsh. Turning on Dim can prevent unpleasant auditory experiences. Recommended if monitoring at high volume.

Mouse "Jogging"

The mouse can also be used to move the transport. Simply right-click anywhere and drag horizontally to move the transport. Audio is not heard while this takes place.

Shuttle

To shuttle the transport, hold down the **BLUE** key and press **JOG/SHUT**. The jogger wheel will then increase and decrease the transport velocity in forward and reverse.

Press the **FF** or **REW** keys to reverse the shuttle direction.

To shuttle at normal speed, press **PLAY**, then hold down the **BLUE** key and press **JOG**.

To shuttle at half speed, hold down **ctrl** and press **REW** or **FF**.

To shuttle at play speed, hold down **SHIFT** and press **REW** or **FF**.

To shuttle at double play speed, hold down **SHIFT** and **ctrl** and press **REW** or **FF**.

The transport key LEDs reflect the current speed and direction. For example, if shuttling reaches play speed, the play light comes on.

Clip Equalisation

Introduction

This chapter goes into more detail about Clip EQ.

Xynergi provides clip based, four band parametric Equalisation (plus shelving) which can be applied to a single clip or range of clips within a Project. EQ is performed by the system on a coy of the original media, therefore applying an EQ change does not affect the audio data on disk. The clip-based EQ is independent of the track feed mixer EQ.

Applying EQ

Step 1   Press the `clip EQ` button.

Step 2   Locate the cursor over the clip or define a Range of clips.

Step 3   Press the `edit` soft key.

Step 4   Select the appropriate EQ parameter.

This can be done using the Numeric keypad, as shown in Choosing a Parameter below, or by clicking in the appropriate field in the EQ display above.

Step 5   Adjust the parameter, using the `Jog Wheel`. Changes are heard in real time.

Step 6   Repeat steps 4 and 5 as often as needed.

Step 7   Apply the changes by pressing the `Enter` key, or by clicking the `Apply` screen button.

Each equalisation band has three parameters you can change. They are: centre frequency of the band, gain (cut or boost) at that frequency, and Q-factor (sharpness of the band) or whether it is a high or low shelf.

Note: When changing EQ frequency, hold down the `SHIFT` button for fine numerical adjustment.

EQ display
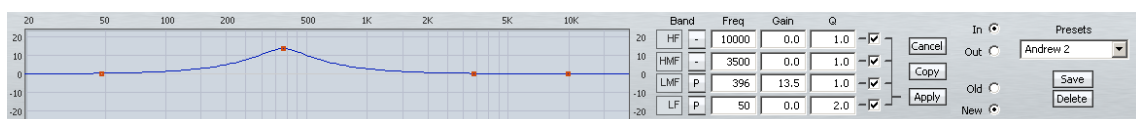
Left side of display. When a clip's EQ is being edited, the dots change from black to red (as shown here). They can be moved with the mouse, changing frequency and gain values. These values are updated in the value grid as you move the mouse. You can also hear the changes in the audio if it is playing, after a short delay.

Range   Filter Type   Frequency   Gain   Q-Factor   Enables
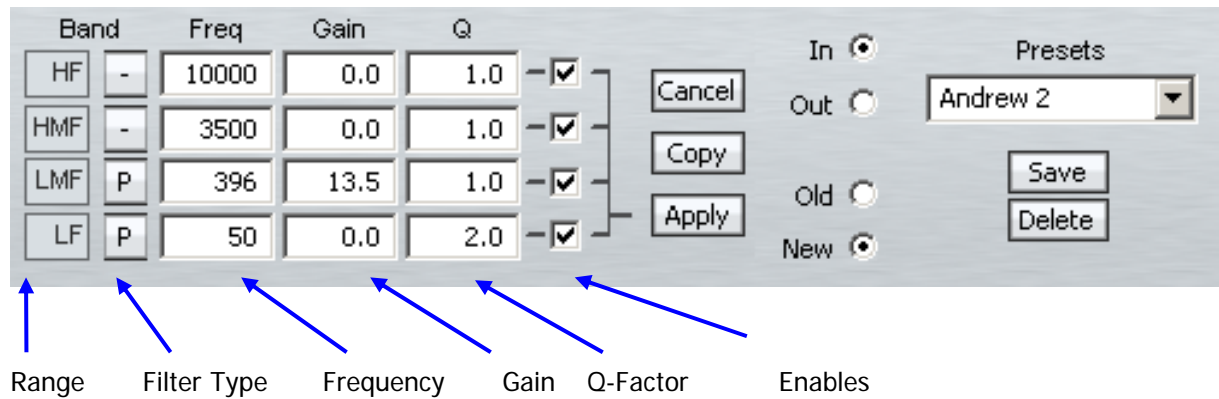
Right side of display. The value grid shows the parameters of the EQ being applied to the clip (or range of clips).

Band

There are four EQ bands that you can apply. They are given the names commonly used on mixing consoles, but actually they are not in fixed ranges – you have the full frequency range available on each of them.

Filter Type

Choices are:

P   Band pass filter

>-   High pass filter

-<   Low pass filter

Each band can be set to any filter type. Mouse-click on the button to cycle amongst the choices.

Frequency

The centre frequency of each band.

Gain

The gain of the band. Range -99 to +20dB.

Q

This displays the Q of the band or indicates the type of shelf. Range 0-99.

Enables

Used with the Apply command. Only the Enabled bands are applied to the selected clips.

Value Grid

The Value Grid shows all the current parameters of the EQ being changed.

Choosing a Parameter

There are two ways to choose a parameter in the grid:

Click with the mouse in the cell you would like to change

Use the Numeric Keypad on your console – the rectangle formed by the 7,8,9 keys at the top and the 0,00,Clear keys at the bottom corresponds with the cells in the Value Grid.

In addition, the Frequency and Gain values can directly be chosen and changed using the mouse on the graph area.

Changing a Parameter Value

There are several ways to change the value of a parameter once chosen:

- Use the Jogger Wheel – make sure the transport is not in Jog mode at that time.

- Use the + and – buttons in the Numeric Keypad

- Press the NUMBER soft key and use the numeric keypad – not recommended.

- With the mouse, by dragging the red squares in the EQ graph.

Applying the Changes

To apply your changes, click the **Apply** button or press the **apply** soft key. Only the bands whose Enable checkboxes are selected will be applied.

To escape without applying your changes, click the **Esc** button or press the **edit** soft key to deselect it.

New or Old

Whilst adjusting an EQ parameter it is possible to toggle between the new and old settings using the **NEW / OLD** soft key, or clicking the **New / Old** radio buttons, until you apply the changes.

In or Out

Toggle the EQ on and off with the **IN / OUT** soft key, or the **In / Out** radio buttons.

Copying an EQ

The EQ parameters of a clip can be copied to another clip or Range of clips.

Step 1   Press the **clip EQ** button.

Step 2   Locate the cursor over the source clip.

Step 3   Press the **copy** soft key or click the **Copy** button on the screen.

Step 4:   The enable checkboxes allow you to choose which of the bands are pasted into your

target clip(s)

Step 5   Locate the cursor over the destination clip or define a Range of clips.

Step 6   Click the **Apply** button or press the **apply** soft key.

Parameter Display

Current EQ parameters are always shown at the top of the screen when the EQ menu is active, helping to see what is active and what values are current. The layout of the parameter values is exactly the same as the layout on the numeric keypad. A graph helps you to see what is going on.

EQ In/Out

Use the **EQ In/Out** Soft key to toggle the EQ on or off at any time. This action will affect the clip under the cursor, or all clips in the Range, if any. The on/off position of this switch is stored in the clip along with the settings of the EQ parameters.

1. While you are changing parameter values with the jogger wheel, the actual sound is updated after a short delay.

2. Turning the wheel faster increases the steps between values.

3. There is no limit to the frequency Range for each band, so you can have your low frequency higher than your high frequency if you want.

4. When you are using a Range, it is possible to change one or more bands for the entire Range, while leaving other bands as they were. So, for example, the clips might have different settings for LOW EQ but the same setting for HIGH EQ.

Saving EQ Settings

The system allows you to save the current EQ settings and later retrieve and apply them.

To save an EQ setting, do the following:

Step 1   Type a new name into the Presets field (or use an old name if you want to change its settings)

Step 2   Set the EQ values to the ones you want to save, by editing, or simply by "picking up" the values by touching an existing clip.

Click the Save button, or press the **save** soft key.

To retrieve an EQ setting, select it from the Preset drop list. It can then be applied immediately to the currently selected clip or range of clips.

A saved EQ setting can be deleted by first selecting it from the drop list, then clicking the Delete button.

A special preset can be created called "default". Whenever the Clip EQ display is opened for a clip with no EQ, this preset will automatically be loaded into the display.

Screen Mix Controls

The Mixer Screen
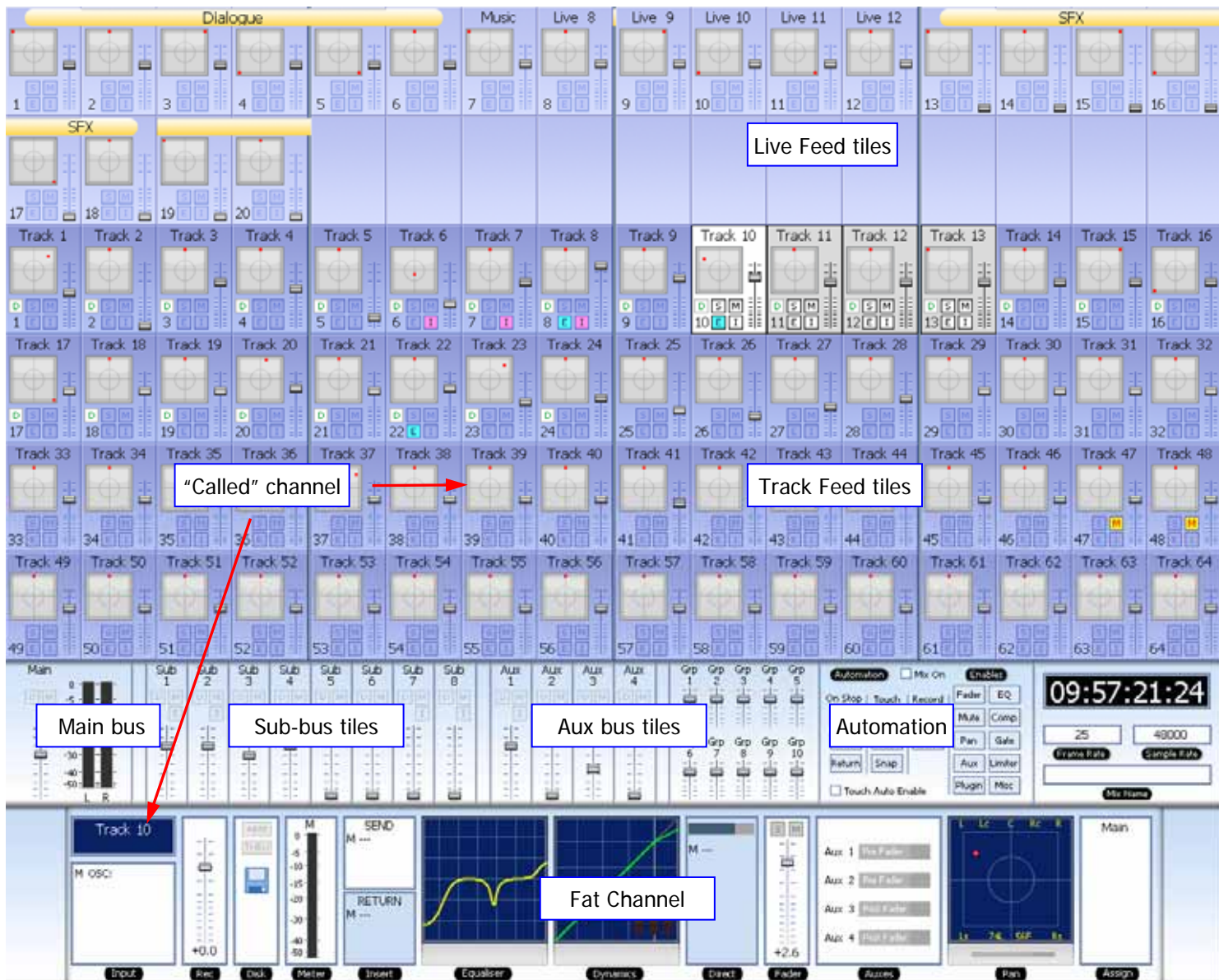
Tiles

A Tile shows basic information about the Feed it represents.

Bus tiles show only fader information. Track Feed and Live Feed tiles display more information, and provide control for a group of functions, as shown below.

Click here to cycle the display between Pan, EQ and Dyn

Click here to add this channel to the Multi-Trim group (the number goes red)

Dynamics In (indicator only – appears when any dynamics present)

Solo ON / OFF

Mute ON / OFF

Fader Control

Insert IN / OUT

EQ IN / OUT
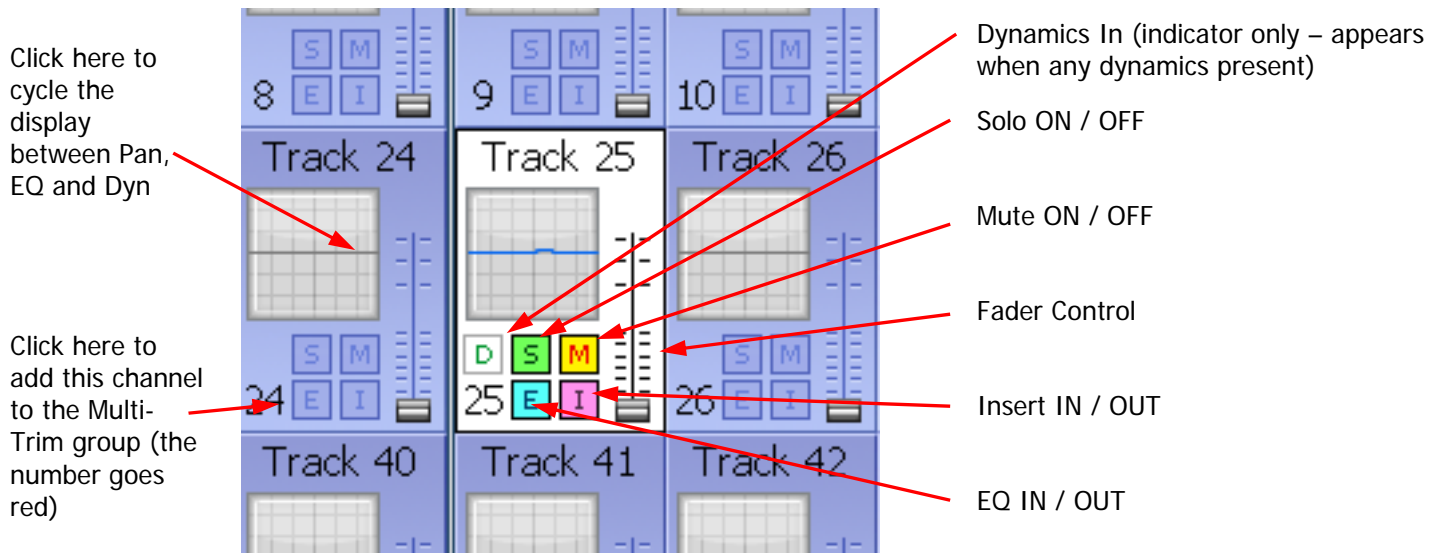
Called Channel

One channel can be controlled in detail. It is the "Called" channel. In the picture above, it is Track 6.

To call a channel from the mixer screen, simply click on its tile, or operate any of the controls inside it.

You can also call a channel using the CALL menu.

Track Feed and Live Feed Channel Tiles

Each Track and Live Feed is represented with the track name and fader level, plus indicators for EQ, dynamics, insert, solo, solo defeat, and mute.

The parameter window within each channel tile provides a condensed display of the current settings of the Channel Panel for EQ, dynamics or pan. Click in the window to cycle around these three display options.

- EQ – a graph displays the EQ transfer response.
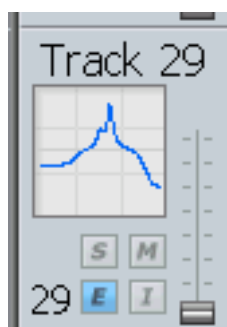
- Dynamics - a simplified transfer function for compressor, limiter, expander, gate, and the various combinations of these can be displayed.

- Pan - a miniature display of the pan surround field with the red pan position is displayed. The pan position changes in real time.

Buses

The fader levels of the Main, sub and auxiliary buses are displayed. Signal level meters for the Main bus are also displayed.

Mouse Control in the Mixer Screen

Every switch and control in the Mixer Screen may be changed using mouse clicks. For switches this is simply a case of clicking on them to toggle their values.

For faders, the "knob" must be clicked and dragged up or down. While you are doing this, the current value is displayed.

For rotary knobs, first click and hold near the center, then drag the mouse in a ring around the knob. A tooltip shows you the current value. Click the up/down buttons for fine change.

Tooltip shows the current value.

Click here.

Then drag the mouse around the knob.

Click the up/down buttons for fine changes.

Hover over any yellow text or numbers and use the mouse wheel to change its setting.
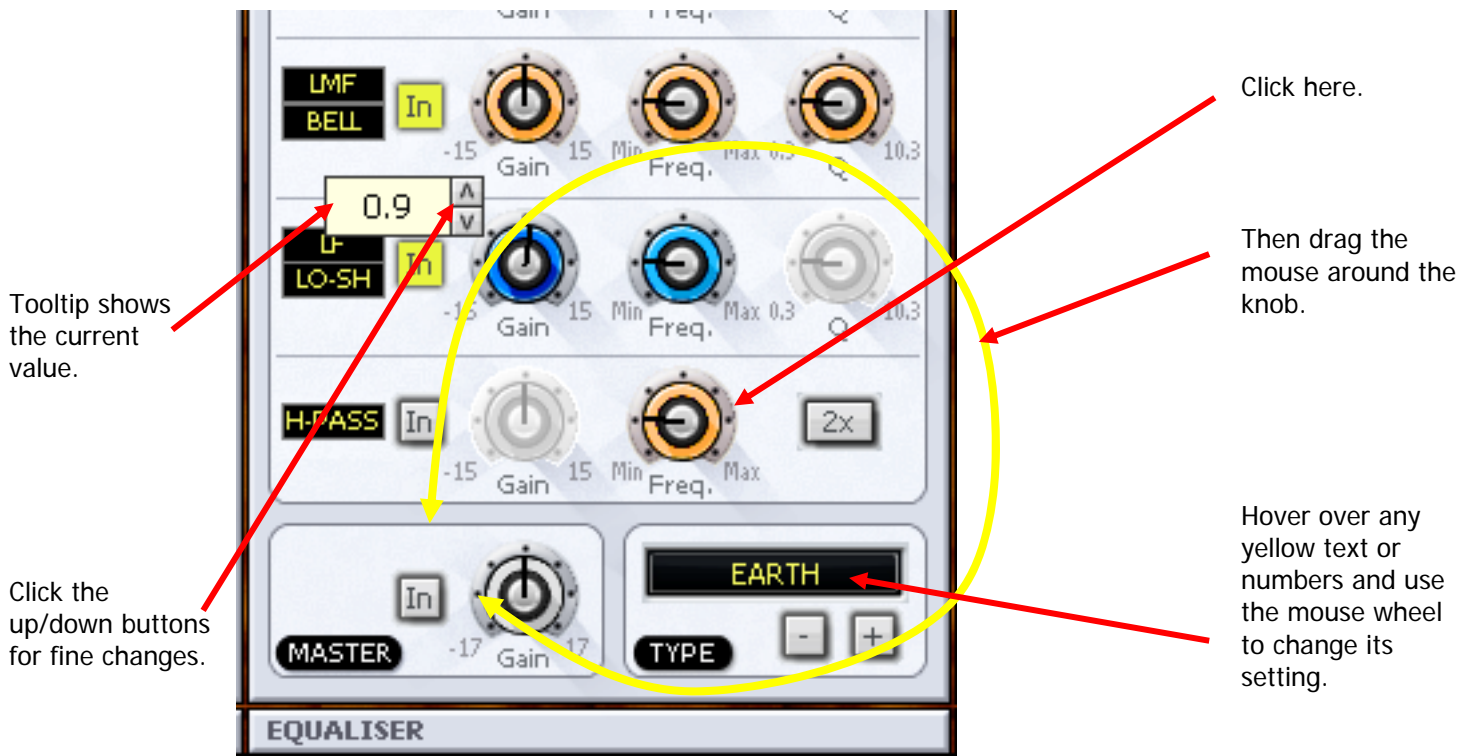
Double-clicking on any fader or aux send knob sets its value to 0 dB.

Mouse Wheel Control

The mouse wheel can be used to control knob and fader settings. This behaviour must be enabled first.

Step 1   Access the System Variables display by holding down Shift and Ctrl then typing U.

Step 2   In the Mouse Control group (right side of dialog box) enable Use Mouse Wheel.

The Mixer Screen must be in focus – if the Editor Screen is in focus, the mouse wheel causes zooming of the tracks. To get the Mixer Screen in focus, simply click anywhere on the screen.

For mouse wheel control of any fader or rotary knob, in any of the Mixer Screen displays, hover the mouse pointer over the control and turn the wheel.

For fine control, hold down the SHIFT button while turning the mouse wheel.

Fat Channel

The Fat Channel provides a detailed display of the signal processing and routing for the called channel. Its only control function is the fader, while the other graphics are for display only.
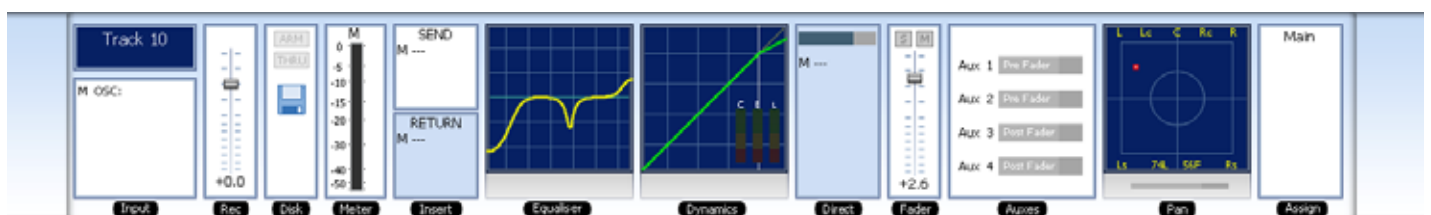
Right clicking in the EQ, DYN or PAN sections causes display of the Zoom panels. See below.

The Fat Channel shows a detailed display of the parameters for the currently called signal path. A signal path may be a mono live or track feed, a bus or a multichannel surround format link group which can be selected and modified from a single set of controls.

- The user and system names of the signal path are displayed at the top left. The input box at the left of the signal path, indicates the format or element name of the path and the user name and system name of the physical input from which it is patched

- The input meter shows the signal level at the input of the signal path.

- If a track feed is selected, the input fader level is shown.

- The EQ display shows a graph of the equaliser response.

- The dynamics display shows the composite transfer function of the entire dynamics section. The display also includes gain reduction signal meters for all three sections. If the dynamics are switched IN the graph is highlighted, if switched OUT the graph is dimmed.

- The insert send and receive I/O patching is displayed. If the insert is switched IN the insert display is highlighted, if switched OUT the display is dimmed.

- The main fader level for the signal path is displayed with a numeric display of the fader gain. This is an active control.

- The direct out level, pre/post status and output patching is displayed. If the direct out is switched ON the direct out display is highlighted, if switched OFF the display is dimmed. The direct out level is shown with a horizontal bar. If the direct out is switched ON the bar is yellow, if switched OFF the bar is violet. The section of the bar above 0dB of gain is shown in red.

- The Auxiliary bus display shows the status of each aux send. The send level is shown with a horizontal bar. If the send is switched ON the bar is yellow, if switched OFF the bar is violet. The section of the bar above 0dB of gain is shown in red.

- The pan display offers a sophisticated representation of the signal path panner. The display always shows a 5.1 sound field as the panning information for any path can be applied to any format bus to which it is assigned. The red circle indicates the current pan position. If a link group has been called, the pan display shows a red circle for the pan position of each member and a yellow circle for the position of the virtual link group master. When diverge is applied, a white circle represents the perceived image size.

- When a bus is called, the output box displays the output patching, showing each bus element and the user and system names of the physical outputs to which they are connected.

Virtual Channel

All other functions can be controlled using the DREAM II Virtual Channel, shown below.
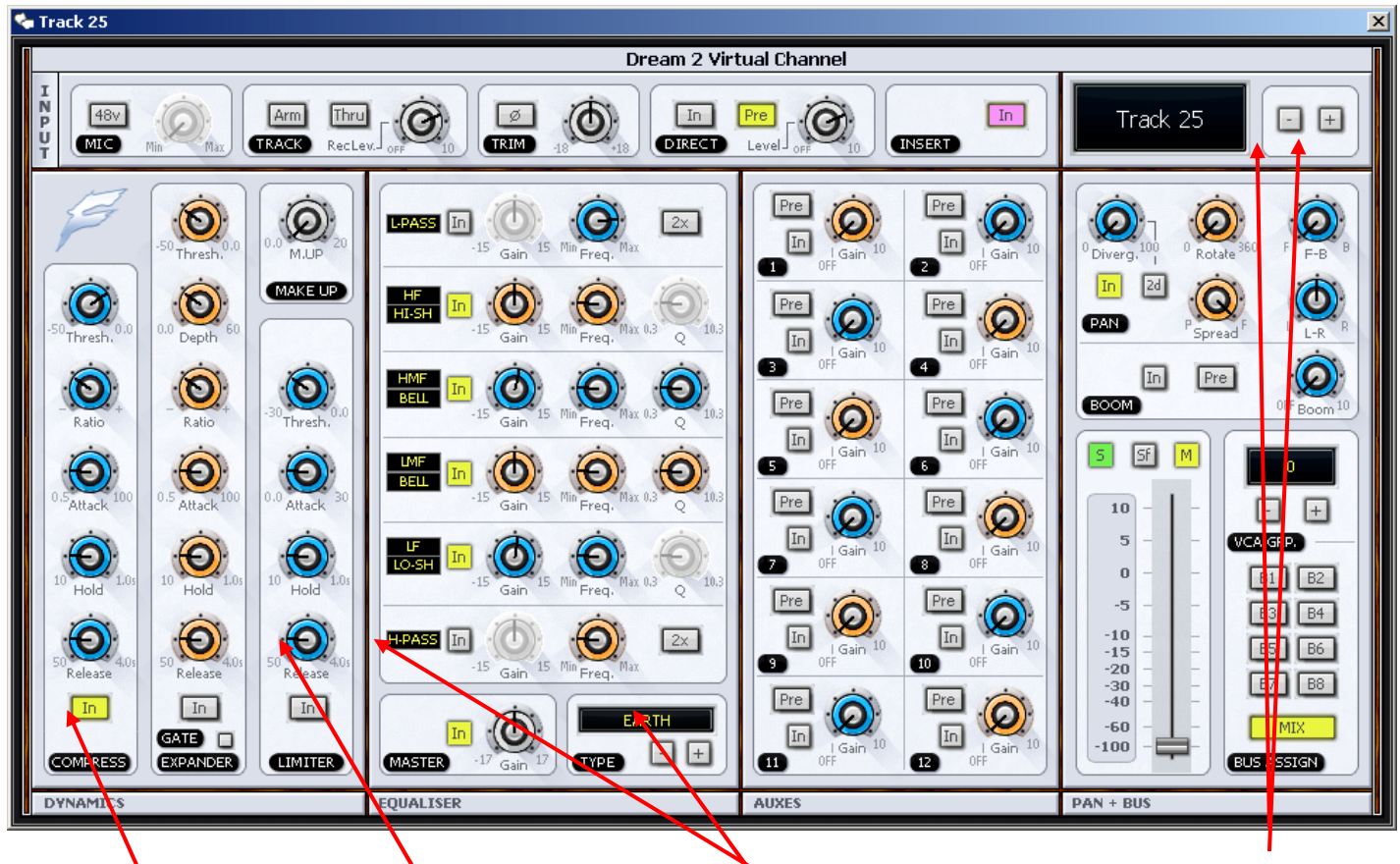
Click on any switch to toggle it.

Click on any rotary control and drag around it to change its value.

Hover the mouse over any yellow text or number and use the mouse wheel to change its value.

Click and drag the fader.

Click + and – to change channels.

- To open the DREAM II Virtual Channel, right click on a channel "tile" in the Mixing Screen. In the above example, we have right clicked Track 8.

- To close the Virtual Channel, right click anywhere inside it.

- While it is open, you may move to the next or previous channel by clicking the + and – buttons next to the channel name.
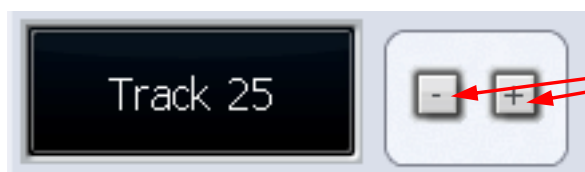
Click to select next or previous channel

Input Section

48 V and Mic Control

Used for Fairlight Mic preamps

Recording Section

Available only when a track is the current channel.

Arm means ready to record – press this button only if there is an audio source patched to the current track.

Thru means the track will monitor its input, but will not respond to a record command. The Thru state makes the track equivalent to a Live Feed. Press the Thru button only if there is an audio source patched to the current track.

Rec Level controls the level going to the Disk before recording. It does not affect the track when in Thru mode.

Trim controls the level as the channel enters the mixer. For tracks this is after coming back from Disk, and does not affect level being recorded.

Phase flips the audio phase at the input to the mixer. It does not affect the signal being recorded on a track.

Direct Send and Insert

Direct In toggles the Direct Output on and off

Pre toggles the Direct Output pre and post the main channel fader

Level controls the level going from the channel to the Direct Output

Note: Direct outputs are only heard if patched to a physical output, or to the input of another path. This is done in the Patch I/O screen (press the Patch I/O button).

Insert In controls the Insert Return only. When In, the channel listens to its Insert Return, otherwise the Channel listens to the straight-through path. The Insert Send, on the other hand, is always active (though it must be patched somewhere before it can be heard).

Note: Insert sends and returns are only heard if patched to physical outputs / inputs, or to other paths. Sends can be sent to the input of any path in the system, and returns can come from the output or send of any path. This is done in the Patch I/O screen (press the Patch I/O button).

Panning

Dream II supported surround formats are: Stereo; LCRS, LCRSS; 5.1.

Panning IN / OUT

Boom send ON / OFF
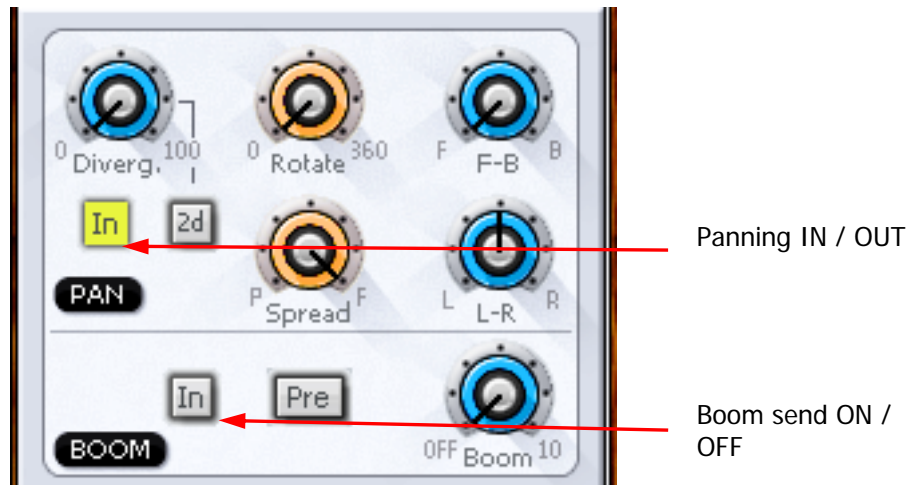
While operating the pan controls, the Fat Channel gives a visual representation of the pan position and divergence. A complex example is shown below.
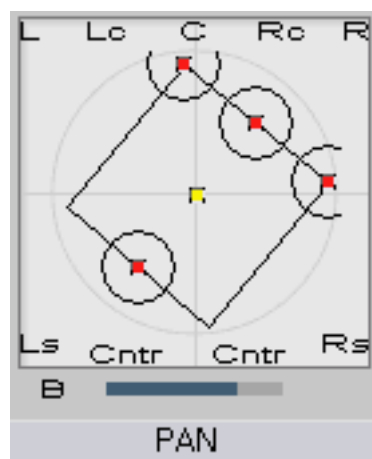
Panning of 4-way Link Group showing Rotation and Divergence

Basic Panning

Use the L-R and F-B controls for basic panning. If the Main Bus format does not have surround channels, the F-B control will still be shown, but will do nothing.

Spread

Only available when a link group is selected. The spread control adjusts the perceived size of a surround mix.

Diverge

Spreads the signal of an individual feed across more of the adjacent loudspeakers, making the perceived size of the sound source larger.

Rotate

Rotate controls the left/right and front/back pan control to rotate the surround mix around the centre of the room.

Using the panner:

Step 1   Call a signal path to the channel panel by pressing the `Call` button on any fader.

Step 2   Adjust the control to achieve the desired result. The parameter values are displayed in the fat channel section at the bottom of the mixer display.

Boom

Sending level to the Boom channel can be done pre or post fader.

Equalisation
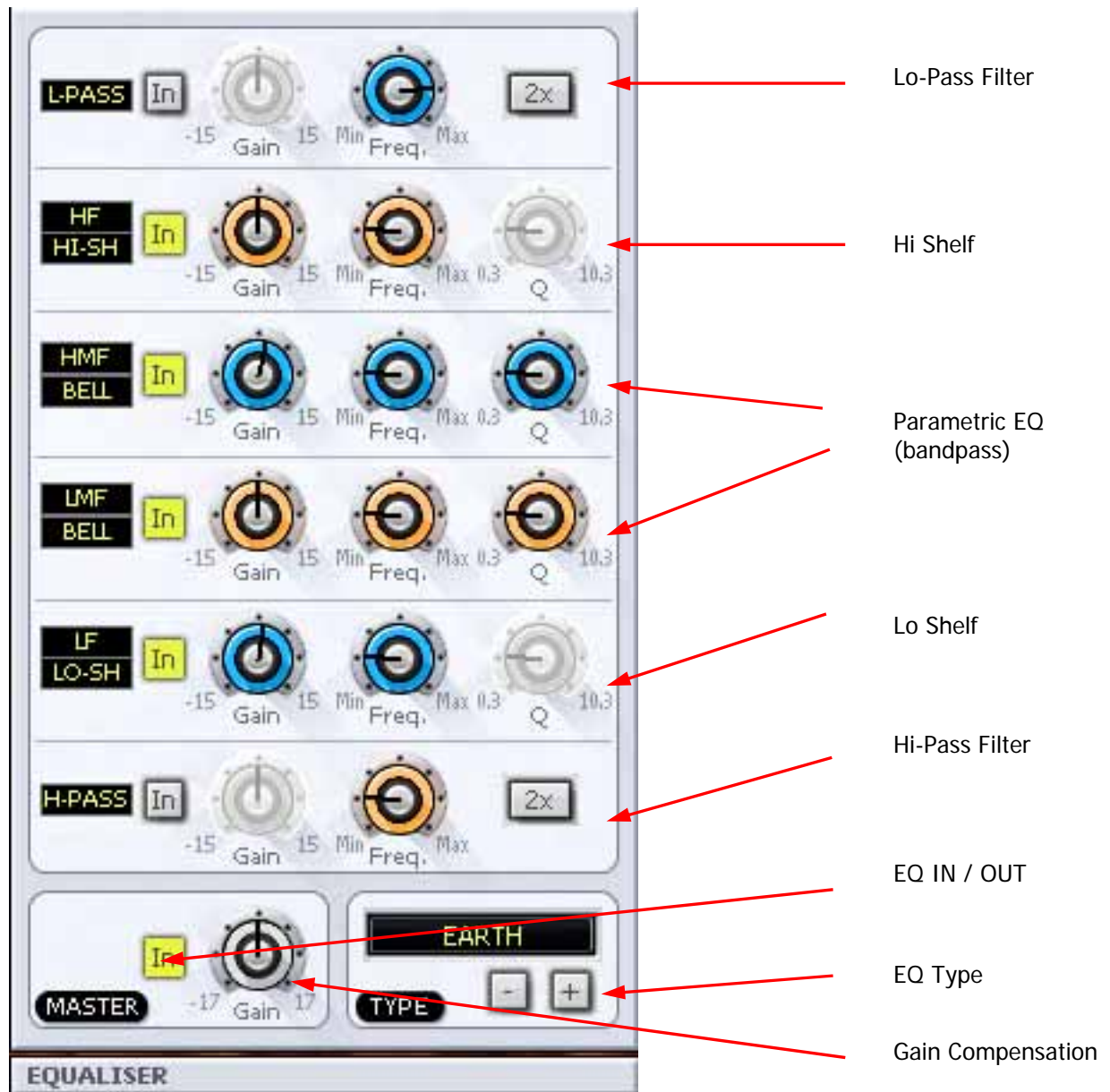
The track feed mixer EQ provides four bands of parametric equalization and two filters. Each parametric section can be switched in or out independently.

The Hi and Lo Pass filter sections can be switched to shelves using the mouse wheel.

The parametric bands can be switched between Bell, Lo-Shelf, Hi-Shelf and notch using the mouse wheel. Their frequency ranges can also be switched between Low, Low-mid, High-mid and High.

EQ Type

Clicking the + or – buttons changes the EQ display to show different types of controls. There are four types available, each with its own sound.

Dynamics

The Dream II Dynamics comprises three sections, compressor, limiter, and expander or gate.

Make-up gain

Compressor IN / OUT

Limiter IN / OUT

Gate/Expander IN / OUT

Toggle Expander or Gate
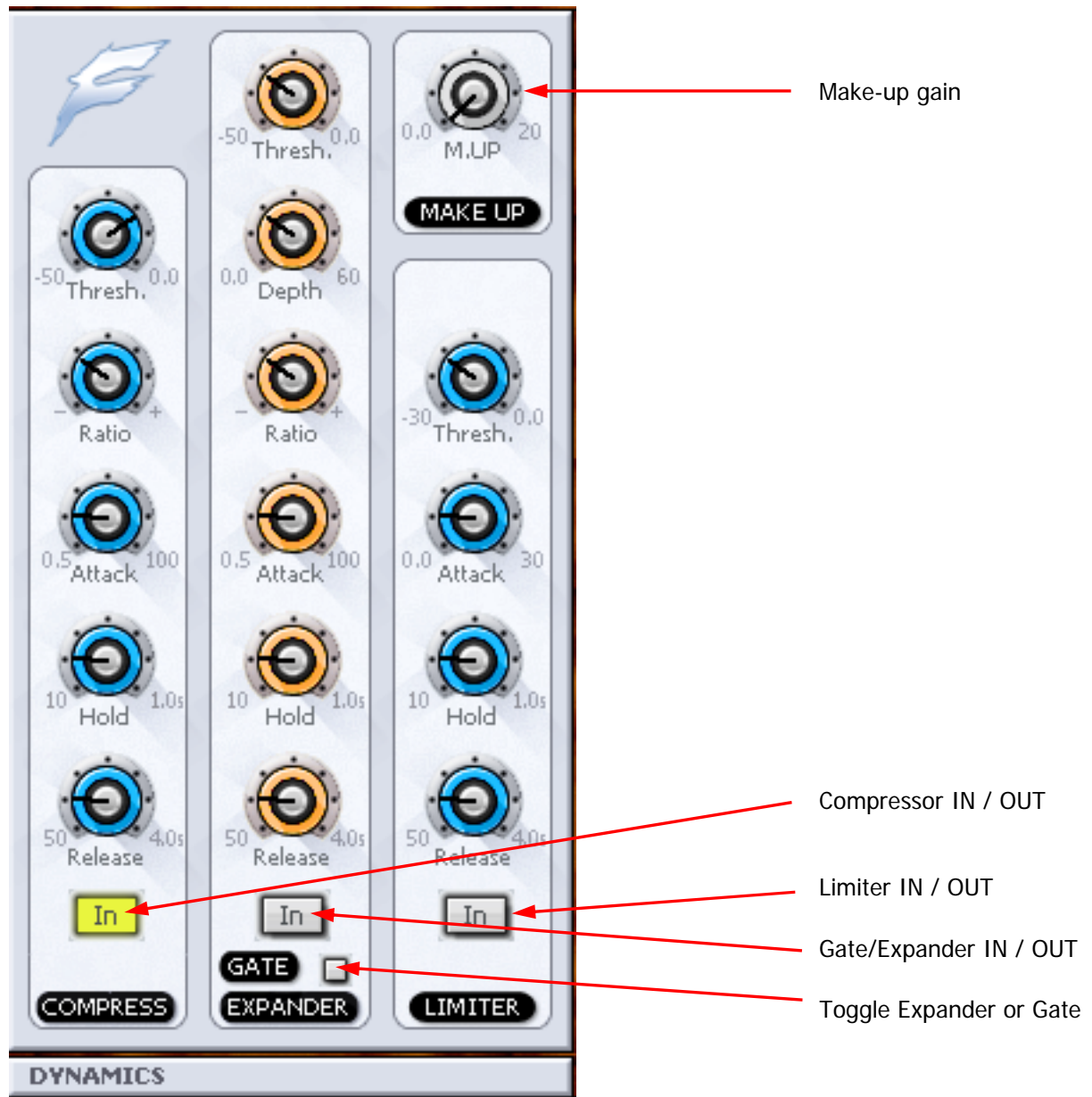
Each section has an independent IN / OUT control. All three may be active at the same time if required.

The Fat Channel shows the transfer function of the dynamics control, plus gain reduction metering.
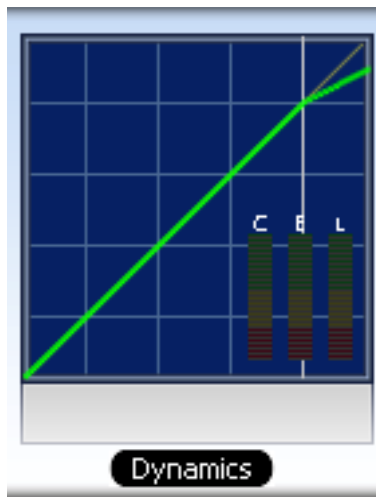
Aux Sends

Satellite-AV provides 12 aux sends. Each send from each channel has an independent Pre/Post switch and In/Out control.

Aux 2 send IN / OUT
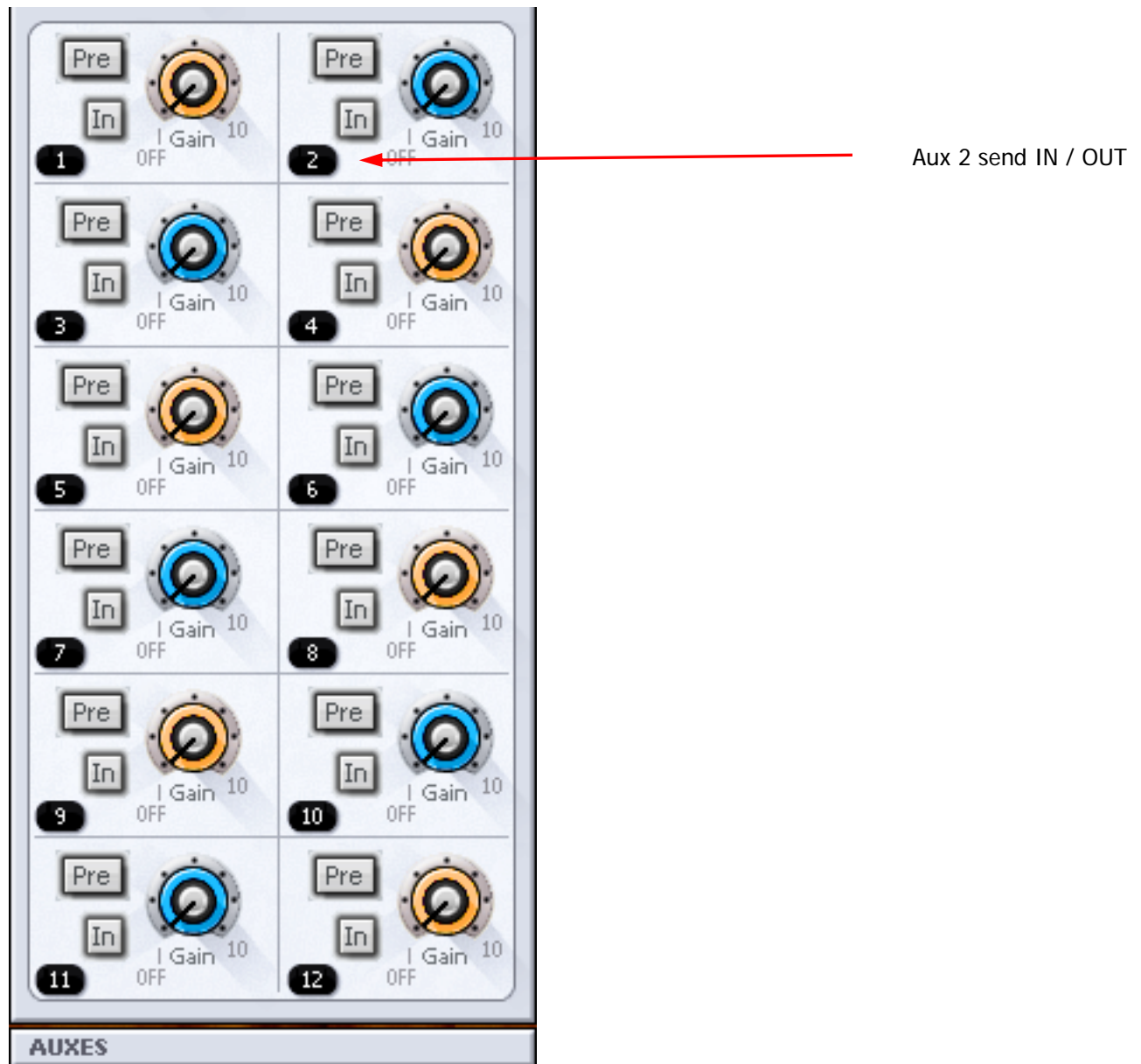
Zoom Panels

It is possible to see more detail when adjusting EQ, Dynamics and Pan control, using Zoom Panels. In particular, numeric values for all parameters are shown, and update as they are changed.

