AMS NEVE

Libra Live

User Manual

527-238
Issue 4

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Glossary of Terms

Access key

The Access key is the located below the ON/CUT and AFL key on the fader strips, engraved with a triangle or the fader number. It is used to identify signal paths for various actions such as routing.

AFU

AFU is an abbreviation of Assignable Facilities Unit. This is the “channel strip” panel that is called to a path by pressing the fader’s access key. It has the normal channel strip controls such as EQ and dynamics.

Allocation

Libra Live uses a pool of processing that can be allocated to input and output path processing according to a session’s needs. The processing is “allocated” to the different functions (signal paths, EQ etc) using an Encore program called Desk Editor. The allocation is stored as a “desk configuration” also known as a “mix setup” which can be recalled, edited or copied as necessary. Allocation mutes the console while the signal processing for signal paths and processing is built.

In the early days of digital consoles digital processing was expensive and it was necessary to be careful how the processing resource was used. These days consoles are usually supplied with sufficient processing for the full complement of EQ and dynamics to be available in every channel.

Alpha Display

The term alpha or alpha display refers to the digital alphanumeric displays used on the console surface.

For instance, the Assignable and Pan Logicators on the fader strips each have an associated eight character alpha display.

Assignment

After signal paths have been created, they can then be “assigned” to physical faders using the Desk Designer page in Desk Editor. Paths can also be assigned and re-assigned using the setup mode on the control surface. Signal paths can exist and pass audio without being assigned to a physical fader. Changing assignments does not affect the audio and can be done live.

Automation

Libra Live has two automation systems: Snapshot automation stores and recalls control positions under manual control; Dynamic automation records and replays control movements against timecode. The default automation for Libra Live is Snapshots, which is switched off when Dynamic automation is switched on.

Automation Mode (Dynamic Automation)

This refers to the states of controls in dynamic automation when recording and re-playing control moves against timecode. The basic Automation Modes are Record, Play, Touch record (when REC and PLAY are on together - sometimes known as update) and Isolate (when the automation for individual controls is switched off).

Automation modes are only relevant when Dynamic Automation is switched on.

Banks

See Layers

Boot

The term boot or bootup refers to the startup process of digital systems. Hence, reboot means to completely restart the system.

Channels

A channel path is an input path that takes an input from a user defined port and routes it on to other paths such as groups, auxs and main outputs via the usual channel processing (EQ fader etc). A channel path isn't permanently tied to any one fader strip and fader strips are not exclusively for input channels.

Desk Setup

The Desk Setup (also called the Mix Setup or configuration) is a file containing the basic configuration of the desk. Libra Live uses assignable DSP (digital signal processing) to provide signal paths and signal processing. The amount of DSP available varies from one Libra Live to another and the way in which it is used will change according to individual session requirements. A Desk Setup keeps a picture of how the DSP is used. Libra Live stores different desk set-ups in a structured filing system.

- The main information that a Desk Setup defines is:
- The number of each type of signal path
  (e.g. the number of Channels)
- The signal processing allocated to each signal path
  (e.g. the number EQ bands in Channel 6)
- The initial control settings for each signal processor
  (e.g. the Q on EQ band 2 for Channel 6)
- The placement of paths on the console surface
  (e.g. the fader strip that can be used to control Channel 6)
- The patching and routing configuration
  (e.g. the mic/line source for Channel 6, the other paths that Channel 6 is routed to, the input and output used for the Insert on Channel 6, etc.)
- The path names as displayed in the alpha displays

Other configuration files (e.g. a list of snapshots) are linked to the Desk Setup configuration and are normally loaded onto the console at the same time as the Desk setup, but can be loaded independently. Desk setups can easily be transferred between consoles via removable media or networking. There are built in mechanisms for handling different I/O configurations and DSP capacity between consoles.

DRC

DRC is an abbreviation of Dynamic Range Controller. A DRC is a combined expander and compressor that uses less processing (DSP) than a separate expander and compressor would. The reduced DSP requirement is achieved by having a common attack time and an inversely linked ratio (e.g. if the compression ratio is 2:1, the expansion will be 1:2). The thresholds and release times are set separately.

The DRC is an ideal tool for broadcasting environments as it is designed to quickly control the dynamic range.

DSP

DSP is an abbreviation of Digital Signal Processing. SSP, ESP or XSP cards in the Libra Live racks provide DSP, and the quantity fitted is independent of the number of faders on the control surface. Each signal path (Channel, track Monitor, etc.) and each signal processor (EQ, compressor, filter, etc.) requires a certain amount of DSP. DSP is allocated in advance to paths and processors so that there is no conflict over DSP resources.

Events (Dynamic Automation)

Events are changes to control settings that are recorded against timecode by the automation system. They are recorded in timecode order to make up the Event List. When a Mix/Pass is played back, it is the events that are used to automate the controls

Electronic Scribble Strip

The electronic scribble strips are the alpha displays just above the Access keys on the fader strips that show the name of the path currently assigned to the fader. They also show the fader level when the fader is touched.

Encore

Encore is the name of the dynamic automation system used by all new AMS Neve consoles. The term is also used for the complete configuration and automation software suite for the digital consoles and for the PC hardware that the software runs on.

The Encore suite may also be run “offline” that is on a PC disconnected from the console. Offline Encore can be used to create or edit desk setups, set-up the console routing, name channel strips etc before the engineer has access to the console.

ESP, TSP, SSP and XSP

These acronyms refer to the DSP cards used by Libra Live and other AMS Neve digital consoles.

EXTs

EXTs are external inputs that go directly to the monitor selector. The input ports can be selected using Encore’s I/O configuration utility, or by calling the EXT path to the AFU.

Fader Strip

This term is used instead of channel strip to emphasise the difference between the hardware and the channel path, which is an input path that can be moved to different fader strips on the control surface. Any type of signal path may be on a fader strip, not just input channels.

Films

For historical reasons, the surround sound monitoring path is called a film. The film path can be anything from mono to 8 speakers wide and is usually defined by the number of speakers in the control room. The film path is defined independently of the stems (surround outputs) and each stem is mapped individually to the film when selected for monitoring, allowing stems of different widths to the films. For example an LCRS output can be monitored on a 5.1 film monitoring system and vice versa.

Function Key

The Function Keys are the row of keys at the top of the Encore keyboard that are marked F1 to F12. Some of them can be used as shortcuts to Encore Dynamic Automation functions and F1 is used to access the on-line help.