To display a zoom panel, right click in the corresponding display in the Fat Channel.
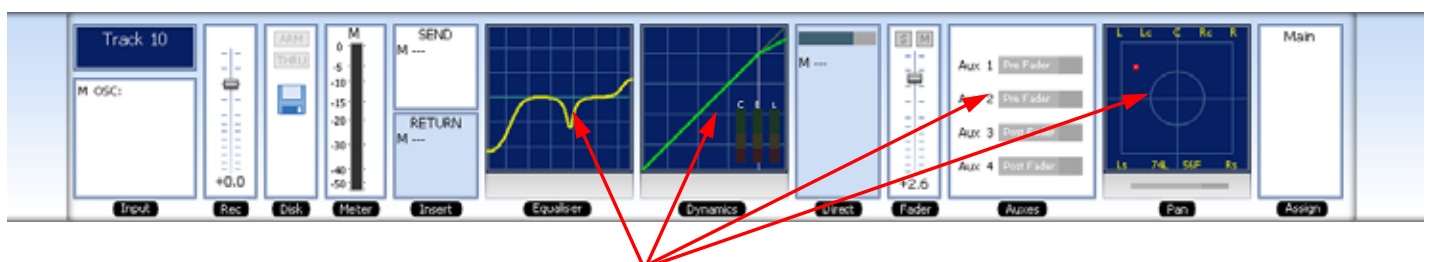
Right-Click here to display Zoom panels

The Equalizer Panel
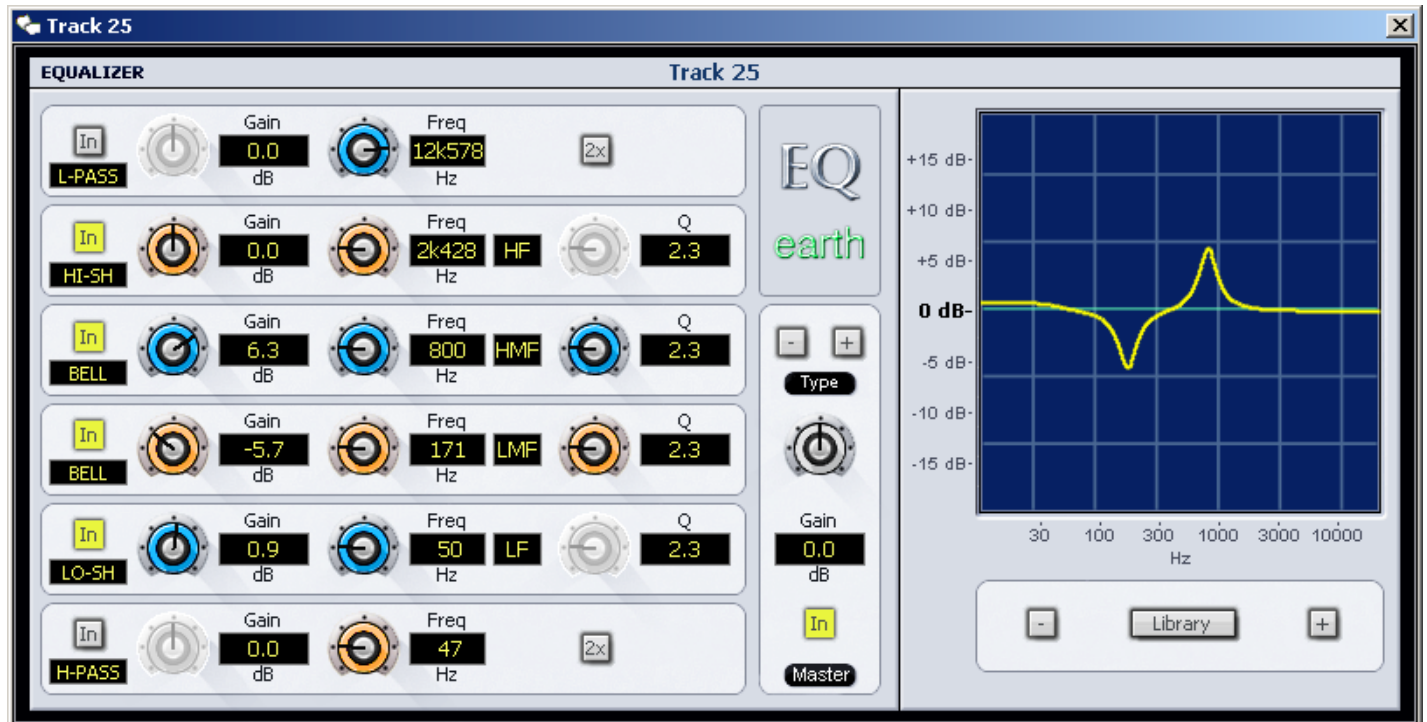
The Dynamics Panel
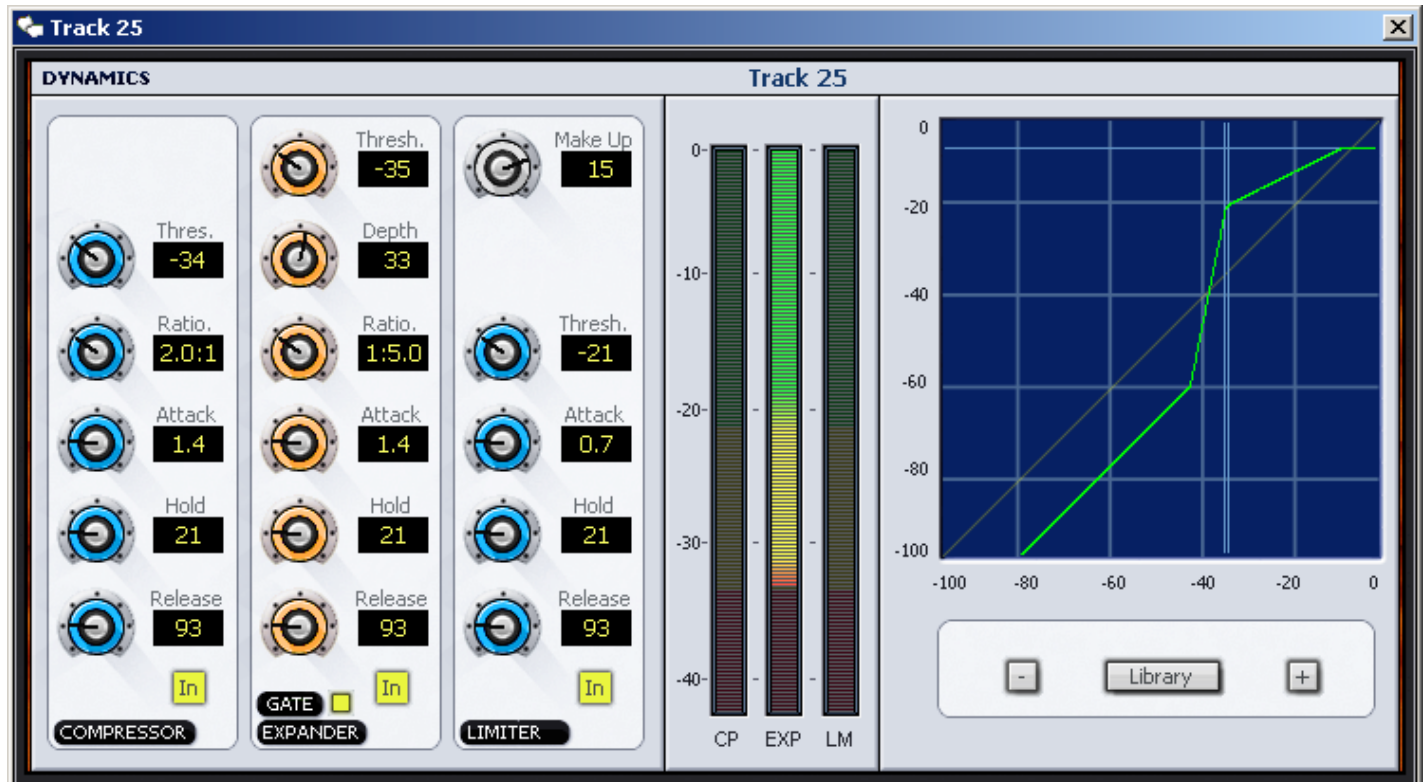
The Pan Panel
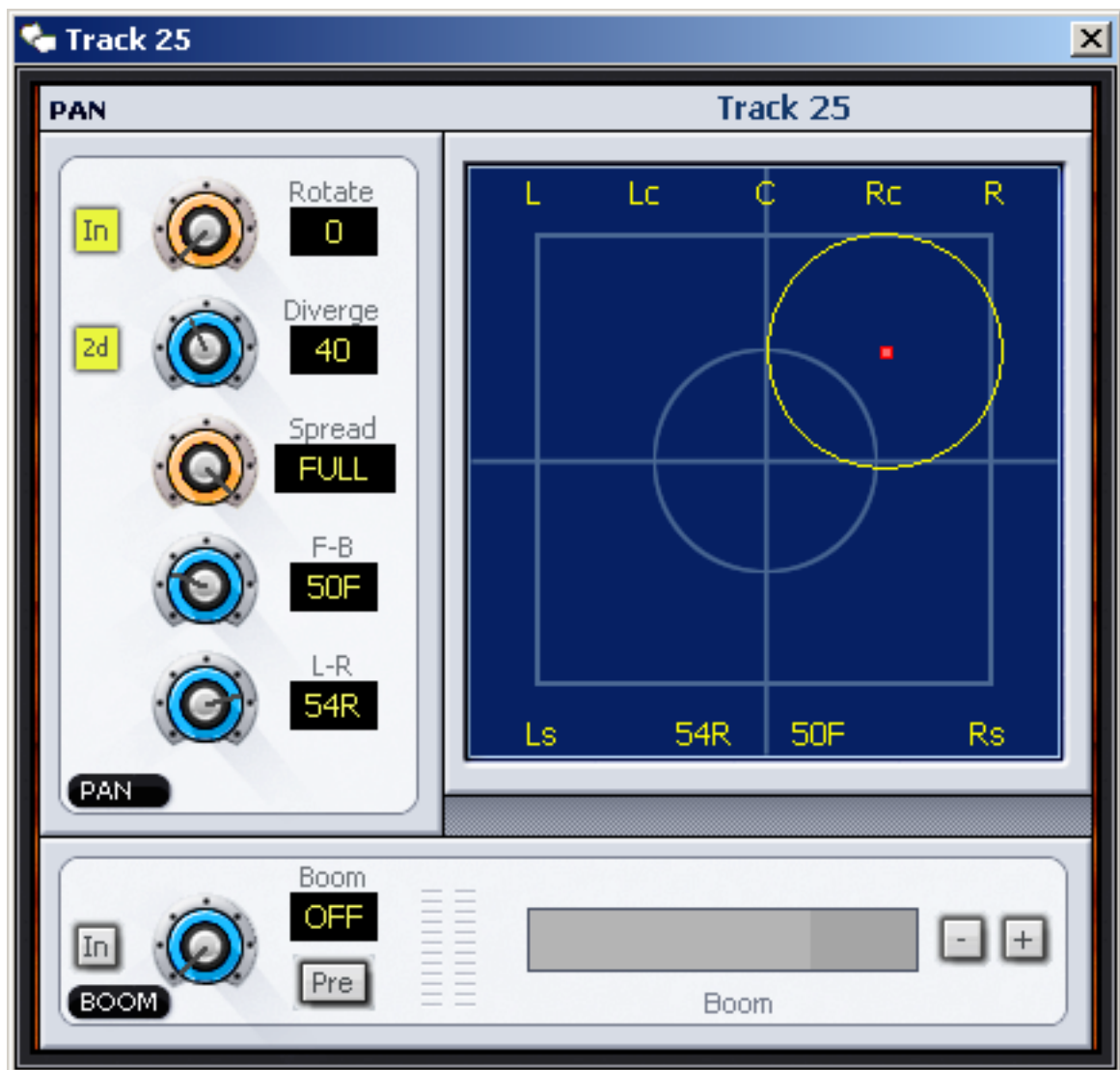
In addition to using the hardware controls, you may "turn" the knobs on the screen, or use the mouse to move the red dot around the pan field.

The 3D Panner
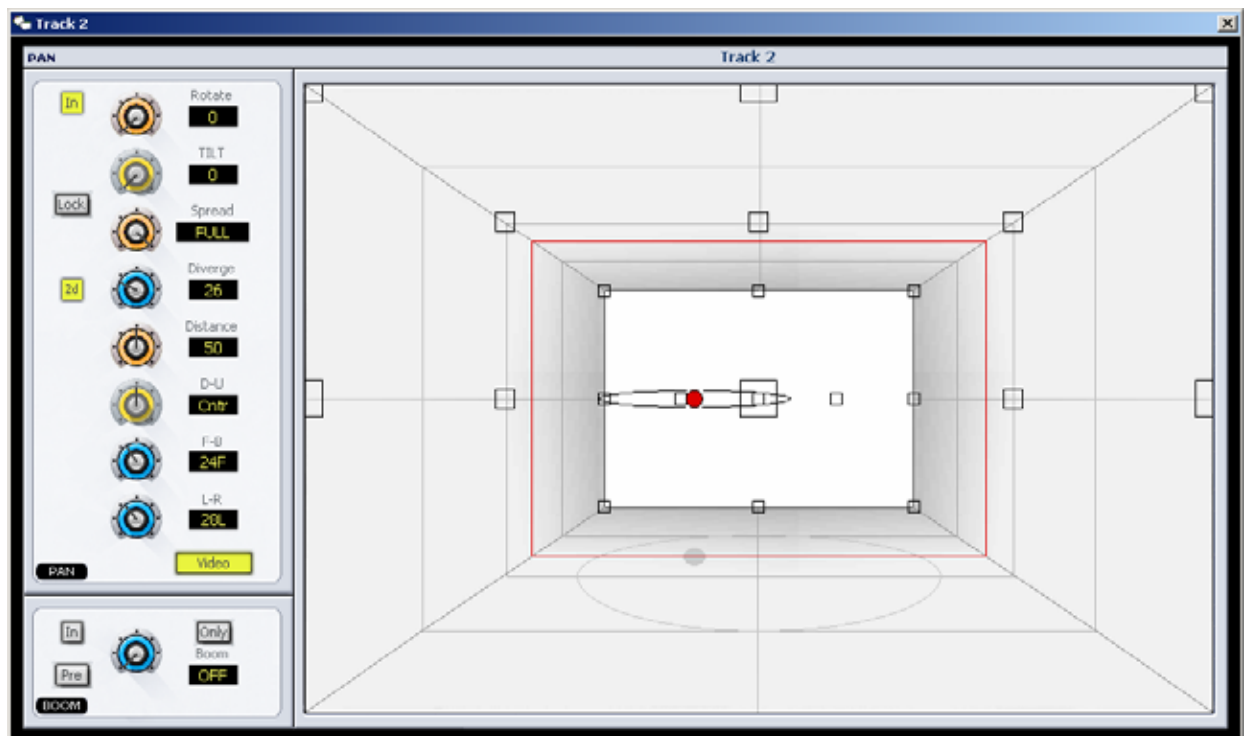
The 3D panner provides extra dimensions of panning such Up-Down, Distance and Tilt. These are intended for applications with new surround types.

It also provides a useful perspective for normal panning, especially when Link Groups are involved.

To choose the 3D panner as your panning display:

Step 1   Click on the Mixer Screen and type Shift+ctrl+U, which opens the System Variables dialog.
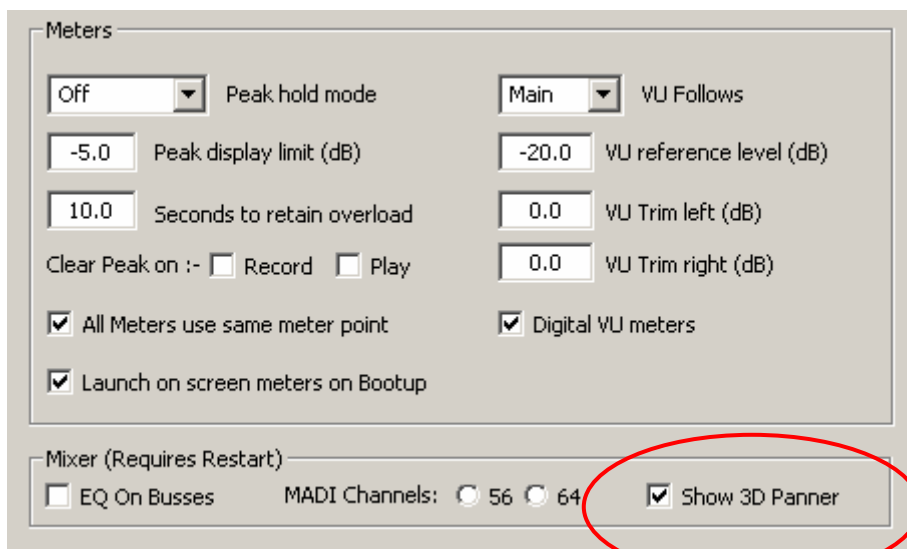
Step 2   Select the Show 3D Panner checkbox.

Step 3   Click OK to close the dialog.

The Pan Theatre

You may superimpose the 3D Panner on your Pyxis Track video.

This allows you to see very clearly how the panning corresponds to action on the screen.

To toggle display of the Pan Theatre, click the Video button in the 3D panner.
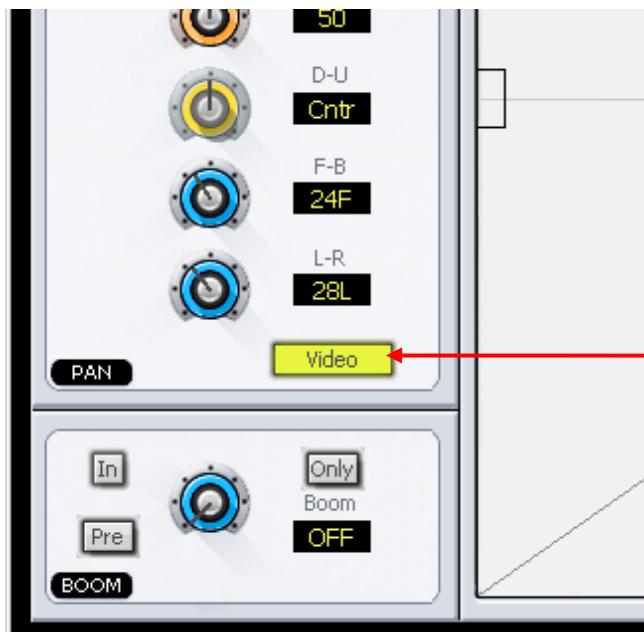
The Aux Panel
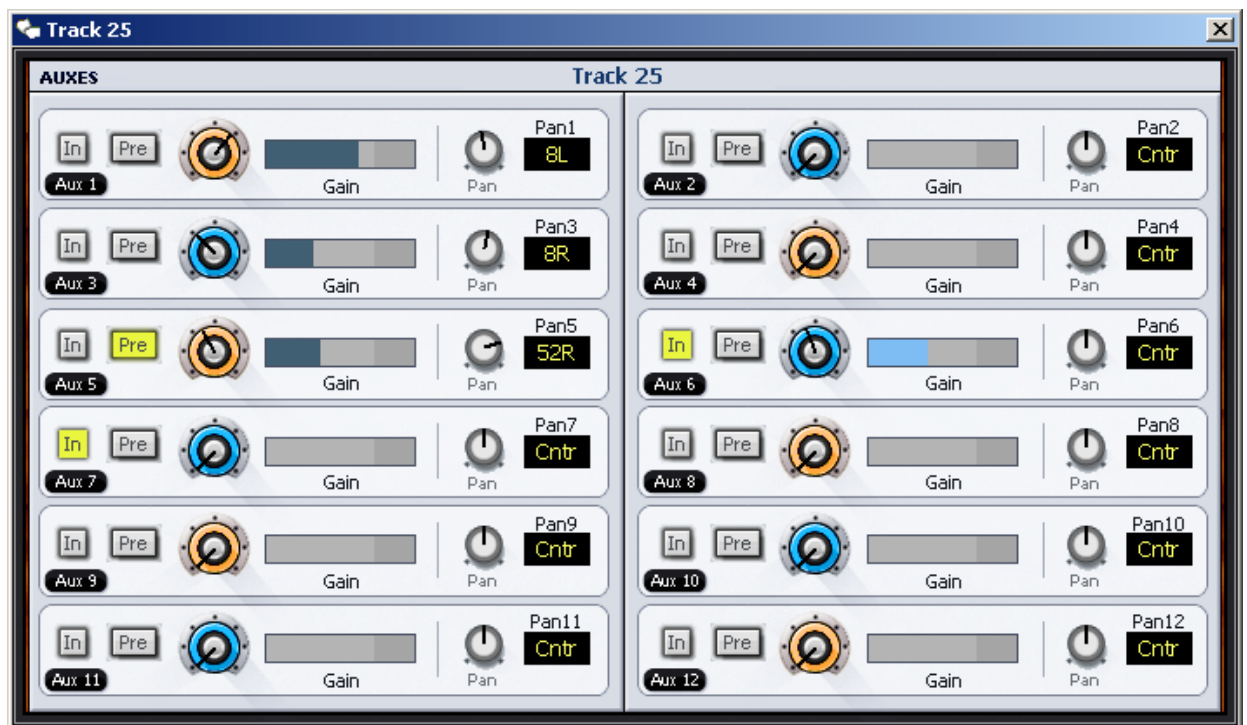
On-Screen Automation Controls
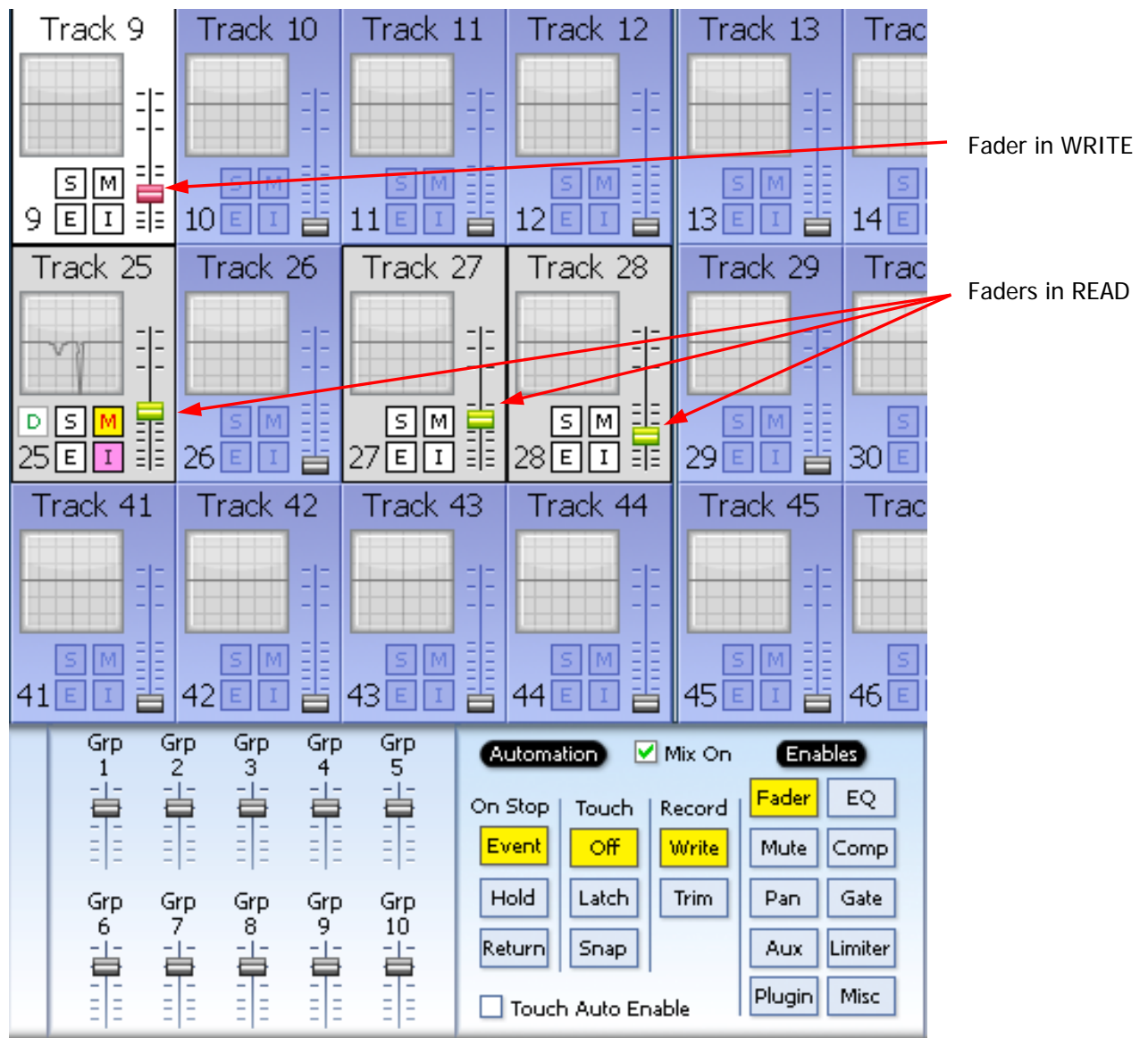
Fader in WRITE

Faders in READ

The controls in the lower right of the screen correspond with controls in the menus and on the Xynergi picture keys.

The Mix On checkbox is equivalent to the Mix On button.

Meters

Introduction

Signal level metering is available in two types of video displays.

Meter sets allow saving of specific groups of channels for metering convenience in particular work situations.

Fat Channel Bus Meters
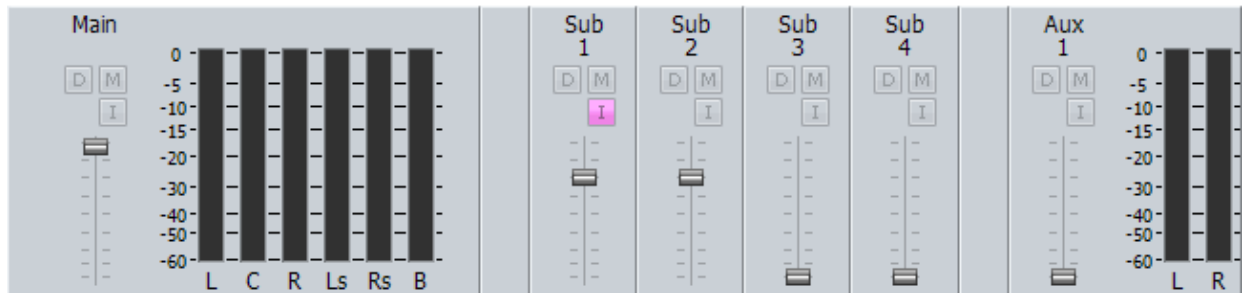
At any time the Fat Channel can display metering for up to eight Bus Elements. To toggle a bus in or out of this set:

Step 1   Call the Bus by clicking on its tile, or selecting it on the picture keys.

            This will cause its meter(s) to be displayed below, in the Fat Channel.

Step 2   Right-Click on the meters in the Fat Channel.

            This will cause the meters to be displayed (or hidden if already displayed) next to the bus fader, as shown above.

            Note: If more than eight elements are selected, the first eight, reading from left, are shown.

Master Screen Meters

Xynergi provides a set of eight Master Screen Meters. To toggle them on and off:

- Use the **Panel ON/OFF** soft key in the **Meters** menu.

- Click on the Mixer screen and type ctrl+SHIFT+Space.

These meters can be dragged, by their Title Bar, to any point on the Edit Screen or Mixer Screen, or to a third video monitor, if your system has one installed.
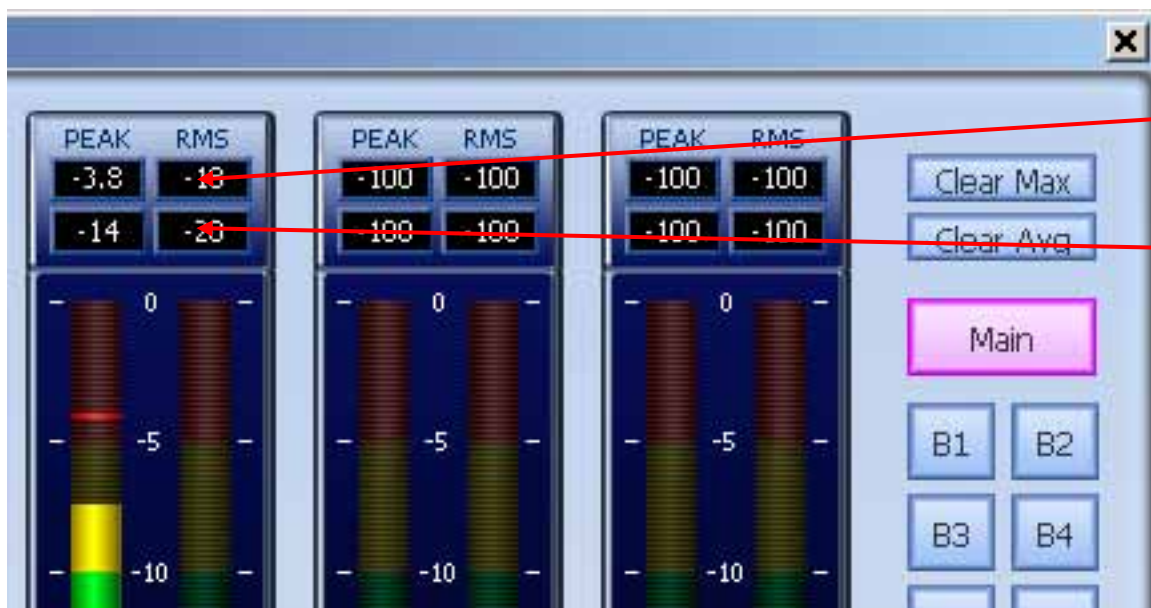
Shows maximum value since meters opened.

Shows average value since meters opened.

Selection of metering source for the Master Screen Meters:

- With `Aux` selected, click `Main`, `Sub-Buses (B1, B2…)` and `Aux buses (A1, A2…)` to toggle them on or off the meters.

  You can add any number of buses, and the system will display meters for up to eight Bus elements, starting at the top of the selected buses.

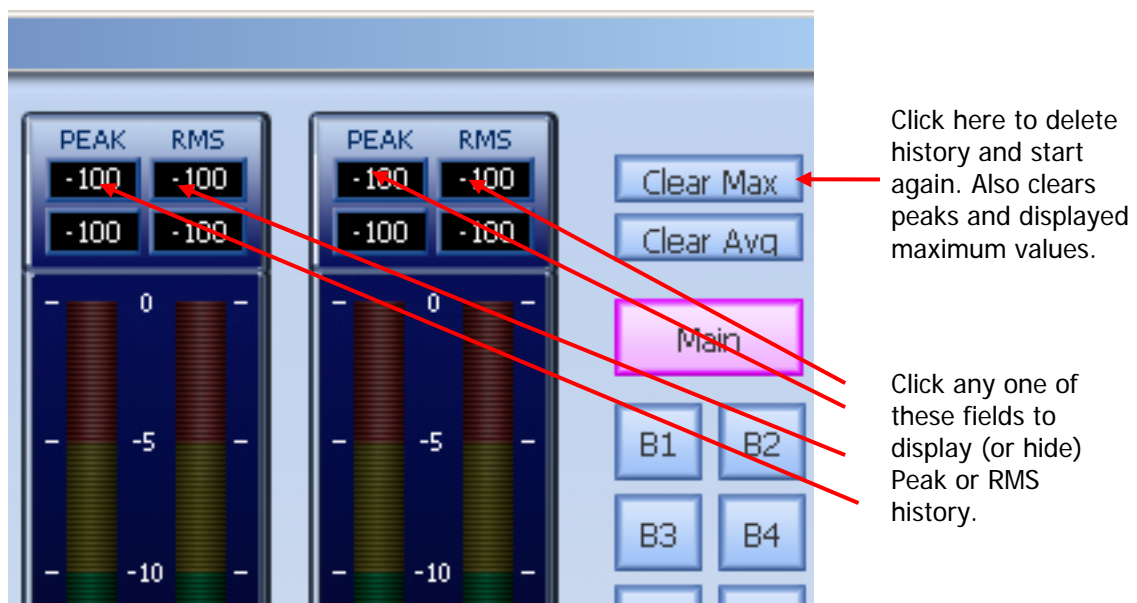- With `Meter Set` selected, select one Meter Set or a number of Main and Sub buses.

  Meter Sets cannot be added to other sets or buses.

Choose a meter set here

Click here to define the current meter set
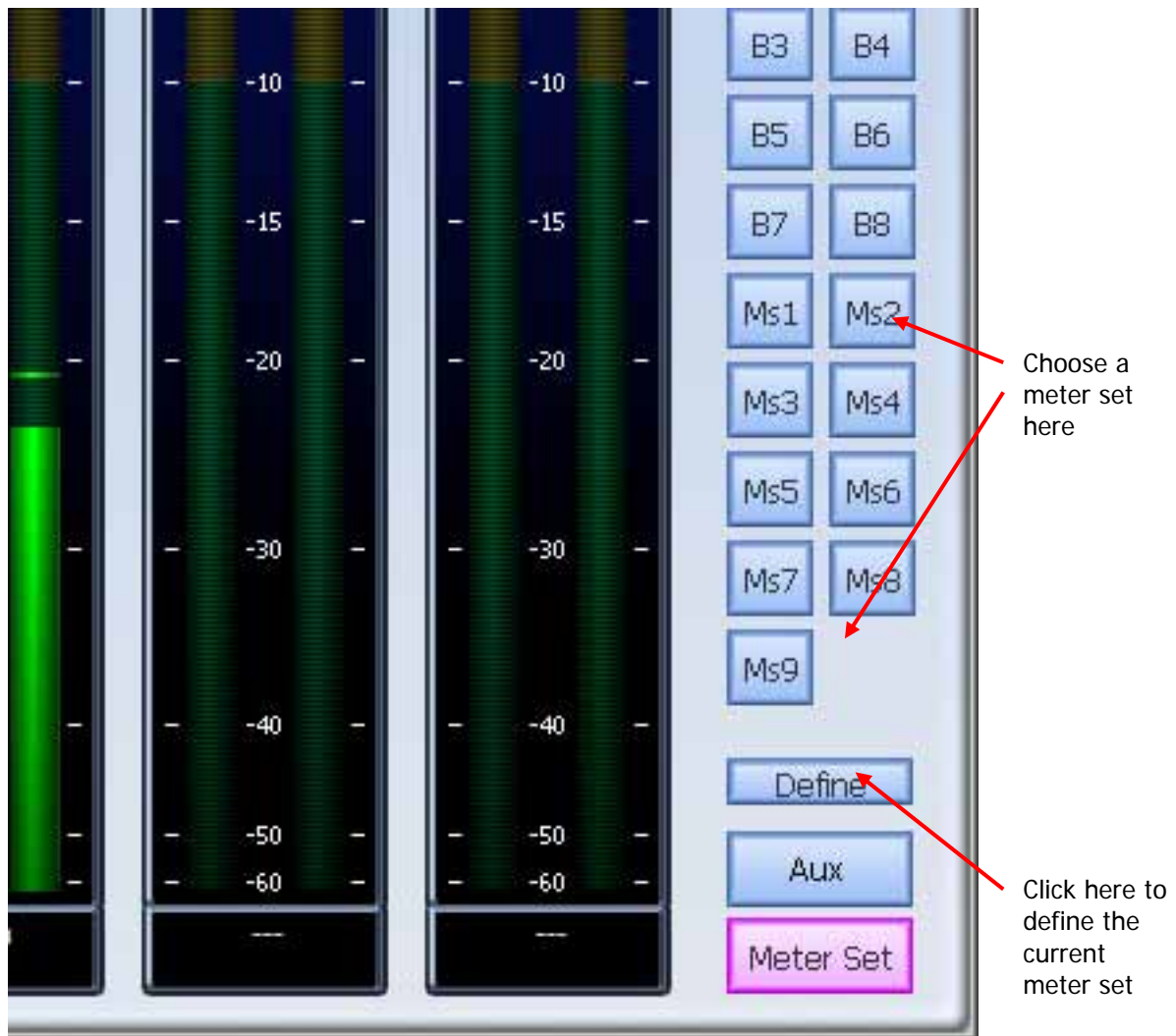
Metering History

The Master Screen Meters keep a history of the ten loudest peaks for each meter, with the timecode where each peak occurred. The peaks camn be displayed in order of loudness. Overshoots of up to +8.6 dB are shown, although the audio is actually clamped to 0 dB at the channel output.

To display history click in the Peak or RMS level display for a meter.

Click here to delete history and start again. Also clears peaks and displayed maximum values.

Click any one of these fields to display (or hide) Peak or RMS history.

Click on any timecode to locate there.

Meter Sets

A meter set contains eight sources, which cqn come from a combination of any signal paths in the system. These can be displayed the Master Screen Meters.

There are 9 meter sets in the system. There are two ways to choose sources for the Meter Sets.

Using the Master Screen Meters

Step 1   Click **Meter Sets** and choose a meter set (you can change your choice later)

Step 2   Click the **Define** button. The system displays the Patch I/O page.

Step 3   Select the source type you want in the lower left section.

Step 4   Select one or more signal paths to patch to the meters.

If you wish to display Tracks or Live Feeds, choose their Insert Send, which always sends, even if Insert is not switched on (it's the Return that is affected by the switch). Note the position of the insert in the channel, which can be controlled on the Path Menu.

Choosing Direct Out is also possible, but is subject to the Direct Out on/off switch, pre/post switch and level control.

Step 5   Select one or more individual meters to patch in the upper right of the screen.

Step 6   Click the **Patch** button.

This patches the sources to the selected meters and saves the Meter Set.

Whole Bus Patching – Expandable

If you patch a whole bus to the meters in one gesture, it becomes resizable.

"One gesture" means that you selected all the bus elements, and the same number of consecutive meters, and clicked Patch.

"Resizable" means that, if you change the bus format, it will grab as many meters as it needs, pushing the next signals to the right when it expands (potentially off the end) and pulling them to the left when it contracts.

If you leave blanks to the right of a resizable bus, it will consume the blanks before starting to push other channels to the right.

Using the Meters Menu

Step 1   Press the **Meters** button in the Setup Megamode.

Step 2   Press the **assign meters** soft key. This displays the Patch I/O page.

Step 3   Use the Patch I/O page as described in the previous section.

Peaks

The numeric peak levels displayed on the mixer display bus meters have a variable threshold. The level at which these values are displayed can be set in the *C:\Program Files\ Fairlight\FMC\Data\System_Variables.txt* file. Edit the following line in the file:

PEAK_DISPLAY_LIMIT,950

The value is from 0 to 1000 in 0.1dB steps where 1000 = full scale level. In the example above the value of 950 will cause the numeric display to first be shown when the signal level reaches -5dB below full scale. 970 will set the threshold to -3dB, 990 will set the threshold to -1dB, and so on.
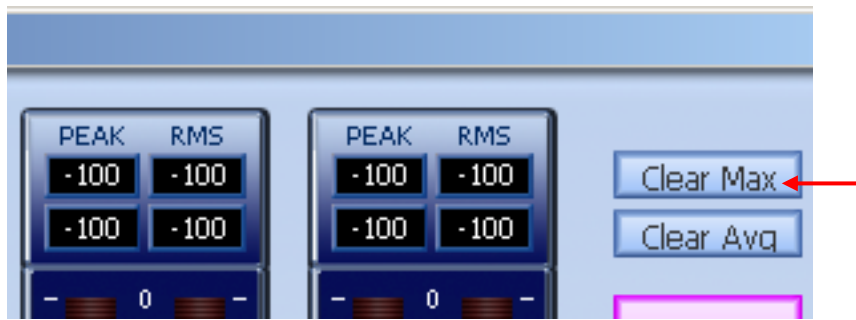
Clear Peak

Signal levels in excess of 0dB full scale are indicated by a fixed orange peak hold display. To reset the peak hold display:

Step 1   Press the **Meters** button in the Setup Megamode.

Step 2   Press the **Clear Peak** soft key.

You can also clear peaks using the Clear Max button on the Master Screen Meters.

Peak Hold Time

Peak hold time can be set in the Meters Menu as follows:

Step 1   Press the **Meters** button.

Step 2   Press the **Peak Hold** soft key repeatedly to choose Off, Short, Long or Permanent peak hold.

Overload Hold Time

Overload hold time can be set in the Meters Menu as follows:

Step 1   Press the **Meters** button.

Step 2   Press the **Over Hold** soft key.

Step 3   Use the Jog Wheel to change the overload hold time.

Step 4   Press the **Enter** key, or the **Exit** soft key

Meter Point

The Meter Point is the place in a channel where level is extracted for metering. To move the meter point for all signal paths:

Step 1   Press the **Meters** button.

Step 2   Press the **Mtr Pnt** soft key repeatedly to move the meter point.

The meter point can be seen in the Fat Channel by the position of the meter graphic.

Macros

What is a Macro?

Macros are recorded sequences of keystrokes, jog wheel actions and rotary pot moves. They can be learned, then played back at any time to automate complex editing moves. The keys that play the macros back are called "macro trigger buttons". (Please remember this, otherwise things will get confusing quite soon.)

The system supports 30 macros, and provides different layouts to access them.

When macros are played back, they execute the keystrokes as fast as possible. This can result in "race conditions" where, for example, the editor is not quite ready for the mixer, or vice versa. If you find that a macro appears to be getting lost, you may insert one or more delays of 100 ms.

Displaying Macros

There are two different keys used for displaying macros. They do almost exactly the same things.

- The macro button in the Editor, Record, Mixer and Setup megamodes

"Key 7" this is a soon-to-be-labeled button next to Xplain

Key 7
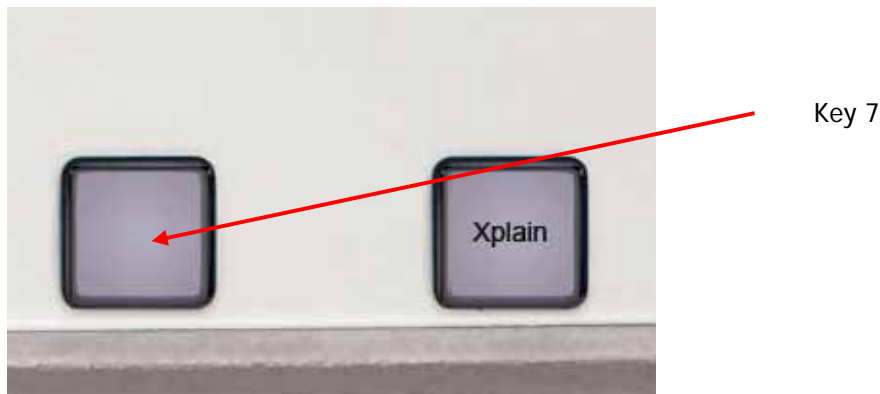
Either of these keys will toggle the macro trigger buttons on and off the Xynergi Tactile Controller.

Macro trigger buttons can be displayed in two possible places:

- On the Picture Keys (default). You can show one or three rows of macro keys.
- On the Numpad

To set the display location for macro trigger buttons, do the following:

Step 1   Hold down the **BLUE** key and press the macro key or Key 7.

The Edit Macro layout is displayed on the Picture Keys.

Step 2   The macro location button cycles macro trigger buttons between three settings:

1 row – displays one row of macros on the picture keys, with three buttons that switch the range from 1 – 10, 11 – 20 and 21 – 30

3 rows – displays all 30 macros on the picture keys

Use keypad – displays macros on the Numpad, 9 at a time, with three button that switch the range from 1 – 9, 11 – 19, or 21 – 29. Note that macros 10, 20 and 30 are not accessible via the numpad.

Step 3   Press either macro the macro key or Key 7 twice

The first time is to exit the Edit Macro layout, and the second time is to display macro trigger buttons.

From now on, simply press either the **macro** key or **Key 7** once to toggle macro trigger buttons on and off in your preferred location. **Note:** the system remembers your preferred location between sessions.

When the macro trigger buttons are displayed on the Numpad, the keys flash a low Blue colour. Macro trigger buttons 1 to 9 are accessed by **Numpad 1** to **Numpad 9**. Banks 1 to 3 are accesssed by pressing the **0**, **00** and **Subf-Clear** buttons respectively.

Recording Macros

To record a macro, do the following:

Step 1   Hold down the **BLUE** key and press **macro** or **Key 7**.

              The Edit Macro layout is displayed on the Picture Keys.

Step 2   Select the macro you want to record by pressing its **macro** trigger button.

Step 3   Press the **learn** soft key.

              The Edit Macro layout disappears, and **Key 7** starts flashing. It will continue to flash while you record the macro.

Step 4   Record your keystrokes.

              You can record as slowly as you like, but the macro will play as fast as possible.

              You may change modes and megamodes as often as you like.

              You may press an existing macro trigger button to record its keystrokes into your new macro (see Macro-in-Macro below).

Step 5   To stop recording, press **Key 7**. It will stop flashing.

Context

Macros are faithful but dumb. They do not know where you started recording – they only know which keys you pressed.

If you decide to run a macro from a completely different situation, it may do something you didn't expect. So try to remember the starting point of your macros, or better still, begin by establishing a starting point e.g. by selecting a megamode.

Adding Delay

Sometimes macros run so fast that we create a "race condition". This happens when different parts of the Xynergi system get their timing wrong, and events happen in the wrong order.

If you play back a macro from the correct starting point, and it does not repeat the desired commands, try recording it again, but this time insert a delay. To insert a delay, you may:

- Press the add delay button if it is visible

  OR

- Type **BLUE**+**LOC**

Each of these commands adds a 100 millisecond delay. You can issue the command several times if you wish to add longer delays.

Common places where delays might be needed:

- After one or more jump commands

- After bringing up a dialog box (such as when naming a clip or a seed name)

Macro-in-Macro

When you run a macro while recording another, the macro trigger button itself is not recorded, but all the keystrokes it plays back are.

To access macro trigger buttons during recording, you must have the macro layout displayed somewhere.

If you started recording your macro with the macro layout on the Numpad, it will still be there, and you can press any macro trigger button you like.

But if you started with the macro layout on the Picture Keys, it will have disappeared as soon as you started recording, to make way for other modes and megamodes. To regain access to the macro trigger buttons, press the `macro` button (but NOT `Key 7`, because that will terminate the recording). You may now press the macro trigger buttons and record their keystroke output.

One final complication: if you have been using the last paragraph i.e. you started with macro trigger buttons on the Picture Keys, the `macro` button you pressed (to access the macro trigger buttons) will be recorded into your new macro. Since your macro starts with the macro layout displayed, this key will result in the macro layout being removed from the Picture keys when your macro runs. To avert this problem, add an extra press of the `macro` button at the end of your macro. Or better still, start with the macro trigger buttons on the Numpad.

Macro Names

When macros are displayed on the picture keys, their names can be seen. This is very helpful for distinguishing them.

To name a macro, do the following:

Step 1   Hold down the **BLUE** key and press `macro` or `Key 7`.

The Edit Macro layout is displayed on the Picture Keys.

Step 2   Select the macro you want to name by pressing its `macro` trigger button.

Step 3   Press the `name` soft key.

The QWERTY keyboard is shown on the picture keys. Type a name for the macro. To remove the existing name, press `Del`. When you have the name you want, press `Enter`, or press `Exit` to escape without changing the macro name.

The picture keys can only display short names. It's best to use no more than two words of up to 5 characters in most cases (some letters are thinner than others).

Macro Colour Groups

You can set the background colour of your macros so that they form functional groups. The system provides 10 colours for this purpose.

To set the colour group of a macro, do the following:

Step 1   Hold down the **BLUE** key and press `macro` or `Key 7`.

The Edit Macro layout is displayed on the Picture Keys.

Step 2   Select the macro whose colour group you want to change by pressing its `macro` trigger button.

Step 3   Press the `group` soft key a number of times.

Each time you press this soft key, the macro background changes. After ten key presses it returns to its original colour.

Keep pressing the soft key until you are happy with the colour. There is no need to press **Enter**.

Editing Macros

Editing macros is definitely for technically minded people.

Macros are stored in a file called macros.txt. It is found in:

C:\Program Files\Fairlight\FMC\Data\User*username*

... where *username* is your login user name

(This assumes that you have used the default C:\Program Files\Fairlight as your installation folder)

It is beyond the scope of this manual to explain in detail what all the items in this file mean. If you are technically minded it is not too hard to figure out. Here are a couple of clues:

CONTROL,16,CID_SW_CUT,1

CONTROL,16,CID_SW_CUT,0

These two items are keystrokes. The one ending in 1 is the downstroke. The one ending in 0 is the upstroke.

CONTROL,687,CID_SW_MFX4_61,1

CONTROL,16,CID_SW_MFX4_61,4

This occurs when you hold a keystroke down for a couple of seconds (this might be needed to operate momentary menus for example). The 1 is the downstroke, and the 4 is the "hold" of the key. Sooner or later you'll see something like:

CONTROL,687,CID_SW_MFX4_61,0

...meaning you've released the key.

As for deciphering which keys are which, it's difficult. Keys like this...

CONTROL,16,CID_SW_CUT,1

CONTROL,250,CID_SW_ENTER,0

CONTROL,16,CID_SW_PLUS,0

CONTROL,15,CID_SW_00_48T,0

...are clear enough (they are **cut**, **enter**, **+** and **00**).

But keys like this...

CONTROL,0,CID_SW_MFX4_61,0

CONTROL,656,CID_SW_CUSTOM_16,1

... are internal macros built by Fairlight programmers. No list is available. Good luck with this.

Note: after editing and saving your macro.txt file, you must restart the Xynergi system before the macros are reloaded.

Grouping

Introduction

Grouping is a fast and convenient method of controlling more than one signal path from a single fader or parameter control. There are two types of groups: Link Groups and Edit Groups.

Link groups are designed for controlling groups of feeds in multichannel formats. Link groups simplify many tasks associated with working in surround formats and share many of the operational features of surround format buses. Link groups can include up to eight members. The simplest link group has two members and fulfils the function of a stereo channel.

Fader Groups are similar to other VCA or DCA grouping schemes and allow a master fader to control a group of signal paths. Fader Groups can include any number of members.

Summary of Groups

Type	Member Type	Master Fader	Selection to Channel Panel	Stem Structure	Fold on Creation
Link Group	Live Feed or Track Feed	Link Group Master - level equal to first member.	Select Master	Yes	Yes
Fader Group	Live Feed or Track Feed	Fader Group Master	Fader Group menu key and soft Speaker Set key	No	No

Link Groups

Link groups allow the control of up to eight feeds with one fader. They can only include track feeds or live feeds, not a mixture of both. Link groups can be created in any standard multichannel format, or without any format.

Link Group Format

When a link group is created, you have the option to apply default pans. If you do this, the number of members determines the format of the link group.

If default pans are selected each member of the group is panned to one element of the bus in the following order:

> If 2 Feeds are linked, they are panned L R.
>
> If 3 Feeds are linked they are panned L C R.
>
> If 4 Feeds are linked they are panned L C R S.
>
> If 5 Feeds are linked they are panned L C R LS RS.
>
> If 6 Feeds are linked they are panned L C R LS RS B.
>
> If 7 Feeds are linked they are panned L C R LS CS RS B.
>
> If 8 Feeds are linked they are panned L LC C RC R LS RS B

Normally each member is panned hard to one Bus Element position, spread is set to maximum, divergence is set to minimum and rotation is set to zero. This fixed pan configuration is optionally chosen when the Link Group is created, and cannot be changed afterwards.

If fixed panning is chosen, and the link group format contains a Boom channel, the assignment of the corresponding member is achieved by Stem Assignment to the Boom element only, of the destination Bus. See "Stem Assign" on page **Error! Bookmark not defined.**.

If you are using a link group to control a premixed stem which is delivered in a different channel order, it may be necessary to edit the track order on the disk recorder or to change the input patching of the feeds if the stem is played in off an external device.

Link Group Features

Linking feeds in link groups has the following effects:

- Selecting one member selects the entire link group.

- There is only one fader for the group. When the group is created, the group master fader adopts the level of the first fader in the group. When the fader is adjusted, the member's fader levels are offset by the amount the master fader is moved in dBs.

- When a group is created the master pan control is centred. The Spread and Rotate controls become active when the link group master is called to the Master Fader. These pan parameters offer unique and flexible panning controls to multichannel link groups. See "The Spread Control, below.

- When the group is created, the In-Line Panel and Channel Panel controls adopt the position of the first feed in the group. When a rotary control is adjusted, the controls of the members are offset by the amount the master control is moved. Switch controlled parameters display the current setting of the first member in the group. Pressing a switch with a toggled value (e.g. Mute On/Off) will toggle the master's value, and set all other members to that value. For switches which cycle through a number of values, pressing the switch will set all members to the next value of the Group Master.

- Holding down **BLUE** while touching controls for faders and aux sends sets them to 0 dB. It also sets all group members to 0 dB, removing any differences between their values.

- The MUTE and SOLO keys on the Master Fader section indicate the mute and solo status of all the members.

- When the group is created the channel Soft Pot is set to the position of the first feed in the group. When it is adjusted the values of the Soft Pot parameters of all the members of the group are offset. The channel Soft Key displays the setting of the Soft Key parameter of the first member of the group

- The AUTO key on the Master Fader section enables automation recording for the link group master which will control all the members. Only the Link Group master actually records automation data, and any existing data for the other group members is erased when the master enters automation WRITE.

- When selected, a link group is displayed in the Fat Channel display at the bottom of the Mixer Screen. The display shows input patching and destinations for the entire group.

Creating a Link Group

Step 1   Press the **Setup Megamode** button.

Step 2   Press the **Link Gp** button.

             The feeds that currently belong to link groups are shown in yellow or brown. Feeds available for selection are shown in dark blue.

Step 3   Press the feed selection key of the first feed of the group. Its key lights up, and all other buttons

disappear, except the ones you can include in a link group with the first.

Step 3   Press one of the feed selection keys to make it the last feed of the group.

Link groups can only include track feeds or live feeds, not a mixture of both. Link groups can only include up to eight members, which must have contiguous number e.g. 3 to 10.

Step 4   Select a menu item from the **Apply Defaults** soft key menu.

all defaults   applies pan settings to each member to set the link group into a surround format as described above under "Link Group Format". All defaults also applies the feed parameter values of the first member of the group to all the members. Parameters modified are fader level, pan, EQ, dynamics, aux sends, inserts and direct out state.

default pans   applies pan settings to each member to set the link group into a surround format as described above under "Link Group Format". Default pans affects the pan parameter only.

feed params   applies the feed parameter values of the first member of the group to all the members, excluding pan. Parameters modified are fader level, EQ, dynamics, aux sends, inserts and direct outs.

no defaults   no feed parameters are modified.

Link Group Display

The link group is displayed in the Mixer Screen like this:
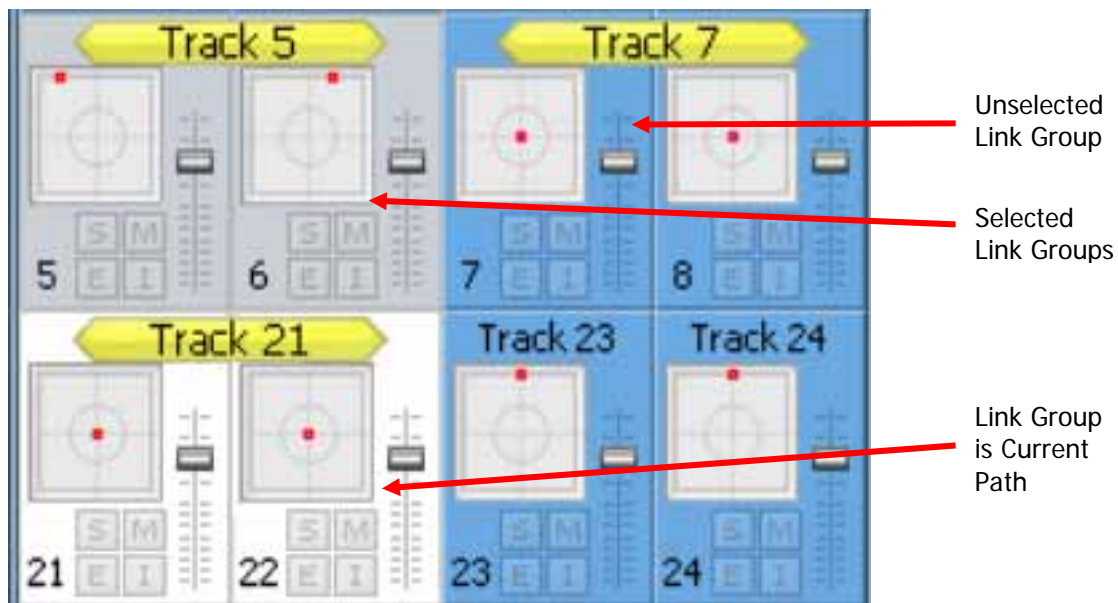
It is also shown in the channel display at the bottom of the mixer display.

If composed of Track Feeds, it is also shown in the Editing Screen.

Double-click here to collapse or expand the linked tracks.
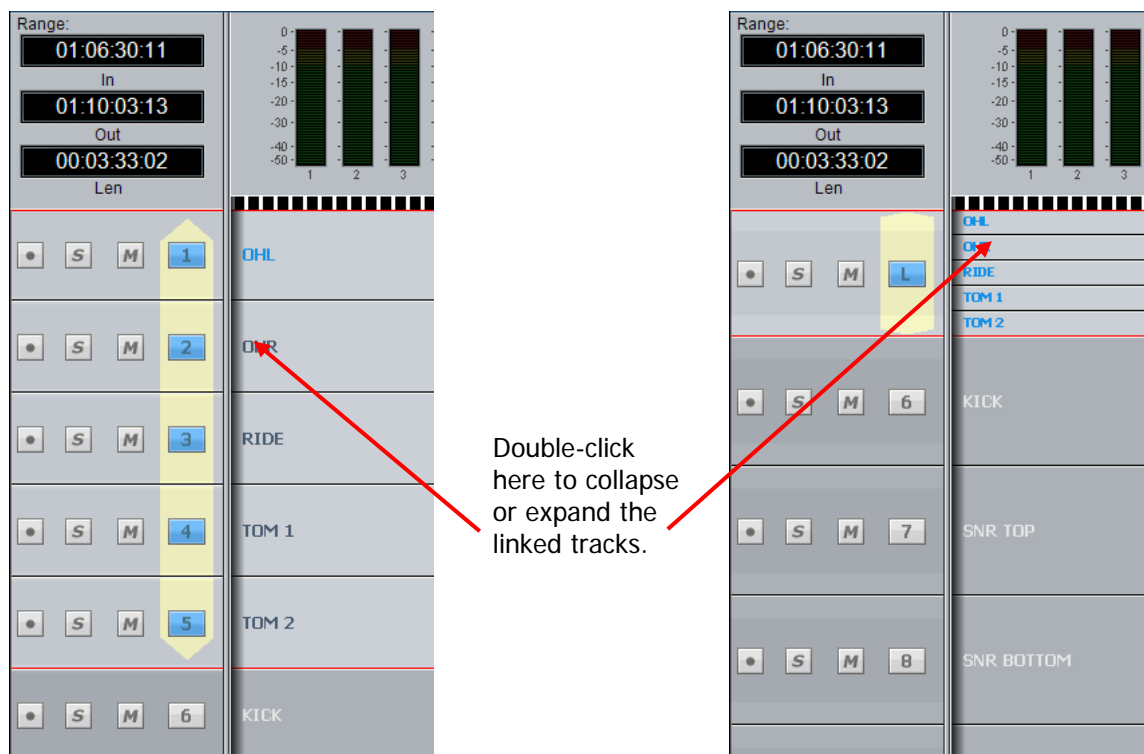
You can collapse linked tracks down to the width of one track by double-clicking any of the linked tracks, close to its left side. Do the same thing to expand them.

In Xynergi, Track Link Groups are displayed with lines through the buttons, as follows:

Unselected Link Groups

Selected Link Groups

Link Group is Current Path
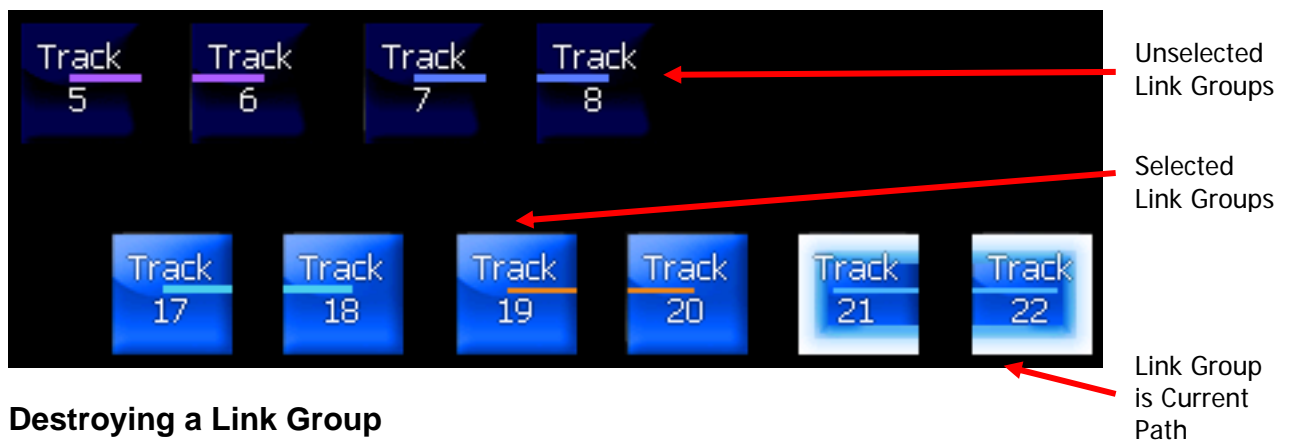
Destroying a Link Group

Link groups are destroyed from the Link Group menu:

Step 1   Press the `Setup Megamode` button.

Step 2   Press the `Link Gp` button.

The feeds that currently belong to link groups are shown in yellow or brown. Feeds available for selection are shown in dark blue.

Step 3   Press the feed selection key of a feed belonging to a group.

Step 4   Select the `unlink` soft key.

NOTE: You can also create and destroy Link Groups from the Tracks Menu under `Link Tracks` and `UnLink Tracks` respectively. Note that this method does not offer the same flexibility as using the control surface.

Suspending a Track Link Group

Track Link groups can be temporarily suspended while you work on one of the member tracks.

Step 1   Hold down the **BLUE** button.

Step 2   Press a track button that is inside a Link Group.

The Link Group is suspended, and the track you pressed becomes the Current Path.

Reinstating a Suspended Link Group

Suspended groups can be reinstated at any time until the project is closed, or until one of the members is used in another Link Group.

Step 1   Hold down the **BLUE** button.

Step 2   Press a track button that was inside a Link Group, before it was suspended.

The Link Group is reinstated, and becomes the Current Path.

Panning Link Groups

When a Link Group is the Current Path, the pan controls act on each Link Group member at the same time. The system maintains a Spread Box for each Link Group, which affects panning behaviour.

Link Group with default panning. Spread box is set to maximum size, so Link Group members are panned as wide as possible.

Spread box is set to 70%, so members are brought inwards. Now the whole Spread box can be moved LR and FB.

Link Group with random panning. Spread box is set to maximum size, so Link Group members cannot be panned any wider, nor moved.

Spread box is set to 70%, so members are brought inwards. Now the whole Spread box can be moved LR and FB.

The Spread Control

The spread control is only available when a link group is selected. The spread control adjusts the perceived size of a surround mix. The spread control range is from 0 to 100%. At 0 the display reads POINT, meaning point source. At 100 the display reads FULL, meaning full surround. At FULL spread the LR and FB pan controls have no effect as each member of the link group is hard panned to their respective bus elements. As the spread is reduced, the panning of each link group member is made to converge with the location of the link group master pan control. With the spread control less than full, the pan control enables the sound field to be moved to favour the location of the pan target. As the spread control approaches POINT, the panning of each member becomes closer to the pan location of the link group master. This has the effect of mixing the signals of each link group member so that they all emerge from the same loudspeakers as determined by the link group master pan.

When a link group is created with default pans, spread is set to maximum, divergence is set to minimum and rotation is set to zero.

The spread control can be used to great effect when it is desired to collapse the surround sound field to a point source. This may occur for instance, where the camera moves continuously from an interior shot to an exterior or visa versa. The surround field can be established for the interior and then as the camera moves through the door or window, the surround field collapses and pans and fades down to the location of the window. As this is occurring a pre-mixed surround field for the exterior can be growing from the rear speakers and spread out to the entire speaker system as the exterior shot is established.

Fader Groups

There are 10 VCA-style Fader groups on Constellation. Members of a Fader Group have their fader levels controlled by a Master, and can also be accessed individually to set relative levels within the group.

Control

Faders in a group are controlled relatively by the Group Master fader. To do this, you must either:

- CALL the Group Master to the Pad, then control it with the Pad Level control or the Master Fader, if you have one.

  To call the Group Master, click on its tile on the Mixer Screen.
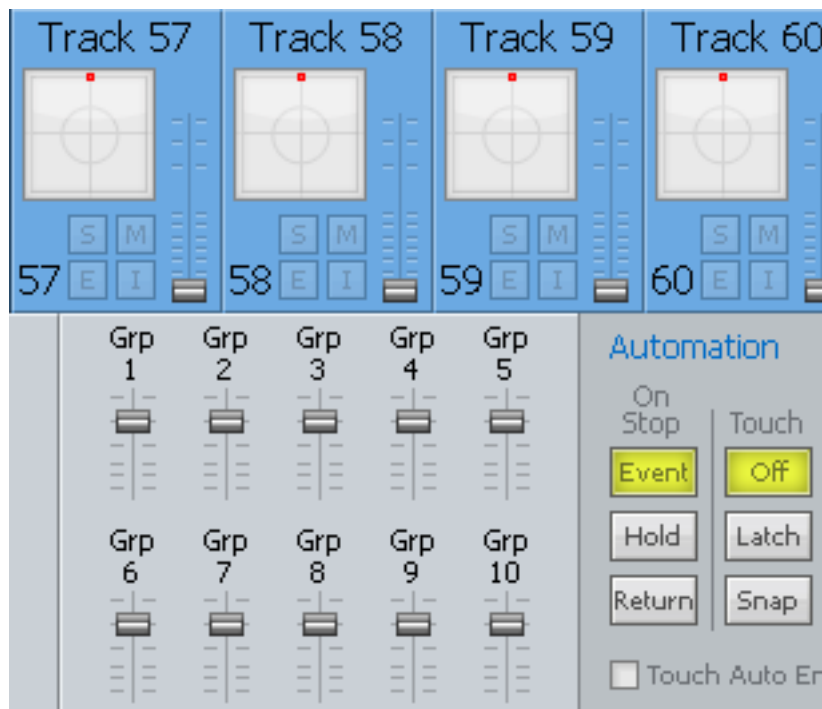
  If the Group Tiles are not shown on the Mixer Screen, open the System Variables screen by typing `ctrl+u`. and select one of the Screen Layout options that include VCA Masters.
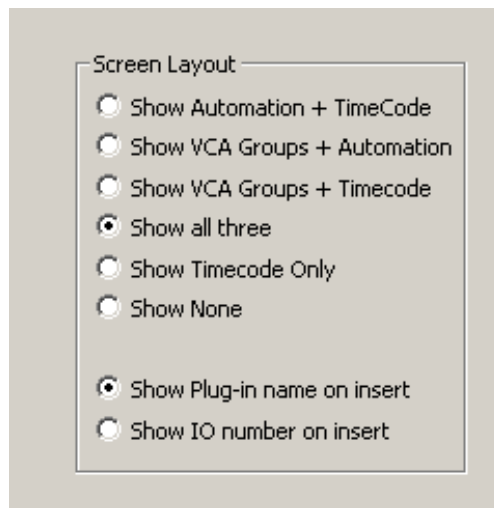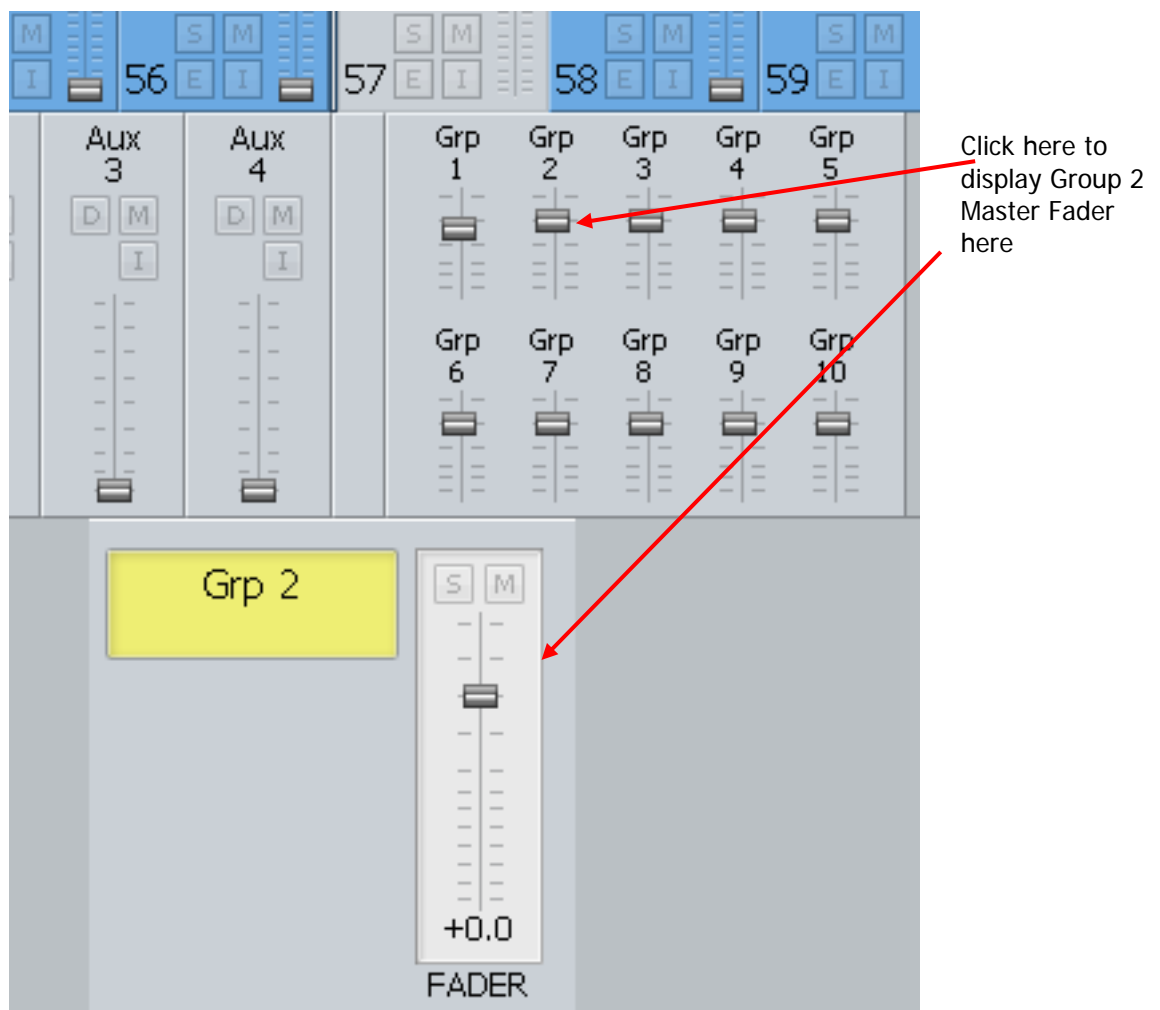
This setting will be remembered for following sessions.

- Add the Group Master to a fader set.

    This is done using the Mapping software. See page 230.

- Use the mouse directly on the Mixer Screen, by moving the Group Master faders. By clicking on a Group Master you call it, and that displays a larger fader in the Fat Channel.

Click here to display Group 2 Master Fader here

Assignment to Fader Groups

Global Assignment

Fader Group membership can be controlled globally using the Grouping Window. To open this, click on the Mixer screen and type **SHIFT+ctrl+V**

To use this window:

Step 1   Select a VCA group at the bottom of the window.

Step 2   Toggle signal paths in and out of the group.

Step 3   Use Page Up and Page Down to access more Tracks and Live Feeds.

Step 4   To close this display, type **SHIFT+ctrl+V** again or **esc**, or right-click on the window.

Assignment from the Virtual Channel

Membership of fader groups can also be controlled in the Virtual channel, which is accessed by right-clicking a channel tile in the Mixer screen.

Click here to change the Fader Group of the called channel.

Zero means no Fader group membership.

Naming a Group

Groups are named the same way as other signal paths, using the Name Path function (see page 41).

Multi Trim

MultiTrim group members
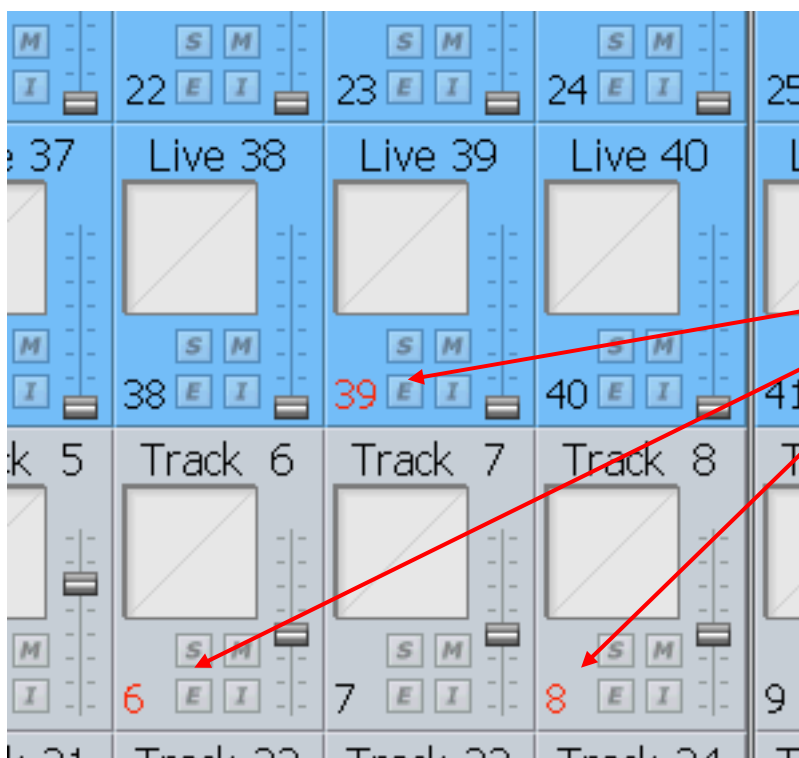
Multi Trim is a mouse-driven operation where many channels can be changed at the same time. To set up the group, click on the numbers of tiles in the Mixer Screen.

Mouse operations with a MultiTrim group include the following:

- Click and drag any member's fader to move all the group's faders relatively (in proportion to their current value).

- Ctrl-Click and drag any member's fader to move all the group's faders absolutely (they are all set to the same value).

- Click any toggle switch on any member's tile (Mute, Solo, EQ In/Out, Insert In/Out) to toggle all members' switches.

- Ctrl-Click any toggle switch on any member's tile (Mute, Solo, EQ In/Out, Insert In/Out) to set the value of that toggle to be the same for all members.

Link Groups can be included in the MultiTrim group. When any of the MultiTrim members' faders are moved, the whole Link Group adopts the fader value of the first member, removing any offsets between them that might have existed earlier.

To clear the MultiTrim Group, double click on one of the red channel numbers.

Using XE-6 Faders

Introduction

The Xe6 Fader Extender has 6 faders for individual feeds, buses, or groups. You can use up to four of these units together on one Xynergi system, to control up to 24 signal paths at the same time.

Installation of Xe6 faders is described in detail in the Xynergi Installation manual: Xynergi Media Production Centre Quickstart.pdf, which is supplied with your system, and found in the folder C:\Program Files\Fairlight\Dream II\Docs.

This chapter assumes you have successfully installed and tested your XE-6 unit(s).

Basic Operation

Fader

Each fader controls the channel volume level in a range from -90 dB to +10 dB. The current fader level can be read in the OLED display above (more info about this below). To set the fader to exactly 0 dB, hold down the **BLUE** button and touch the fader.

The motors work during automation playback to track the level data recorded for the channel being controlled. During automation recording the motors switch off, allowing new movements to be recorded.

The touch sensor tells Dream II that you have touched the fader. The most common use is to put the fader into automation write when you move it. It is also possible to call the controlled channel to the Xynergi Pad by touching the fader. To switch this fuction on, use the `Call` menu in the Setup Megamode.

Mute

The Mute button is used to turn the channel on and off. When the channel is muted, it is equivalent to having the fader pulled right down, and no signal passes from the channel to its send destination.

The Mute button always "follows" the fader. See below how the fader can be reassigned to various functions in the channel – in all cases the Mute button is reassigned to the same function.

Solo

The Solo button has the general effect of isolating the soloed channel so it can be heard alone. For a full discussion of how Solo works, please see Solo and Mute on page 35.
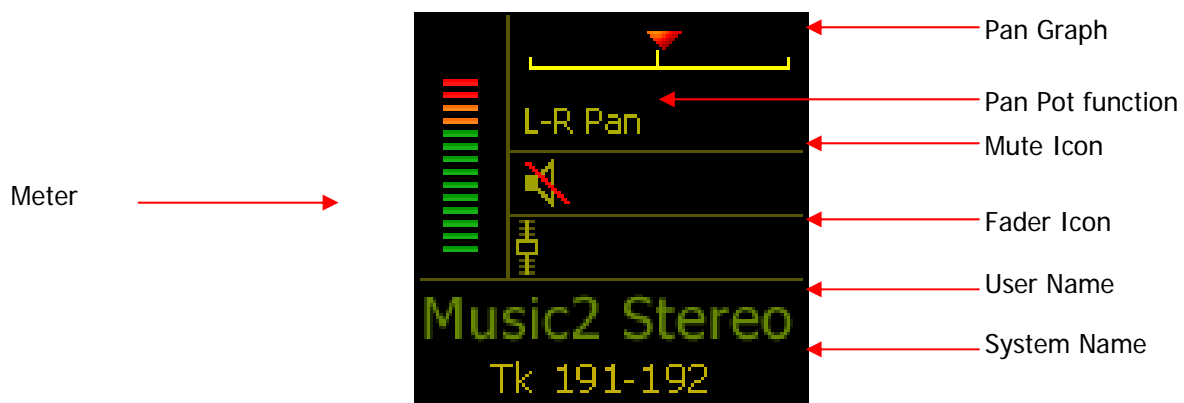
The OLED Display

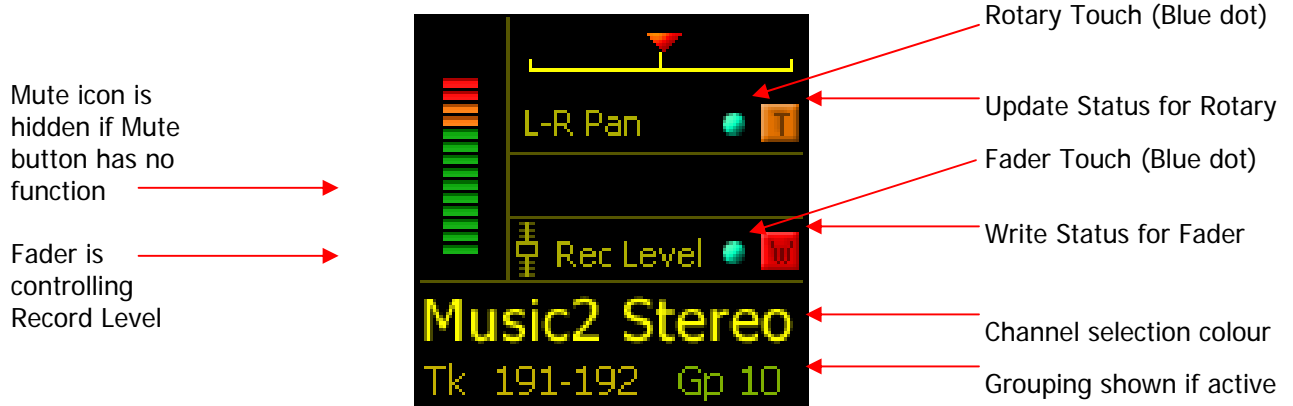The OLED display at the top of the fader strip gives you a lot of information about the channel.

Steady State

Under normal circumstances the OLED will show details of the channel being controlled by its associated fader.

The most common situation is shown below:

Some complex variations:

More variations:
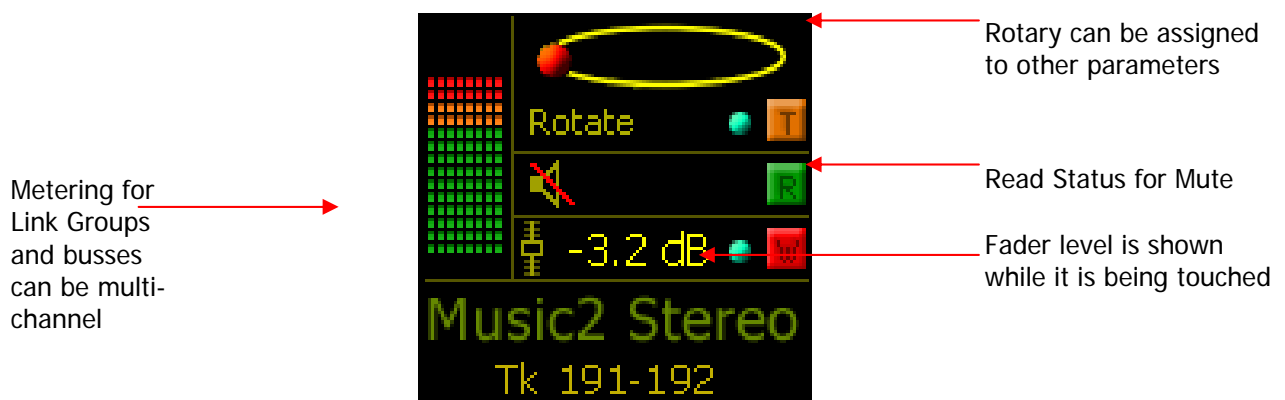
Fader Sets

A fader set is a group of channels mapped to the faders. The system offers up to 9 fader sets, each including as many channels as there are faders on the system.

To select a fader set:

Step 1   Hold down the **Fader Sets** button

Step 2   Press a button from **1** to **9**

Step 3   Release the **Fader Sets** button

The same thing in latched mode:

Step 1   Press the **Fader Sets** button

Step 2   Press a button from **1** to **9**

Step 3   While **Fader Sets** is latched, you may choose any fader set by pressing a button from **1** to **9**

Step 4   If desired, press the **Fader Sets** button to unlatch it – if you prefer, you can keep the Fader Sets layout handy for more changes.

Call button

For each fader, the Call button puts that channel into the Pad. It does not select the channel for editing or mass-channel mixing operations.

Its action is NOT equivalent to pressing the channel's selection button on the Xynergi surface, because:

- The selection button selects the channel as well as calling it
- The selection button can TOGGLE the channel on and off

The CALL button makes the channel the current Pad channel, and only "asserts" (does not toggle).

Auto button

The Auto button changes the automation state of the channel that owns the fader strip. It is equivalent to the Auto button on Constellation fader panels.

If Preview is on, the channel is toggled in and out of preview.

Otherwise, if Write is selected, the channel is toggled into and out of Write, or if Trim is selected, it is toggled into and out of Trim.

PanPot Function

The Panpot default function is controlling the Left-Right Pan position of each channel. It can also control many other mix parameters. To change the Panpot function:

Step 1   Select the **Mixer Megamode** on the Xynergi surface

Step 2   Hold down the **Pot** button (by default it is labeled Pot L-R)

Step 3   Select from the available functions that appear on the Xynergi buttons

Step 4   Release the **Pot** button.

The OLED display names the function you are controlling with the panpot, and shows a graphic display of the current parameter value.

Note: Simply pressing and releasing the **Pot** button toggles between the standard function (Pan L-R) and the most recent non-standard function that you used. If you have not used any non-standard function, it toggles between Pane L-R and Pan F-B (front / back).

Fader Function

The standard fader function is to control the send level of the channel to its assigned buses i.e Main Bus and sub-busses.

Faders can also control a number of other parameters. To change the function of the faders:

Step 1   Select the **Mixer Megamode** on the Xynergi surface

Step 2   Press the **Faders To…** button.

Step 3   Select from the available functions that appear on the Xynergi buttons

Step 4   Press the **exit** button.

The OLED display names the function you are controlling with the fader. Note that the **Mute** button always "follows" the fader function – if that is possible. For example, if the fader is controlling the send level to Aux 1, the **Mute** button cuts that send. But if the Fader is controlling Record Level for the track, the **Mute** button has no function.

Using the Fairlight Fader Sidecar

Introduction

The Xynergi Fader Sidecar has 12 faders for individual feeds, buses, or groups.

Fader Controls

Name of signal path

Soft Pot – normally Left-Right Pan Control, but switchable to other functions

Solo toggle

Mute toggle

Automation read/write indicator

CALL button – brings channel to PAD, Fat Channel etc.

Soft button – selects channel for automation commands

Automation indicators

Fader – controls level (or other choices)

AUTO button – channel enters automation write/trim/preview

Shows type of signal path (feed, group, bus)

Tallies EQ, Dynamics, Insert IN, and indicates if fader is a Link Group Master

Zero Faders and Pan Pots

A fader can be set to exactly zero dB by holding down the **BLUE** key and touching the fader.

Similarly a pan pot can be placed exactly in its centre position by holding down the **BLUE** key and touching the pan pot.

The Soft Key

When automation Mix On is selected and either the Mix or Enable menus are displayed, the Soft Key on each fader strip can be used to add the feed to the enable matrix.

The Soft Pot

By default, the Soft Pot controls left-right panning. To change its function:

Step 1   Select the Mixer Megamode

Step 2   Hold down the blue `Pot` button (next to green `Proj` button)

A number of choices appear on keys just above the Pot button. They include:

Pan LR

Pan FB – used for Buses with surround elements

Ch Trim – sets a digital level control in the channel

Rec Lvl – sets the level going to record (for tracks only)

Pan UD – sets a third pan channel used in some custom systems

Dist – sets a parameter called Distance in some custom systems

Aux 1 to Aux 12

Step 3   Choose one of the options

Step 4   Release the `Pot` button

The chosen parameter is shown on the button

It is also possible to toggle between "standard" panpot operation, which is Pan LR, and the last "non-standard" setting you made. This is done simply by pressing and releasing the `Pot` button.

Note: If you have not chosen any non-standard setting since the system was started, the `Pot` button toggles between Pan LR and Pan FB, which is useful for 5.1 surround work.

Automation Mode Selection

The `AUTO` key places the selected signal path in automation record. This can only happen if Mix ON has been selected, and Faders enabled for automation. See the chapter on automation for details.

Fader Displays

The status of the signal path associated with each fader is indicated with illuminated tally displays.

TOUCH	The fader is being touched.
LATCH	Touch is active and in Latch mode. Once a control is touched it will continue to write data after it is released.
SAFE	The selected signal path is in safe mode and will not update automation data.
READ	The selected signal path is in read mode and playing back automation data in mix mode.
WRITE	The selected signal path is armed to write automation data, the Constellation is in write mode and recording automation.
	The WRITE indicator flashes while in Preview or when in Glide-Back.
TRIM	The selected signal path is set to trim automation data, the Constellation is in trim mode and recording automation.
	The TRIM indicator flashes while in trim mode but not recording.
INPUT	The fader controls the input level to a disk recorder track.
BUS	The fader controls a bus level.
LINK	The fader is a member of a link group.
Signal LED	The Signal present LED monitors the channel audio level.
	For Track Feeds the level is taken before the channel processing or inserts, after the disk recorder. For Live Feeds the level is taken before the channel processing.
	The default signal present thresholds are as follows: -50dBFS=green; -20dBFS=amber; 0dBFS=red.

Using Groups

Fader Groups provide an efficient means of controlling more than one signal from a single fader. The inherent bus structure associated with multiformat work is handled seamlessly through the use of Link Groups.

Faders To...

The `Faders To...` menu allows the channel faders to be assigned to one of a number of feed parameters.

Press the `Faders To...` key to toggle the fader between its normal function and the function selected in the **BLUE** `Faders To...` setup menu. The faders will snap to the level of the selected parameter on each channel. All other controls on the Channel Panel continue to function normally.

To select the `Faders To...` function follow these steps:

Step 1   Hold down the **BLUE** key and press the `Faders To...` key to display the Faders To... menu.

Step 2 Press one of the menu soft keys to select one of the following functions:

Input allows the faders to control the signal level prior to the disk recorder in a track feed.

Direct Output the faders control the direct out level of each feed.

Boom Level the fader controls the Boom level for each feed.

OR

Select an Aux bus or a reduction Sub-Bus to control the feed send level to the selected bus.

Select a Sub-Bus that has been set up for bus reduction to control the independent feed fader for that bus. See "Bus Reduction" on page 60 for details on bus reduction.