Glide (Dynamic Automation)

This is when a continuously variable control (fader, Logicator controlling frequency, etc.) moves or is moved smoothly to match back to the Play Pass.

GPI

GPI is the acronym for General Purpose Interface. The GPI is the relay and opto-isolator system, which can be configured for a variety of functions, including advanced features such as lazy talkback, remote Snapshot control and Mix Minus Talkback switching.

I/O System

Libra Live's I/O system is partially independent of the console and processing system. It consists of different types of racks for different format types (analogue and digital) that are connected to the DSP core via MADI links. The quantity of I/O that is available on a Libra Live is independent of the amount of processing or the number of channels that are available.

ISS (Dynamic Automation)

ISS is an acronym for Initial SnapShot. An ISS is the starting point snapshot of the dynamic automation system's Mix/Pass Tree. It is not connected with Libra Live's Snapshot Automation system

Key

A key input is an external input into the dynamics processor. Libra Live can use other console paths to provide key inputs into any dynamics processor.

Label List (Dynamic Automation)

A Label is a captured (or grabbed) Timecode value that can be named and relates to a point in the mix that the engineer wants to refer to frequently. The Label List shows the Labels in Timecode order.

Layers and banks

Layers and Banks have two purposes: They allow a console to control more inputs than there are physical faders and they allow the engineer to arrange the inputs on the control surface in an ergonomic way for the session or part of the session he or she is working on.

Libra Live has four layers referred to as A, B, SUB (or MON) A and SUB (or MON) B. These layers can be visualised as 4 different signal paths stacked up under each fader strip. The signal path from any one of the four layers can be under control of the fader strip at any one time, and the active layer and signal path are said to be "on the surface". Originally each layer had a dedicated purpose, e.g. for channel inputs or for monitor returns (hence the MON name) but Libra Live now allows the flexibility of any path type, input or output, on any layer. Switching the fader strip between layers is instant and inaudible.

Banks will be introduced in Version 2.8 software or later. Using banks can be visualised as sliding the control surface sideways along a much larger virtual console. For example, a 24 fader console surface could have faders 1-24 on Bank A and faders 25-48 on Bank B. Each fader (1-48) has 4 layers. Selecting Bank B is the equivalent of sliding the console 24 faders to the right.

Banks and Layers are part of the advanced operation of the Libra Live and give the console enormous flexibility. Care must be taken in their use not to "lose" an input fader and it is quite common in critical applications to restrict the console to just one bank and one or two layers.

The Desk Designer function in Desk Edit is used to assign signal paths to the layers and banks.

Banks are referred to in Encore V2.7 but do not become available in Libra Live software until V2.8 software.

Listen Busses LS1 and LS2

Listen busses are provided for AFL and PFL monitoring purposes. These busses are technically “paths” within the console and can be called to the AFU like any other signal path. They can be routed to output ports (this is essential if they are to be metered and monitored correctly), but they cannot have other processing such as EQ and dynamics assigned to them.

Login

This term describes the action of providing user identification so that a computer will allow access to some or all of its functionality. This is for both convenience and security, so that users will have access to appropriate functions and data without being able to access data or systems that do not belong to them. For instance, when you login to Encore as a normal user, you will only see Encore automation data that is saved under your name and you will not have access to any administration functions.

MADI

MADI is the acronym for Multichannel Audio Digital Interface. MADI is an industry standard which provides 56 channels of digital audio data on one cable. Interfacing with a digital 48-track recorder, for instance, requires just two cables - one for the inputs and one for the outputs. MADI also allows for long cable runs without degrading audio quality, with cable runs up to 2km long when using fibre optic cable.

MCS

MCS is an acronym for Machine Control System. Libra Live is provided with an MCS that can be used for direct 9-pin serial control of up to eight machines.

MIOS

Modular I/O System. This compact I/O system was introduced in early 2002 to replace an IOS system that used Master and Slave IOS racks.

Mix-Minus

Mix-minus is the term used for a mix output that is the same as the main mix output with the exception of one or more inputs that have been removed. A typical application is to provide a programme feed to a remote contributor. If a remote contributor’s voice is returned to their earpiece with delay it can prevent the contributor from being able to talk, so in this instance, the contributor’s microphone and ambience mic are removed from the mix used for the earpiece feed. Related terms are “n-1”, which is a mix, minus 1 input; n-x, which is a mix minus multiple inputs and IFB, or Interruptible FoldBack, which is a mix-minus system with added features such as injection of talkback and confidence signals.

Mix/Pass (Dynamic Automation)

A dynamic automation mix is referred to by its Mix/Pass number. Each time a modification to a mix is made the number of the pass is increased. If the engineer returns to an earlier Mix/pass and starts again, the number of the mix is increased.

Mix/Pass Tree (Dynamic Automation)

A graphical representation of the mix/passes that have been created. Any Mix/Pass can be selected from the Mix/Pass Tree for re-loading on the console.

Pan Designators (Surround Sound)

Pan designators are used to set pan law(s) according to the format(s) of the destinations a source is being panned across. Pan designations are created with the Desk Editor software and are part of the Desk Setup. Mono groups and Tracks can have pan designations.

For example: Channel 1 is routed to Track 1 through Track 6. In the Desk Setup, Tracks 1-3 have been “pan designated” as Front Left, Front centre and Front Right respectively. Tracks 4 & 5 are designated left and right and track 6 is pan designated as mono.

When channel 1 is panned L-R, tracks 1-3 will receive a correct LCR pan - i.e. there will be no signal on the left speaker when the pan has passed to the right of the centre speaker. At the same time, tracks 4&5 will get a correct L-R pan with a phantom centre. Track 6 will not be affected by the pan control at all. When channel 1 is panned front to back, tracks 1-3 will fade out because they are designated front destinations, but channels 4-6 will not be affected (they are not designated as either front or rear).

Path

Path (or signal path) is the term used to describe a discrete section of signal flow through the console that has a distinct input and output, either to the outside world or to another path. For instance, the input to a Channel is connected to an input port and the output from a channel is connected (routed) to other signal paths (Track Monitors, Groups, etc.).

In an analogue console, there is a fixed number of signal paths and they are hard-wired into different parts (or modules) in the console.

Libra Live can be configured with the numbers and types of paths required for a session using the software utility “Desk Editor” that is part of the Encore suite. The paths are then assigned to faders on the console surface using “Desk Designer”. Channel, monitor, group, auxiliary and main output paths can all be given full processing (EQ dynamics etc) if required.

The main path types are:

Channel Path: Mono or stereo - these are the main input paths for the console.