Step 3 Press the **Auto Monitor** soft key when a bus is selected to automatically switch that bus in to the monitoring chain whenever the **Faders To...** key is pressed.

Faders to Aux

While **BLUE Faders To...** is active, any of the **Aux** bus selection keys may be selected and the Aux key will be illuminated. All channel faders now control the level at which their signal path is sent to the selected Auxiliary bus (Bus Master faders are excluded).

The **MUTE** key now controls the aux send ON/OFF control. If the selected Aux bus is wider than mono, the soft pot allows the panning of the aux send to left and right bus elements.

The mute, pan and fader controls may be automated and will record data for the aux bus send level, pan and ON/OFF parameters. Use the enable keys next to the Master fader to enable these parameters for automation.

Faders to Reduction Bus

While **BLUE Faders To...** is active, Sub buses which are configured for bus reduction may be selected. All channel faders now control the level at which their signal path is sent to the selected Sub-Bus.

The mute, pan and fader controls may be automated and will record data for the bus send level, pan and assignment parameters. Use the enable keys next to the Master fader to enable these parameters for automation. See "Bus Reduction" on page 60 for more details.

The reduction bus channel fader may be configured pre or post the normal channel fader. This is achieved using the **Bus Params** menu. When set to **Post**, the reduction channel fader defaults to 0dB and provides an offset to the normal channel fader. The **MUTE** key now controls the bus assignment to the selected Sub-Bus. The panpot is inactive.

When set to **Pre**, the reduction channel fader provides an independent mix level for the reduction Sub-bus. See "Bus Reduction" on page 60 for more details. In this situation the panpot and Mute button are fully functional and independent of those on the main fader.

defaults to 0dB and provides an offset to the normal channel fader. When set to **Pre**, the reduction channel fader provides an independent mix level for the reduction Sub-bus. See "Bus Reduction" on page 60 for more details.

Fader To Input

While **BLUE Faders To...** is active, the **Input** soft key may be chosen. All track feed faders now control the level prior to the disk recorder. This can be used to control the level going to disk during recording. Note that live feed faders are inactive when Faders To Input is selected.

This fader control cannot be automated.

Faders to Direct Output

While **BLUE** `Faders To...` is active, the `Direct Output` soft key may be chosen. All channel faders now control the direct out level.

The `Mute` key toggles the direct output ON and OFF.

The fader control may be automated and will record data for the direct out level parameter. Use the enable key next to the Master fader to enable this parameter for automation.

Fader To Boom

While **BLUE** `Faders To...` is active, the `Boom` soft key may be chosen. All channel faders now control the boom level.

The `Mute` key toggles the boom ON and OFF.

The fader control may be automated and will record data for the boom level parameter. Use the enable key next to the Master fader to enable this parameter for automation.

Faders To … under Automation

While Faders To is active, the parameters controlled by the individual control elements (Fader, Panpot, Mute Switch etc.) are recorded into the automation as usual. The Enable buttons associated with those controls, which are found on the single fader located in the editing panel, are used to enable the currently controlled parameters, not the normal ones. There are Enable buttons for the Fader, panpot and Mute Switch, but not for the Solo key. When that is being used to control a parameter, as in the case of Faders to Aux when it controls the Pre/Post switching, it can only be separated from the recording of the other controls by using Trim Mode or Touch Write, which are described in the chapter on Automation.

Fader Sets

Channel Faders are assigned to signal paths using the `Map` key in the Fader Set Section.

Fader sets define the function of each channel fader on the Constellation. Fader sets are stored along with the preset snapshot in each project. In addition, separate fader set setups are stored in each automated mix that is saved. There are 10 fader sets available at any time. Press any fader set key to instantly recall that fader configuration.

Mapping Fader Sets

Step 1   Press the `Map` key in the Fader Set section.

Step 2   Press a fader set number key to select the fader set to map.

Step 3   The `CALL` key on the first fader will flash to indicate that it is ready to be defined.

Selection keys on the selection panel for signal paths already in the current fader set are illuminated. The selection key of the path currently assigned to the current fader will flash.

Press any feed, bus or Group Master selection key on the selection panel to assign that path to the current fader.

Step 4   The next fader is automatically selected and the path assigned to it flashes. Continue to assign faders in order or select a fader out of sequence by pressing its `CALL` key and making a selection on the selection panel.

Step 5   Press the `Map` key to complete mapping or select another fader set to map.

Mapping Multiple Faders

A range of feeds may be mapped to a range of faders.

Step 1   Press the **Map** key.

Step 2   Press the **CALL** key of the first fader in the range.

Step 3   Hold down the first selection key in the range and double press the last selection key.

The paths selected will replace the paths previously assigned to the sequence of faders starting with the fader selected.

Mapping Link Groups

If a member of a link group is selected to map to a fader, only the link group master is assigned. If a link group is included in a range, the group takes up only one fader.

Inserting and Deleting Faders

When the **Map** key is pressed the map menu is displayed in the LCD. Press the **Insert** key to insert a path at the current fader position. Press the **Delete** key to delete the current path from the fader set. Press the **Blank** key to leave the current fader un-mapped.

Holding Faders

To temporarily retain a selection of channels in their current fader positions when recalling a new fader set, simply touch and hold the faders while pressing a fader set key. The existing channels will temporarily replace those in the new fader set.

Press the fader set key without holding a fader, to resume the normal fader set.

AudioBase

Introduction

AudioBase is a library database which allows you to search for WAV files on your Medialink2 server via a standard Windows network. Once a WAV file has been found, it may be auditioned, and then imported into the current open Project.

Creating and Maintaining Databases

Refer to the AudioBase3 User Guide for details on creating and maintaining clip databases.

Searching for Sounds

AudioBase3 uses a simple search interface to find clips:

Step 1   Press the **audio base** key. The search field becomes active.

Step 2   Enter the text you wish to find and click the **search** soft key, or the on screen **seach** button. All relevant database fields will be searched. Use quotes to find whole phrases.

An AudioBase search can be stopped by pressing the **search** soft key again, or by clicking the screen **Search** button again.

Placing Sounds In A Project
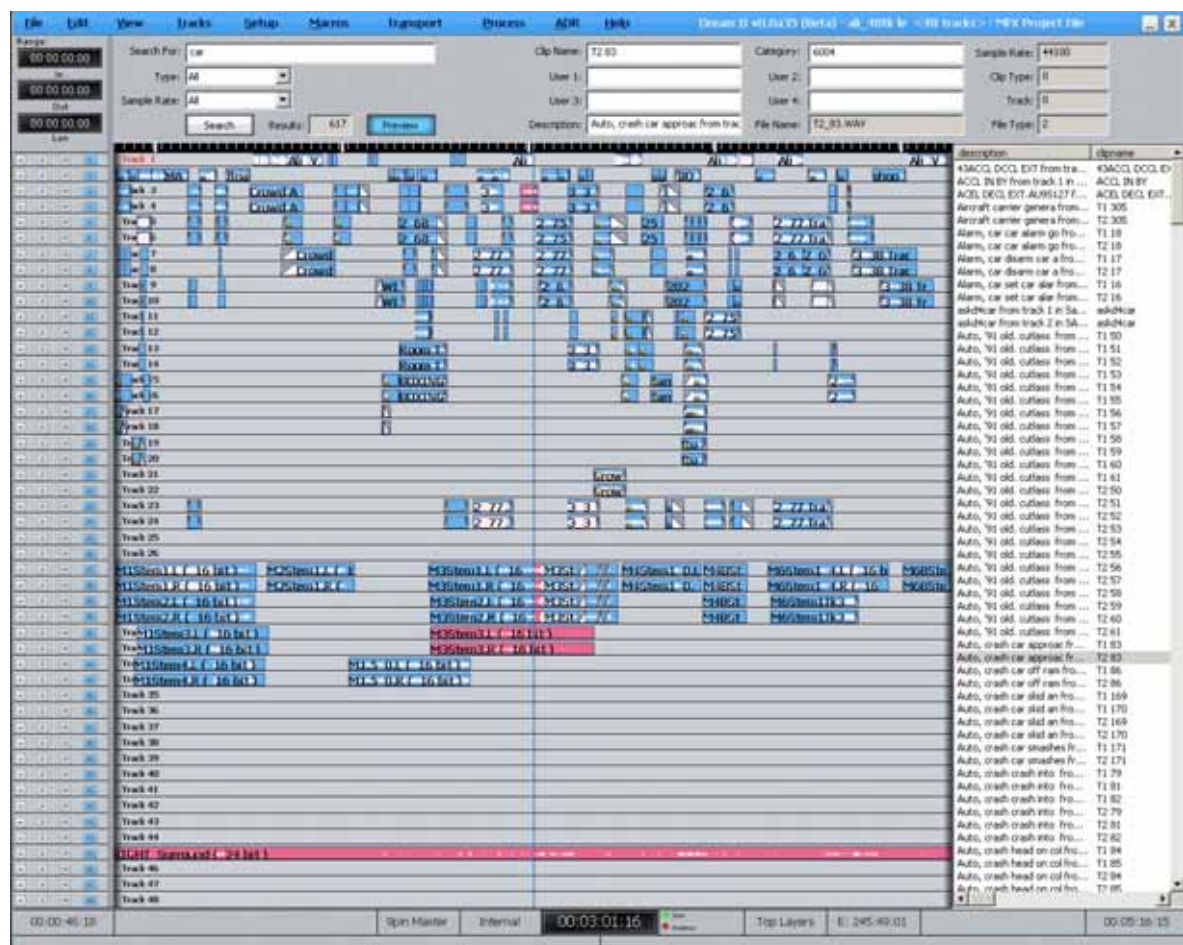
Step 1   After searching the database, a list of matching clips is displayed. Ensure the transport is in STOP, then use the **Jog Wheel** or the **+** and **−** buttons to highlight the clip you want.

Step 2   Press the **Preview** soft key or click the **Preview** button. While Preview is lit, the highlighted WAV file in the list will loop repeatedly, emerging directly in the Monitor output (not connected to any track or bus.

You can use the **Jog wheel** or the **+** and **−** keys in the numpad to move the highlight up and down the list. Each time you highlight a new clip, it starts to preview.

Step 3   Double-Click the selected WAV file to paste it at the playhead on the active track, or drag and drop a clip to any track at any point on the timeline.

An alternative method gives you more control of the clip's final position.

Step 2A   Press the **Audition** soft key or click the **Audition** button in the Smart Pane. While Audition is lit, the highlighted WAV file in the list will play as a clip on the current track, while everything else is frozen (if necessary take M1 off line to prevent the video moving). You can also press the **Jog** button and move the clip with the **Jog Wheel**. This allows you to find a sync point.

Step 3A   Press the **paste** soft key to paste the auditioning clip at its current position on the current track. This allows you to find a relevant sync point and paste the clip accordingly.

Notes:

- The AudioBase3 results pane can be displayed underneath the Pyxis Track, allowing easy placement of sounds to picture.

During Audition you can use the **Jog wheel** (when the transport is not in jog) or the **+** and **−** keys in the numpad to move the highlight up and down the list. To start auditioning the new clip, toggle **Audition** off then on again.

- To hide the AudioBase3 results list, simply enter another mode (e.g. Cut).

- Set up your AudioBase3 Server in Setup/General Preferences. Example: http://192.168.1.100/AudioBase/MFX/search_d2.php (Where 192.168.2.100 is the IP Address of your MediaLink2 Server.

ADR

Introduction

Constellation-XT provides the ability to automate recording using a list of In and Out points with a simple interface. The ADR menu includes functions for setting pre and post-roll and features for automatic dialogue replacement.

The ADR List

The ADR List allows you to set up a list of recordings – cues – that you want to take. Each one has a controlled In and Out point, and text that can be displayed on the screen.

To open the ADR List, press the **ADR** button (recommended), or click the ADR Menu above the Track display, and select ADR List.
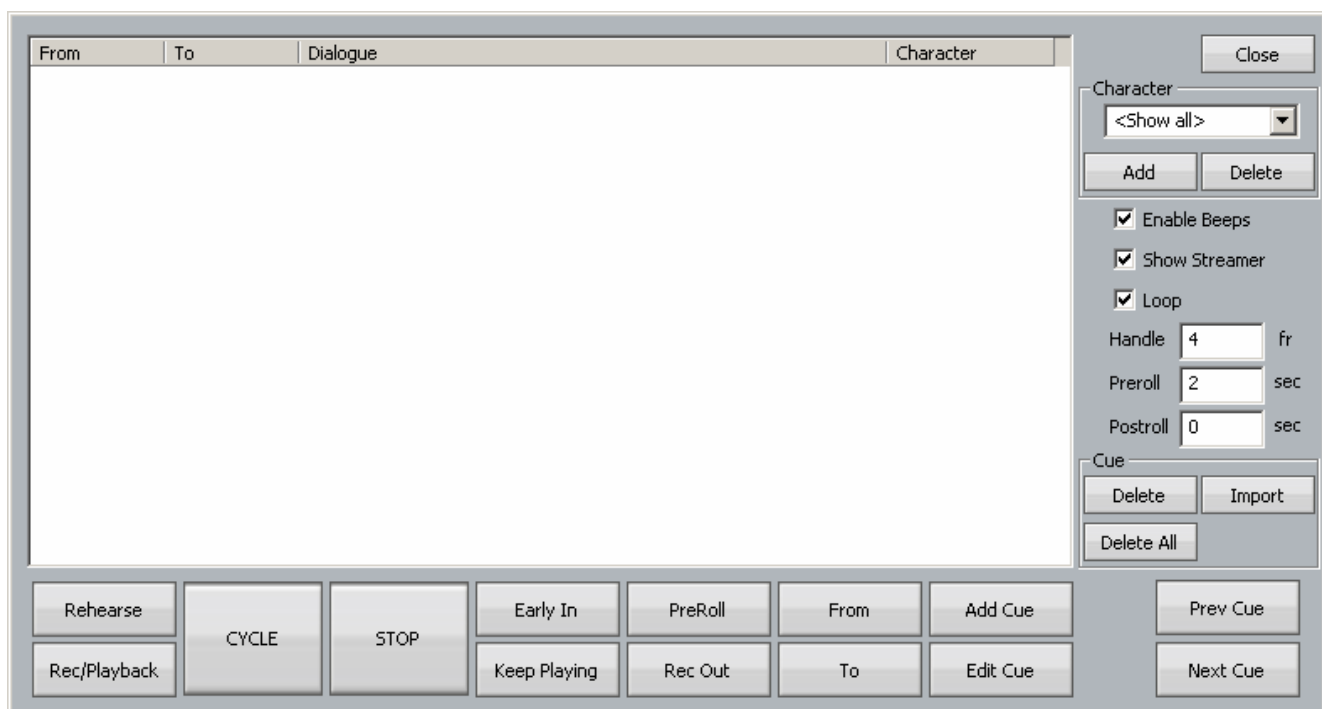
When it is first opened, the list is empty of cues.

Adding a Cue

Step 0   Optionally, create a range covering the cue you want to add. This is probably the quickest way to set the In and Out times for your cue. (If there is no range, the cue will be created with the transport position as its In time, and 5 seconds duration.)

Step 1   Click Add or press the {add cue} soft key

A dialog appears for writing the text of your cue.

Step 2   Enter the text and click OK

Step 3   If necessary set the In Point of the cue: locate the transport to that point and click From. Your current position will be shown in a dialog. You may accept this by clicking OK.

OR

Click From, type the timecode you want, and click OK.

Step 4   If necessary set the Out Point of the ADR cue in the same way. The cue is shown as below.
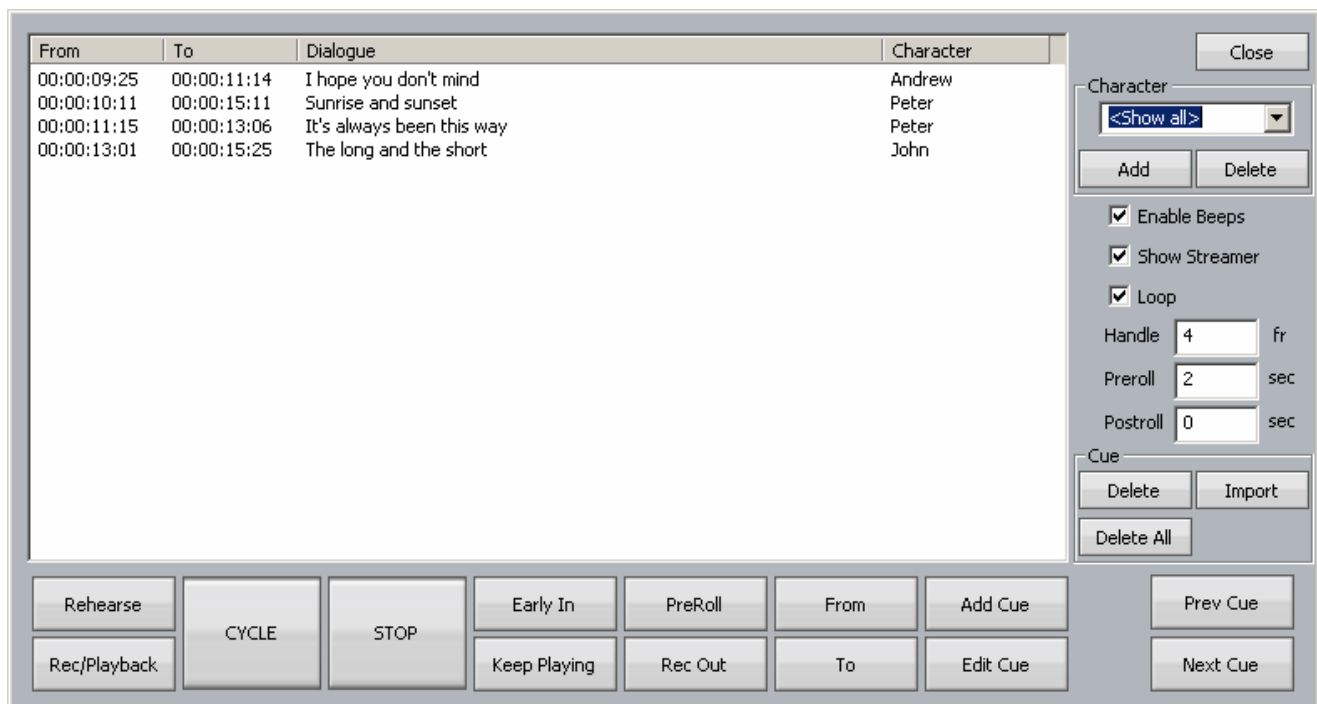
ADR Characters

Your project may contain a list of characters, and the cues assigned to different ones.

Creating characters

Step 1   Click in the Character box (which normally shows <Show all>)

Step 2   Type the name of a new character

Step 3   Click the Add button

Filter by character

To show only one character's lines, use the Character drop down menu to select one character.
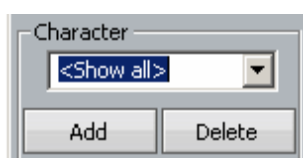
Sort by character

To sort the list by character, click the Character tab at the top of the ADR list box.
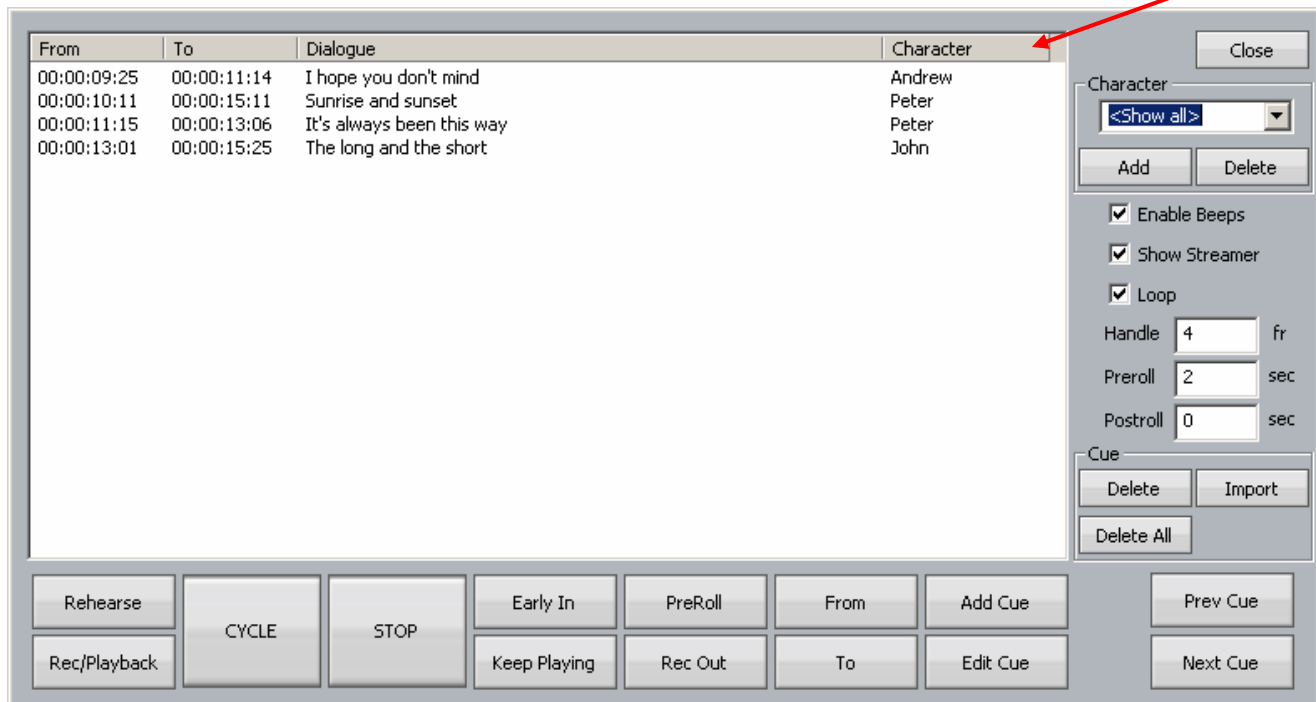
In the same way you can sort by From time, To time or dialog alphabetically. Click any one of these a second time to reverse sort.

ADR Preferences

Once you have entered all the cues that you want to use, you may set up your preferences by clicking the ADR Menu and selecting ADR Preferences. The following screen is displayed.

The main purpose of this dialog is to control beeps and the streamer. The streamer is a pair of vertical lines moving across the Pyxis screen during the Preroll to the cue. At the same time as the audible beeps, the line extends upwards and downwards briefly. The two lines come together at the cue point, and a large cross is shown. The extensions and cross can be given a different colour to the lines.

Note: the number of beeps (and corresponding streamer crosses) is controlled in this dialog, but the Preroll must be long enough to accommodate them. If the Preroll is too short, some of the beeps will be omitted. See below for instructions on setting the Preroll.

The text referred to is that shown on the Decklink output from the Pyxis Track. The font, colour, height control and Wrap Text control are used to customise the text display. **Note:** this text display is not shown on the Edit Screen Pyxis Window, only on the independent monitor fed by your Decklink card (if fitted). Use the ADR Display, described below, to show text over the Edit Screen.

The ADR Display

The ADR Display is a band across the screen which displays the ADR text, and also gives an indication of the start point for the cue. An example of the streamer is shown below.

The text is shown, and the indicators converge on the centre of the screen, arriving at precisely the In time of the cue.

To turn it on, use the toggle **ADR ➔ ADR Display**.

Cycle

The Cycle command is used to initiate ADR actions. It will execute rehearsal, recording and playback, depending on the mode of the ADR system. See below for details.

Preroll and Postroll

It's usually necessary to set a preroll for recording. This allows the recording artist to get ready for the start.

Postroll is useful for hearing how the new recording fits into the track.

Set preroll and postroll using the appropriate fields in the ADR List.

Rehearsing a cue

You may rehearse cues before recording them. Is this needed in a system where all recording is non-destructive? Your call.

Step 1   Click the Rehearse button or press the {REHEARSE} soft key. This puts the ADR system in Rehearse mode.

Step 2   Select a cue. The transport will locate to its In Time.

Step 3   Click Cycle or press the {cycle} soft key. This will cause the transport to drive through the In and Out points once, switching the track from repro to input, simulating the record experience.

Click the Stop button at any time to stop the take (or use the Stop button in the transport controls).

Note: When the ADR is in Rehearse mode, double-clicking a cue will select it and initiate a rehearsal Cycle.

Recording a cue

Step 1   Click the Rec/Playback button or press the {RECORD / PLAYBACK} soft key until its label is RECORD. This puts the ADR system in Record mode.

Step 2   Select a cue. The transport will locate to its In Time.

Step 3   Click Cycle. This will cause the transport to drive through the In and Out points, recording a take, then cycle through again for playback.

Click the Stop button at any time to stop the take (or use the Stop button in the transport controls).

Note: When the ADR is in Record mode, double-clicking a cue will select it and initiate a recording Cycle.

Playing Back a cue

Step 1   Turn off the Rec/Playback or Rehearse button if on, or press the {RECORD / PLAYBACK} soft key until its label is PLAYBACK. This puts the ADR system in Playback mode.

Step 2   Select a cue. The transport will locate to its In Time.

Step 3   Click Cycle. This will cause the transport to drive through the In and Out points once, playing back the audio.

Note: When the ADR is in Playback mode, double-clicking a cue will select it and initiate a playback Cycle.

Pre-Record

Pre-Record allows you to enter record a little earlier than the time of the cue. This is useful when recording artists that tend to anticipate the entrance. The streamer will still indicate the cue in time, but you are able to capture the audio a little earlier.

Early In

Early In can be clicked during the preroll of a record cycle. It causes recording to start immediately.

There is also an {early in} soft key.

Rec Out

If desired, the system can ignore the Out time of the cue, and just keep recording until you exit manually (using Stop, Jog, Rewind etc).

The {Rec Out} soft key can be set to PROG (programmed exit) or OPEN (keep recording until manual exit).

The Rec Out screen button does the same. When selected (blue) the record Out time will be obeyed. When unselected (grey) manual exit will be used.

Keep Playing

At the end of a cycle you may wish to keep playing, in order to hear the next section of track.

Pressing the {keep playing} soft key at any time during a cycle will cause the postroll to be ignored, and the system will enter normal Play mode after the cue's Out time.

Importing ADR cue lists from a text file

You may import an entire script through the use of the **Import** button. This can import a short script that has been written in a word processor.

Each line of text in the file is treated as a separate line of ADR cue text.

Each line of text can optionally have one or more timecode numbers at the start of the line:

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

or

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

The first timecode number becomes the cue-in point and the second, if present, the cue out point. Timecodes must contain 4 individual numbers separated by colons: 01:00:23:12 or semicolons if the timecode is drop-frame based: 01;01;00;02

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

00:02:19.19 Her eyes shined bright and true

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

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

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

Auto Conform with EDL Tool

Introduction

EDL Tool supports three activities associated with EDLs (Edit Decision Lists) produced by other editing products.

Capture   records the material needed by the edit list, from original sources such as video tape

Conform   edits the source audio recorded in the capture process, placing it at the destination locations indicated by the edit list

Reconform re-edits an existing DREAM II project according to a "cut list", usually representing a re-edit of the pictures in a video project

Loading an EDL

The first step is to load an EDL file.

Step 1   At the top of the Edit Screen, click File ➔ Import ➔ EDL

Step 2   Navigate to the file location of an EDL file and click the Open button

This will cause the display of the EDL dialog
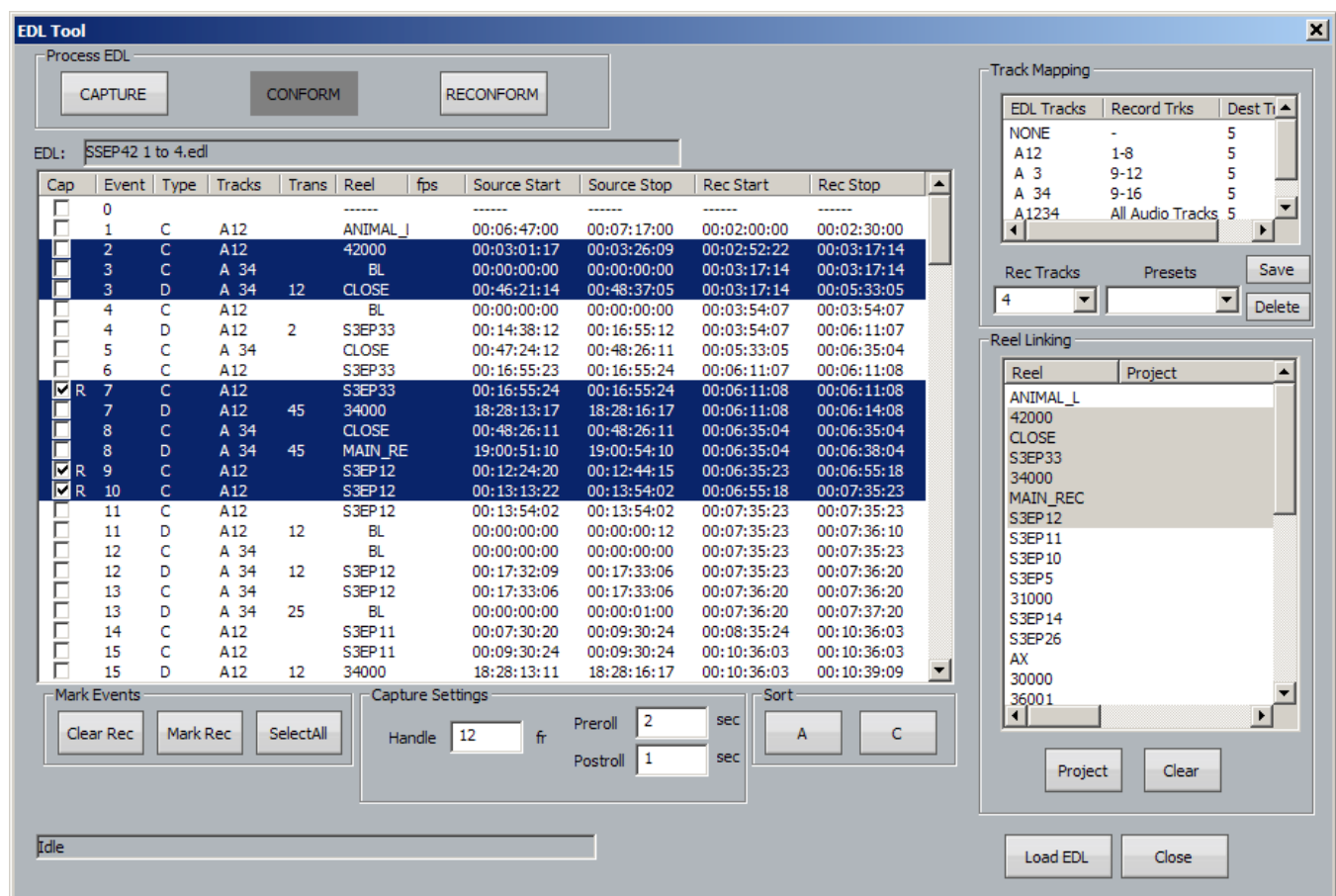
Capture and Conform

Capture and Conform are performed at the same time. The audio for each line in the EDL is captured and immediately conformed.

Before starting, we must set some parameters.

Step 1   Set up Track Mapping
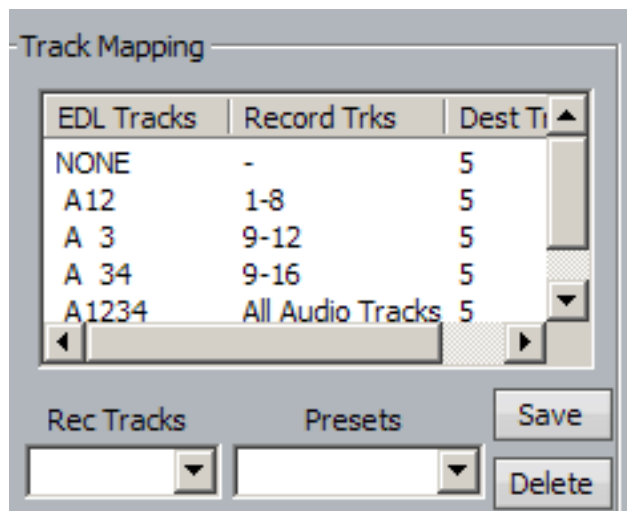
Track mapping chooses the tracks where you will record in your currently open project. DREAM II lists each type of edit that it finds in the EDL e.g. A12, A 3 etc., and allows you to choose which audio tracks to record for each type. (Often it will be the same set of tracks for all edit types.) Click in the Record Trks column for each type of edit, and choose from the drop down list.

The Rec Tracks drop down list provides a convenient way to quickly fill in the track mapping for a specific number of tracks per EDL track.

Presets allow you to save a track mapping for reuse. Type a name into the field and click Save. To load a preset, simply select it from the drop down list.

Step 2   Select Edits to Capture

The system will capture only the highlighted events in the EDL display. Use the mouse to highlight the required events. You can select a range of events by selecting the first, then holding down SHIFT and selecting the last in the range. You can add or subtract an event from the selection by holding down ctrl and clicking it.

Events that are marked with an R will not be recorded, even if they are selected.

Each time the system performs a recording, the events that successfully record are automatically marked this way. You may also click in the checkbox for any event to mark or unmark it manually.

Step 3   Capture Settings

Handles – you can capture more audio than indicated by the EDL event. This can be very useful for adding fades or capturing ambience around the event for use in smoothing.

Preroll – sets the time that the source machine will run up to the recording. Set this value to suit the type of source machine being used. Typically tape-based machines require at least 3 seconds to lock properly.

Postroll – sets the time that the source machine will keep running after the recording.

Step 4   Set up Patching

Connect the source machine outputs to some of your DREAM II inputs, and use the Patch I/O page to patch them through to the recording tracks. The Patch I/O page is discussed in detail in Chapter 5 – Patching and Assignment.

Step 5   Set up Destination tracks for Conform.

The Destination tracks are those to which the audio will be copied to match the Rec Start time for the EDL events. You need only specify the first destination track – the software uses the following tracks to place audio for events requiring more tracks.

Step 6   Click the Capture button

The EDL Capture and Conform will now go ahead. The software will request the first source reel to be loaded on to the source machine.
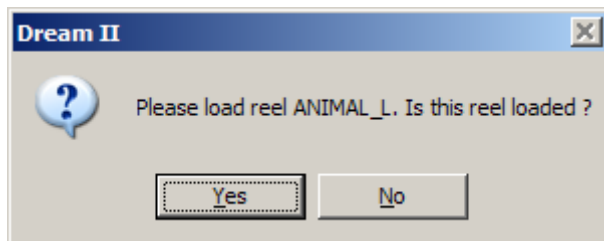
It will then capture all the audio needed from that reel, optimizing to reduce the amount of shuttle time.

The software will then request the next reel, and continue in this vein until the conform is complete. Events that cannot be recorded are marked E (Error). Reasons for this can include:

- Bad timecode causing lost sync before the end of a recording

- Tape machine not locating to the pre-roll point

The software will continue after errors of this type, and complete as much of the conform as it can.

Reconform

Reconform uses an existing project (or more than one project) as the source audio for a Conform. There is no Capture process, as the audio is already present on hard disk, but otherwise the process is very similar to Conform.

Each reel in the EDL may be mapped to a different audio project.

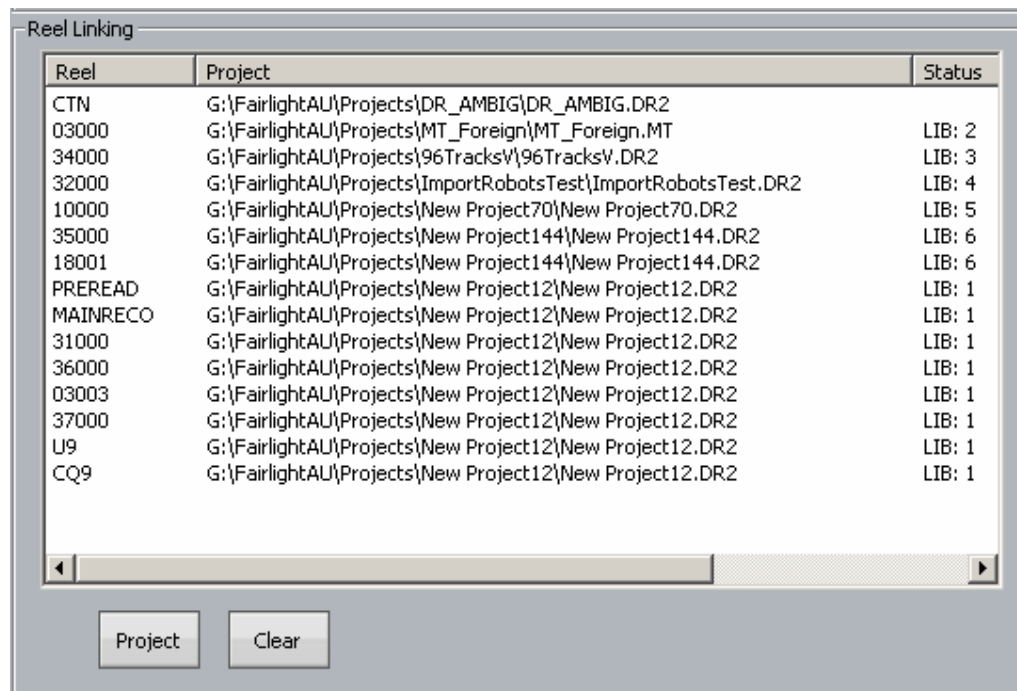Step 1   Set up Track Mapping (as for Capture)

Commonly all tracks will be involved.

The Record Tracks correspond with the source tracks from the existing Source Project.

Step 2   Select Edits to Reconform (as for Capture)

Step 3   Link Reels

Each reel can come from a different project if required. Use the Reel Linking dialog to choose the project for each reel: select a reel, then click the Project button and browse to the correct Project to be linked.

```
┌─Reel Linking──────────────────────────────────────────────────────────────┐
│  ┌──────────┬─────────────────────────────────────────────────┬─────────┐  │
│  │ Reel     │ Project                                         │ Status  │  │
│  ├──────────┼─────────────────────────────────────────────────┼─────────┤  │
│  │ CTN      │ G:\FairlightAU\Projects\DR_AMBIG\DR_AMBIG.DR2    │         │  │
│  │ 03000    │ G:\FairlightAU\Projects\MT_Foreign\MT_Foreign.MT │ LIB: 2  │  │
│  │ 34000    │ G:\FairlightAU\Projects\96TracksV\96TracksV.DR2  │ LIB: 3  │  │
│  │ 32000    │ G:\FairlightAU\Projects\ImportRobotsTest\ImportRobotsTest.DR2 │ LIB: 4 │  │
│  │ 10000    │ G:\FairlightAU\Projects\New Project70\New Project70.DR2 │ LIB: 5 │  │
│  │ 35000    │ G:\FairlightAU\Projects\New Project144\New Project144.DR2 │ LIB: 6 │  │
│  │ 18001    │ G:\FairlightAU\Projects\New Project144\New Project144.DR2 │ LIB: 6 │  │
│  │ PREREAD  │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ MAINRECO │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ 31000    │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ 36000    │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ 03003    │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ 37000    │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ U9       │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  │ CQ9      │ G:\FairlightAU\Projects\New Project12\New Project12.DR2 │ LIB: 1 │  │
│  └──────────┴─────────────────────────────────────────────────┴─────────┘  │
│    [ Project ]   [ Clear ]                                                  │
└─────────────────────────────────────────────────────────────────────────────┘
```

Multiple reels can be selected at the same time and linked to a single project.

Step 6   Set up destination tracks

If all tracks will be involved, choose Track 1 as the destination.

Step 7   Click the Reconform button

If one of the linked projects is not found, an error message will be displayed, and the reconform will stop.

If there is no audio between the source In and Out times for an event, an error message will be displayed, but the reconform will continue with the following events.

Additional Facilities

Selecting a reel in the Reel Linking dialog also selects all of the EDL events associated with that reel.

Clicking the A button in the Sort group causes the EDL events to be sorted according to the EDL event numbers.

Clicking the C button in the Sort group causes the EDL events to be sorted according to source reel.

Project and File Management

Introduction

File handling in Xynergi supports legacy formats from previous products, but also introduces powerful new Project and File management capabilities. This chapter details the way the system looks after files.
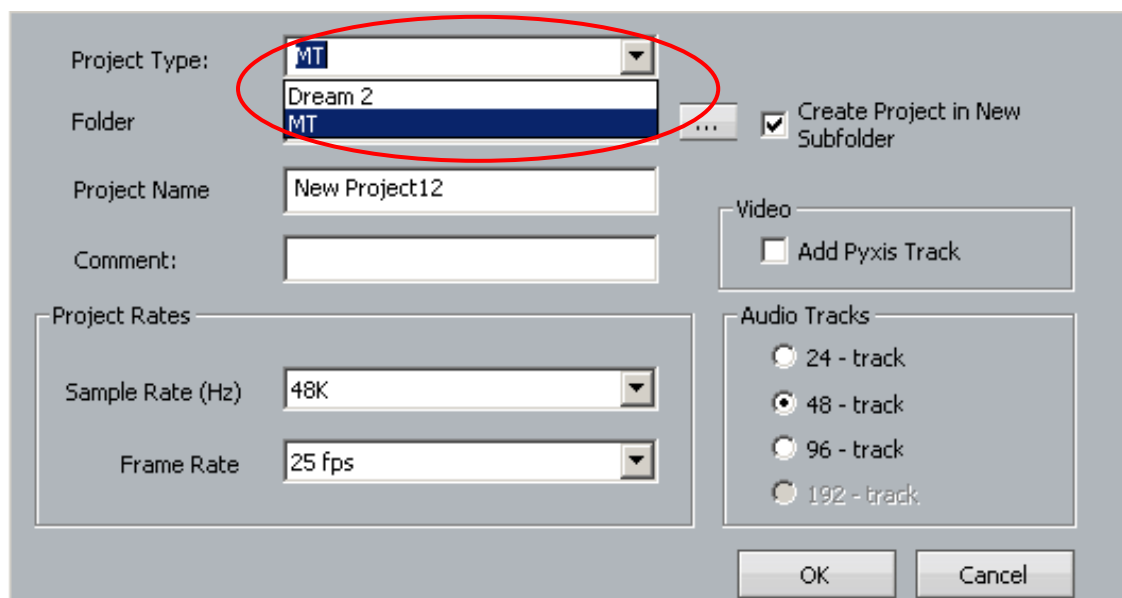
Project Formats

In Xynergi, two "native" project formats are supported.

The newer format has the extension DR2. It has the strongest feature set, and is recommended for use where compatibility with older systems is not required.

The older format is called MT. This was introduced in the DREAM I product series, also known as QDC systems, and is maintained with full backward compatibility by XYNERGI.

Choosing Format

At the time of creating a project file, the system offers the choice of project formats in the New Project dialog:

There is no way to change project format after creation, but you can save a copy of the current project in the "other" format using the **File** ➔ **Save As** command.
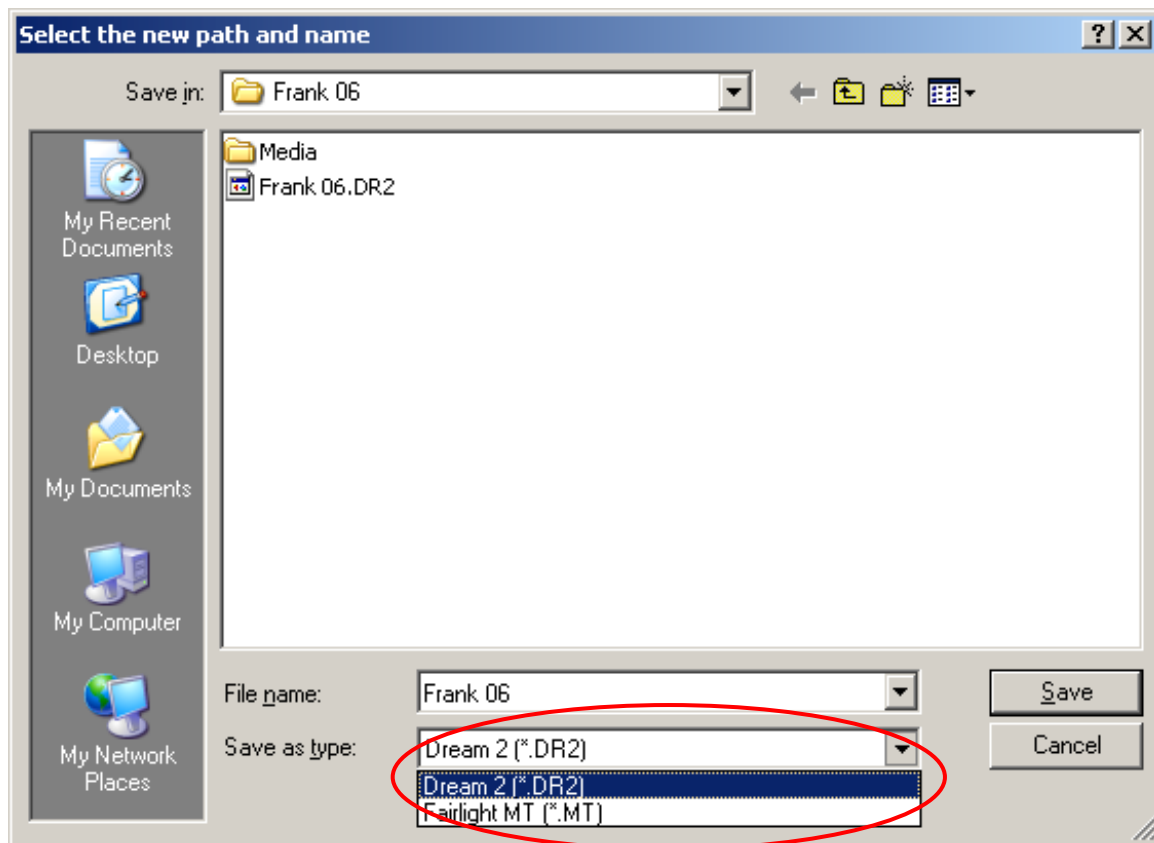
If you save a project into the MT format, it will load and play on QDC systems.