Monitor Paths: Mono only - these paths consist of a track input (which is similar to channel path but can be switched between an input and the bus of the same number) and a track output, which is the output of the bus with the same number. Monitor path processing can be put in either the track input or the track output. Monitor paths are used for multitrack outputs, mix-minus and surround sound outputs

Groups: Mono or stereo - can be used as outputs or as sub-groups feeding the main outputs

Mains: Mono or stereo main outputs.

Listens: Stereo AFL and PFL busses

Sels: Stereo monitoring selectors, e.g. Main speaker selector, Headphone selector, meter selector etc.

Films: Surround monitoring paths

EXTs: Stereo external inputs into the monitoring selectors

TB: A mono internal path used to route talkback and oscillator.

Ports

A port is a physical I/O connection to the console. This may be a MADI connection directly to the DSP rack, or an analogue or digital connection to one of the I/O racks. Libra Live incorporates a router that allows any input port to be connected to any input path and any output path to be routed to any output port.

Libra Live uses a standard naming system for ports, but users may also assign their own names for commonly used ports. The standard format uses lower case letters for inputs and capital letters for outputs and looks like #nnn$$$ where # is the number of the MADI port the I/O is connected to, nnn is the type of input, e.g. aes, lin (linear=analogue), mic or mad (MADI) and $$

is the port number within the rack. For example 3lin7A signifies analogue input 7A on the rack connected to MADI port 3.

Note that ports are counted as though they were stereo: 1lin1A, 1lin1B, 1lin2A, 1lin2B etc. It is possible to connect 1lin1A to one mono fader and 1lin1B to another mono fader, maybe on the other side of the console. Stereo inputs use ports in pairs, e.g. 1lin 1AB.

An input port can be connected to more than one input path, but only one output path can be routed to an output port. If an input port is connected to more than one path, then changes to the input port (e.g. gain) from one path will affect all the paths.

Preferences

Not all users want the console to work the same way. Libra Live allows each user who logs onto Encore with a unique user ID to create a set of “user preferences” that will be restored whenever that user logs on to Encore.

Processing Element

Libra is a digital console that, depending on the specification, has a certain amount of processing power available. The SSP or ESP cards provide the processing power in the System or SPS Rack.

The processing power is assigned in portions according to how the console is configured for the current session. Each signal path requires a certain amount of processing power. A signal path can also contain audio processing, such as EQ or dynamics, and this also uses processing power.

A processing element is one of the individual items of audio processing (a gate, three band equaliser, etc.). The processing elements (and the processing power required) are assigned (or allocated) to the signal paths in advance of being used. The system works out how much processing power would be required for the configuration requested and if there is too much then the excess is rejected. Anything that applies changes to a signal in a path uses processing - this even includes the fader.

Record Pass (Dynamic Automation)

A Record Pass is made when the transport is in play and changes to control values are recorded against timecode.

A new Mix/Pass number is created and displayed in red on the Encore screen.

Scope

Some commands on the console, such as control copying, or taking and restoring snapshots of control settings can affect a variable number of controls with one action. For example a single gain trim control position may be copied from one channel to another, or the whole channel’s settings may be copied. The extent of the controls that are to be affected is known as the “scope”. The scope of the action is defined before the action is carried out.

SELs

Sels are monitoring signal paths that incorporate a source selector.

Stem

This term is derived from the film industry. In the context of Libra Live a stem is a surround sound output of any format (LCRS, 5.1 etc.).

Sync Source

This is the source for the word clock synchronisation signal that is used to ensure that samples of digital audio are sent and received simultaneously by digital audio devices that are connected together.

Timecode (Dynamic Automation)

Timecode is a coded signal that is used to set the absolute timeline position.

The source for timecode can be a tape machine (digital or analogue) or a pulse generator (video source).

Tracks

Tracks are another word for “monitor outputs” which are output busses used for multitrack sends, surround outputs and mix-minus outputs. Libra Live can have up to 96 monitor paths. Each monitor path has a track send (the send to the multitrack, surround output or mix-minus output) and a track return (not normally used when the output is used for surround and mix-minus outputs). The track return can be switched between the track’s corresponding output (bus) or a separate input (tape). Signal processing can be allocated to the track send part of the path (i.e. after the summing bus and before the physical output) or to the track return part of the path (after the bus/tape switching and before the signal is re-routed to other mix busses).

Turbo Allocation

Turbo Allocation is used to allocate and remove small quantities of processing without having to load a whole console. For instance, if a path requires EQ (such as a Main Output that would not usually have EQ) it can be added as a one off operation with Turbo Allocation. Turbo allocation is normally done with Encore’s Path Editor.

Note: On SSP and ESP equipped consoles turbo allocation mutes the console for a few seconds while processing is re-allocated, so is automatically barred when the console is on-air.

Virgin Territory (Dynamic Automation)

This is an expression used to describe parts of a Mix/Pass (or a series of Mix/Passes) for which there is no automation data and no settings in the Initial Snapshot.

Word Clock

This is a form of synchronisation signal used by digital audio equipment. It should not be confused with timecode (or timeline) which is used to keep devices lined up at the same time position.

Fade (Dynamic Automation)

This is an abbreviation of crossfade used in dialogue boxes in Encore to indicate where crossfade times can be entered (e.g. for Mix Conforming).

Introduction

Information in this Manual

The information in this manual is intended for users familiar with the operation of mixing/broadcast consoles. It is assumed that operators and engineers who will be using the Libra Live are familiar with concepts such as EQ, mix minus, delay, etc.

However, Libra Live is an assignable digital system and this will be new territory for many users, so this manual covers new ways of working in greater detail.

Structure of this Manual

The first four sections of the manual cover basic operation of the console. Subsequent chapters give more detail on advanced topics.

Glossary Of Terms

This has definitions of terms as they are used in this manual and in the context of using Libra Live. Many entries include explanations of fundamental concepts.

Libra Live Console Surface

This is a section-by-section description of Libra Live's console surface. It gives detailed instructions on the use of each section.

Using the console

This section is task oriented and gives instructions on how to turn the console on, how to route signals and operate the console using procedures detailed in the preceding chapter.

Encore

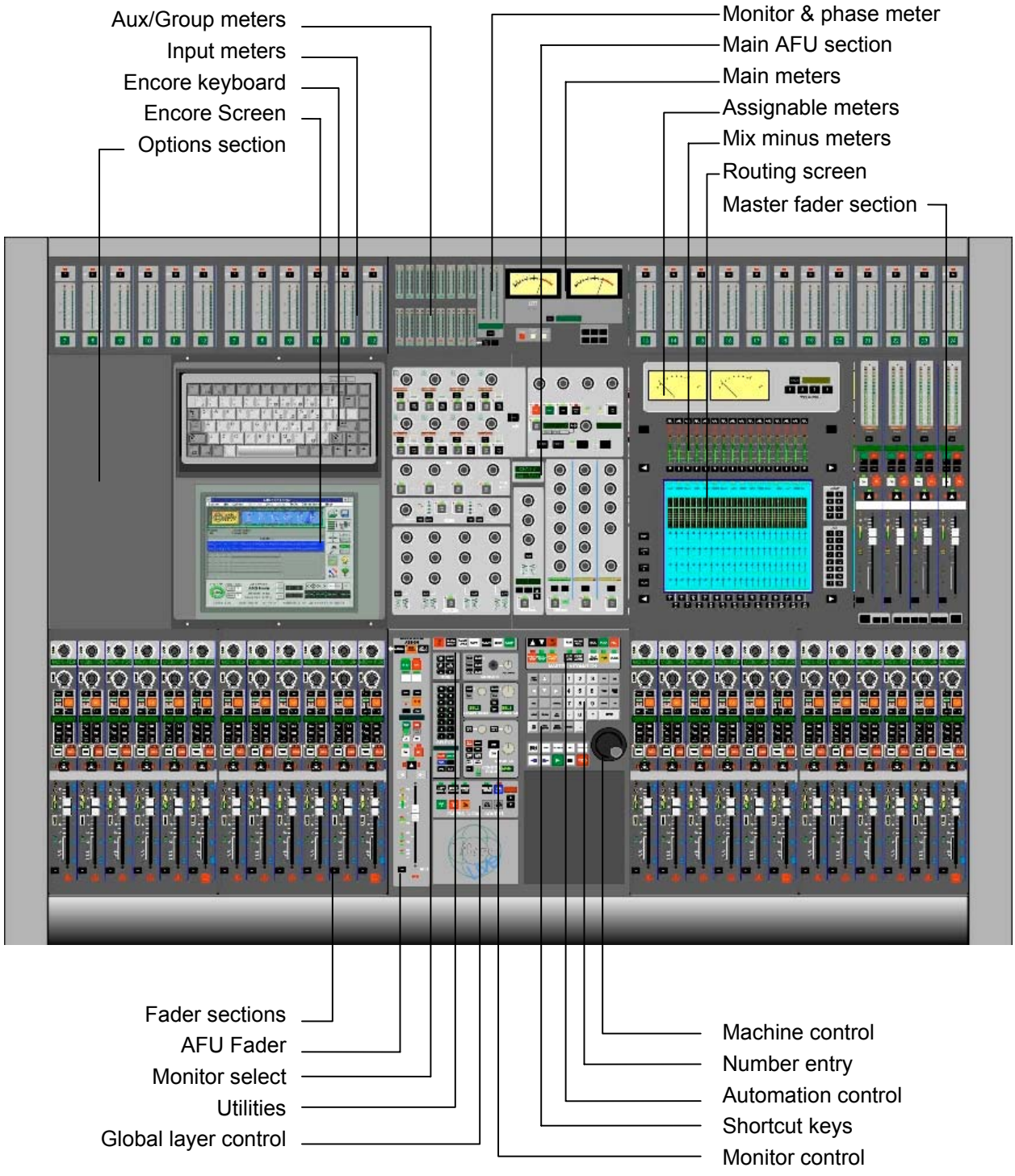
The Encore suite is used to configure the console and for automation. This section gives an explanation of the configuration aspects of Encore. The automation is dealt with separately in the Automation sections of the manual.

This manual is primarily a reference tool and is as complete as possible covering configuration, operation and maintenance.

Using Data From Earlier Software Versions

This manual was written with the release of Version 2.8 software. It is updated whenever software changes the operation of the console significantly. Please check the release notes supplied with new software releases for interim operational updates and for compatibility issues between old and new software.

Libra Live Console Surface



Control Types

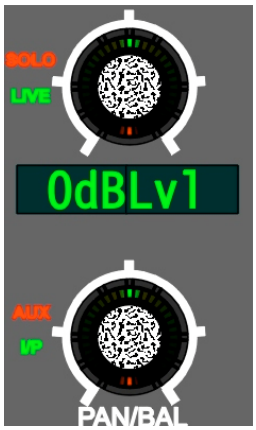
Faders

The faders fitted are motorised, are touch sensitive and may optionally be fitted with a PFL-on-overpress facility.

Whenever a fader is touched, its value is displayed in the alphanumeric display above.

The faders have two scales. The white scale shows the gain setting. The blue scale is used for fader trim in dynamic automation.

Logicators



The rotary controls, or Logicators, are unique to AMS Neve products. They incorporate a ring of illuminated segments in the top of the control to indicate the position of the control. This makes the position indicator highly visible at all times; it is not hidden by other controls or by the knob itself.