MT Projects

The MT Project format is designed for backward compatibility with Fairlight QDC systems running software version 19.2.11 or higher. Xynergi can also open MT files created on older Fairlight systems, dating back to MFX3+ systems running rev 15.x software.

If you are planning to swap projects with QDC systems, always use the MT format when creating new projects.

Recording Files (FUFs)

When using the MT project format on a Xynergi system, new audio recordings are stored in 'FUF' files. 'FUF' stands for 'Fairlight Universal Format', and a FUF file acts as an 'audio container' with many individual audio files bundled inside it.

FUFs are saved as soon as the recording is complete. At this point the audio media is written to disk, but it is still not "safe". The clip(s) that appear in the edit screen immediately after recording are the ONLY reference to the recorded material. They are stored in the Project (MT) file, and until that file is saved, the audio is not secure.

FUFs can only grow to a maximum 4GB to maintain QDC compatibility, and new FUF files are generated automatically as required.

FUFs are automatically named based on their parent project. So, a project named MyProject.MT might have FUF files named MyProject_001.FUF, MyProject_002.FUF, MyProject_003.FUF and so on. FUF files are automatically created in the same subfolder as the MT project. You must not delete FUF files unless you wish to remove audio from your project!

When copying MT projects to a compliant QDC engine, you must always be sure to copy all associated FUF files. Otherwise, the QDC will not be able to find all of the audio data used in the MT project.
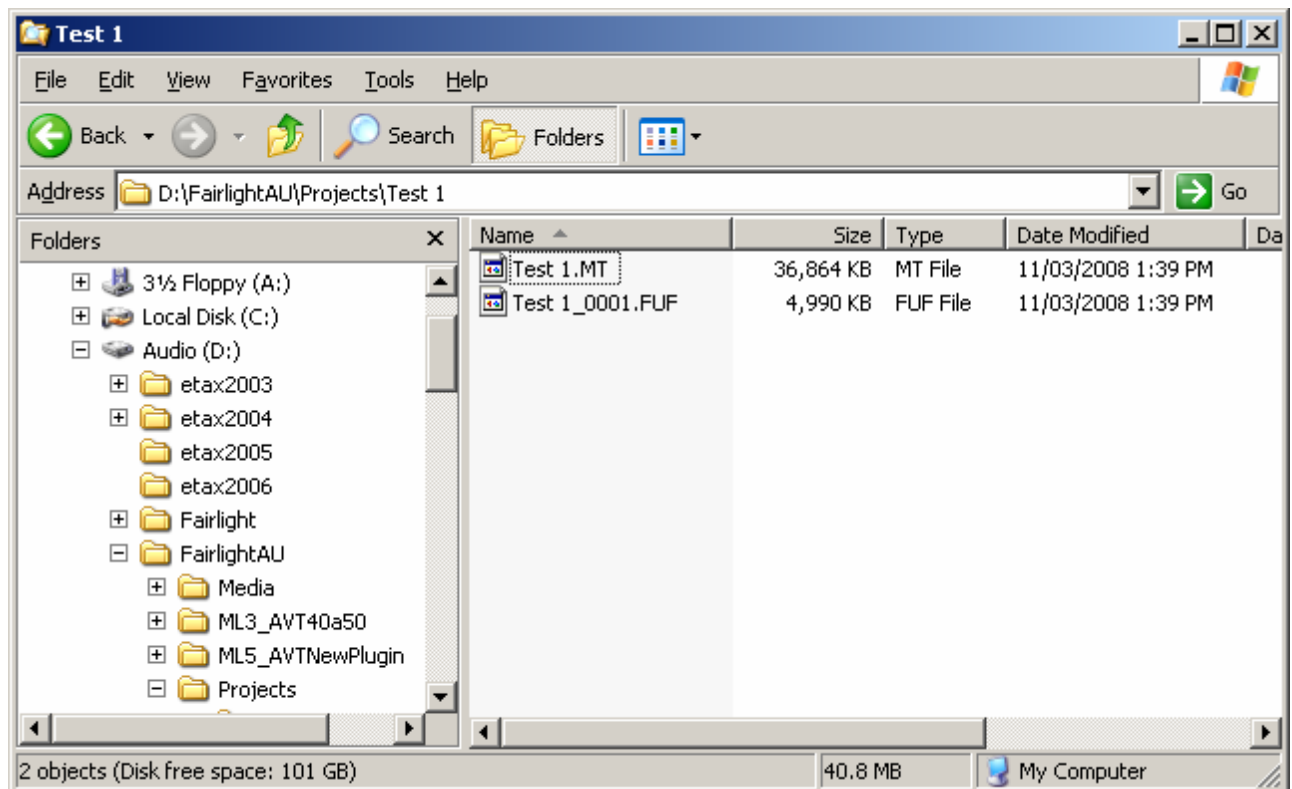
The picture above shows the typical file layout with an MT file. The FUF file contains the audio, while the MT file contains the Edit list, mix information, and automation files. **Note:** The FUF file will generally get much larger, up to 4 GB, while the MT file already contains a full complement of mix data (even if mostly zero values), and will only get bigger when automation files are saved.

When the first FUF file reaches 4 GB, another one is automatically created.

Stuffing FUFs

Xynergi allows external files to be dragged and dropped onto the timeline. Since these files are not recorded into the Xynergi MT Project, they are not automatically added to the FUF files associated with the MT Project. If you want to transfer the MT project and all external audio files to QDC or to another Xynergi or DREAM II system, select:

Process ➔ Stuff Fufs – All Clips or

Process ➔ Stuff Fufs – Selected Clips

This will copy all external media into the Project's Fuf files. Please note that this process can take some time, depending on the quantity and size of external files that need to be stuffed. "Stuffing Fufs' is a background task, so you can keep working while Dream II is processing. However, you cannot save your project until Fuf Stuffing is complete.

When dragging and dropping files onto the Dream II timeline, you may notice some files are 'Fuf Stuffed' automatically. Dream II performs Fuf Stuffing automatically when it is required for QDC compatibility (for example, if you drag a file larger than 4 GB onto the timeline).

Dream II users can also copy clips from one MT project to another. In doing so, the user creates a relationship between Fuf files belonging to one project and Fuf files belonging to another. Using 'Save As' with an MT file has the same effect, and creates a 'Parent/Child' relationship between the original MT Project and the saved version. To break any such inter-Project dependencies, select:

Process ➔ Detach

from the Dream II menus. After detaching your MT Project, you can select

Process ➔ Stuff Fufs – All Clips or

Process ➔ **Stuff Fufs – Selected Clips** to consolidate all audio into Fufs associated with your current project.

If you are unsure of what file a clip is stored in, you can find out by selecting **View** ➔ **Clip Search** from the Dream II menus. You will see the filename associated with each clip in the list, and you can click the 'Reveal File' button to display a file in Windows Explorer. Note that you can rearrange columns in the clip search window by dragging and dropping column headers. You may need to scroll to the right to view all available clip search columns.

Always take great care not to delete files associated with your MT Project. You may not be able to recover files once they have been deleted!

DR2 Projects

DR2 (Dream II) projects are a new project format designed specifically for Dream II. DR2 files are not backwardly compatible with older Fairlight products, although they can be converted to MT projects with FUF files as described above. The DR2 file format provides enhanced capabilities compared with the legacy MT file format, and all future development will focus on the DR2 file format.

Recording in DR2

When using the DR2 format, new audio recordings are stored as industry standard Broadcast WAV Files. Xynergi Broadcast WAV Files are stored in the 'Media' subfolder of the DR2 Project folder.

The WAV files are created when recording starts, and they are refreshed at regular time intervals during recording. When this happens, all but the last part of the recording is safely on disk. This means that audio recordings in DR2 format are quite secure – even if the project file is lost (or never saved) the WAV files are viable stand-alone containers for audio media. References to them can easily be imported and re-synchronised in a new project, or in any other project. This process is described below as "Recovering Lost WAVs".
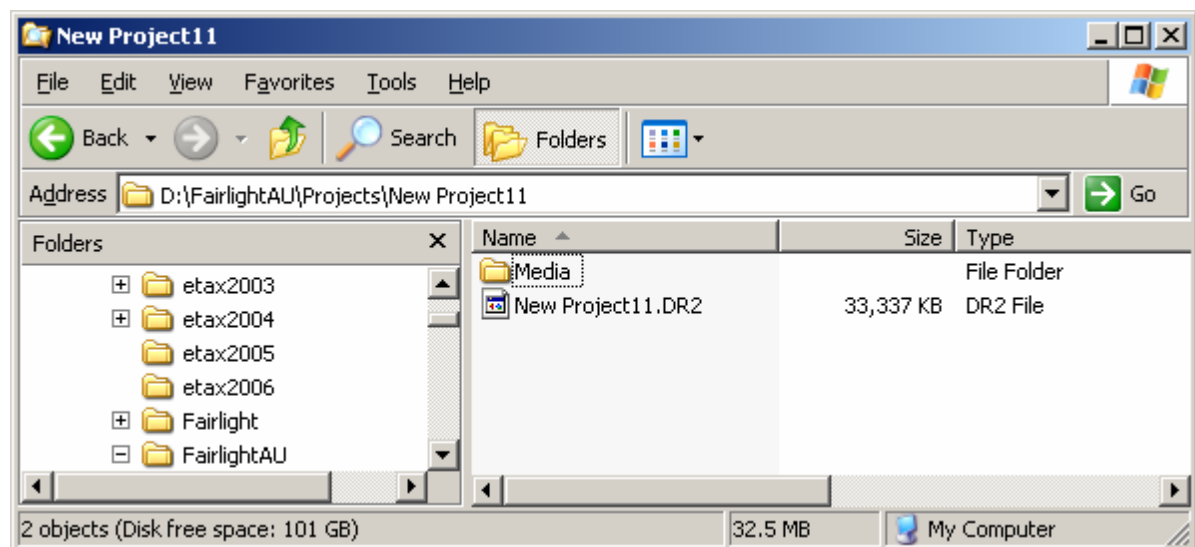
The picture above shows the typical file layout with a DR2 file. The Media folder, which is automatically created by the system, contains the audio in the form of WAV files, while the DR2 file contains the Edit list, mix information, and automation files.
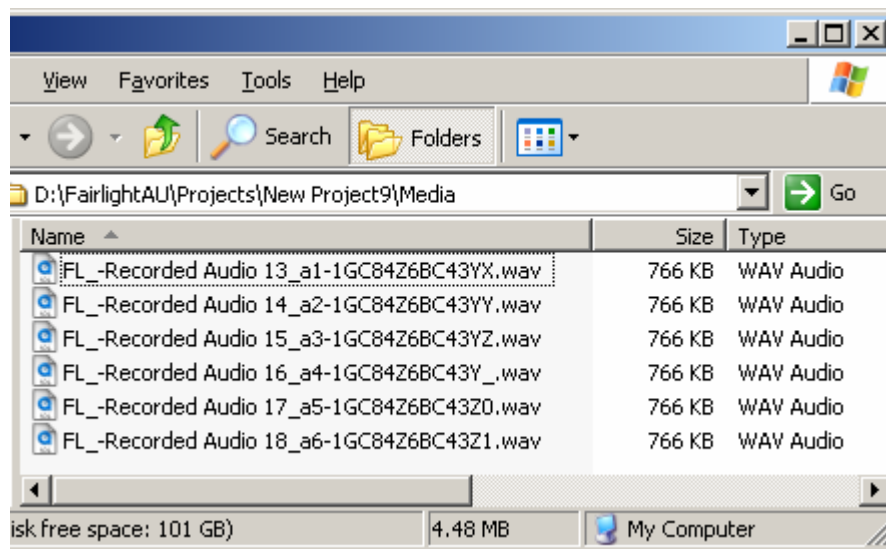
The Media folder looks like this. The WAV files are named as follows:

Clip Name _ Track number _ GUID.wav

The Clip name is the automatic name given to the clip by the system. Or you may have named the clip while recording it.

The Track number is the one on which the audio was first recorded.

The GUID is a system number, discussed below.

GUIDs

Xynergi Broadcast WAV Files are named using 'GUIDs'. A GUID is a unique ID that makes it easy for the system to locate files in a database. Since GUIDs are hard to read, Fairlight has created the Fairlight Shell Extension for Windows Explorer. The Fairlight Shell extension is installed by default, and allows users to view hidden iXML metadata in the Fairlight Broadcast WAV Files. The Project Name, Clip Name and Frame Rate are embedded in each WAV file by Xynergi during recording, and can be viewed with the Fairlight Shell Extension.

Using the Fairlight Windows Explorer Shell Extension:

1. Open Windows Explorer.

2. Under the 'View' menu, select 'Details'.

3. Right click a column header (eg - 'Name') and select 'More' from the popup.

4. Scroll down to the bottom of the list and add the desired iXML columns (eg - 'Project') you wish to view.

5. Click 'Ok'.

Localize

Localizing audio means putting the files in the same folder as the Project file. Any audio which is referenced out of other folders is copied into the Media folder for the current Project file, as new WAV files. Once a project is localized, it is much easier to move it to another system, or back it up, because all the media is in one place.

To localize files in a DR2 project, select the Localize command from the Process Menu above the Editing screen. The displayed dialog will ask whether you want to localize all files, or just the selected ones.
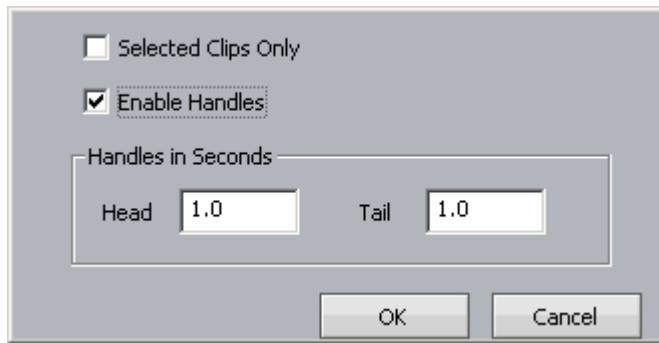
Handles

Localizing only copies those sections of the original recordings that have been actually used in the project. Anything that has been edited out will not be present. To provide insurance for future editing you can save "Handles" on each piece of audio. These are extra pieces of audio that can be exposed using the Trim menu. It's advisable to use handles unless the edit is absolutely final.

Recovering Lost WAVs

If a DR2 project has not been saved recently, any recordings made since the last save will not appear in the project next time it is opened. These recordings can be recovered and resynced, as follows:

Step 1   Open the DR2 Project

Step 2   Open the folder in Windows Explorer that contains this project. Open its Media folder.

Step 3   Identify the WAVs that are missing from the project. These will normally be the most recent ones i.e. the ones with the latest modification date.

Step 4   Drag the missing WAV files from their folder to the DREAM II track display, and drop them there.

Step 5   For each WAV file that you have dropped, select it and notice the track number embedded in its name. Place it on that track.

Step 6   For each WAV file select it by moving the transport until it is underneath the play head, then issue the command **Edit ➔ Resync to Record Time**. This will place the clip at the time where it was originally recorded.

Waveform Profiles

Dream II stores waveform profiles for all the media in your projects, allowing it to display full screen waveforms at any zoom range.

The waveform profiles are extracted and stored in the background after any recording or import function, or whenever a piece of media does not have a profile.

After some time the number of profiles can get quite large and use a lot of space on your computer. The system automatically deletes profiles if they have not been used for a certain number of days. To control how many days, use the command **Setup ➔ General Preferences ➔ Projects**
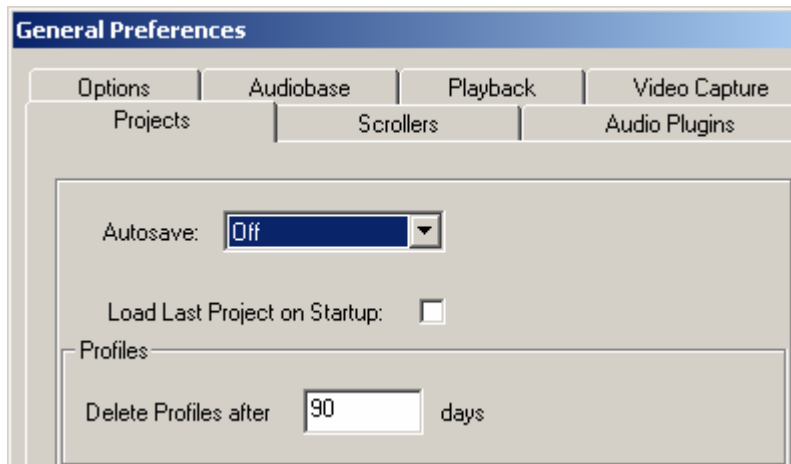
The default is set at 90 days, but you may change that to any time you like.

Revealing the Project File

To display a Windows Explorer Window containing the currently loaded project, use the command **File** ➔ **Reveal Project File**

Backup Files

Each time a DR2 file is saved, an optional backup of the previous saved version can be made. This will only happen if your system is set up correctly.

To enable backup saving, issue the command **Setup** ➔ **General Preferences**, and go to the Projects tab.
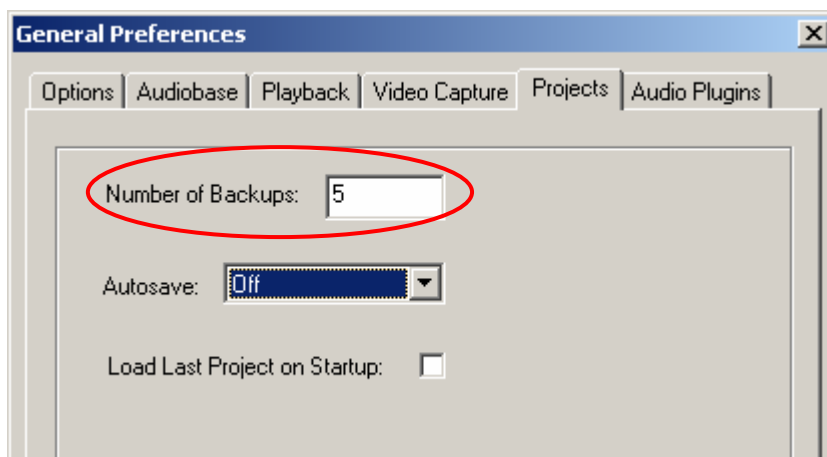
Set the number of backups you would like to keep. The system default is 5, which means the 5 most-recent saved versions of your file will be retained.

Automatic File Saving

Automatic File Saving allows you to save your project automatically at regular time intervals. To set this up, issue the command **Setup** ➔ **General Preferences**, and go to the Projects tab.
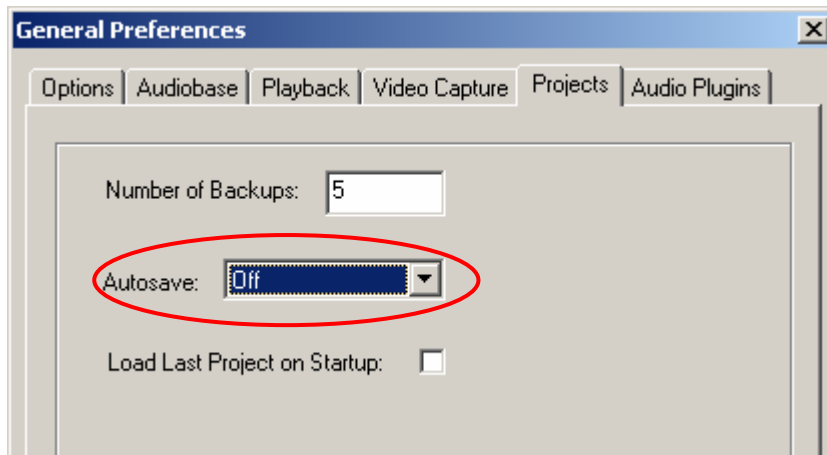
Set the desired interval for Auto Save, or turn it off.

Note: When the time for an Auto Save arrives, it will wait until the transport is stationary, then take control of the system. While saving, it will prevent the transport from starting, and mute all audio at the outputs. This is necessary to prevent unwanted interaction with the automation system.

Undo Files

Xynergi allows unlimited UNDOs for audio editing. It does this by storing a copy of the Edit list each time an edit is made.

The undo files are stored in the folder C:\Program Files\Fairlight\Dream II\Undo

Each time a project is opened, the system starts writing undo files for it, starting with a file called UndoFile_00.1. This file name does not contain the project for which it was created, because the system is designed only to work with the currently open project file. (Immediately after reopening any file the UNDO command cannot be issued – it only works on edits made in the current sessions.) If there is an UndoFile_00.1 already in the folder (which there almost certainly is) it will be replaced with this one.

This means that undo files from older projects are difficult to identify. But if you have wrongly (and very recently) saved a project, and you wish to access a previous version of the edit list, take the following steps:

Step 1   Open the folder C:\Program Files\Fairlight\Dream II\Undo
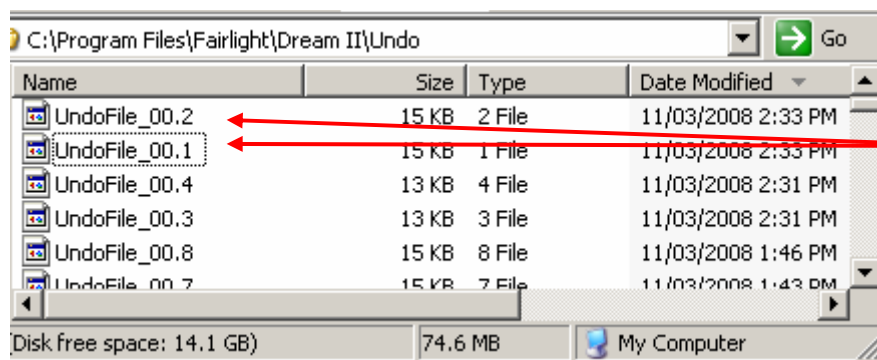
Only these two files are from the most recent project.

Step 2   Choose the undo file you want to open. Rename this file so that it has an extension "dr2" (upper or lower case – it doesn't matter).

Step 3   Move this file to a Media Device. The simplest is to move it to the folder on your audio drive where the original project is stored.

Step 4   Open this file by issuing the **File ➔ Open** command or using the Project Menu open soft key.

Video Files

Xynergi supports drag and drop import of a variety of video file formats, as well as direct video recording to the Xynergi timeline.

For correct operation, video files must be played from and recorded to a separate hard disk than the audio data. **WARNING: If you attempt to play video and audio data from the same hard disk, you will experience SEVERE performance problems!!

The disk bandwidth required for video is governed by the type of video you wish to play back. Some types of compressed Standard Definition video may play back from a single 10,000 RPM SATA drive, while uncompressed High Definition Video may require a large, fast RAID array. Please contact your Fairlight distributor to discuss your specific needs.

Typical Xynergi Drive Configuration
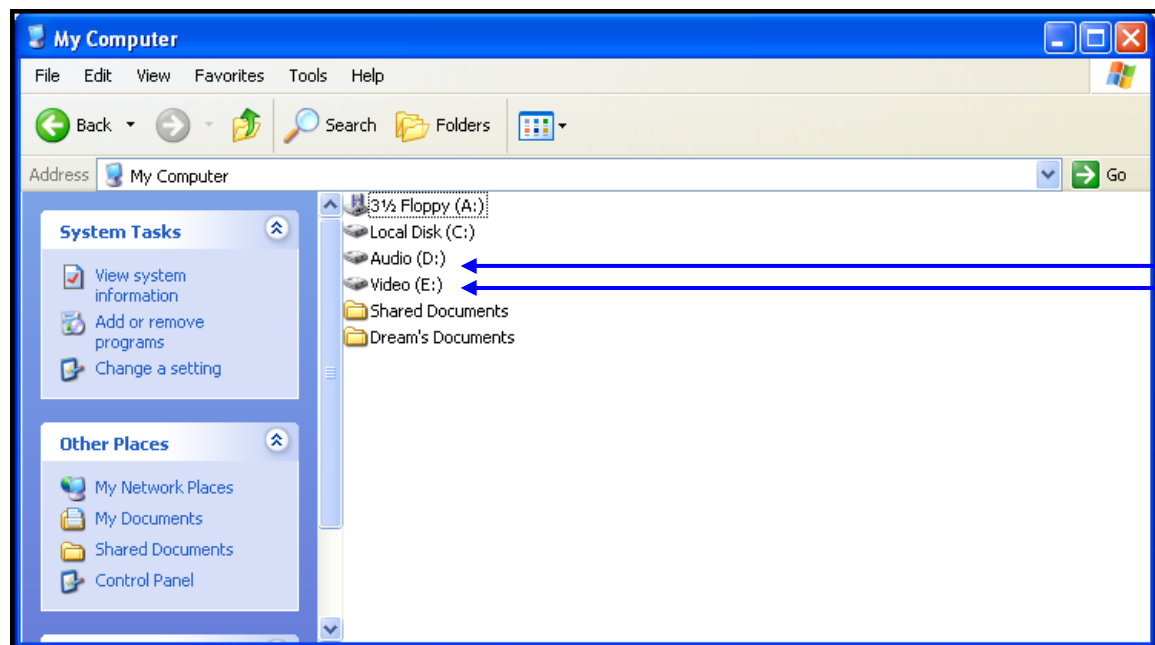
Designating Media Device

When XYNERGI is first started it displays a dialogue box requesting that a default project device be selected. Select the devices (Audio and Video) you wish to use from the list of available drives.

To prepare the drive for use with XYNERGI, select **Setup** ➔ **Media and Project Management** from the XYNERGI main menu. Select the device from the devices list and click on Convert to Media device. Please also set the Device Info accordingly (in most cases, this is set automatically and does not need to be changed).
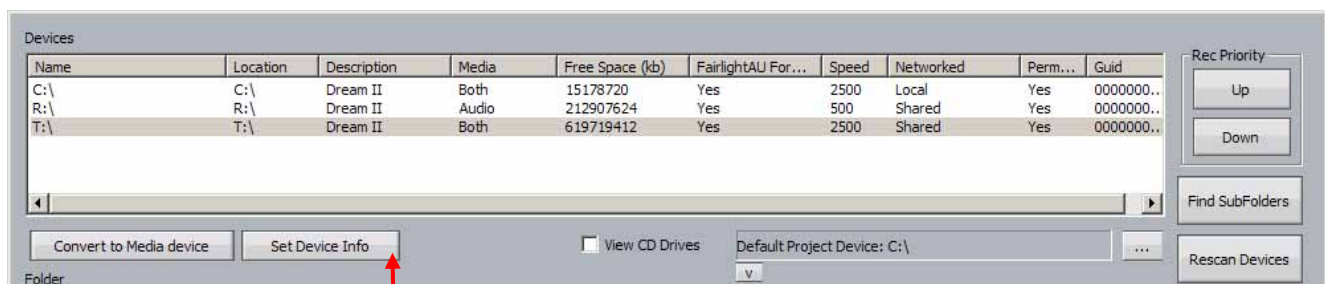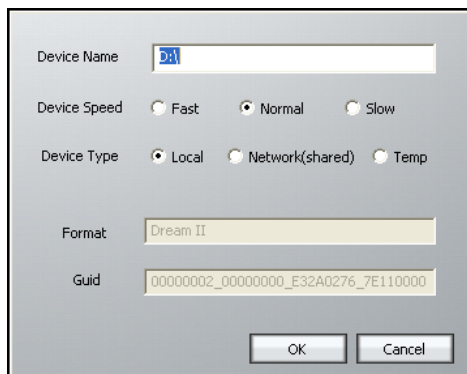
To use a network connected device, first create a mapped network drive or folder in Windows Explorer. This can now be selected in the device panel and converted to a XYNERGI Media Device as above.

** Please note that audio and video files can only be played from a designated Media Device. If you try to play files from any other disk, you will receive an error message.

Creating New Projects

Once Media Devices have been set up on your Xynergi system for Audio and Video, you are ready to create a New Project. To do this, Press the Project key on your Xynergi controller followed by the New softkey – or, select **File** ➔ **New** from the Xynergi pulldown menu. You will see the following dialog:
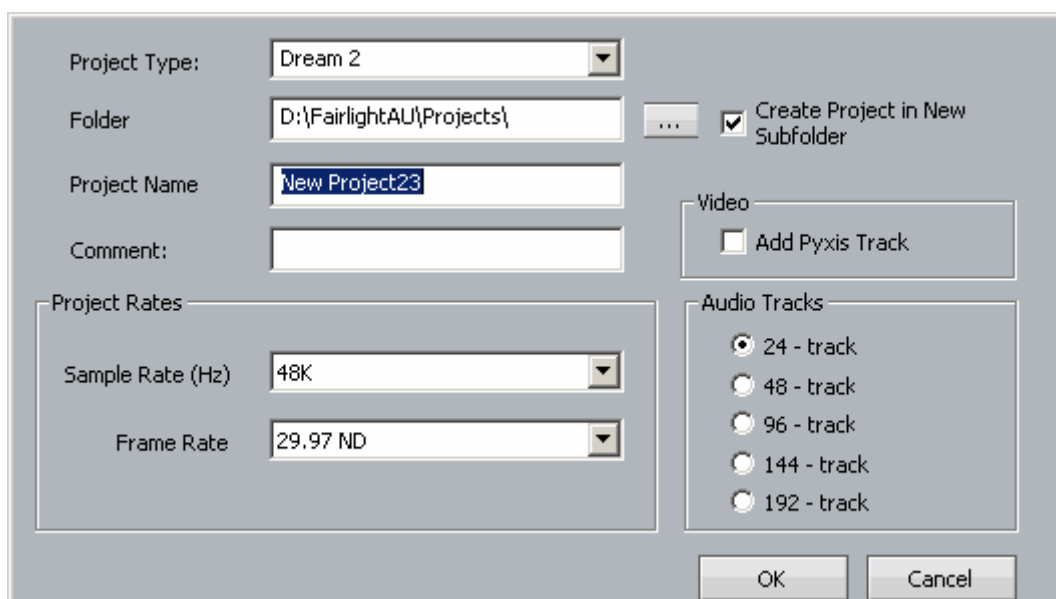
Choose a Project Type (MT or DR2).

By default, your project is created in its own subfolder named with the Project Name. This is the recommended practice, as it helps keep your Xynergi system organized. If you prefer, you can place your projects elsewhere – as long as you select a designated Media Device.

Give your project a name and select the appropriate options. You are ready to begin!

Backup Project to Folder

Both MT files and DR2 files can be backed up using **File** ➔ **Backup Project to Folder** option. This feature copies the project file and all the associated media files (audio and video) to the designated folders.

Backup Project to Folder places all files associated with a project in a single place, making it easy to restore them later. Many facilities use inexpensive USB drives for backup. Restoring files is simply a

matter of dragging and dropping files from the backup folder to the appropriate Audio and Video Media Devices.

Media Scanning

Normally the system scans all available media to ensure that it is up to date with available files. This takes some system bandwidth and memory in particular. If you do not need this function i.e. if your storage contents are not being changed by other computers, you may turn off background scanning in **Setup** ➔ **General Preferences** ➔ **Projects**.

If you open a project whose media is not online, and then you bring the media online, it will not be found if background scanning is switched off. You can, however, force the system to find the relevant media for the current project using **Process** ➔ **Relink Media**.

Detailed Media Management

To work on media and project management, select **Setup** ➔ **Media and Project Management** from the XYNERGI main menu.

Controlling Scanned Folders

You may wish to save time when the system starts by omitting the scan of some folders in your system. This is particularly useful when the system is connected to a network. In the Media and Project Management dialog you can display all storage devices, folders and files.
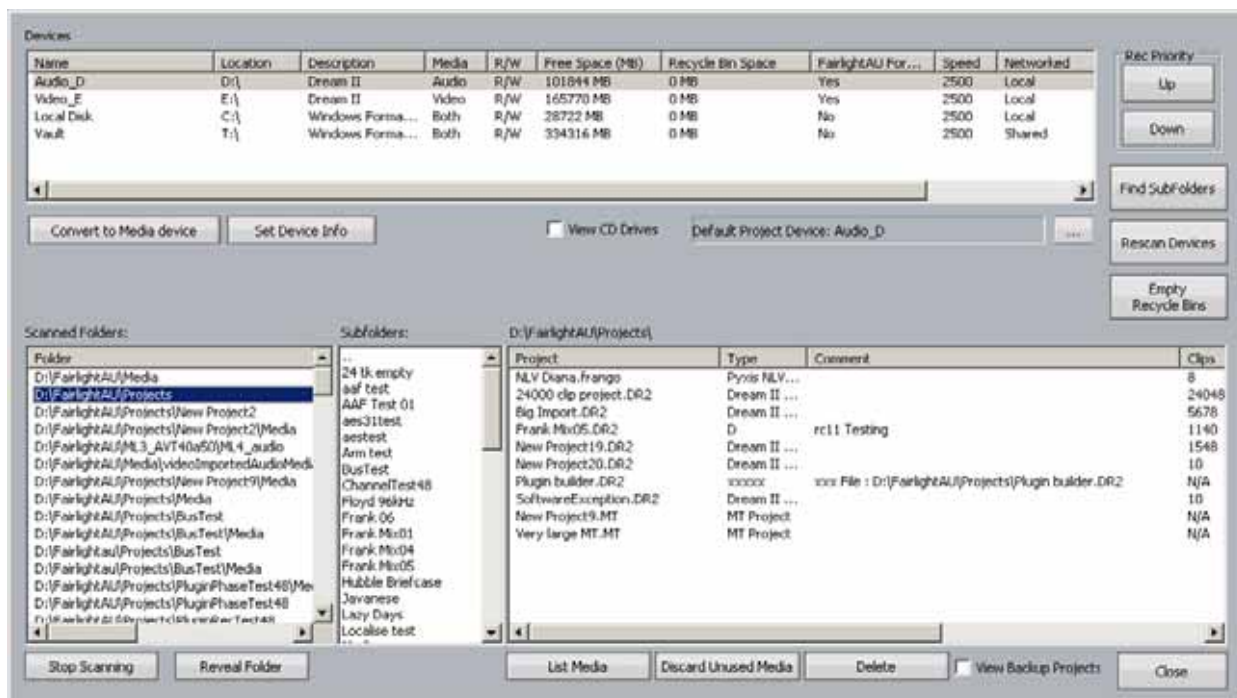
While this pane is open, click on one of the devices shown above, and its folders will be displayed. Now you can select folders and click "Stop scanning selected folders".

Clicking Reveal folder will open a Windows Explorer window showing the selected folder and its contents.

Double-clicking a folder in the list of Scanned Folders will display its subfolders (if any) in the Subfolders window, and the projects (if any) contained inside it, in the Projects window.

Select a project in the right hand list, then click **List Media in Project** to display a new window containing all media in the Media folder of the project. Click **Delete Project** to remove the project from the hard disk. You will be prompted to remove all the media in the Media folder.

Discarding Unused Media

It is possible to create a number of recordings which end up not being used. To remove these from your hard disk automatically, select a project and use the command:

Setup ➔ Media and Project Management ➔ Discard Unused Media
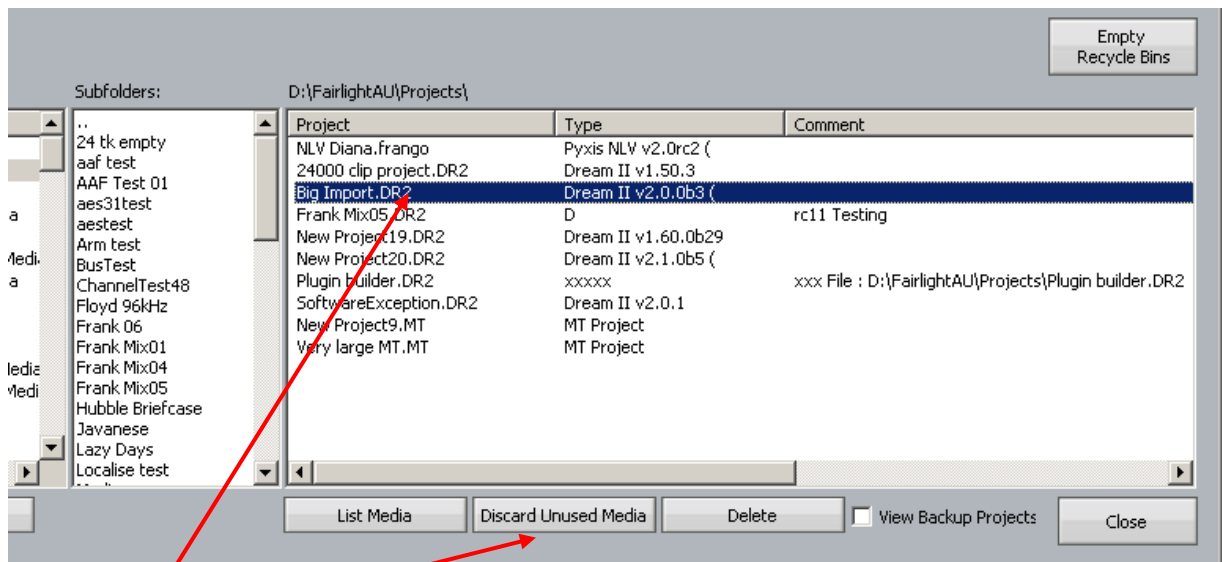

Selected Project   Discard command

This command moves the unused media into a recycle bin, of which there is one for each media device.

Specifically, it removes media in the selected project's media directory that is **not used by any project in the selected project's current directory**. It will only remove native (recorded or localized) media, not files that have been imported from other systems.

The device list has a column reporting how much space a device's recycle bin is taking up. To clean up the recycle bins there is a button on the dialog called 'Empty Recycle Bins'. This can be used when you are sure you do not need any media from them anymore. The new recycle bins are located on each media device under the 'FairlightAU' folder.
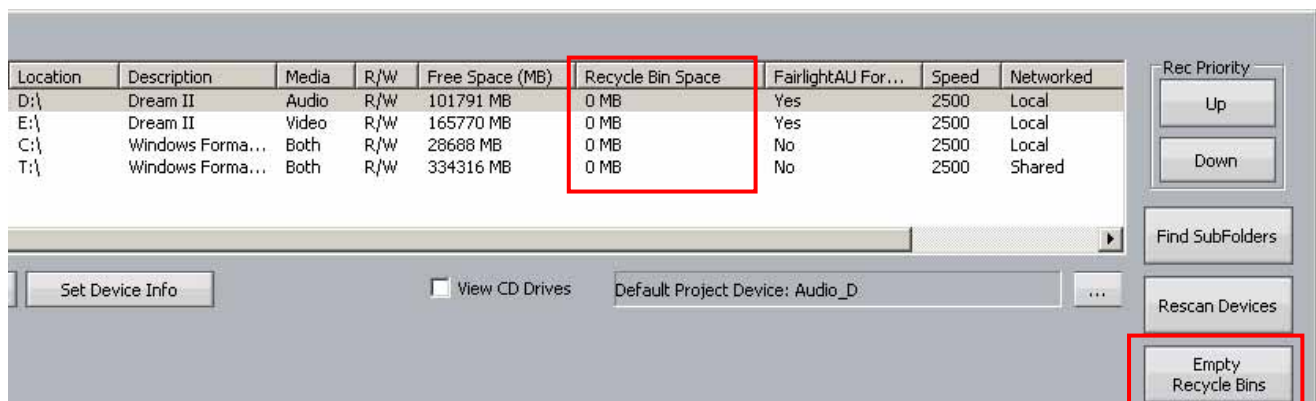
Note: the same thing can be achieved using **Process ➔ Discard Unused Media**, with one difference: this will remove unused media from UNDO files as well, so UNDO is not possible afterwards. This is great for recording sessions with a lot of useless takes, because only the ones used in the project survive.

Pyxis Track

Introduction

Pyxis Track is Xynergi's built-in video disk recorder and editor.

It can import files of many formats, and export to many formats. Some of these formats require special licences to operate. See below for import / export information.

Creating a Pyxis Track

Before using Pyxis Track, a video track must be added to the project. This can be done in two ways.

- When creating a new project, select the Add Pyxis Track checkbox, shown below.
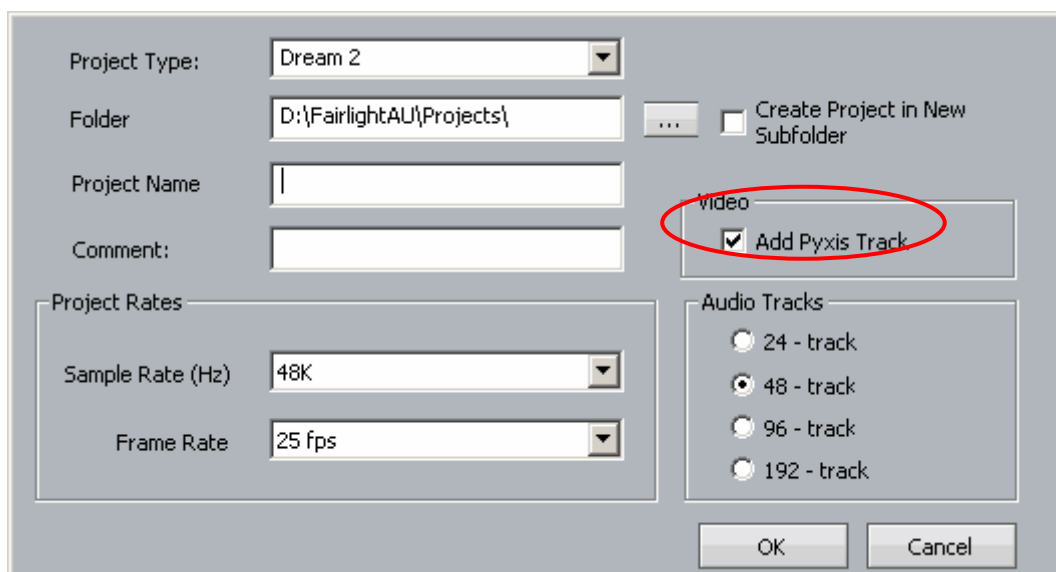
For a project that is already created, use the command Tracks ➜ Add Pyxis Track
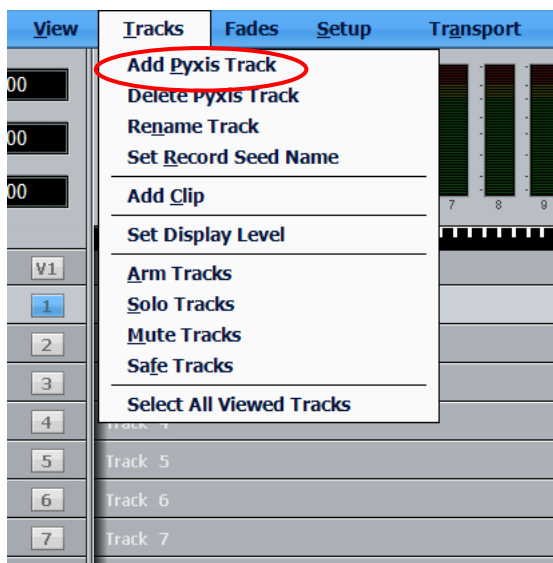
Once created, the Video track appears at the top of the Edit Screen:
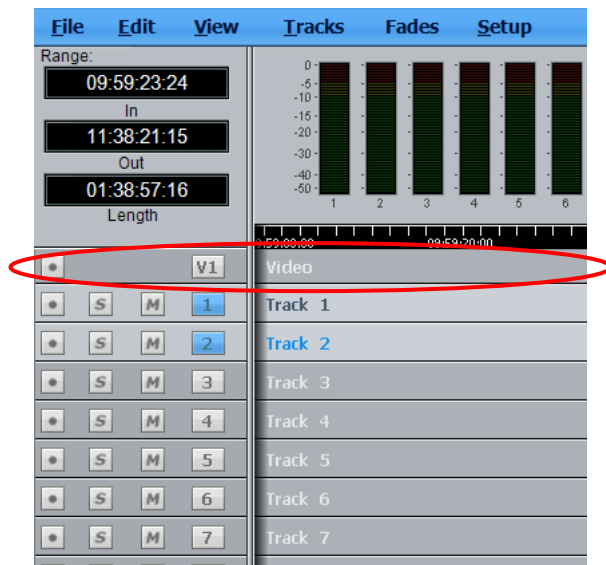
Hiding and Showing the Video Track

To hide or show the video track on the Edit Screen use the menu commands:

View ➔ Show Pyxis Track ➔ Show   and

View ➔ Show Pyxis Track ➔ Hide

Video Track Display Offset

When using a monitor with an inbuilt display, such as an LCD or plasma screen, the picture may be one or two frames late at play speed. You can adjust for this using the General Preferences dialog. To access this, click Setup at the top of the Edit Screen, then click General Preferences, then Playback.
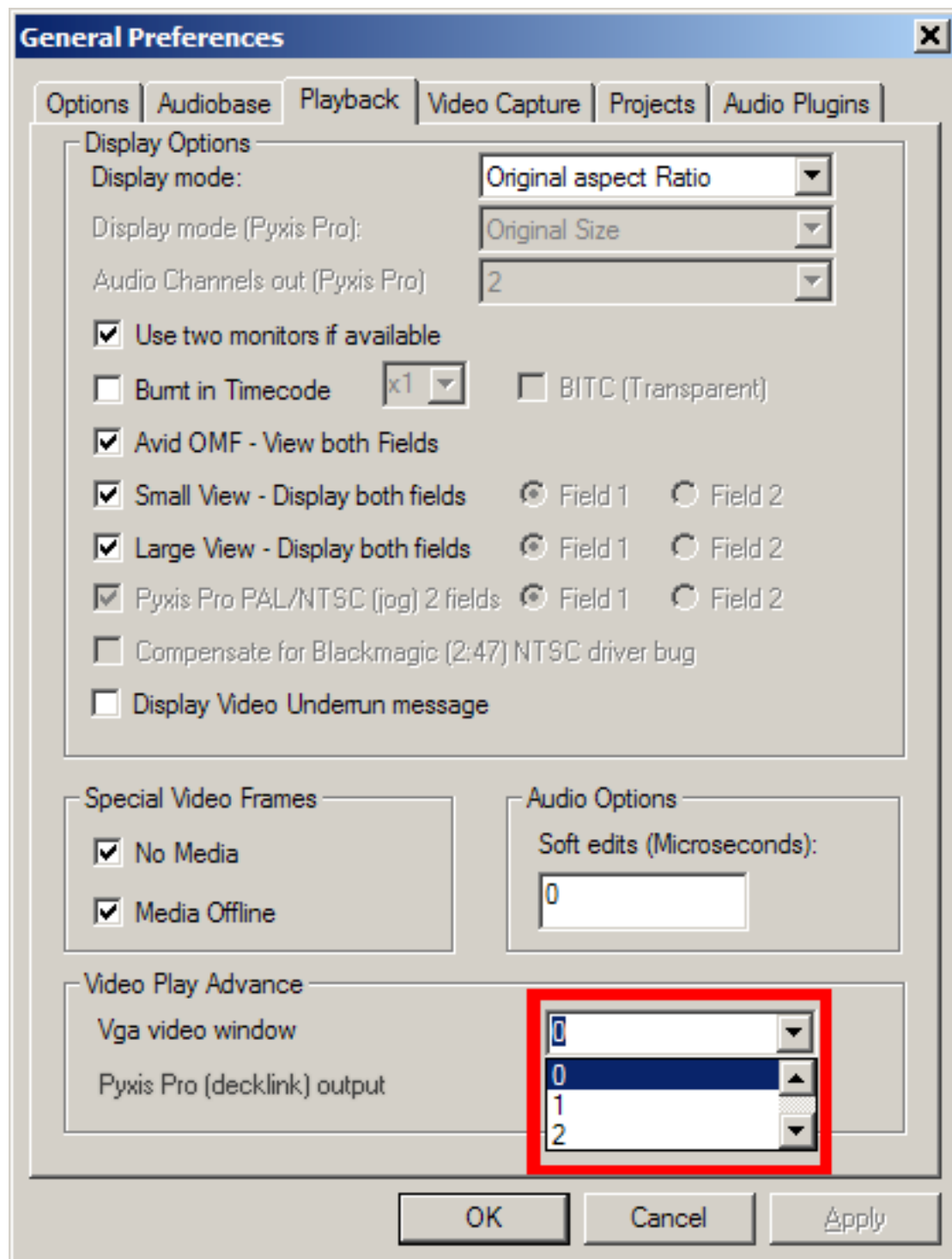
The control allows you to advance playback by one or two frames. While in stop or Jog, the correct frame is output, but in play the advancement is activated.