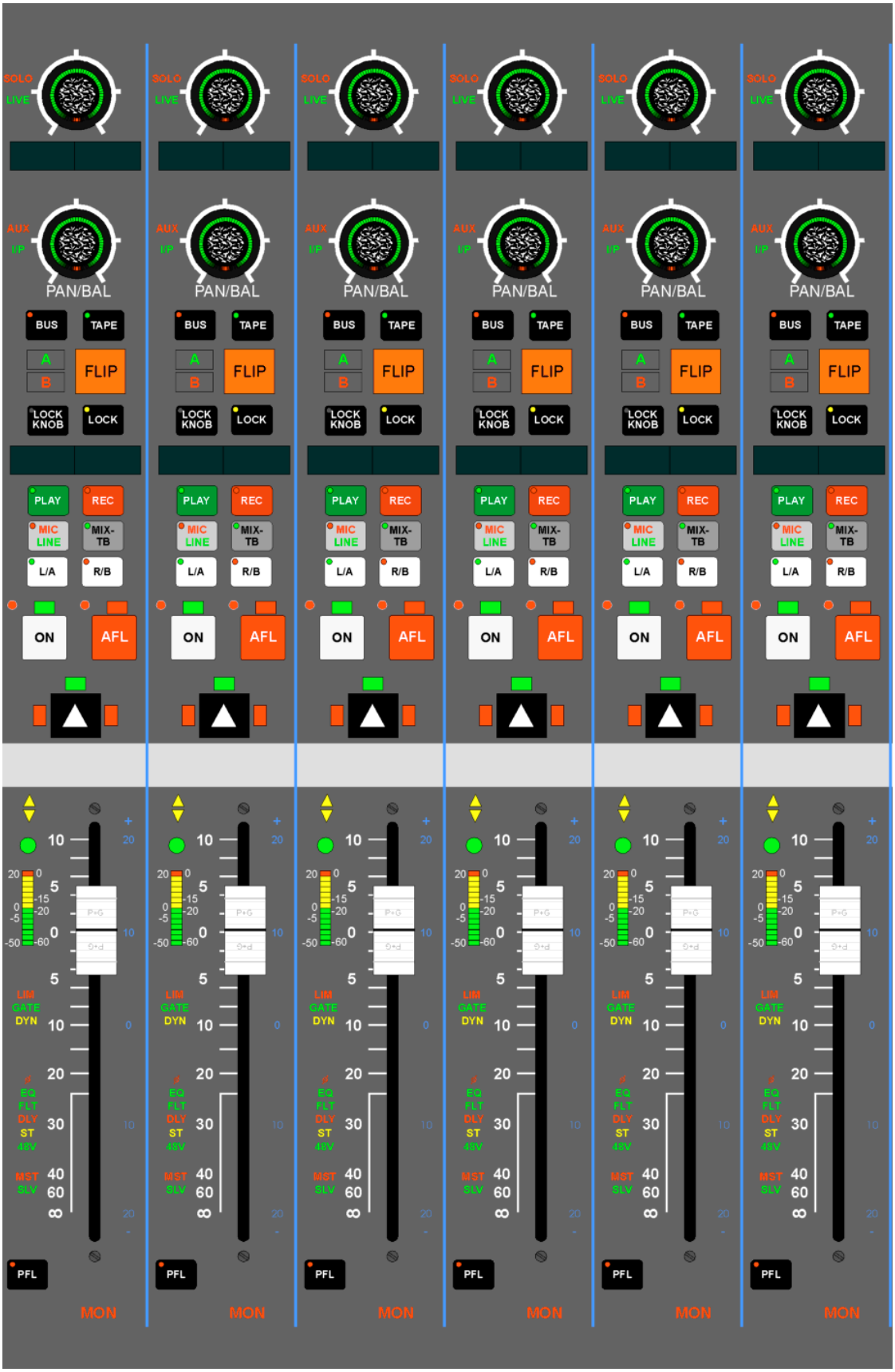
The second unique feature is that the control is touch sensitive. Whenever a Logicator is touched, a numerical value is displayed either in the alpha next to the control, or on the AFU's central alpha. The touch sensitivity is also used to simplify the selection of controls on the AFU when assigning them to the fader Logicators, or when setting the scope of the copy, snapshots and other automation functions.

Switches

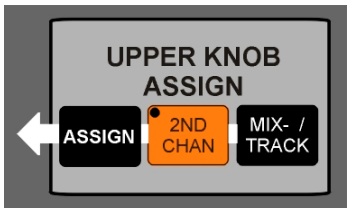
A variety of switch types are used on the control surface. Many of the switches have tri-colour LEDs. Where possible we have avoided the use of orange (red and green mixed) and have provided a user preference for the relative brightness of red and green to assist colour blind operators. In general, a green light will signify that a switch is available to use and a red light will indicate that it is active (on).

Some switches have two levels of operation that are dependent on how hard the switch is pushed. Examples are the fader strip ON and AFL switches. These two switches have to be pressed fully in order to operate (a safety feature). The use for the dual layers is in dynamic automation: pressing the switch to the first level tells the automation system to start writing automation data for the switch. Pressing the switch to the second level actuates the function.

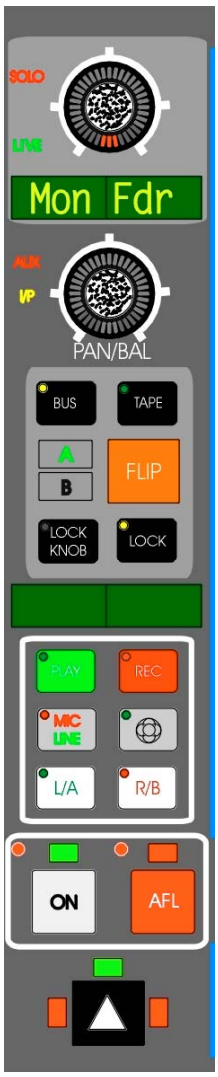
Fader Strips



Fader Strip Logicators



The upper row of Logicators can be assigned to different functions on a channel by channel basis. This is done by assigning the function globally with the UPPER KNOB ASSIGN switches in the AFU fader strip and then locking the function on individual channels with the LOCK KNOB switch on the fader strip. The electronic scribble (alpha display) shows the current assignment of the upper Logicator.



To assign the top Logicator to any AFU function

➤ Press and hold the central ASSIGN switch in the AFU fader strip while touching the required control on the AFU. This will assign the function of the touched control to the top logicator on all fader strips that do not have the LOCK KNOB switch engaged.

To assign a second layer of faders to the upper logicators

➤ Press and hold the 2ND CHAN button switch in the AFU fader strip and select the required layer using the FADERS GLOBAL CONTROL panel layer selector switches.

To assign the MIX MINUS or TRACK output level trim controls to the upper logicators

➤ Press the MIX_/TRACK switch in the AFU fader strip. This will assign the function to the top logicator on all fader strips that do not have the LOCK KNOB switch engaged.

The LOCK KNOB switch on the fader strip will lock the upper Logicator to the function that it is currently assigned to, allowing individual channel Logicators to be assigned to different functions. For example:

To assign the top Logicator on one fader strip to Aux 7 send and to gain control on all other faders

➤ Turn off the LOCK KNOB switch on all fader strips.

➤ Press and hold ASSIGN on the AFU fader strip.

➤ Touch the Aux 7 Logicator on the AFU to assign Aux 7 across the console. Release the ASSIGN control.

➤ Turn on the LOCK KNOB switch on the selected fader strip.

➤ Use the ASSIGN key to assign the gain control from the AFU to all Logicators. The Locked Logicator will remain assigned to Aux 7.

The lower Logicators may be assigned console-wide to pan, input gain or an aux. This is done with the ALL/SCOPE switch in the centre section of the console.

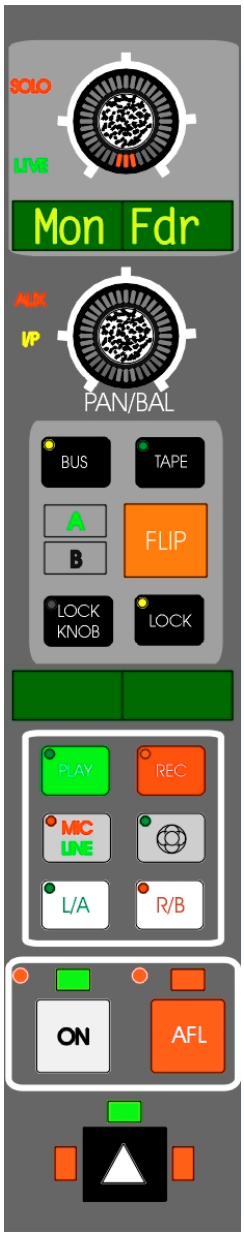
To assign pan, input gain or an aux to the lower logicators

➤ Press and hold ALL/SCOPE in the MASTER AUTOMATION panel of the master section and touch the required function (LCR pan, TRIM or an AUX control) on the AFU.

The lower Logicator function is indicated by hidden till lit legends next to the Logicator. (I/P, AUX or PAN, but older consoles do not have the PAN indicator.) The LOCK KNOB switch does not affect the lower Logicator.

If the gain control is assigned to the lower Logicator by touching TRIM, all fader strips with a mic/line amplifier input will have the analogue gain control assigned, while input channels with other input port types will have the digital trim control assigned.

Fader Strip Keys



BUS and TAPE

These keys are used to select the input for Monitor paths. It is possible to select both together to hear a mix of bus output and tape return.

FLIP

The FLIP key is used to swap over the paths that are on the Fader and the Upper Assignable Logicator. The A and B indicators, together with the SUB or MON indicator below the fader, indicate which layer the path on the fader is from.

LOCK KNOB

This key locks the function of the Assignable Logicator on its current function.

LOCK

The LOCK switch isolates the strip from the effects of the path switching keys in the FADERS GLOBAL CONTROL panel. Lock will affect both the fader and the top logicator, or just the fader, according to the preference set in Encore's User Preferences.

Electronic Scribble

The electronic scribble (also called an alpha display) shows which path is currently assigned to the fader. If a path has been given a user name then this will be displayed. The fader level is indicated on the right hand four characters of the scribble, unless this feature is disabled in User Preferences.

PLAY and REC

These two switches are for setting the scope of the snapshot automation (recall and store) and for setting the mode of the fader automation when Dynamic Automation is in use.

MIC/LINE

This switch selects the input for paths that have a mic/line amp input attached. This is a 3-state switch, which before the introduction of V2.7 software toggled between Red - mic, Orange - mic + 48V, Green - Line. In V2.7 software and later software, the switch toggles between Red - mic 1, Orange - mic 2 and Green -line for Libra Lives that use the MIOS I/O system.

This switch works in parallel with the switching in the AFU.

Assignable Switches

There are three user definable switches labelled L/A, R/B and one with the AMS Neve logo. The switches illuminate green when a function is assigned to them and illuminate red when the function is active. The switch functions are defined in the User Preferences section within Encore and include:

- Left input only, Right input only (these functions are ganged together).
- GPI fader relay enable (allows the fader to be opened without firing the relay).
- GPI switch relay (allows a relay to be fired independently of the fader).
- Mix Minus talkback (talks to all mix minus outputs the channel is subtracted from).
- Insert 1divert (= Insert 1in/out).
- Insert 2 divert (= Insert 2 in/out).
- Pre/Post route (pre/post fade routing to mix minus and multitrack outputs. Default position (green) is post).
- Phase (This requires that the L/A and R/B switches are set for left and right input selection).
- Not defined.

The Left input only and Right input only functions are assignable to the L/A and R/B switches only and the phase switch is assignable to the logo switch only. The other functions can be assigned to any available switch.

The Left Input and Right Input selector switches work on stereo input paths and require ABW inputs (configured using Desk Editor or Path Editor). As a safety precaution, these functions require two switches to be pressed together.

To assign the left or right input of a stereo port to both legs of a stereo path

➤ Press and hold down the channel access button and press either the L/A switch or the R/B switch.

➤ Holding the channel access switch down and pressing L/A will assign the left input to both sides of the stereo channel. The L/A switch illuminates red to show that L to both is enabled. (The right side works in the same way).

To mix the A and B sides of a stereo input port together and route the mix to both sides of a stereo input path

➤ Press L/A and R/B together (without the access switch).

Both switches illuminate.

To use the phase function

➤ Set the 'Other button' to be a 'Phase switch' in Encore's User Preferences.

To invert the phase of either leg of a stereo input path

➤ Press and hold the AMS Neve logo switch and select L/A or R/B. While the logo switch is held down, a phase inverted input will be indicated by a red LED in the L/A or R/B switch. The phase indicator in the fader area also indicates a phase inversion in either switch.

✍ *Phase inversion can also be done from the central assignable panel (AFU).*

✍ *Other functions that can be assigned to these switches are described in the User Preferences section of the chapter on Encore.*

Channel Switch

ON

(Optionally CUT) is used to switch the signal path on/off at the fader.

AFL

The AFL switch is used for post-fader solo monitoring of the path. (Alternative solo types may be selected from the User Preferences manual in Encore).

To solo inhibit a single strip (Destructive solo mode only)

➤ Press and hold down the strip LOCK key.

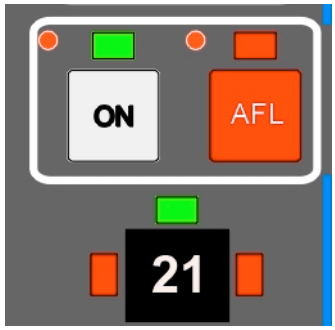
The red LED will illuminate constant.

➤ Press the SOLO key once.

The small round red LED will illuminate to indicate that the solo key has been locked.

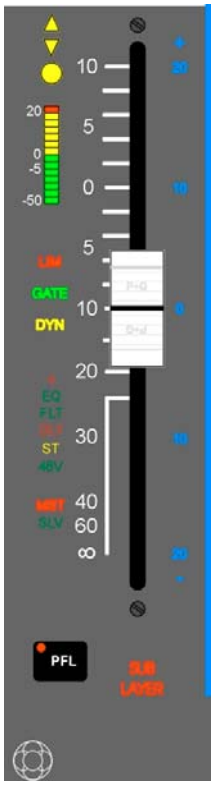
This function can also be performed using the Solo inhibit page of Desk Editor.