You can have a separate setting for your Decklink output and your VGA output, since they are likely to feed different monitors.

Loading Video into Pyxis Track

There are two methods for loading video into Pyxis Track. In both cases, the video track must be visible on screen.

Importing a Video File

Step 1   Make sure that a Pyxis track is displayed. If not, see above.

Step 2   Click File ➔ Import ➔ Video File.

Step 3   The following dialog box is displayed

Click here to browse for the file you want to import
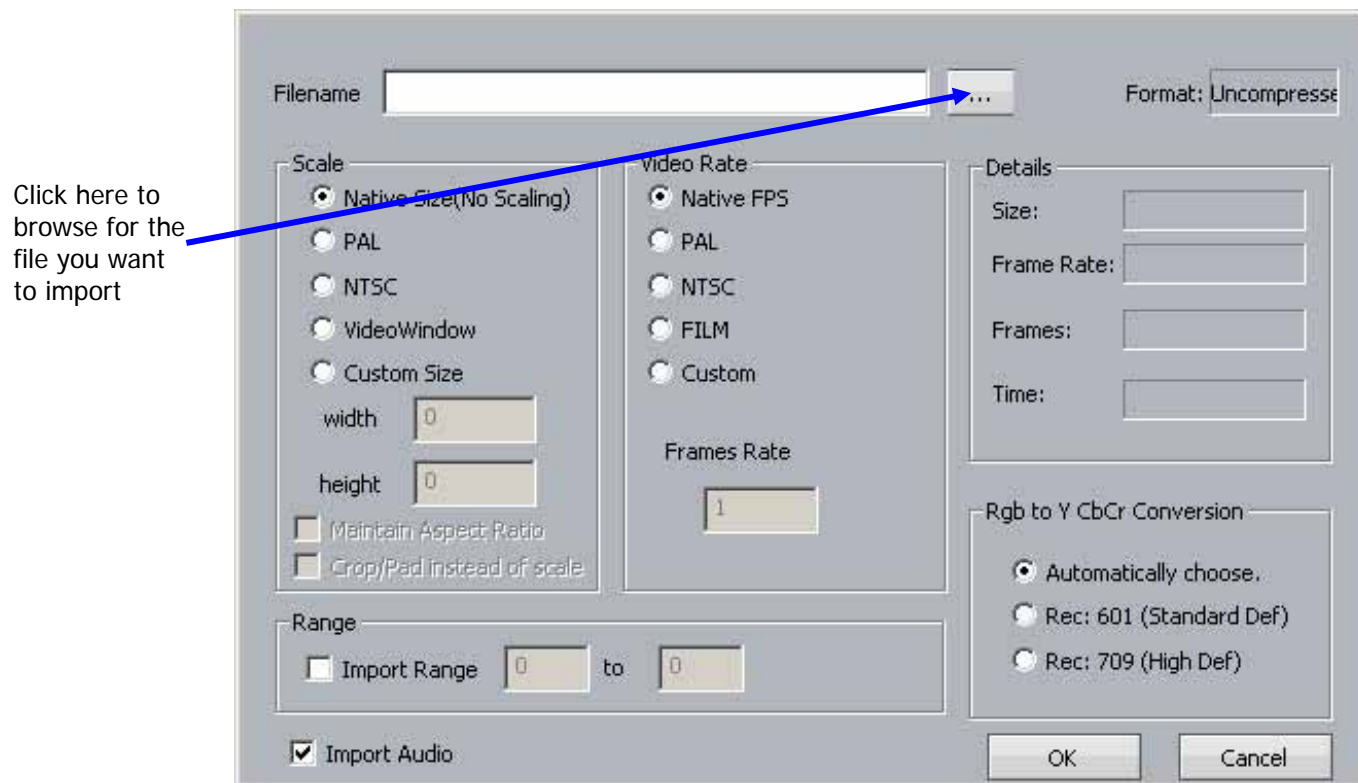
The following file types can be imported using this method:

- Quicktime (.mov),

- Avi (.avi),

- Windows media format (.wmv)

- Mpeg4 files (.mp4)

- Mpeg 1 or 2 (.mpg, .m2v, .mvf),

- dv25 (.dv or .dif)

- Bitmap (.bmp) or Cineon (.cin) sequence of images (in sequentially numbered files, 1 frame per file)

- Final Cut Pro, XML project – note that nested sequences are not imported

also any Dream/Pyxis native files which are ...

- - uncompressed (.vmu)

- - dv25 (.dif)

- - mjpeg (.vmj)

- - lossless (Huffman compression) (.vmh)

Import by Drag and Drop

A quick way to import video files is to use Drag and Drop, as follows:

Step 1   Make sure that a Pyxis track is displayed. If not, see above.

Step 2   Open Windows Explorer (or My Computer) and find the video file you wish to import.

Step 3   Drag the video file from the Windows Explorer window and drop it on the video track in the Xynergi Edit Screen.

The following file types can be imported using drag and drop:

- Quicktime (.mov) – any more than 2 accompanying audio tracks must be imported – the system will prompt if this is necessary

- Avi (.avi),

- Windows media format (.wmv)

- Mpeg4 files (.mp4)

- Mpeg 1 or 2 (.mpg, .m2v, .mvf),

- dv25 (.dv or .dif)

- MXF (.mxf) containing dv25, dv50, dv100(DVCPro HD) or IMX mpeg compressed video

- Omf video files (.omf) containing mjpeg, dv25, or uncompressed video.

- Thomson/Grass valley dv25 files (.vid)

- Bitmap files (single still image) .bmp – useful for a clapper board.

- LongGop (requires mxf licence option, mpeg licence option, plus MXFReader2.1 beta or later*.

- Final Cut Pro, XML project – note that nested sequences are not imported

- jpeg

also any Dream/Pyxis native files which are ...

- - uncompressed (.vmu)

- - dv25 (.dif)

- - mjpeg (.vmj)

- - lossless (Huffman compression) (.vmh)

MXF files require an MXF licence (dongle)

IMX Mpeg requires an IMX Mpeg licence.

Dv50, dv100 require a DVCPro Licence (dongle)

Playing a QuickTime or AVI file requires that the latest available codec for that file type has been installed. Fairlight recommends that automatic update be switched on to ensure that the version remains current.

In some cases a specific codec must be installed e.g. QuickTime files from Avid require the Avid codec to play them.

For a good indication of playability, double-click a file in Windows Explorer. If the operating system plays the file immediately, it will almost certainly play in Pyxis Track.

Capturing Video into Pyxis Track

The following assumes your system is equipped with a Decklink Video capture card. For the purposes of the example, we will be operating in Standard Definition mode.

Pyxis Track allows an incoming video signal to be captured directly onto the timeline. This requires correct configuration of both the Decklink card and Dream II.

Configuration of the Decklink card

Configure the required settings for your Decklink card by navigating to

START ➔ Setting ➔ Control Panel ➔ Decklink
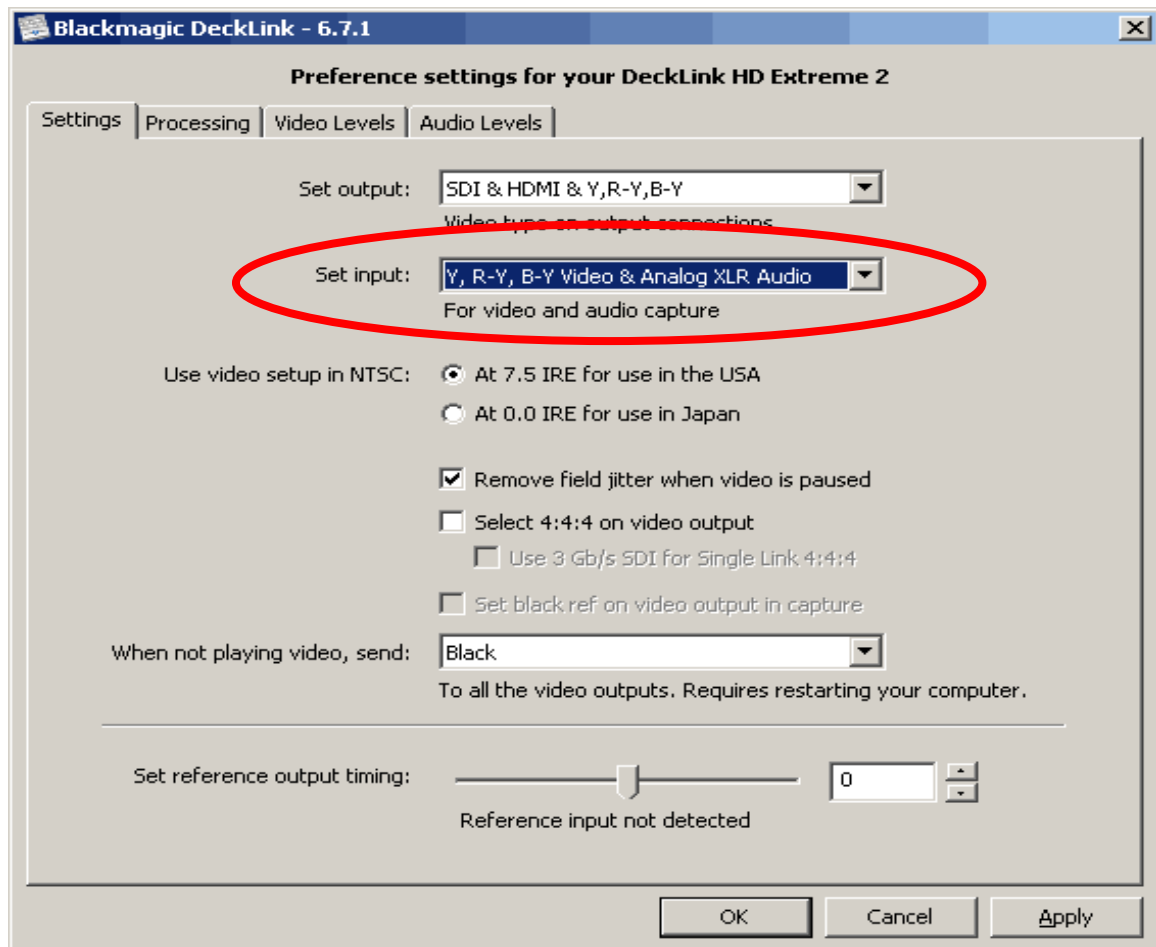
It is critical that you select the appropriate Inputs for your system. In the example, we are intending to capture video from a Digital Betacam VTR, via the Decklink Component inputs.

If you will be consistently using the same physical inputs for all video capture duties, you should be able to "set and forget" this value.

Configure Dream II Video Capture options

With Dream II launched, and a Project with Pyxis track open, navigate to

Setup ➔ General Preferences ➔ Video Capture

This window configures the Dream II part of the video capture system.
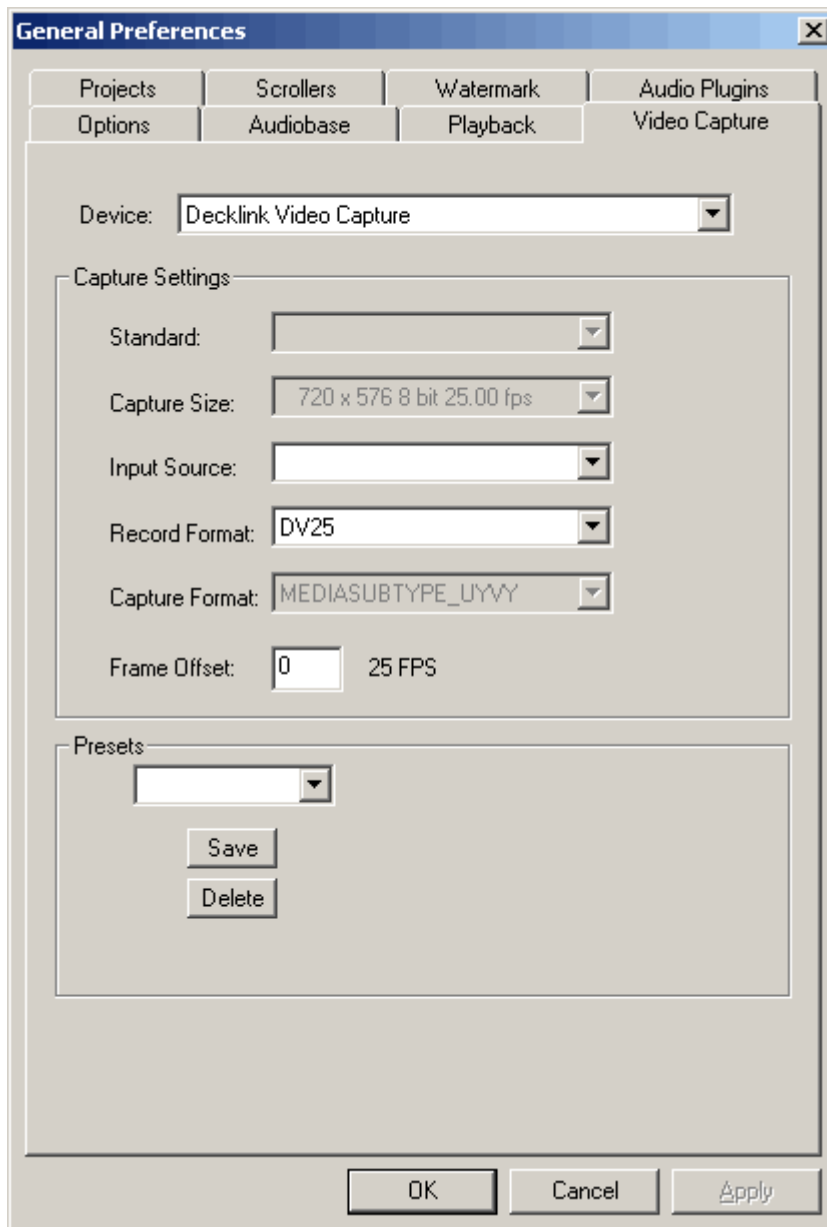
"Capture Size" is a default value, based on whether Dream II is launched in Standard or High Definition mode, and the current project sync settings (See View ➔ Smart Pane ➔ Sync)

If this setting is not the format you are wishing to capture, it is recommended you consider exactly what format you wish your project to be, and configure it in consequence.

The "Device" value tells Dream II which video hardware capture unit will provide the incoming video signal. Under normal conditions, this will be "Decklink Video Capture".

"Input Source" is currently not activated. Setting the correct Video Input must be performed within the Decklink Control Panel. (See above).

"Record Format" is the video file and codec format for capturing the incoming video signal. The options available are:

- - DV25 (DV Codec, 3.5Mb/sec, SD NTSC or PAL ONLY)

- - MPJEG

- - Uncompressed

- - Huffman Lossless

For Standard Definition systems, "DV25" is the recommended setting.

For High Definition systems, "Huffmann Lossless" is a good reliable option.

Invoke Video Capture Mode

Unlike an audio recorder, digital video capturing equipment must be in a specific "Video Capture Mode" in order to record an incoming signal.

In DreamII, you can invoke this mode by navigating to

Setup ➔ Video Capture Mode
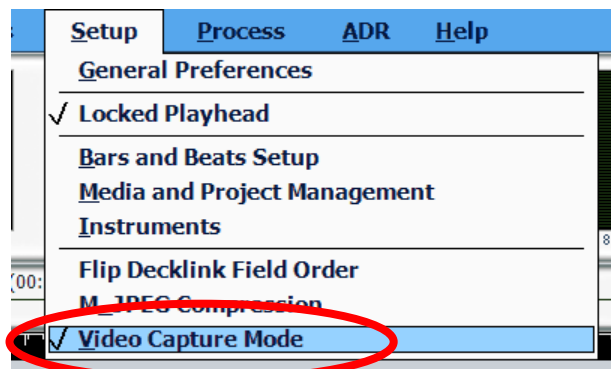
With Video Capture Mode ON, your decklink card will act as a loopthough device, and will display the incoming video signal. This is in contrast to its normal mode, where the Decklink card displays whatever video is already on the Pyxis track.
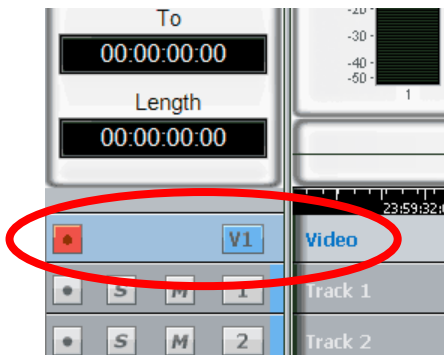
With Video Capture Mode ON, you may ARM the Pyxis track, and record the incoming video signal, in the same way as you would record audio.

The Pyxis Window

To show a window displaying your video, use the command:

View ➔ Pyxis

This window is resizeable, and can be made to go full-screen with a double click on the window with your Left Mouse Button

Drag here to resize Pyxis window.

Click here to scroll video locators list.
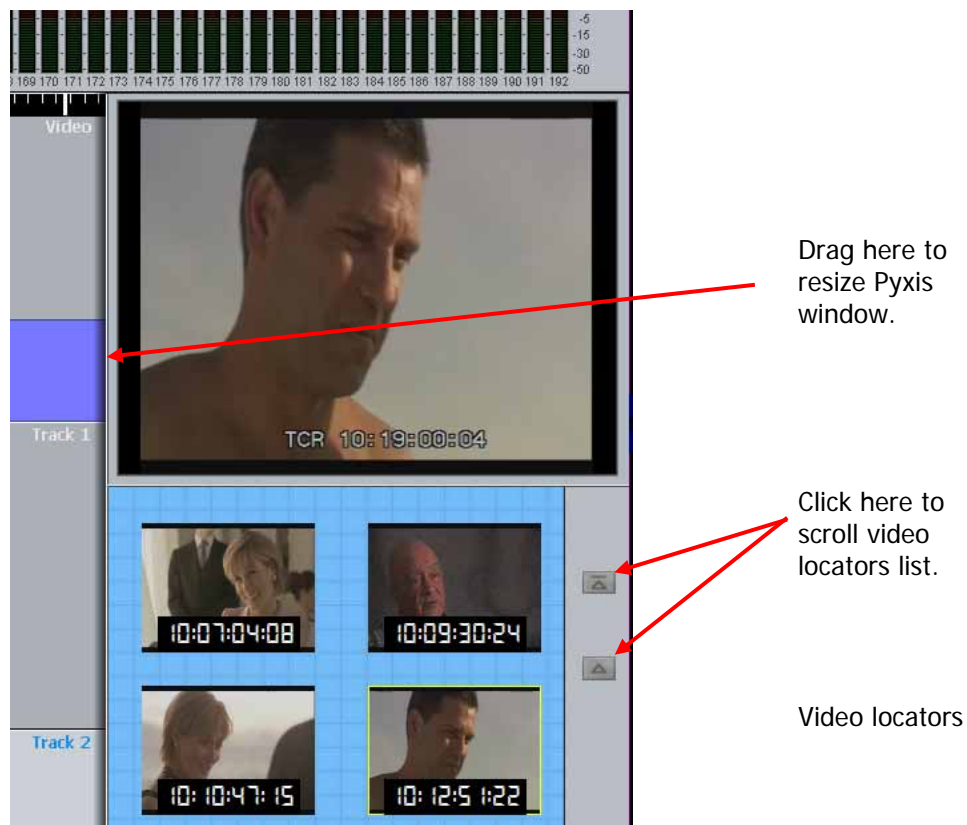
Video locators

Video Locators

While the Pyxis window is displayed, you may click on an empty marker at any time. This will capture the current video frame and display it, with a timecode number.

To locate to any video locator, simply click it.

To re-order the locators, drag and drop them with the mouse.

To delete a locator, drag it far to the right and drop it when the delete icon is displayed.

Delete icon

Video locators are also displayed in the Edit Marks list (Locators list) and can be edited there.

The Video Scroller

The Video Scroller is a line of frames across the bottom of the screen, centered at the current frame. These frames cover the same width as the audio tracks.

The Video Scroller is useful because you can see specific frames and scene changes coming up, and use it for easy location.

To Display the Video scroller, hold down the Shift and Zoom buttons. Now the track buttons allow you to select audio scrollers, and a Video Scroll button appears at the lower left of the picture keys. Use this button to toggle the Video Scroller on and off screen.
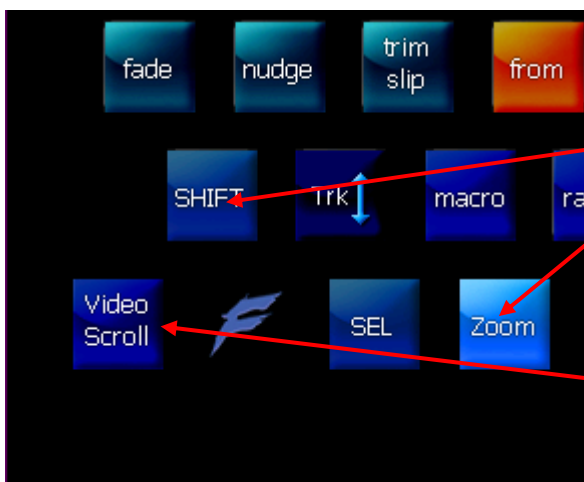
Hold these down...

... and click here

Another way is to click:

Setup ➔ General Preferences ➔ Scrollers

Another way is to click:

Setup ➔ General Preferences ➔ Scrollers
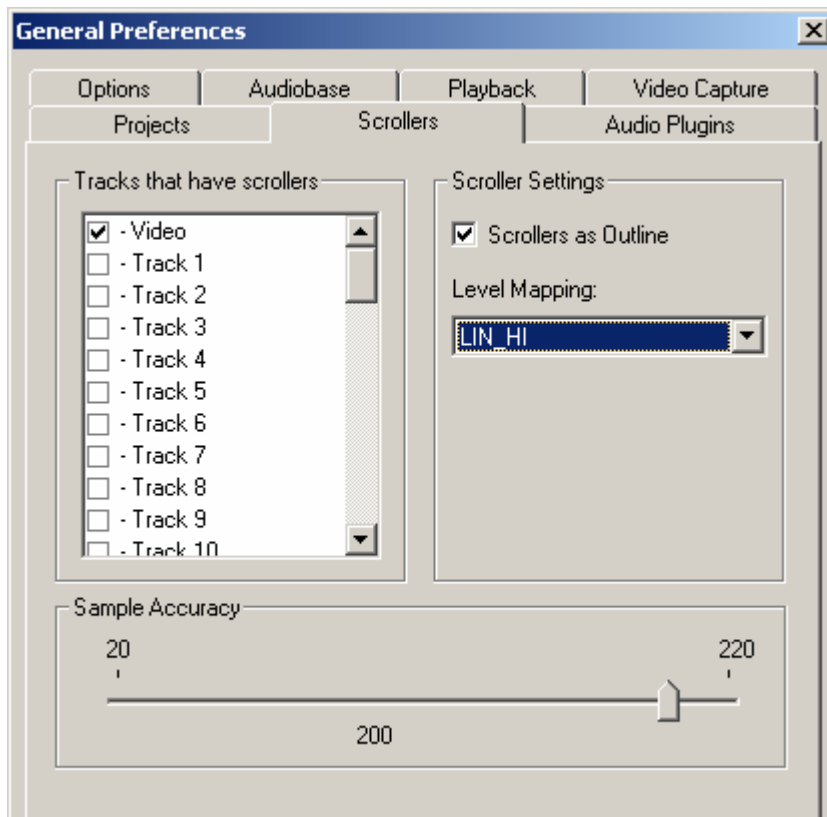
Select the Video checkbox. Note: Audio Scrollers are discussed in Chapter 4 - Tracks and Transport.

While the Video Scroller is active you can:

- Click on any part of any frame to locate the transport to that position.

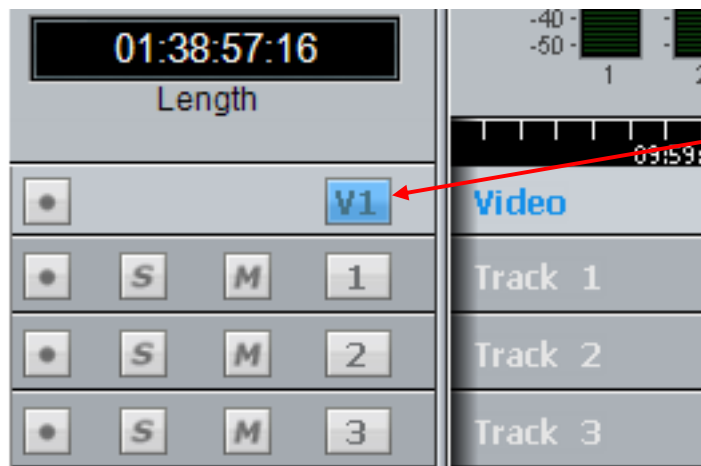- Drag the scroller left or right to move the transport.

Note: there is no zoom control on the video scroller.

Editing the Video Track

Selection

To select the video track

- Click on the **v** symbol at the left of the video track (double clicking makes it the only selection)

OR

- Press the **SEL** button, then toggle **Video Track** on the Picture keys (it's at the lower left where ctrl is normally placed).
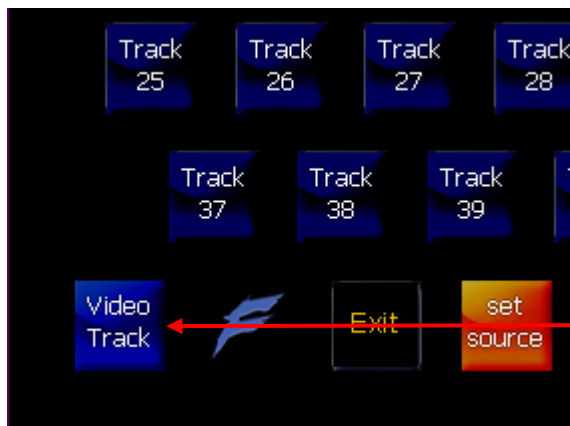
Editing with XYNERGI Buttons

Editing commands can be used with the video track, the same way as they are with audio. The copy and cut commands can be used as with audio to put video clips on the clipboard, but unlike audio clips, they can only be pasted back to the video track.
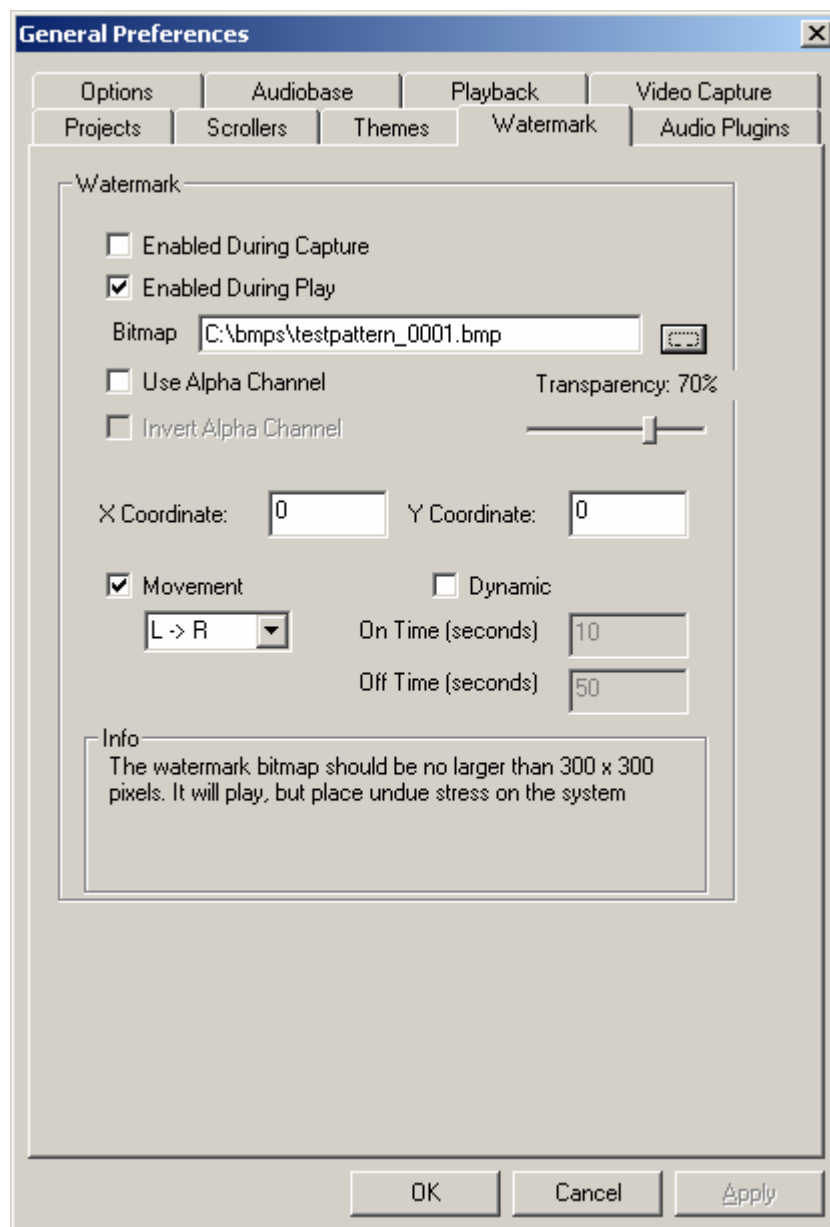
NOTE: Cross fades between two video clips become dissolves.

Audio tracks and Pyxis track can be selected and edited simultaneously.

Editing with the Mouse

Video clips can be dragged left and right, but not up and down (across tracks).

Watermarking

Watermarking allows you to superimpose a graphic design with partial transparency over your video file, either on capture or while playing. If you capture the file with the watermark, it is permanently written into the video file.

Controls for watermarking are found in Setup ➔ General Preferences on the Watermark tab. This tab is present if a Decklink video card is present and active. See your Fairlight distributor for information about video cards.

Choose the bitmap you wish to superimpose by typing its name in the Bitmap field, or by pressing the Browse buton.

Selecting the **movement** checkbox causes the watermark bitmap to periodically move on the video output. The direction of the movement is specified with the pulldown, with choices: L->R, R->L, Top->Bottom, Bottom->Top

Selecting the **dynamic** checkbox causes the watermark bitmap to periodically turn on and off. The time for each cycle is specified.

Using Pyxis Track as a Machine

Selecting Pyxis Track as one of your machines allows you to take it "offline" the same way as physical machines. For information about setting Pyxis as a machine, see Machine Control, page 304.

Plug-ins and ReWire

Introduction

Xynergi provides powerful support for 3rd party hardware and software plug-ins via the industry standard VST, VSTi and ReWire protocols.

General Capabilities

Plug-ins can be instantiated (placed) in Track Feeds and Live Feeds. This is done as an Insert to the feed. See Inserting a Plug-in below. You can instantiate up to 6 plug-ins per feed.

Control of plug-ins can be graphical, using the mouse, or fader-based using "fleximaps". The graphical controls are supplied by each third party manufacturer of plug-ins. Fleximaps allow physical control of plug-in parameters.

Access to control of Plug-ins is via the Plug-in button in the Channel Panel, or via mouse, clicking on the Fat Channel in the Mixer Screen.

Details below.

VST and VSTi

About VST

VST (Virtual Studio Technology) is an audio plug-in standard created by Steinberg. The VST standard allows third party developers to create VST plug-ins for use within VST host applications, or to create VST host applications themselves. The VST plug-in standard is the most widespread plug-in standard in use today, with thousands of available plug-ins.

The VST Host

A VST host is a software application or hardware device that allows VST plug-ins to be used in a logical context, interacting with digital audio and MIDI elements. Dream II is a VST host, enabling VST plug-ins to interact with the Dream II mix environment. As of this writing, Dream II uses version 2.4 of the VST SDK (Software Development Kit).

VST Effects versus VST Instruments (VSTi)

A VST effect is a type of VST plug-in that is used to process audio. A VST effect might be a Reverb, Compressor, Flanger or EQ.

A VST Instrument is typically used to synthesize sound or play back sampled audio. VSTi's have rapidly replaced hardware synthesizers and dedicated samplers due to their flexibility, repeatability and low cost.

Using VST Effects on Fairlight systems.

Some typical scenarios include:

- Insert a VST Compressor or EQ plug-in directly on a track or live input, busses, and Auxes.

- Patch an Aux Output to a Live Input, then insert an VST Reverb or Flanger on the Live input.

Now all channels feeding the Aux will be routed through the VST Effect.

Please note that Fairlight supports VST effects from Mono to 5.1 - and beyond. These can be inserted on mono channels or on **Link Groups**. If a stereo VST Effect is inserted on a LCR, LCRS or 5.1 Link Group , the left and right channels will be allocated to left and right Link Group channels automatically.

Using VST Effects in Xynergi

Setup and installation

Step 1   Install your plug-ins as outlined by your plug-in manufacturer. The plug-in will generate a file with extension 'DLL' in the folder that your plug-in has been installed (most commonly located in C:\Program Files\VSTPlug-ins).

Step 2   Copy the DLL file and paste into C:\Program Files\Fairlight\Dream II\Effects\VSTs. **Note:** In some cases the plug-in installer will allow you to choose this folder for installation of the DLL files. If so, choosing this option is much easier.

Step 3   Restart the Dream II PC.

Block Size

You can control the size of blocks sent to your plug-ins over the AudioBridge. (The AudioBridge connects the real-time CC-1 audio environment to the block-based audio environment in the PC, where plug-ins are performed).

Larger block size means more reliable operation, but longer latency. Fairlight recommends using 1024 samples.

To set block size, click Setup ➔ General Preferences, and click the Audio Plug-ins tab.
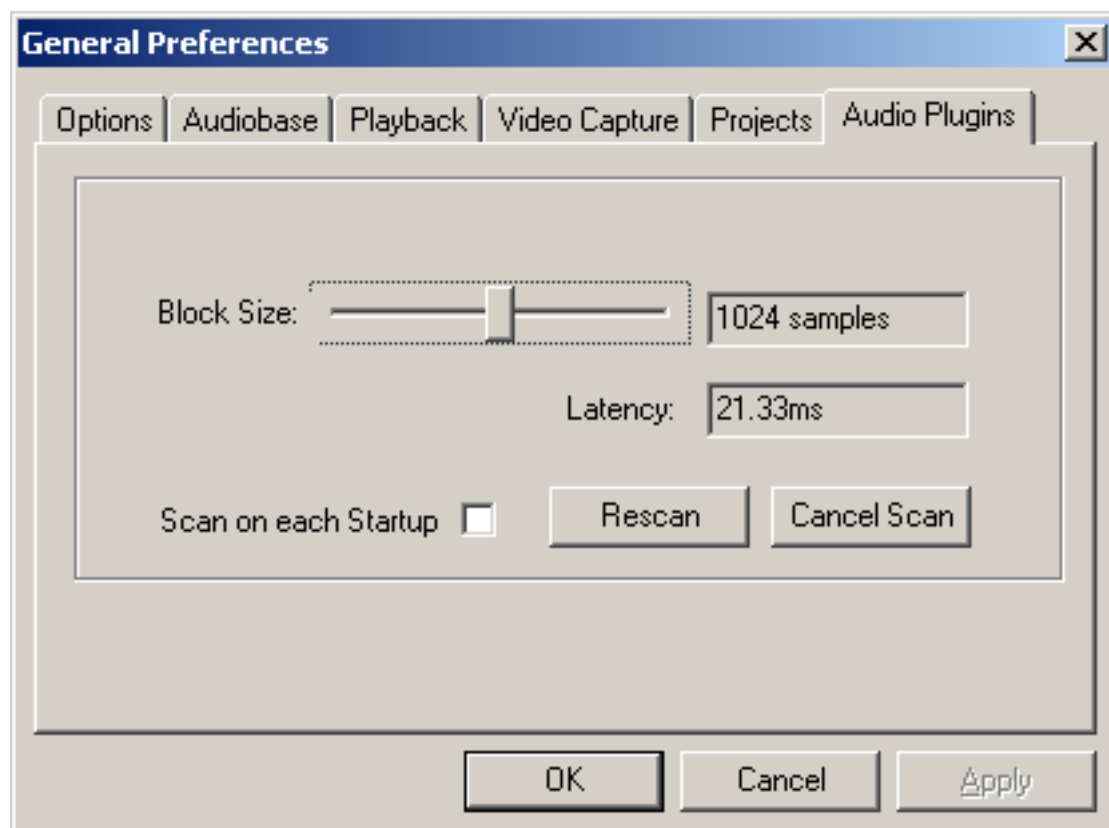
Use the slider to set the Block Size. Latency for each block size is shown.

NOTE: Latency is also affected by the processing delay of the VST plug-in itself i.e. the time it takes for the CPU to execute. Block size makes no difference to this.

Scanning on Startup

If you check the Scan on Startup button in the General Preferences dialog shown above, the system will scan all your plug-ins each time it starts. If you have a large number of plug-ins, this can take a long time, especially since many of them require dongle verification.

Another strategy is to use the Rescan button in the same dialog, only when you have added or removed plug-ins from the system.

Latency

Each plug-in takes a certain amount of time to run, and this effectively delays the audio in the track or live feed. The delay time is called the latency of the plug-in.

Latency has two components:

- AudioBridge latency, which is the time taken to get the audio from the Crystal engine to the CPU where the plug-ins are executed, and back again. This is unavoidable due to the VST specification requiring blocks of samples to be sent for processing.

- Processing time of the plug-in, which is how long it takes the CPU to process a block of samples. This is reported by each manufacturer of VST plug-ins.

For Track Feeds containing plug-ins, the track playback is automatically advanced by the amount of the latency.

Where a feed contains more than one plug-in, the latency is equal to the longest latency of the loaded plug-ins.

Inserting a Plug-in on a Track

Step 1   Select the track.

Step 2   Press the **Insert Config** button in the Setup or Mixer Megamode.

Step3   Press the **Add Plug-in** soft key. The Pad text area will now display the first of a list of plug-ins that you have installed.

Step 2a   Alternatively, press the **Plug ins** button in the Editor or Mixer Megamode. This will display the Plug-in panel in the Pad. If the **Add Plug** soft key does not appear, press **Plug ins** again.

Step3a   After the above step press the **Add Plug** soft key. The Pad text area will now display the first of a list of plug-ins that you have installed.

Step 4   Using the jog wheel, scroll through the list of plug-ins.

Step 5   When the desired plug-in is displayed, press the **Add** soft key.

                The plug-in will now load. **Note**: many plug-ins are protected by dongles, and the interaction between the system and the dongle is controlled by the plug-in manufacturer. Sometimes it may take up to a minute to load a plug-in, particularly the first one from any particular group from a manufacturer.

                The plug-in popup will now appear on the Editor screen, where the mouse can be used to

change its parameters. It can also be made to appear in the Pad (see Plug-ins in the Pad below).

Step 6   Press the **Plug-ins** button a second time to toggle the plug-in image into the Pad area.

Step 7   To remove the plug-in, press the **Remove Plug-in** soft key on the LCD screen.

Step 7a   Another way to remove the plug-in, when the Pad plug-in display is shown, is to hold the **ALT** key down and press the **Un Plug** soft key on the LCD screen.

Automation of Plug-ins

This is described in our section on mixer automation, starting page 86.

Controlling Plug-ins on Screen

Each Plug-in comes with a graphical user interface (GUI) designed by its manufacturer). To display the GUI, do one of the following:

- Press the Plug-ins button in the Editor or Mixer Megamode. This will display the current plug-in for the channel.

- Right-click a Plug-in in the Mixer Screen Fat Channel
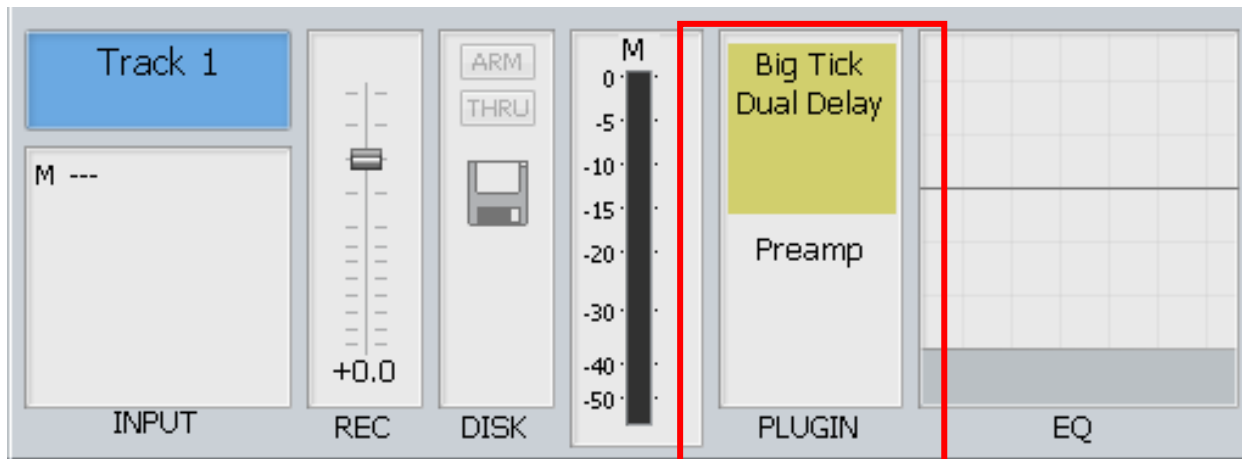
Where more than one plug-in has been inserted into the channel, the yellow highlighted one is current.

To display all Plug-ins for a channel, hold down the Blue or Ctrl button and right-click the name of any plug-in in the Fat Channel.