Access Key



The Access Key is located below the ON and AFL switches and is primarily used for routing and to assign (or call) the AFU to the path on the associated fader. The “accessed” path is indicated with the green LED. The red LEDs are currently not used.

The Fader



The yellow nulling LEDs show the direction that the fader should be moved to match to the Play Pass position during dynamic automation. They are also used to indicate the direction of fader travel when the fader is in Audio Follow Tally mode (V2.8 software).

The large round tri-colour LED shows signal presence (green) and signal overload (red).

The small meter can be used either for input signal level, or dynamics gain reduction according to the user preferences set in Encore.

The LIM and GATE hidden till lit indicators show when the signal is being limited or gated off by the path’s dynamics processor.

The Phase and 48V indicators turn on when these facilities are activated.

The DYN, EQ, FLT, DLY indicators show when these processing elements are available.

The ST indicator illuminates when a stereo path is assigned to the fader.

The MST and SLV indicators show the path’s status in a VCA style group. A fader may be the master of a group of other faders, it may be a slave to another fader, or it may be both master and slave to different faders, but it can only be a slave to one master. See the description of the

GANGS/LINKS switch in the central utility panel of the Centre section for a description of how to create a VCA style group.

To find which faders are slaves or the master of any fader

➤ Press and hold the access button above the fader. Only the faders that are connected to the accessed fader will display their master/slave relationship. If the slave or master is on a layer which isn't on the fader, then the indicator will flash.

PFL

The PFL key is used for PFL solo monitoring. PFL will automatically cancel when the fader is opened.

The MON indicator (in later hardware 'SUB LAYER') indicator shows when the fader path is assigned to a "Mon" or sub layer.

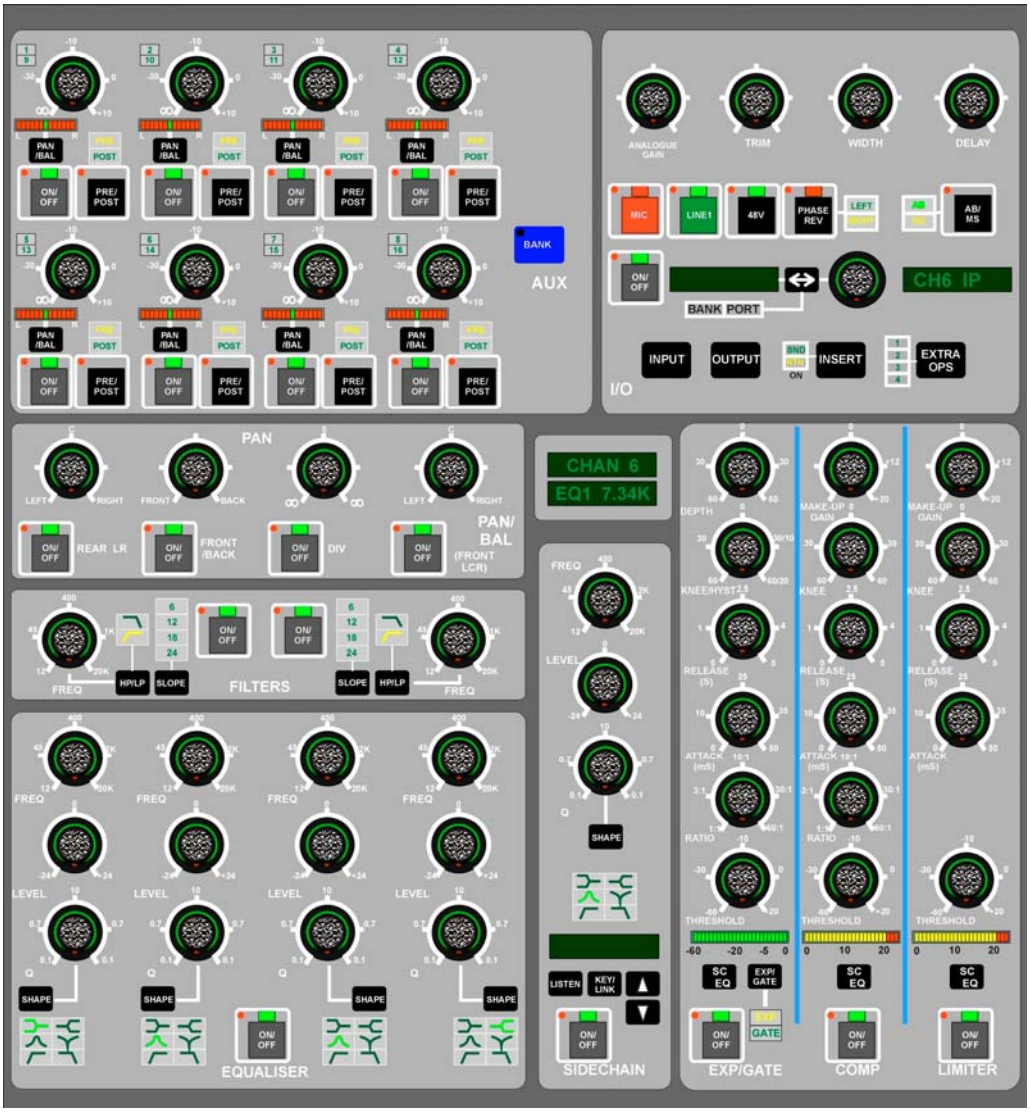
✍ *In early software some layers (MON layers) were restricted to monitor paths only. This restriction has since been removed.*

AFU (Assignable Facilities Unit)

The Assignable Facilities Unit has two parts:

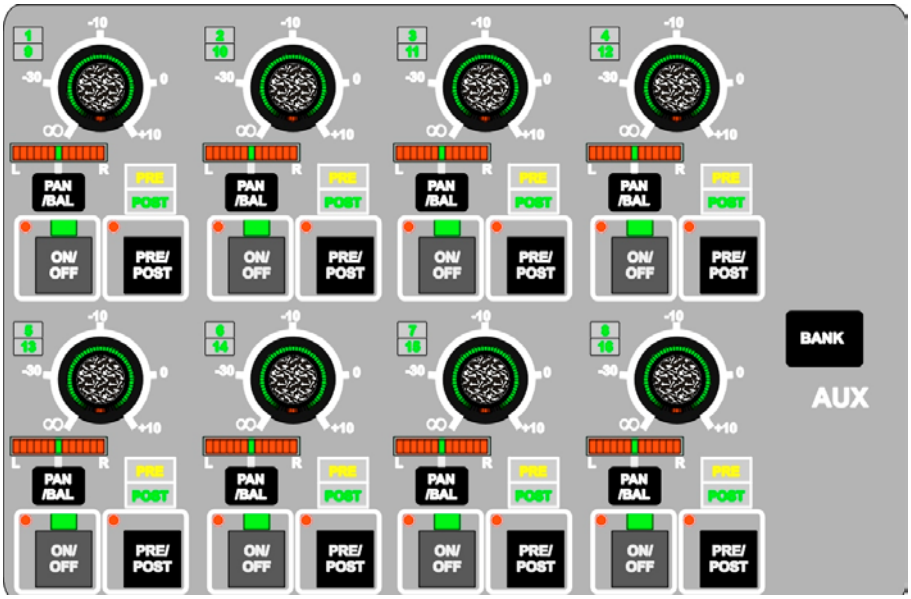
- Main AFU Section.
- AFU Fader Strip.