Locking the display

Each plug-in GUI is a window including a close box and a Lock icon. Clicking the Lock icon prevents that window from disappearing – it will continue to display that Plug-in for that channel, until you unlock it, then remove it.

Using the Library

Saving a Plug-in preset in the Library is a great way of managing plug-ins.

You can save any plug-in, or chain of plug-ins, with their current values, as a Library preset. This makes it very easy to load plug-ins into any track or live feed, partly because the Library page shows an array of named presets at the same time.

For instructions on using the Library see page 78.

Sending an Aux to a Plug-in

Patch an Aux Output to the Input of a Live Feed, using the Patch I/O screen. Use a stereo Aux and two Live Feeds if the Plug-in is stereo.

Add a Plug-in to the Live Feed using the method described above. Now all channels feeding the Aux will be routed through the VST Plug-in, to the output of the Live Feed.

Assign the Live Feed to the Bus where the Plug-in output is required.

Controlling Plug-ins on the Surface

Plug-ins can be controlled by a fader Side Car, or in the Xynergi Pad. Only ONE of these options can be exercised in your system. To determine which of these to use, edit the following file:

C:\Program Files\Fairlight\FMC\Data\ FlexiSurface.TXT

If you wish to use the Pad to control plug-ins, this file need only contain one word: XYNERGI.

If you wish to use a fader Side Car to control plug-ins, this file needs to contain a list of the Fader strips you will be using. For example, to use the first 12 faders, the file should contain the following (the is the most common setup for faders):

    FADERSTRIP,1
    FADERSTRIP,2
    FADERSTRIP,3
    FADERSTRIP,4
    FADERSTRIP,5
    FADERSTRIP,6
    FADERSTRIP,7
    FADERSTRIP,8
    FADERSTRIP,9
    FADERSTRIP,10
    FADERSTRIP,11
    FADERSTRIP,12

Plug-ins on Faders

When plug-ins are controlled by faders, it is possible to assign the fader, the panpot and the mute switch of each fader to different parameters. Obviously the switch should only be applied to toggling parameters like on/off or pre/post, but the fader and panpot can be assigned to either continuous variables or switches.

To make a Fleximap for controlling a plug-in on the faders, first load a plug-in as follows:

Step 1   Press the **Insert Config** button in the Setup or Mixer Megamode.

Step 2   Press the **Add Plug-in** soft key. The Pad text area will now display the first of a list of plug-ins that you have installed.

Step 3   Using the jog wheel, scroll through the list of plug-ins.

Step 4   When the desired plug-in is displayed, press the **Add** soft key.

After some time the plug-in will be loaded. This may take a minute or so if the plug-in is dongled. The plug-in will assign controls to your faders immediately. The layout may have come from an existing Fleximap, but if there is none, the parameters are automatically assigned to the controls in the order presented by the manufacturer. To edit this layout:

Step 5   Press the **Layout Plug-in** soft key.

The system will display a dialog box like this:
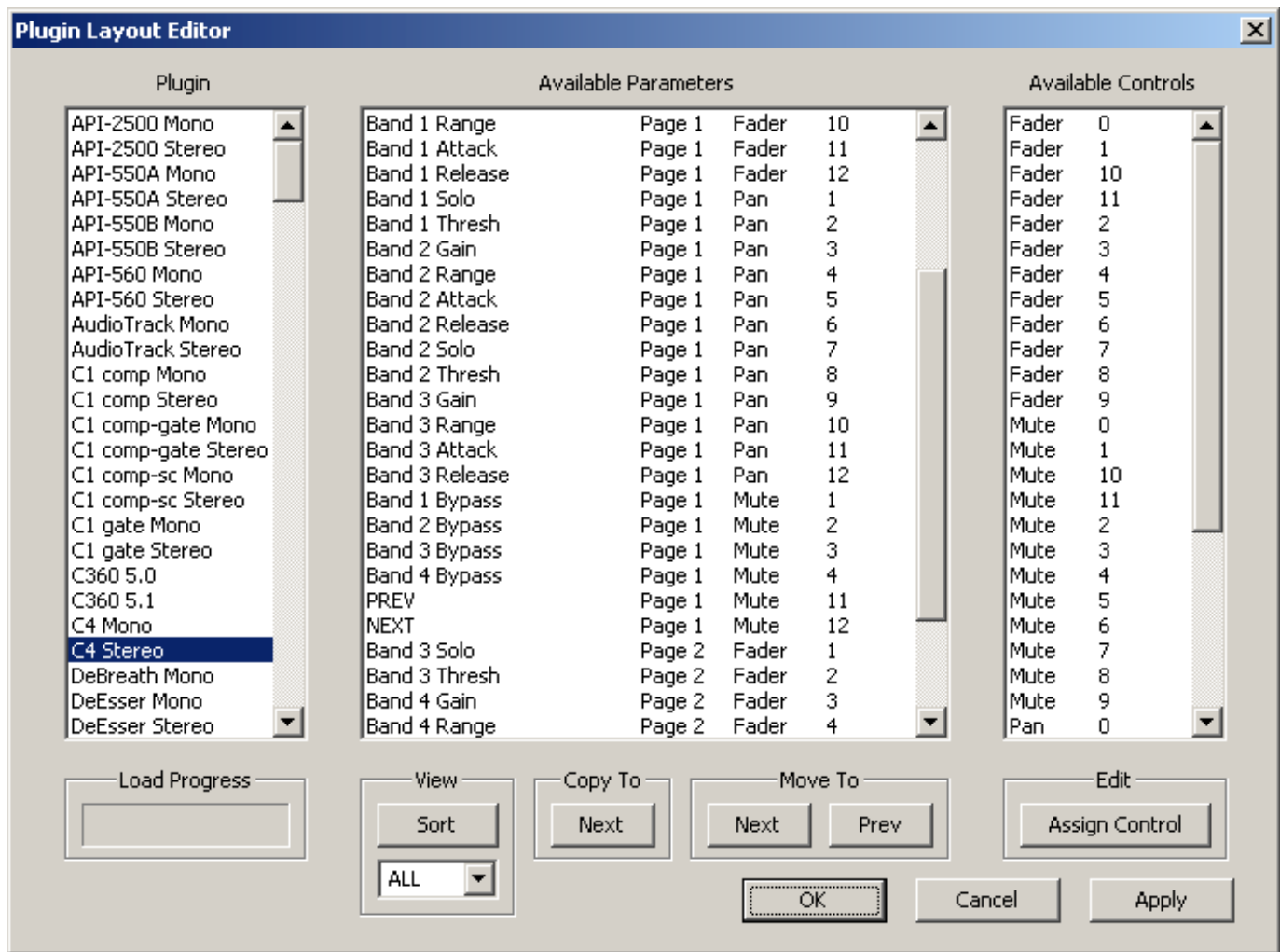
In the Plugin column you may select any plugin and map it to controls. Select by clicking the name, then wait while the plug-in is loaded.

In the Available Parameters column the system shows the names of all the plug-in parameters that were presented by the manufacturer (these may not include every control that you can see in the graphical user interface).

For each parameter, the dialog box shows which page of plug-ins it has been assigned, and which control. If an automatic assignment has been made, the system tries to guess whether parameters should be assigned to mute switches. Ones with names like Bypass and Mute are chosen, but this method does not always produce the optimal mapping.

The PREV and NEXT parameters are automatically inserted by the system to switch to the previous and next page of controls. Do not deassign these controls if you want to access the parameters on all pages!

To reassign a control, select it in the Available Parameters list, then click on the desired control in the Available Controls list. The Copy to Next button causes the selected parameter to be copied to the next page of controls. This can be useful if you want to access a control from more than one page. The Move to Previous/Next controls move the control to another page.

Click Apply to implement the changes (but not save them). You can now try out the arrangement by moving faders and knobs, and pressing Mute buttons. Click OK to implement changes and save them and close the dialog. Click Cancel to close the dialog without saving the changes. You may leave the dialog open and work with many plug-ins in one session.

The settings are saved in C:\Program Files\Fairlight\FMC\Data\FlexiMaps, in a file called *pluginname*.FSM. You may edit these files, but that is beyond the scope of this document. If you edit a file wrongly, the Layout Editor may refuse to load the parameters from the plug-in. Your only recourse is to delete the FSM file and try loading the plug-in again.

Plug-ins in the Pad

When the Plug-in button is pressed, the Pad rotary controls are focused on the current Plug-in. Each rotary control has two functions, one "normal" function, and one "ALT" function, which is executed by holding down the ALT button and operating the rotary control.

The graphical control for the plug-in can be placed in the Pad area by pressing the Plug-in button a second time. Specific parts can be enlarged by making a "marquee" with the mouse (hold down Zoom and click-and-drag a rectangle over the graphic display in the Edit Window). See Graphical Display below for details.

Control Types

Both normal and ALT controls have three types:

- Linear

  Turning the pot increases the value of the parameter being controlled.

  Normal controls display a line which gives an idea of the parameter value. ALT controls do not display this line.

  To see the current value of the parameter, look at the graphic display of the plug-in.

- Toggle

  A Toggle is a switch with two positions.

  Normal toggle controls are rotated to switch between the two positions. The gearing is set high so that only a small rotation is required.

  ALT toggle controls can be switched by simply touching them (with the ALT button held down). Turning the control also works.

  Toggles can be labelled to show the two values of the parameters they affect e.g. On/Off, In/Out, Pre/Post etc. (With many plug-ins, these values have been preset at the factory. To change these or set your own values, see Plug-in Editor below.)

- Multi-Switch

  Many parameters have multiple specific values. For example, the release for a compressor may be given as fast/medium/slow instead of having a value in milliseconds. In this case the appropriate control is a 3-switch.

  A Multi-Switch is defined as having a number of positions, from a 3-switch to a 10-switch. With normal Multi-Switch controls, turning the pot advances the parameter through the possible switch values, showing a corresponding number in the Pad. These numbers can be changed to text values by editing (see below).

  With ALT Multi-Switch controls, switch positions can be advanced just by touching the control (with the ALT button held down). Turning the control also works.

Control Pages

Many plug-ins have too many controls to fit in the Pad. To handle this, multiple pages of controls can be built. To switch between pages, press the soft keys below the Pad (pages 1 to 3) and above the Pad (pages 4 to 6)

To select which controls go on which page, use the Plug-in Editor (see below).

Graphical Display

To display Plug-in graphics in the Pad area, press the Plug-in button a second time. Repeated pressing toggles this display on and off.

Plug-in Zoom

By default the plug-in graphic is shown at full size in the Pad. This often means it is shrunk, making it difficult to read values.

To zoom in on a particular section of the plug-in graphic, hold down the `Zoom` button and make a marquee (rectangle) by clicking and dragging the mouse, on the **ORIGINAL** graphic display in the Edit Screen (not the one in the Pad). A red dotted line shows on the graphic while you are making this marquee.

Alternatively, hold down the `ctrl` and `Zoom` buttons while making your marquee. This will cause the selected area to display in 1:1 zoom, which sometimes makes it easier to read. If the selected area is smaller than the Pad, black is shown around it. If larger than the Pad, it is cropped at the bottom and right to fit.

To toggle between zoomed and full views of the plug-in graphic, press the `upper 5th soft key` (next to Macro). This is labeled Zoom if visible, but this won't be the case when a graphic is shown in the Pad.

Zoomed views can be stored with each page of the plug-in fleximap. See Plug-in Editor below for details.

Plug-in Editor

The Plug-in Editor is used to place plug-in parameters on the Pad controls, set the control type, and rename the controls if required.

To access the Plug-in Editor:

Step 1   Load a plug-in

Step 2   Press the `Plug-in` button in the Editor or Mixer Megamode.

At this point the Pad controls should display parameters from the plug-in. These may be pre-arranged at the Fairlight factory (or by you or a colleague), or if not, they are shown by default in the order presented by the manufacturer – normal first, then ALT. Several pages may be filled if there are more than 16 plug-in parameters.

If the Pad controls do not display anything, there may be an error in the Fleximap. This requires the fleximap file to be deleted. See Fleximap Files below.

Step 3   Hold down the Blue key and press the `upper 4th soft key`. This is labeled Layout if visible, but this won't be the case when a graphic is shown in the Pad.

The system displays a page containing plug-in parameters and commands. **Note:** the picture below has been trimmed to save space – the real display is larger.

Using the Plug-in Editor:

Overview – choose a parameter then touch the Pad control where you want it assigned.

Choosing a Parameter

You may choose a parameter by clicking its tile with the mouse.

Alternatively you may wiggle any control or switch on the plug-in's graphic display, and it will be chosen by the software. For a switch it is enough to toggle it. For a continuous control the value must be changed.

Choosing the Pad Control

For a normal control, just touch it. For an ALT control, hold down the ALT button and touch the rotary control. The parameter is immediately assigned, and you may test that the control works. **WARNING**: Don't touch any other controls, or the parameter will be moved to them.

The name assigned to the control will be the same as the one shown on the tile. **Note**: these names are supplied by the plug-in manufacturer, and do not always match what you see in the graphics display. You can change the displayed name later, as shown below.

Setting Control Type

Once a parameter is assigned to a control, you may choose the control type. By default, controls are assigned as Linear, even if they have previously been assigned as Toggles or Multi-Switches.

To set the control type, click on one of the `Control Type` buttons below. The Multi-Switch buttons are labelled `Switch 3`, `Switch 4` etc, up to `Switch 10`.
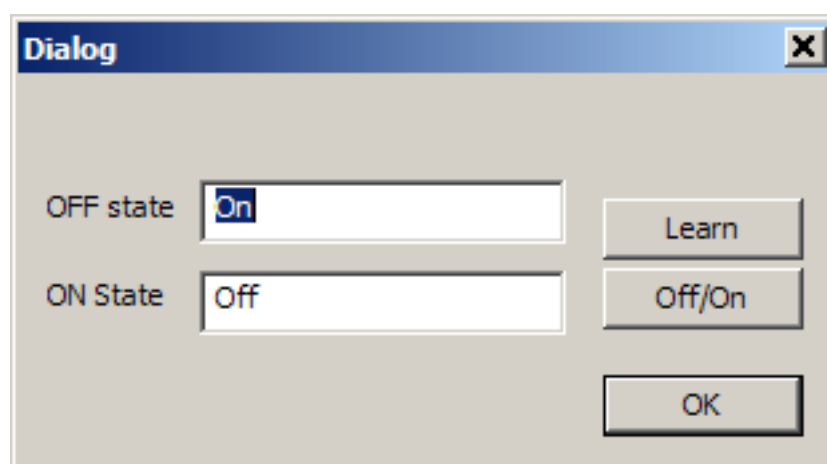
When you choose `Toggle`, the system displays dialog where the toggle display names can be set. By default these are shown as xx. You may replace them by

- Typing new names

- Clicking the **Learn** button to try automatically naming them

- Clicking the Off/On button to set the values to off and on

What happens when you press the Learn button: Xynergi sends an off value to the plug-in, then an on value. It waits to see if the plug-in sends return messages. If this happens, the messages may contain useful toggle names, but it is not mandatory in the VST specification for this to be provided, and many manufacturers just send a value like 0 or 1, or nothing at all. It's worth a try.

Renaming a Control

By default, a control is given the name on the tile used to select it. These names are supplied by the plug-in manufacturer.

To rename a control, click the **Rename** button, then type your desired name and click **OK**.

Erasing a Control

There is no explicit command to erase a control, but you can do it by assigning a parameter, then moving it somewhere else. This leaves the first control unassigned.

Setting a Zoom Window

Each page of the plug-in layout may contain two built-in zoom settings, one for normal controls, and one for ALT controls.

To create the built-in zoom windows, create a zoom window for normal, and/or one for ALT controls (as described in the Plug-in Zoom section above) while the Plug-in Editor is active. When the Plug-Editor is exited and saved, these zoom windows are saved with it.

The built-in zoom windows are accessed whenever you toggle from non-Zoom to Zoom using the **upper 5th soft key**. They can be overridden at any time by the normal process of making a marquee, but will re-appear whenever Zoom is toggled on.

Saving the Fleximap

The Fleximap is saved when you exit the editor, using the same **upper 4th soft key** that you pressed to enter it.

Fleximap Files

Fleximap files contain all the information about mapping of parameters to controls, including the displayed names and control types.

There are some useful things you can do by editing with fleximap files directly:

- Delete a file containing errors so that the Plug-in Editor can work.

  You will see that a Fleximap file contains errors when the Plug-in shows no parameter names in the Pad.

- Correct a file containing errors so that the Plug-in Editor can work.

  This requires some experience. Most of the errors in Fleximap files are misnamed parameters. See details below.

- Rename parameters en masse.

- Provide names for Multi-Switch values.

Finding a Fleximap

All Fleximap files are stored in C:\Program Files\Fairlight\FMC\Data\FlexiMaps

Those addressing the Xynergi pad are in a subfolder called Xynergi, while those addressing a Sidecar are in the root of Fleximaps.

A Fleximap file is a text file with an extension .fsm (or .FSM).

Fleximap Format

Fleximaps contain a number of sections. Part of a Fleximap from an imaginary plug-in called ANYPLUG_01 is shown below:

```
# ------------------------------------------------------------------------
# VST-ANYPLUG_01.fsm
# ------------------------------------------------------------------------
VERSION,1,
BEGIN_XYNERGI,

FADERSET,
CONTROL,XP_MAIN,3,0.00,1.00,LIN,VST-ANYPLUG_01:saturation,saturation,
CONTROL,XP_MAIN,5,0.00,1.00,LIN,VST-ANYPLUG_01:lo cut freq,lo cut freq,
CONTROL,XP_MAIN,6,0.00,1.00,LIN,VST-ANYPLUG_01:sat emph freq,sat emph fre,
CONTROL,XP_MAIN,7,0.00,1.00,LIN,VST-ANYPLUG_01:opto memory,opto memory,
CONTROL,XP_MAIN,8,0.00,1.00,LIN,VST-ANYPLUG_01:output,output,
CONTROL,XP_SECONDARY,1,0.00,1.00,SWITCH,VST-ANYPLUG_01:bypass,Bypass,
CONTROL,XP_SECONDARY,2,0.00,1.00,LIN,VST-ANYPLUG_01:dynamic sat,Dyn Satur,
CONTROL,XP_SECONDARY,3,0.00,1.00,SWITCH,VST-ANYPLUG_01:air,air,
CONTROL,XP_SECONDARY,4,0.00,1.00,LIN,VST-ANYPLUG_01:air level,air level,
CONTROL,XP_SECONDARY,5,0.00,1.00,SWITCH,VST-ANYPLUG_01:bass cut,bass cut,
CONTROL,XP_SECONDARY,7,0.00,1.00,SWITCH,VST-ANYPLUG_01:stereo,,
CONTROL,XP_MAIN,1,0.00,1.00,SWITCH,VST-ANYPLUG_01:compression style,style,
CONTROL,XP_SECONDARY,8,0.00,1.00,LIN,VST-ANYPLUG_01:complex,complex,
CONTROL,XP_MAIN,4,0.00,1.00,LIN,VST-ANYPLUG_01:compression,compression,

BEGIN_TEXTMAP,

BEGIN_PARAMETER,VST-ANYPLUG_01:compression
        BEGIN_SEGMENT
                RANGE,0.001000,1.000000
                SCALE,1000.000000
                OFFSET,0.000000
                POSTFIX,

BEGIN_PARAMETER,VST-ANYPLUG_01:style
        BEGIN_SEGMENT
                RANGE,0.000000,0.333200
                SCALE,1.000000
                OFFSET,0.000000
                POSTFIX,vca
                POSTFIXONLY
        BEGIN_SEGMENT
                RANGE,0.3333,0.6666
                SCALE,1.000000
```

Header, containing plug-in name and pre-amble.

Fadersets. Each faderset is a page of Pad controls.

Each CONTROL statement must match the control name, which includes the plug-in name in the header. This is a common source of errors.

Parameter display names are shown after the control names.

Text map.

This controls the display text in the Pad.

```
                    OFFSET,0.000000
                    POSTFIX,opto
                    POSTFIXONLY
            BEGIN_SEGMENT
                    RANGE,0.6667,1.00000
                    SCALE,1.000000
                    OFFSET,0.000000
                    POSTFIX,mod
                    POSTFIXONLY

    BEGIN_PARAMETER,VST-ANYPLUG_01:saturation
            BEGIN_SEGMENT
                    RANGE,0.000000,1.000000
                    SCALE,10000.000000
                    OFFSET,0.000000
                    POSTFIX,


    BEGIN_PARAMETER,VST-ANYPLUG_01:air
            BEGIN_SEGMENT
                    RANGE,0.000000,0.499900
                    SCALE,1.000000
                    OFFSET,0.000000
                    POSTFIX,off
                    POSTFIXONLY
            BEGIN_SEGMENT
                    RANGE,0.500000,1.000000
                    SCALE,1.000000
                    OFFSET,0.000000
                    POSTFIX,on
                    POSTFIXONLY
```

Multi-Switch text map. This is a 3-Switch.

Three control segments are shown, dividing the total range (0 to 1) by 3.

The names are shown at left as "vca", "opto" and "mod".

Immediately after creation, the names would be shown as 1, 2 and 3. These can be replaced with useful names here.

Toggle text map.

Three control segments are shown, dividing the total range (0 to 1) by 2.

The names are shown at left as "off" and "on".

These can be replaced with more useful names here, though it is probably easier to do it in the Plug-in Editor.

Clip based Plug-ins

Plug-ins may be separately applied to individual clips. The sound is written into new media on the hard disk, and a new clip is placed on top of the original. To do this:

Step 1   Press the **Wave** button

Step 2   Press the **Render Plug-in** soft key.

Step 3   Use the Jog-Wheel to search for a desired plug-in to be used on this clip.

Step 4   Press the **Edit** soft key to display the plug-in controls.

Step 5   Park the timeline on the clip that you would like to process and press the **Preview** softkey. The clip will automatically start looping and you can now adjust all parameters in real time.

Step 6   When the clip sounds the way you want, press the **render** softkey. This will directly
            render your plug-in processing to the clip.

   Note: the original clip is still there, on an underneath layer so that you can quickly go back to the
   original recording if required.

Note: DREAM II systems provide full "native" processing on every channel including EQ, Filters, Dynamics, and surround panning. This means plug-ins can be reserved for "special" applications.

Using VST Instruments in Xynergi

While Dream II does not include a MIDI sequencer, VST Instruments can still be played "live" through the system. This can be useful for:

- Foley, using a VSTi sampler.

- Live musical performance.

- Tuning vocals with a VSTi sampler and MIDI controller with pitch wheel.

- Live effects triggering with a VSTi sampler.

VSTi's can easily be recorded to tracks or inserted on Lives depending on your needs.

ReWire

About ReWire

ReWire is a software protocol jointly developed by Propellerhead and Steinberg. It enables remote control and data transfer among digital audio editing and related software. Originally appearing in the ReBirth software synthesizer in 1998, the protocol has since evolved into an industry standard.

The ReWire Mixer

The ReWire protocol is designed to allow a number of ReWire *Clients* to communicate with a single ReWire *Mixer*. Only one ReWire mixer can be active at a time. Dream II is always the ReWire Mixer.

The ReWire Mixer can accept up to 256 inputs from each of the connected ReWire clients. Dream II currently supports 96 of these ReWire inputs. When a ReWire Mixer and ReWire Client are connected together, transport controls and position information are automatically transmitted in both directions between the Mixer and Client(s).

Diagram of a running ReWire session
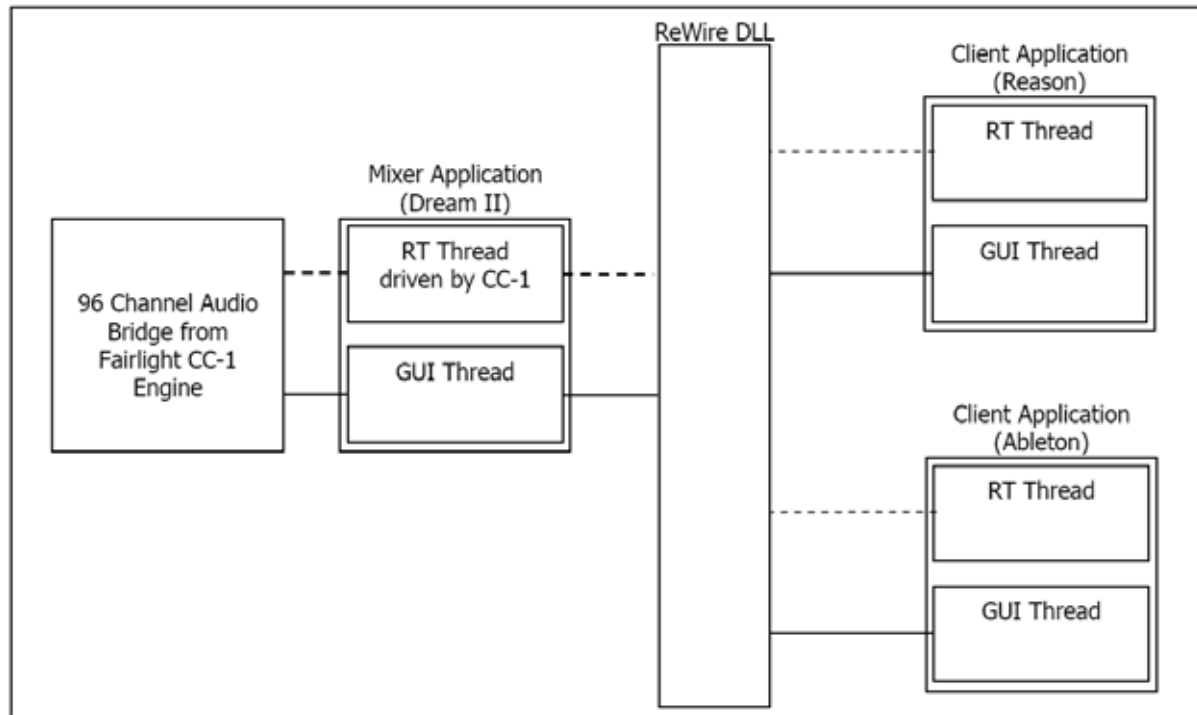
Using ReWire Devices in Xynergi
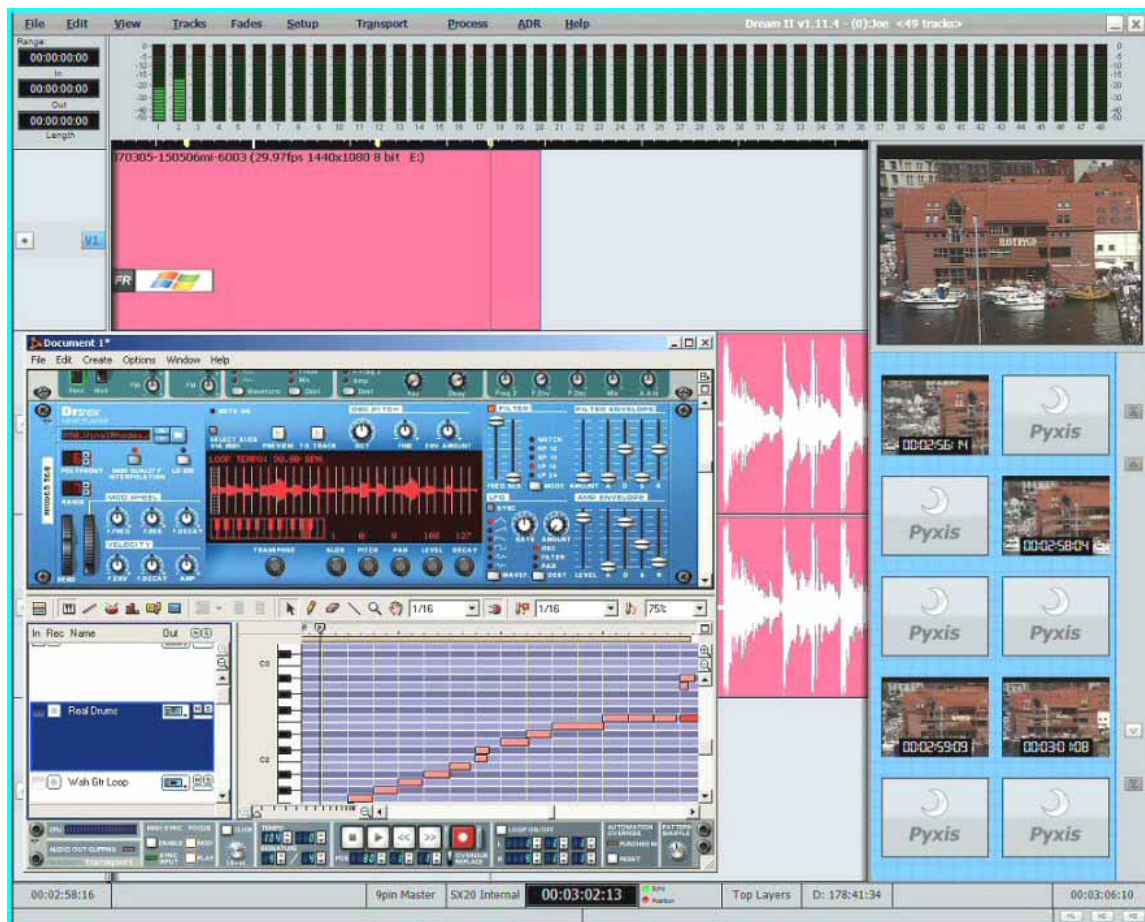
Setup and installation

Step 1   Install your software as outlined by your the manufacturer.

Step 2   Run the software at least once in standalone mode.

Step 3   The software should now appear in the list of available ReWire devices.

Launching a Rewire Application

In order to patch a Rewire device, a Rewire application must be installed first (e.g. Reason, Ableton Live).

Step 1   Click on 'Setup' in the Dream II toolbar.

Step 2   Select 'Setup Instruments' to launch the dialogue box. Your Rewire application should appear in this list.

Step 3   Click on the name of the desired Rewire application so it is highlighted.

Highlight rewire
application

Click on edit to
launch
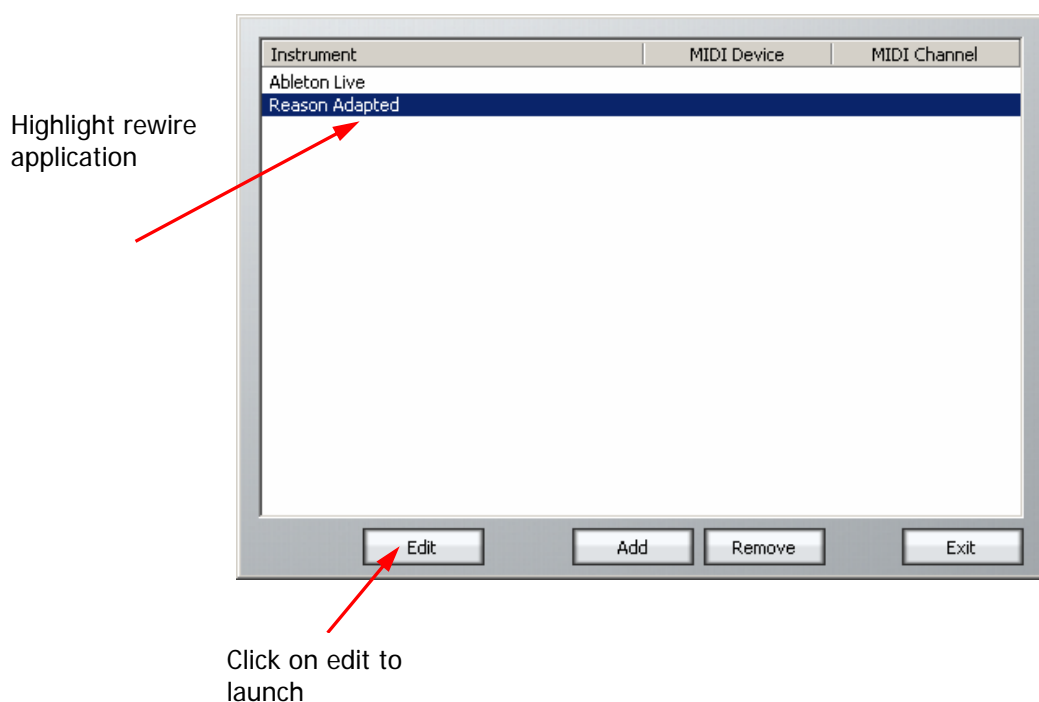
Step 4   Click on 'Edit' at the bottom of the dialogue box. Note: Some programs (eg – Reason) will launch automatically. Others (eg - Ableton Live) need to be launched manually.

Step 5   Open or create a project within your Rewire application (demo projects that accompany the application are a good starting point).

Patching a Rewire Application

Once your Rewire Application is launched, it's time to patch Rewire inputs to track or live feeds.

Step 1   Open the Patch I/O page by pressing the Patch I/O key on the channel panel.

Step 2   Click on Instrument Inputs located on the left hand side of the Patch I/O page. You see inputs labeled according to the Rewire applications you have installed. If you have installed more than one application, click 'Page Down' on the patch I/O page until you find the input for your Rewire application.

Step 3   Select the desired instrument input (e.g. If using Reason, select the inputs labeled Mix L

and Mix R for a stereo mix).

Step 4   Select Track, Live or other patch destinations located on the lower right hand side of the
Patch I/O page.

Step 5   Select destinations to patch in the upper right, and click the Patch button to complete the
patch.
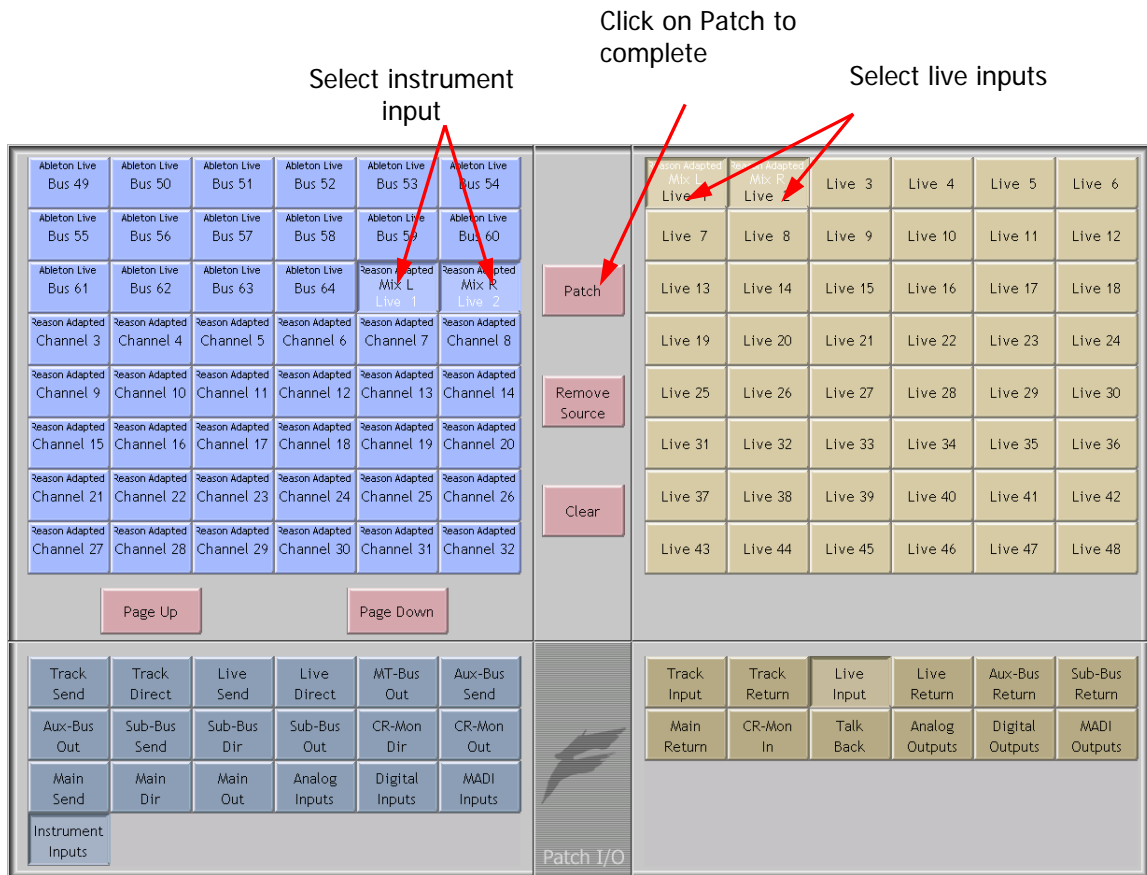
You should now be able to hear a stereo signal generated by your Rewire application on Live
feeds 1 and 2. Alternatively, you can patch instrument inputs to track feeds, but make sure the
track is record enabled in order to hear your Rewire device (see Chapter 10 - Recording).

Fairlight Partner Program

About the Partner Program

The Fairlight DREAM II (Manufacturer) Partner Program streamlines the integration of third-party
software applications into the open architecture of its CC-1-powered family of products offering
greater system versatility, functionality and control. Select manufacturers from around the world
can apply for the DREAM II Partner Program. Partners are divided into two categories. "GOLD
Partners" are able to connect their products to DREAM II via industry-standard Virtual Studio
Technology (VST) or ReWire interfaces, while "PLATINUM Partners" can integrate their software
more directly with DREAM II products.

Here are 2 examples of our current **Platinum Partners,** who provide powerful offline and
integrated processing plug-ins:

- New Zealand based Serato Research, with Pitch 'n Time FE.

- UK Based Synchro Arts, with VocAlign Project.

Serato Pitch 'n Time FE (Fairlight Edition) provides excellent time compression and expansion. Change length without changing pitch, or pitch without changing length, and hear the result in real time as you jump from clip to clip. Pitch 'n Time FE is fully integrated into Fairlight Systems, allowing for fast, intuitive operation.

** Note: Pitch 'n Time FE requires an iLok USB Security Key and a valid license. Licenses can be purchased at http://www.serato.com

Synchro Arts Vocalign is the unique audio software solution for music and audio post that will adjust the timing of one audio signal to match the timing of another. Align Lead vocal doubles, Backing vocals , Instrumental tracks, ADR (replacement dialogue tracks), Foreign language dialogue or Sound effects. VocALign is a great tool, which seriously reduces the time taken to re-record dialog or vocals, saving money by drastically reducing production and studio time.

VocAlign is fully integrated into the Dream II environment, and is extremely simple to use.

Vocalign Project can be purchased at http://www.synchroarts.co.uk/.

Here is a list of our current **Gold** Partners:

IK Multimedia - is the developer of Amplitube, T-RackS, Classik Studio Reverb and many other popular VST plug-ins. http://www.ikmultimedia.com/

Waves - is the world's leading developer of audio processors and plug-ins, with limiters, compressors, equalizers, reverb, Ultramaximizers, maxxbass®. http://www.waves.com/

Ableton - Ableton is an AG company who produces music software including Ableton Live and Ableton Operator. These are used for track editing in real-time. http://www.ableton.com/

Bias Sound Creative - Award-winning audio editing, processing & mastering tools. http://www.bias-inc.com/

Magix - The creators of samplitude and sequoia, audio editing, mastering and media authoring software. http://www.samplitude.com/eng/seq/

Algorithmix - Algorithmix develops digital audio software and hardware for quality conscious third parties all over the world. State-of-the-art Plug-ins for sound mastering, restoration, and forensic audio. http://www.algorithmix.com/

AudioEase - develops highly regarded professional audio software tools. Their flagship product is the convolution reverb – Altiverb. http://www.audioease.com/

OpenCube Technologies. OpenCube is a pioneer in the field of video/IT technology integration. We are working very closely with their professional high-performance software tools for efficiently managing the emerging MXF file format http://www.mxftk.com/

HUI Slave Mode

Introduction

HUI is a protocol invented by Mackie Corporation, which allows different audio systems to control each other.

Many consoles and other devices now incorporate aspects of the HUI protocol, and Xynergi has implemented the full specification as a slave, including the Universal Pro Extensions. This allows the following functions to be controlled remotely:

- Transport states including Jog and Shuttle

- Jog Frames (i.e. the system can be jogged remotely)

- Fader levels (bidirectional for motor control)

- Mutes, Solos, Track Arms, Channel Selects (**note**: Channel Select will arm a track if the Arm or ADR menu is current)

- Channel names (the first 4 characters, to be displayed on the controller)

- Buttons on the controller can be mapped to Dream II functions.

Setup

Install HUI device

Your HUI device will come with its own installer, cables and instructions. Follow these and make sure the HUI device is working correctly.

INI File

The file C:\Program Files\Fairlight\FMC\FMC.ini must contain the line

> HUI,*n*

> Where *n* is the number of faders on the HUI device (default 8).

Just doing this will result in faders, mutes, pans, solos and selects from your HUI device working correctly on the Xynergi system. That is to say, they will act and will also tally the changes.

MIDI Devices

For HUI to work, the Xynergi system must know which MIDI devices to expect. These are written into the file HUISetup.txt, which is normally found here: C:\Program Files\Fairlight\FMC\Data.

Open the HUISetup.txt file. It already contains the necessary setup for three HUI devices: a Roland Edirol interface, a MOTU Microlite 4-port MIDI interface, and a Tranzport controller (this is for wireless control of basic functions only). If you want to make life easy for yourself, buy an Edirol or a MOTU Microlite, and just enable it by removing the hashes (#) in front of the lines in HUISetup.

The following procedure assumes you have some other kind of HUI controller. Your task now is to find out the names of its MIDI ports and write them into the HUISetup file, in the same way as the existing entries. (If this sounds too complicated, get your Fairlight service provider to help – it's a one-time setup in most cases.)

First you'll need to identify the MIDI devices attached to your system. Connect your HUI controller via MIDI or USB. To see a list of the MIDI devices seen by Dream II, we'll use our debugging program, MSAT. Start MSAT before starting FMC (the Mixer program). If Dream II is already running, stop FMC as follows:

Step 1   Click on the Mixer screen to give it focus

Step 2   Type `ctrl+Shift+Q`

Step 3   Type `y` to confirm closure of FMC

Start MSAT using:

>   Start ➔ All Programs ➔ Fairlight ➔ FMC ➔ FMC Utils ➔ MSAT

Shortly after starting it, if FMC is running, you'll see an error message about incompatible file versions, which can be ignored.
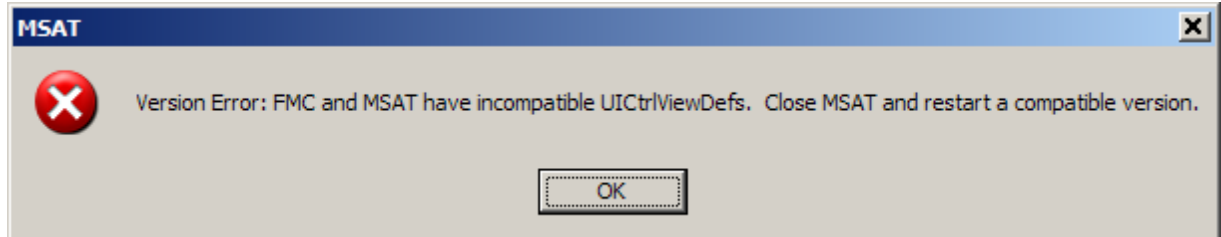
Now start FMC using:

>   Start ➔ All Programs ➔ Fairlight ➔ FMC ➔ FMC

Early in the boot process, FMC will report on the MIDI devices. When you see it, click the red Stop button in the upper left of the MSAT screen to freeze the display. It will look something like this:

```
Comms is ONLINE
GDB - 09:42:59 > Physical Memory Available: 705492K
GDB - 09:42:59 > Mix Memory allocated: 39062K
GDB - 09:42:59 > FMC is ONLINE
GDB - 09:42:59 > FMC re-sync
GDB - 09:43:00 > Disabling UI Completed
GDB - 09:43:00 > FaderCount: 8
GDB - 09:43:00 > Midi IN 0 of 4 name: USB Audio Device
GDB - 09:43:00 > MIDI-in device:0
GDB - 09:43:00 >    manufacturer:65535
GDB - 09:43:00 >        product:65535
GDB - 09:43:00 >        version:1.1
GDB - 09:43:00 >         name:USB Audio Device
GDB - 09:43:00 > Midi IN 1 of 4 name: USB Audio Device [2]
GDB - 09:43:00 > MIDI-in device:1
GDB - 09:43:00 >    manufacturer:65535
GDB - 09:43:00 >        product:65535
GDB - 09:43:00 >        version:1.1
GDB - 09:43:00 >         name:USB Audio Device [2]
GDB - 09:43:00 > Midi IN 2 of 4 name: USB Audio Device [3]
GDB - 09:43:00 > MIDI-in device:2
GDB - 09:43:00 >    manufacturer:65535
GDB - 09:43:00 >        product:65535
GDB - 09:43:00 >        version:1.1
GDB - 09:43:00 >         name:USB Audio Device [3]
GDB - 09:43:00 > Midi IN 3 of 4 name: USB Audio Device [4]
GDB - 09:43:00 > MIDI-in device:3
GDB - 09:43:00 >    manufacturer:65535
GDB - 09:43:00 >        product:65535
GDB - 09:43:00 >        version:1.1
GDB - 09:43:00 >         name:USB Audio Device [4]
```

GDB - 09:43:00 > Midi Out 0 of 5 name: USB Audio Device
GDB - 09:43:00 > MIDI-Out device:0
GDB - 09:43:00 >   manufacturer:65535
GDB - 09:43:00 >   product:65535
GDB - 09:43:00 >   version:1.1
GDB - 09:43:00 >   name:USB Audio Device
GDB - 09:43:00 > Midi Out 1 of 5 name: USB Audio Device [2]
GDB - 09:43:00 > MIDI-Out device:1
GDB - 09:43:00 >   manufacturer:65535
GDB - 09:43:00 >   product:65535
GDB - 09:43:00 >   version:1.1
GDB - 09:43:00 >   name:USB Audio Device [2]
GDB - 09:43:00 > Midi Out 2 of 5 name: USB Audio Device [3]
GDB - 09:43:00 > MIDI-Out device:2
GDB - 09:43:00 >   manufacturer:65535
GDB - 09:43:00 >   product:65535
GDB - 09:43:00 >   version:1.1
GDB - 09:43:00 >   name:USB Audio Device [3]
GDB - 09:43:00 > Midi Out 3 of 5 name: USB Audio Device [4]
GDB - 09:43:00 > MIDI-Out device:3
GDB - 09:43:00 >   manufacturer:65535
GDB - 09:43:00 >   product:65535
GDB - 09:43:00 >   version:1.1
GDB - 09:43:00 >   name:USB Audio Device [4]
GDB - 09:43:00 > Midi Out 4 of 5 name: Microsoft GS Wavetable SW Synth
GDB - 09:43:00 > MIDI-Out device:4
GDB - 09:43:00 >   manufacturer:1
GDB - 09:43:00 >   product:102
GDB - 09:43:00 >   version:5.10
GDB - 09:43:00 >   name:Microsoft GS Wavetable SW Synth
GDB - 09:43:00 > Using MIMidi Out 0

A number of MIDI devices may be presented, not necessarily with useful names (this depends on the driver for the device). At the end, the line ...

> GDB - 09:43:00 > Using MIMidi Out 0

... tells you which MIDI device the system is using. If this is clearly not your HUI device, nothing is going to work. In the example given, it is possible to see that Microsoft GS Wavetable SW Synth has not been selected.

Remap File

If you want transport control, or any other key events to work, you must place a file called remap.txt in the following folder:

 C:\Program Files\Fairlight\FMC\Data\User*username*

Where *username* is the log-on name used on your computer.

The remap file takes keys coming in from the HUI device, and routes them to keys on your Dream II system. Here is the text in one remap file:

    CID_SW_MACKIE_STOP,CID_SW_STOP
    CID_SW_MACKIE_REWIND,CID_SW_REW
    CID_SW_MACKIE_FAST_FWD,CID_SW_FF
    CID_SW_MACKIE_PLAY,CID_SW_PLAY
    CID_SW_MACKIE_RECORD,CID_SW_REC
    CID_SW_MACKIE_ALT,CID_SW_BLUE_1 (Blue key)

CID_SW_MACKIE_ENTER,CID_SW_ENTER
CID_SW_MACKIE_ZOOM,CID_SW_ZOOM
CID_SW_MACKIE_LEFT,CID_SW_RNGE_JUMP_LEFT
CID_SW_MACKIE_RIGHT,CID_SW_RNGE_JUMP_RIGHT
CID_SW_MACKIE_MARKER,CID_SW_GAP_FROM
CID_SW_MACKIE_NUDGE,CID_SW_GAP_TO
CID_SW_MACKIE_SCRUB,CID_SW_SHUT_JOG (turns Jog on)
CID_JOG_MACKIE_WHEEL,CID_JO_JOGGER (this assigns the HUI jogger to the Dream II jogger)
CID_SW_MACKIE_READ,CID_SW_EN_FADER_2 (enables faders for automation)
CID_SW_MACKIE_WRITE,CID_SW_EN_MUTE_2 (enables mutess for automation)
CID_SW_MACKIE_TOUCH,CID_SW_EN_PAN_1 (enables pan parameters for automation)
CID_SW_MACKIE_TRIM,CID_SW_EN_EQ_GROUP (enables EQ parameters for automation)
CID_SW_MACKIE_LATCH,CID_SW_EN_DYN_GROUP (enables dynamics parameters for automation)
CID_SW_MACKIE_GROUP,CID_SW_EN_AUX_GROUP (enables aux send parameters for automation)

Examining this line: CID_SW_MACKIE_STOP,CID_SW_STOP, we see that the first part is the HUI stop key, and the second part is the Dream II soft key. This will cause the HUI stop key to work on Dream II.

There are some HUI keys not mentioned in this remap file. They are listed below.

CID_SW_MACKIE_BANK_DOWN
CID_SW_MACKIE_BANK_UP
CID_SW_MACKIE_CHANNEL_DOWN
CID_SW_MACKIE_CHANNEL_UP
CID_SW_MACKIE_UP
CID_SW_MACKIE_DOWN
CID_SW_MACKIE_SHIFT
CID_SW_MACKIE_CONTROL
CID_SW_MACKIE_F1
CID_SW_MACKIE_F2
CID_SW_MACKIE_F3
CID_SW_MACKIE_F4
CID_SW_MACKIE_F5
CID_SW_MACKIE_F6
CID_SW_MACKIE_F7
CID_SW_MACKIE_F8
CID_SW_MACKIE_MIDI_TRACKS
CID_SW_MACKIE_INPUTS
CID_SW_MACKIE_AUDIO_TRACKS
CID_SW_MACKIE_AUDIO_INSTRUMENT
CID_SW_MACKIE_AUX
CID_SW_MACKIE_BUSSES
CID_SW_MACKIE_OUTPUTS
CID_SW_MACKIE_USER
CID_SW_MACKIE_OPTION
CID_SW_MACKIE_SAVE
CID_SW_MACKIE_UNDO
CID_SW_MACKIE_CANCEL
CID_SW_MACKIE_SOLO
CID_SW_MACKIE_DROP
CID_SW_MACKIE_CYCLE
CID_SW_MACKIE_DISPLAY_SMPTE

You may add any of these to your remap file, and assign them to any Dream II key. For help with Dream II key assignment, please consult your Fairlight customer support organization.

Remap to Macros

One easy way to get more power from HUI keys is to map them to your macros. An example of a mapping line that does this:

    CID_SW_MACKIE_F1,CID_SW_M_1
    CID_SW_MACKIE_INPUTS,CID_SW_BANK_1

Using macro and bank assignments you can get access to 27 macro keys.

Identifying Keys

On some HUI controllers, the key labelling may not match the list above. You can find out the name of any HUI key using the following method:

Step 1   Start the system and load a project (can be empty)

Step 2   Start the MSAT application

Start➔All Programs➔Fairlight➔FMC➔FMC Utils➔FMC

Step 3   If you see this error message at any time, click OK (it doesn't mean anything is wrong)
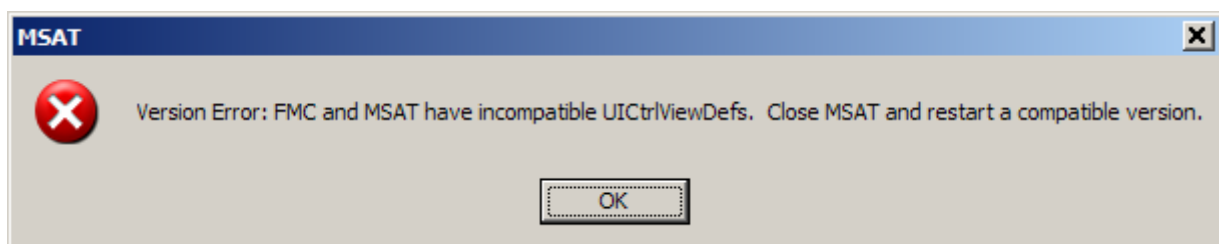
Step 4   Click buttons at the top of the MSAT screen so that Msg Gen is on, Msg Sys is off, and All Para is off, as shown below.
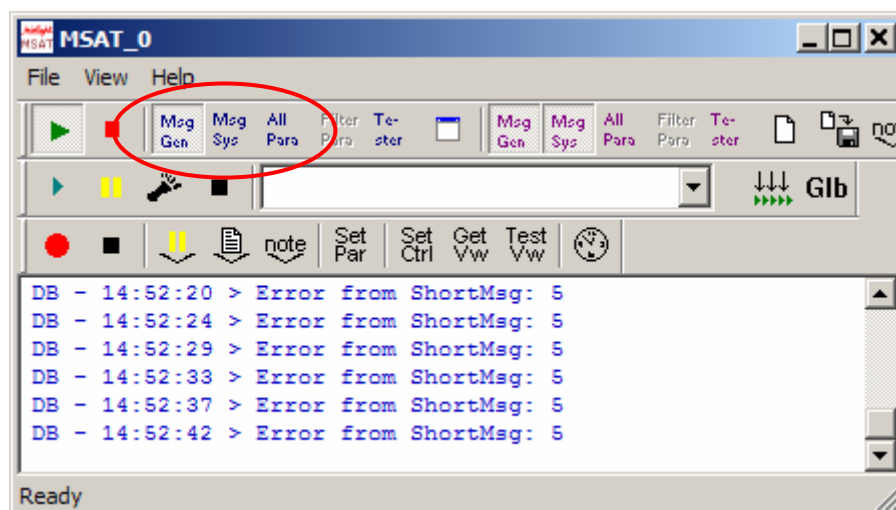
Step 5   Type **ctrl+SHIFT+0** then turn on Control message display using the Debug Switch Control dialog as shown below (set the switch value to 1). Then close the dialog.
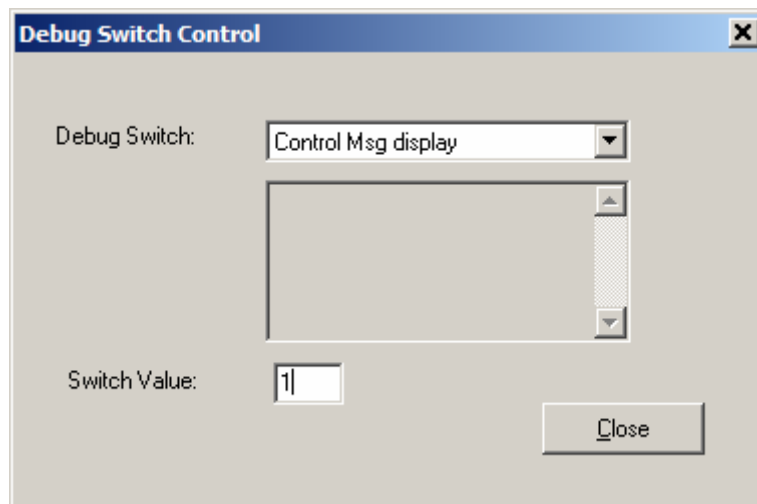
Step 6   Press a HUI key and observe the MSAT display. It will show you the name of the key.
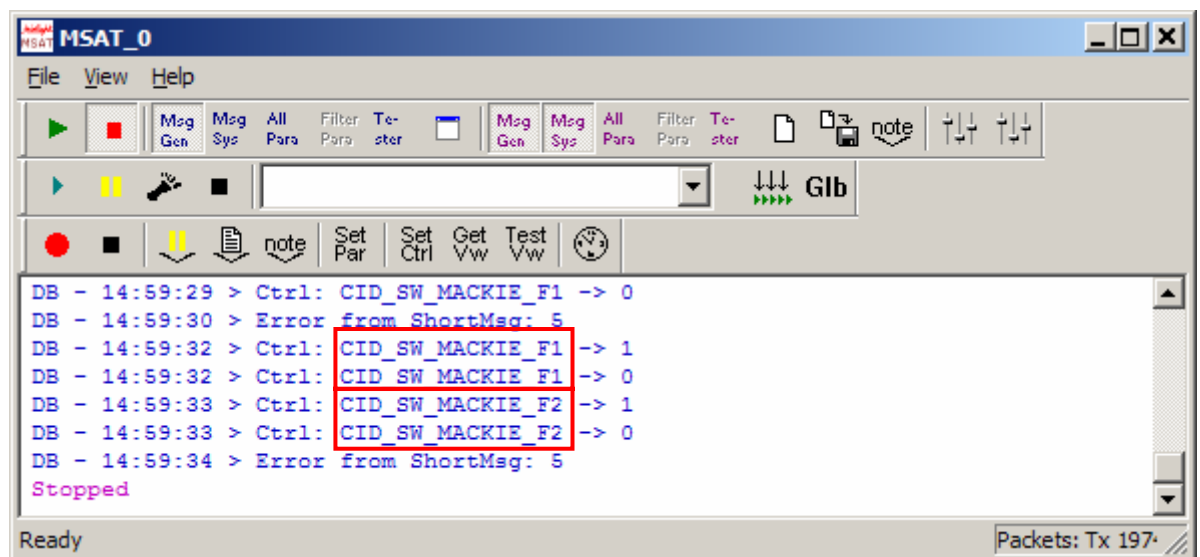
In the example shown, the keys CID_SW_MACKIE_F1 and CID_SW_MACKIE_F2 have been pressed (and released, hence two events per key).

Advanced – using Scripted Macros

Many HUI controllers have extra keys that can be assigned to various functions. This is done using a macro language developed by Fairlight. If you need special functions to be triggered from your HUI controller, please contact your Fairlight service provider.

Import / Export

Introduction

Constellation-XT has a number of features to allow the import and export of audio clips and Projects.

Importing Files

DREAM II can import the following file types:

Video Files – these can be displayed on the Pyxis track

Pyxis Projects – these are projects created using the program "Pyxis"

OMF Files – these are files from other manufacturers

ML Files – these are files from older Fairlight products.

AES-31 Files – these are files from other manufacturers

AAF Files – these are files from other manufacturers

MXF Files – these are files from other manufacturers

Importing Video Files

See Pyxis Track on page 256.

Importing an OMF

Step 1   Click on File, then choose import, OMF

Step 2   Browse to the location of the omf and select it. Press OK

Step 3   The following dialog box is displayed
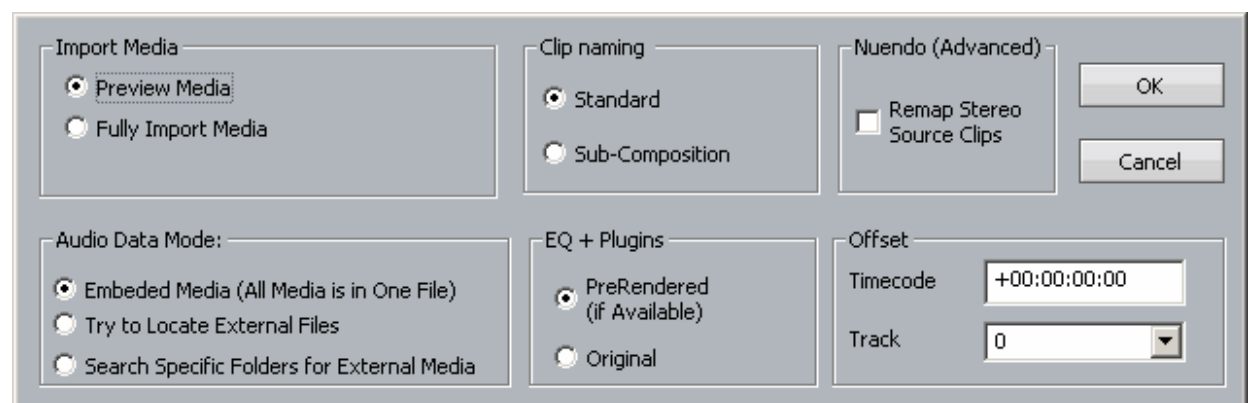
Import Media

"Preview Media" references the audio files from the omf – this may cause slowdowns on large projects

Note If the project is an *.MT project, stuffing the fuffs will render all audio to the current project

If the project is a *.DR2 project, using the "Localise" command will place all the audio in a folder inside the project folder.

"Fully Import Media" automatically places the audio from the omf in either your FUF or Media folder inside the folder of the current project

Clip Naming

"Standard" derives the names of clips from the omf "Master Clip" within the omf file.

"Sub-Composition" - OMF's created in AVID often derive clips from either the "Master clip" and the "Sub Composition". This option derives the names of clips from the "Sub-Composition". Use this setting to give your clips more logical names if they are coming from an AVID and not displaying logical clip names.

Offset

Entering a timecode offset moves the whole composition forwards on the timeline.

Entering a track offset moves the whole composition down in the track display.

Importing Individual Sound Files

Sound files of various types can be imported directly into your Dream II project. These include the following: MP2, MP3, WAV, BWAV, AAC and more.

To import one use Windows Explorer (or My Computer) to locate the file, then drag and drop it on to the Dream II Edit Screen. The file will be placed at the cursor position (or in the range), on the track where you drag it (**unless** you use the options below).

Found at **Setup ➔ General Preferences ➔ Options**:
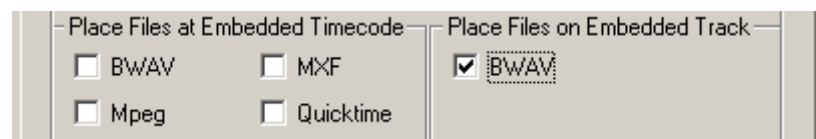
Place Files at Embedded Timecode

> Some audio files carry a timecode with them. Checking this option for a particular file type causes it to be placed at that timecode, no matter where you drag it with the mouse.

Place Files on Embedded Track

> Some audio files carry a track number with them. Checking this option for a particular file type causes it to be placed on that track, no matter where you drag it with the mouse.

Importing Multiple Sound Files

If you select multiple files in the Windows Explorer (or My Computer) dialog, you can drag and drop them all to the timeline.

By default, the files will be placed head-to-tail along the track where you drag them.

If you hold down the **ctrl** key while dragging the files, they will be placed on successive tracks, at the same timecode point.

Sample Rate Conversion

Sometimes the files you import are at a different sample rate than the project. When this happens, Dream II automatically turns on real-time sample rate conversion to ensure the audio has the same pitch and duration as the original.

Clips subject to sample rate conversion are marked with a black **SR** label.

The quality of sample rate conversion may be varied using the dialog **Setup ➔ General Preferences ➔ General**:
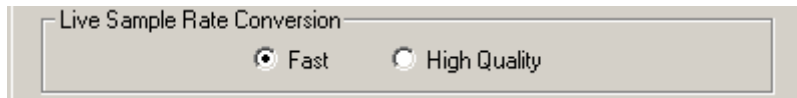
Fast   Puts a small load on the computer system, but doesn't sound so good. Very useful when there are a lot of clips to be sample rate converted, or a lot of plug-ins in the project.

High Quality
              Sounds good but loads down the CPU

If you need good quality and have lots of clips to sample rate convert, you can localise the media, which performs the best quality sample rate conversion and re-references the clip.

Step 1   Select the clips that need to be sample rate converted

Step 2   Issue the command **Process** ➔ **Localise Audio**

              Use handles if the clip has been edited, and might need to be re-extended

              Select all clips using this media before localising, and the system will only produce a single piece of media which they can all reference.

Export

Exporting Audio

You can export audio from a Project in the following formats:

- WAV

- Broadcast WAV

- Aif

- AES-31 – This consolidates your project into a file used by other manufacturers

Step 1   Select the clip or clips to be exported. Ranges of clips can also be selected.

Step 2   Click the File menu command above the Track display.

Step 3   Choose Export, then Audio Tracks/Clips

Step 4   The following dialog box appears.
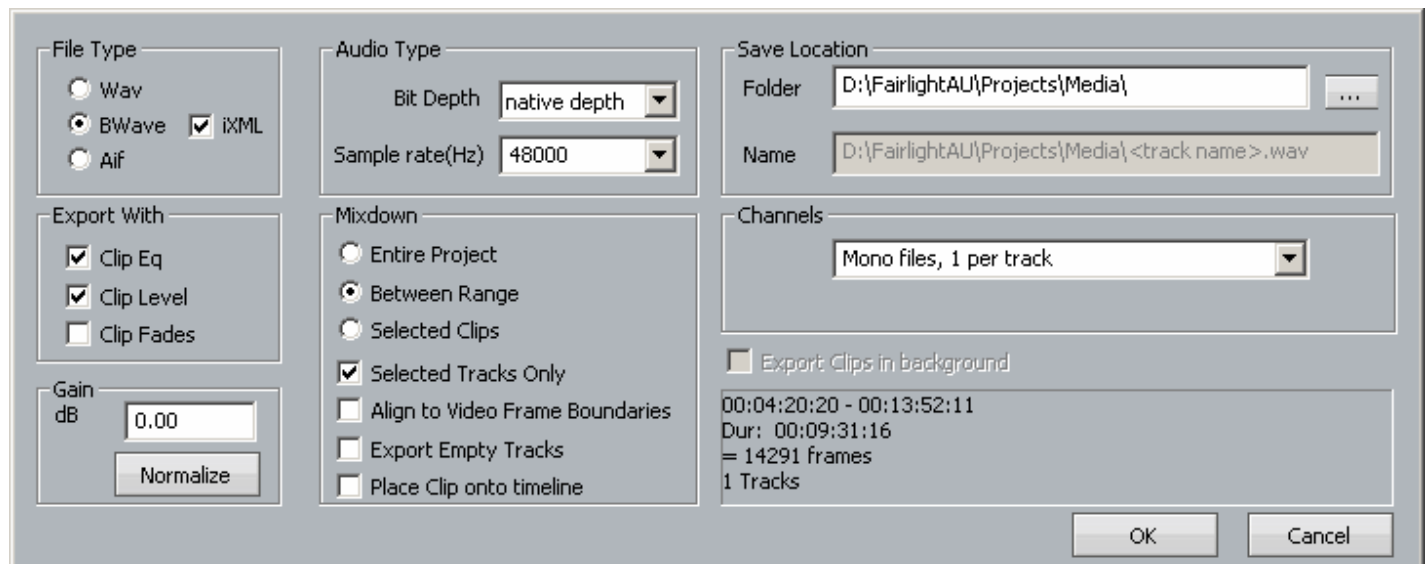
Make your selections and click OK.

File Type

Select Wav, BWave or AIF files. BWave files will be exported with the timecode stamp from the Dream II timeline.

Export Using

Select Clip EQ and/or Clip Level to render Clip EQ and/or Clip Level into the exported file(s).

Normalize

Normalize will examine the level in every clip you have selected, find the maximum level of all the clips, then show the gain increase needed to bring it up to 0 dB. Then all the clips will be amplified by this amount, giving you the loudest (best quality) signal possible while maintaining correct balance

Audio Type

Select bit depth and Sample Rate for exported file(s). Defaults to Project sample rate and bit depth.

Mixdown

Select 'Entire Project' to export the entire project (one file per track in Multiple Mono Mode). Select 'Between Range' to export all audio in the current range (one file per track in Multiple Mono Mode). Select 'Selected Clips' to only export selected (red) clips (always one file per clip, regardless of selected Channels).

Check 'Selected Tracks Only' to only export selected tracks. Check 'Align to Video Frame Boundaries' to align exported file(s) with the video frame edges. Check 'Export Empty Tracks' to export blank files for empty tracks (if Multiple Mono files have been selected).

Then select the location you want the exported audio to go and hit "OK"

Channels

Allows you to select the format of the files being created by export.
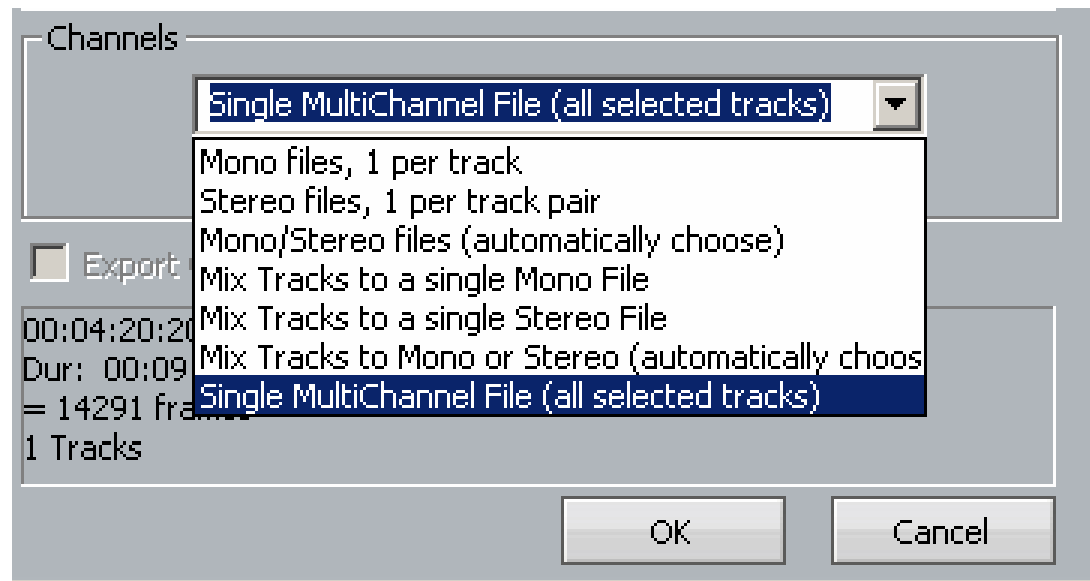
Mono files, 1 per track

> Creates a single mono media file for each track in the export i.e. all tracks or selected tracks, depending whether the Selected Tracks Only checkbox is selected

Stereo files, 1 per track pair

> For each pair of tracks in the export, a single stereo media file is created

Mono/Stereo files (automatically choose)

> If a track is mono, and contains no multi-channel clips, its contents will be exported as a stereo media file.

> If a pair of tracks are linked as a Link Group, their contents will be exported as a stereo media file.

> If a track contains a two-channel clip, its contents will be exported as a stereo media file.

Mix Track to a single Mono File

> All tracks in the export are mixed together to form a mono mix, and this is recorded into a mono media file.

Mix Track to a single Stereo File

> All tracks in the export are mixed together to form a stereo mix, and this is recorded into a stereo media file.

Single MultiChannel File (all selected tracks)

> A single file is created with multiple linked media, one for each track in the export.

Exporting Video

You can export the video straight from a project and automatically combine it with your choice of audio from a project.

To do this, choose click on the File Menu and choose Export then Video

This box pops up:
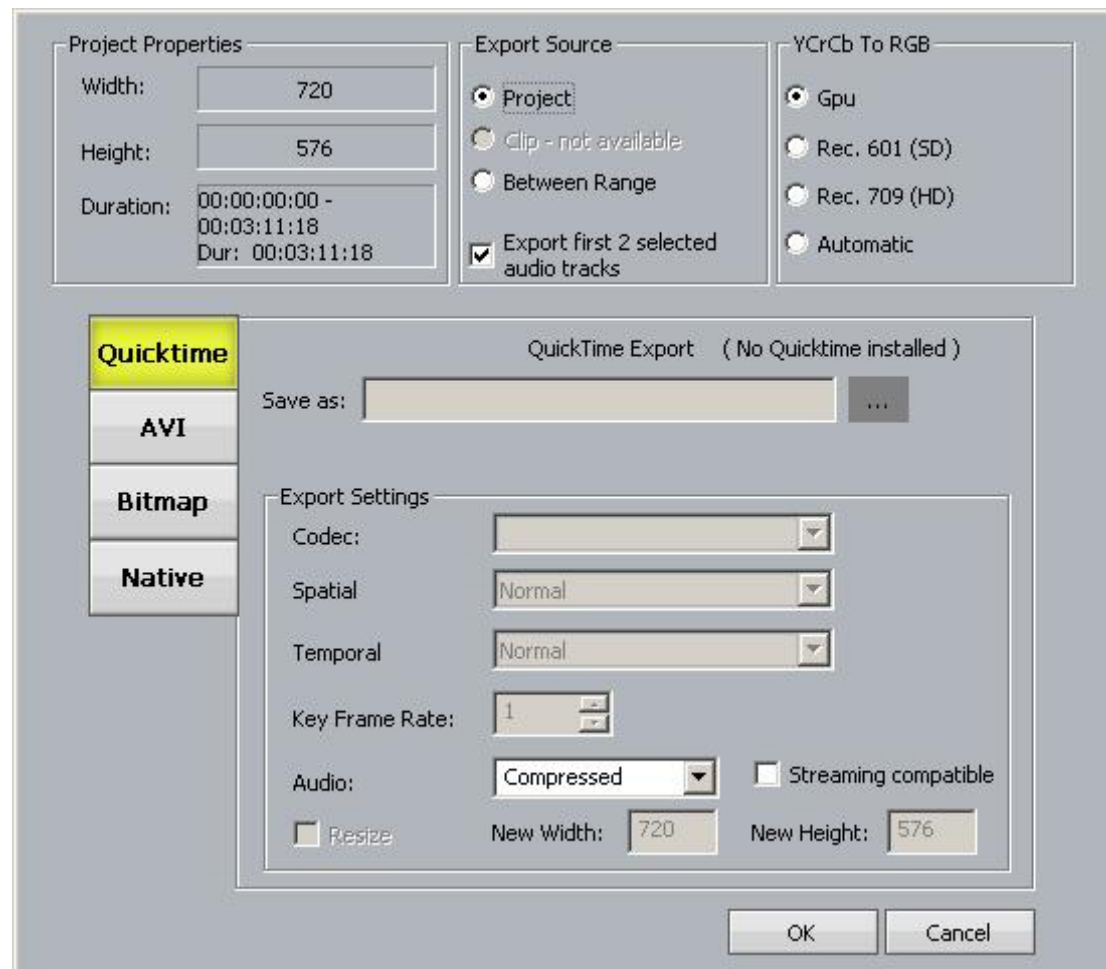
Step 1   Choose the video format into which you wish to export

Step 2   Choose whether you want to export the whole project or a selected range

NOTE to export as a Quicktime file you must have the latest version of Quicktime installed
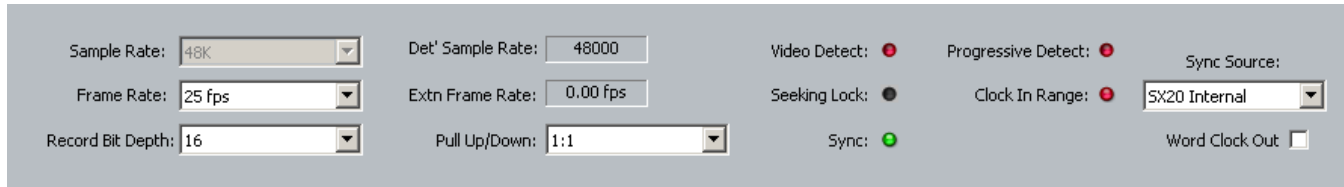
Timecode Setup

Introduction

The Setup Menu is used to configure the Project's synchronisation setup.

Step 1   Press the **Setup** key or click View ➔ Smart Pane ➔ Sync Setup

Step 2   The following dialog is displayed

Sample Rate

This value can only be set when creating a new project.

Frame Rate

Can be changed at any time. Normally it is best to choose the frame rate of the Master video device in your system, or of the timecode being chased, if any.

Bit Depth

Can be changed at any time. All subsequent recordings will have this depth.

Extn Video Rate

This is the rate of the external video reference applied to the SX-20. This must be set properly for correct operation!

Pull Up/Down

Allows setting of Pull Up and Pull Down, often used in NTSC video setups. Detailed explanation below.

Sync Source

The system sample rate is synchronised to its clock source. There are many choices, but normally you will use the SX20 as a sync source, and lock it to whichever sync signal your studio is running.

Synchronization Indicators

True Rate

True Sample Rate shows the speed at which that Dream II is running. It also shows the real frame rate, after adjusting for Pull Up/Down setting.

Video Detect

The Video Clock Detected indicator is green when a valid Video Clock reference is detected and red when Video Clock is missing or invalid.

Seeking Lock

The Seeking Lock indicator is green when seeking lock, and red when not in use.

Sync

The Sync indicator is green when a valid Clock Sync Source reference is detected, and red when the Clock Sync Source is missing or invalid.

Progressive Detect

SX-20 supports both Progressive and Interlaced clocks. If the Progressive Clock Detect indicator is green, a Progressive Clock reference has been detected and is being used as the primary sync reference.

Clock In Range

The Clock In Range indicator is green when the Clock reference is in range and red when the clock reference is out of range.

Position Sync

When synchronising with an external machine such as a video machine, audio recorder or digital audio workstation, a positional source allows the machines to "tell" each other where they are. The Position Sync Source indicator is green when a valid Position Sync Source reference is detected, and red when the Position Sync Source is missing or invalid.

Synchronization Details

Constellation-XT can track the position and motion of external transports such as a video tape recorder, timecode-striped audio tape or a timecode generator. The disk recorder will play in time with the Master Timecode source so that sound and picture coincide.

Position

This is an absolute location reference to a sequence of pictures or audio. It is used to determine whether the disk recorder is playing the right part of its Project. For video, position reference is usually provided by 9 pin (Sony protocol from an RS-422 port). For audio tapes LTC is normally used (though 9 pin is also a possibility).

Motion

The motion of an external machine is a measure of its speed, and the disk recorder must move at the same speed to remain in sync. This translates into producing the correct number of samples every second, which is called the Master Clock rate. This can be locked to a Digital Word Clock, a video signal,

an AES/EBU signal, by the internal crystal, a timecode source, or a digital audio source which is being recorded.

If the Position Reference and Motion References are not the same, it is possible that they will drift apart over time. This will be shown by a warning at the top of Constellation 's video screen which indicates when an inconsistent timecode frame was encountered.

How DREAM II Synchronises

DREAM II goes through a number of steps in achieving synchronization in play mode:

5. Read the position reference and start loading up the corresponding audio on all active tracks.

6. When ready, start playing, but with the outputs muted. Use variable speed to reduce the error between the Constellation position and the Position Reference until it is very small.

7. Switch to the Motion Reference for continued playback. The system is said to be locked once this switch is made, and the audio is unmuted.

8. Warn of error status if the sync error increases, if a reference signal is lost etc.

Synchronization Conflicts

When you are recording a digital source, it must be synchronised to the same Master Clock Reference as Constellation, or an overflow (too many samples) or underflow (too few samples) may occur at the input. This causes a characteristic, periodic form of digital distortion called a whisper. A whisper sounds like a brief, glassy or metallic buzz, and occurs about once every few seconds, depending how fast the samples are overflowing or underflowing.

The best solution to digital sync conflicts is to drive all digital devices from a single, studio-wide word clock signal. Then all devices will have identical word rates, so whispers never occur and digital interconnections may made with ease. In this instance, the sync HOUSE option is always used.

Pull-Up and Pull-Down

The normal sample rates used by the digital audio industry are 32,000, 44,056. 44,100, 48,000 and 96,000 samples per second. The normal frame rates are 24, 25, 29.97 and 30. These last two may cause confusion when used together.

Constellation-XT can alter its sample rates far enough to accommodate the small speed change caused by going from 30 to 29.97 frames per second and back again.

In other words, if you slow down the frame rate from 30 to 29.97, Constellation can slow its internal sample rate to match. This is called Pull-up or Pull-down, depending in which direction you are taking the speed.

When you choose a frame rate you are telling Constellation-XT what frame rate to expect. To put it more accurately, you are telling it the frame rate at which the chosen sample rate will be accurately reproduced. For example, if you tell Constellation that the NTSC frame rate is 30 (in the Setup Menu) and the sample rate is 44,100, it will pull down the sample rate to 44,056 if you feed in timecode at 29.97.

If, however, you change the NTSC field to 29.97, Constellation will play at 44,100 at 29.97 frames per second, and will pull up to a sample rate of 44,144 when timecode runs at 30 frames per second.

It is advisable to choose a sample rate at which you want to make the final transfer of the Project. Then record your material at whichever frame rate is going to be used during that final transfer. The importance of this choice is that you do not want to compromise the quality of your final product by using sample rate conversion at the moment it leaves Constellation-XT for the last time.

You should make these choices at the very beginning of the Project, and then you may use any other combination that suits your purposes temporarily during the recording and editing process.

Machine Control

Introduction

Constellation-XT can communicate with industry standard Sony 9 pin serial controlled machines (with a timecode reader installed) providing control over external video (or audio) machines, directly from the Constellation.

Constellation-XT can control up to three machines: M1, M2 and M3. Of these, two can be physical VTRs, and the third can be Linear Timecode or MIDI Timecode.

Setting up Machines

To choose a machine type to be M1, M2 or M3.

Step 1   Press the **BLUE** key plus M1 key, the **BLUE** key plus M2 key or click View ➔ Smart Pane ➔ Machine Control

Step 2   The following Smart Pane is displayed

Use the {type} soft key or 'Type' list box to select one of the following machine types:

- TC Master – the selected machine is the 9 Pin timecode master.

- Chase (slave) - the selected machine is in 9 Pin chase mode.

- Remote (slave) – Dream II will respond to 9 Pin remote commands like a "virtual VTR".

- LTC Master – the selected machine is set to chase external Longitudinal Time Code.

- MTC Master – the selected machine is set to chase external MIDI Time Code.

- Pyxis – selecting Pyxis Track as one of your machines allows you to take it "offline" the same way as physical machines. See Editing with Machine Control on page 310 to see how this works.

- No Port – No port selected

Note: You can have only one Master machine at a time, but you can have as many slave machines as you like (limited only by available ports). Master and Slave machines can be used concurrently.

Press M1 and/or M2 keys or use the 'Enabled' checkbox to place machines online.

Enter an Offset if desired.

Use the red Video, Analog and Digital LEDs to arm tracks on your remote devide as required.

Note: The master 'Video Arm Enabled' box must be checked and each video 'Arm En' box must also be checked on the desired device before the Video arm LED can be used to arm the video track.

Click the 'Eject' button to eject tape from the desired device.

Note that controls will only appear if they are relevant to the selected device type.

Config

Click the Config button to set transport ballistics for the different machine types.

TC Master

When a machine (M1 or M2) with this setting is placed on-line, it means that DREAM II will control the transport of a 9-pin machine, but will chase the position of that machine in all transport modes. In this case the Config Window looks like this:

Locate Method

Select between Cue Only (operates only in Cue mode) or Unlace (unlaces a tape machine and puts it in Fast Forward or Rewind when the locate distance more than the number in the Lace Window. This allows for faster locates for video tape recorders.

Lace Window

Causes the machine to unlace if it is given a locate command outside the range of this window. Unlacing allows the machine to travel faster, and reduces head wear.

Tracking Algorithm

Determines how the machine performs when searching for timecode. Each machine may perform better with either choice of algorithm.

Bi-Directional Control

When switched on, allows either the Master or the Slave to instigate transport commands (e.g. Play, Stop etc).

Edit Delay (frames)

Each VTR has a built-in delay between receiving the Edit command (equivalent to a pre-programmed Record command) and actually entering the Edit mode. If you the Edit Delay to match the machine's behaviour, Dream II will issue the Edit command early so that the VTR enters Edit at the right time.

Confidence Head

Switches the video machine's Confidence Head on or off.

Stop Command

Allows the option of keeping the VTR tape on the heads when the machine stops. This will allow it to start playing much quicker, but it does increase head wear.

Head Protect

Specifies a time after which the tape is removed from the heads automatically, to prevent wear.

Play Tracking

Determines how many incorrect frames the system must see before it jumps to be in sync with the incoming timecode, or stops if no timecode is coming in. This allows the system to keep playing over timecode that has gaps.

Record Tracking

As with Play Tracking, but recording uses a different number. This is because recording sometimes needs to be more tolerant. Note that, if timecode sync is lost during recording, then re-established, the transport will go back into Play, but not into Record.

Run Lock

If the Play Run Lock checkbox is ticked, the system will continue to play after first achieving lock to timecode, no matter what the timecode does.

The lower Run Lock checkbox provides the same option when recording.

As for TC Master, but there is an individual choice of tracking algorithm for Play and Jog.

Remote (Slave) Mode

When a machine (M1 or M2) with this setting is placed on-line, it means that DREAM II emulates a 9-pin machine, and will obey commands sent to it. It is the master for timecode. At the same time, its transport controls are active.

Select 9-pin ID

Allows you to choose the type of machine being emulated by DREAM II. This allows for slight variations in the 9-pin protocol.
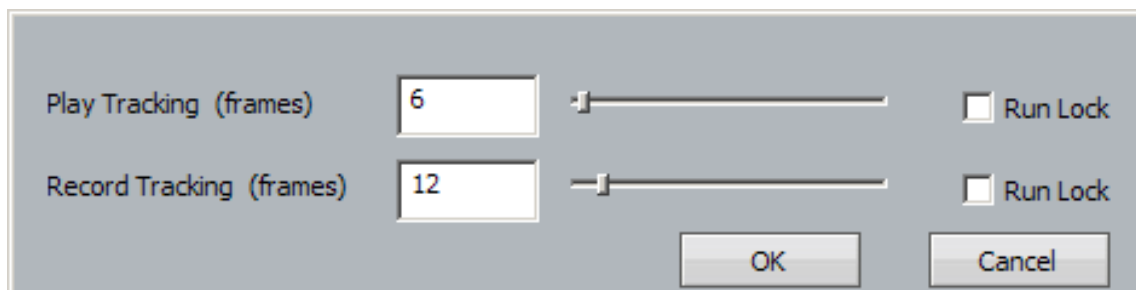
Status Sense Play Tally

Controls an aspect of 9-pin performance.

This parameter controls the value of bit0 #0 Byte#1 in the Sony Protocol command: "0x7X 0x20" Status Data (sent from DreamII system to the Sony master device, in response to the "0x61 0x20" Status sense command.). If "Play Only" is set, the value of this bit is 1 only when Dream is in Play or Record modes. If "Play and varispeed" is set, the value of this bit is 1 when Dream is in Play, Record or varispeed modes.

Some equipment (e.g. DspMedia postation) requires this parameter to be set to Play only, to work correctly. Some equipment, (e.g. SoundMaster), requires this parameter to be set to Play and Varispeed to work correctly.

LTC Chase

When a machine (M1 or M2) with this setting is placed on-line, it means that DREAM II will chase Longitudinal Time Code entering the SMPTE In port on the SX-20.

Play Tracking

Determines how many incorrect frames the system must see before it jumps to be in sync with the incoming timecode, or stops if no timecode is coming in. This allows the system to keep playing over timecode that has gaps.

Record Tracking

As with Play Tracking, but recording uses a different number. This is because recording sometimes needs to be more tolerant. Note that, if timecode sync is lost during recording, then re-established, the transport will go back into Play, but not into Record.

Run Lock

If the Play Run Lock checkbox is ticked, the system will continue to play after first achieving lock to timecode, no matter what the timecode does.

The lower Run Lock checkbox provides the same option when recording.

MTC Chase

When a machine (M1 or M2) with this setting is placed on-line, it means that DREAM II will chase MIDI Time Code entering the MIDI In port on the SX-20. The settings are identical to those for LTC Chase.

Machine Control Indicators

Name

Name of the 9 Pin Device.

Servo LEDs

The left Servo LED is green when the 9 Pin device has servo lock. The right Servo LED is green when the 9 Pin device has sync lock. For correct operation with 9 Pin devices, both LEDs should be green.

Timecode

Displays the current timecode position of the external device.

Status

Displays the device status.

Offset

Displays the device offset.

Asm

Indicates the 9 Pin device is in Assembly Edit Mode.

Inh

Indicates the 9 Pin device is in Record Inhibit mode.

Ref

Indicates the 9 Pin device is receiving a valid external sync reference.

LTC Generator

The LTC generator is an independent "machine" which can be controlled from the Smart Panel or from the work surface.

The Gen key on the work surface toggles the generator on and off. The checkbox on the left also does this.


It has its own offset field, shown to the right of its name.

When the In Stop checkbox is ticked, a repeated timecode frame is generated when the transport is stationary. Otherwise, timecode is generated only in Play.

Putting Machines Online

Machines stay in stop and are ignored by the DREAM system while offline. To put a machine online, do one of the following:

- Press the M1 or M2 button on the Constellation surface.
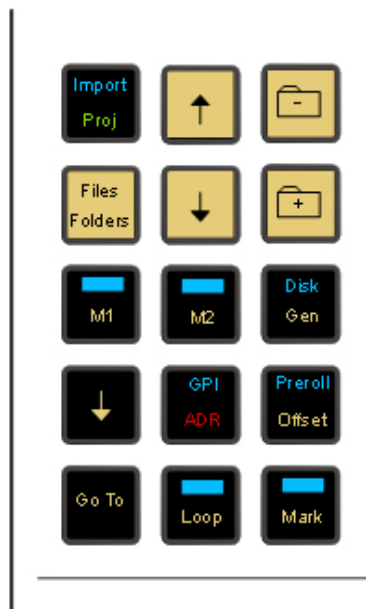
- Click the M1, M2 or M3 button at the bottom of the Edit screen.

- Select one of the Enabled checkboxes on the Machine Control Smart Pane.

Editing with Machine Control

All the transport controls and locating methods operate with a 9 pin remote machine online. The following procedure is used to place new recordings or previously used clips to picture.

Press the M1 key to toggle the 9 pin machine on or off. Constellation s transport will locate to the timecode from the 9 pin machine. The system defaults to M1 controlling 9 pin Port A.

Placing Sound to Picture

Step 1   With M1 online, locate the video at the desired frame.

Step 2   Take M1 offline.

Step 3   Locate the transport so the cursor lies on the sync point of the clip.

Step 4   CUT or COPY the clip to the clipboard.

Step 5   Place M1 online – the transport will relocate to the video at the desired frame.

Step 6   Press **<Enter>** to paste the clip.

It is also possible to CUT or COPY the clip before locating to the desired frame.