Main AFU Section



AUX Panel

The AUX panel in the AFU is used to control auxiliary contributions from the currently accessed path.



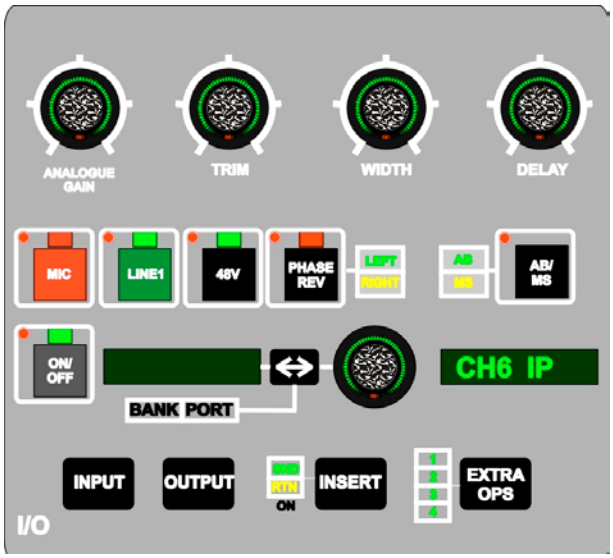
Each Auxiliary contribution has the following controls:

- A Logicator that is switched between Level control and Pan/Balance control by the PAN/BAL key. The bargraph above the PAN/BAL key shows the amount of Pan/Balance.
- A PRE/POST key which selects the signal pick-off point to be pre or post fader. The PRE/POST indicator above the key shows the current setting.
- An ON/OFF key which turns the contribution on and off. The green LED above the key illuminates when the contribution is on.

The BANK key switches the eight sets of controls between Auxes 1 to 8 and Auxes 9 to 16. The number indicators next to the Logicators illuminate to show the available Auxes.

I/O Panel

The I/O Panel is used to select input and output ports for the currently accessed path and to set the controls relating to inputs and outputs, including delay. Libra Live consoles that use MIOS I/O racks have a slightly different I/O section, as shown in the picture on the right.



Input Gains

The ANALOGUE GAIN Logicator is only used with mic/line amplifier inputs and varies the gain before the analogue to digital convertor and before the input metering. The setting is remembered for each input selection (mic 1, mic 2 and line). The mic input has a sensitivity range of-75dBu to +14dBu in steps of 0.25dB.

The TRIM Logicator provides +/- 24dB of cut and boost in the digital domain (after the input meter). Trim can be used with the analogue gain control to vary the headroom available at the analogue to digital convertors by reducing the analogue gain control before the convertors and increasing the digital trim after the convertors to compensate.

Width Control

The WIDTH Logicator controls the width of a stereo signal, from mono through normal stereo to enhanced width stereo. The stereo path has to be configured with an “AB Wide” input for the width control to work.

Delay Control

The DELAY Logicator controls the amount of delay on the input or the output up to the maximum configured for the I/O port. An amount of delay has to be made available to the port using the I/O configuration utility in Encore before the delay control will work. The amount of delay in use will be shown by the centre alphanumeric when the control is touched in units on samples, milliseconds, frames or metres depending on the setting in the I/O configuration. (See Encore section for instructions).

Mic/line selection

The MIC and LINE keys are used on inputs with a mic/line amplifier only.

In MIOS systems there are 3 keys: MIC; LINE and MICB. Older systems have 1 MIC and 1 LINE switch only. MIOS mic/line inputs have a switchable analogue limiter and high-pass filter.

To switch in or out the analogue limiter (MIOS mic/line amps only)

➤ Hold down the mic or mic B key and press the limiter section ON key.

To switch in or out the analogue high-pass filter (MIOS mic/line amps only)

➤ Hold down the mic or mic B key at the same time as pressing either of the two filter ON/OFF switches on the AFU will switch a preset analogue high-pass filter into the input.

The right hand alpha display indicates whether analogue domain processing has been switched into circuit for the selected input (Limiter, High-pass filter or 48V phantom power)

Phase

The PHASE REV key inverts the signal. If the input is stereo, then the indicators to the right of the key will show the current phase reversal as subsequent key presses step through left, right, both and none.

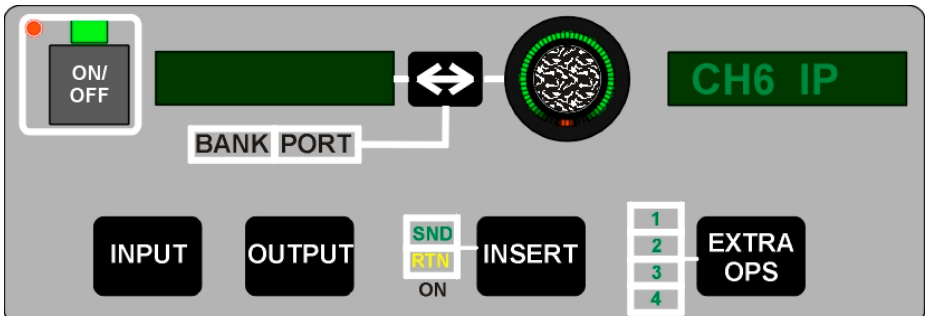
Phantom Power

The 48V key is used to supply phantom power to a microphone. The setting is remembered independently for MIC and MICB inputs.

Input format

The AB/MS key (not fitted in MIOS-equipped consoles) switches between a standard AB stereo signal and an MS encoded stereo signal. The adjacent indicator shows the current selection. This function can also be performed by pressing the INPUT key until the light is green and then turning the I/O logicator to select from AB, AA, BA, BB, MS or SM input types.

Input Port Selection



To select an input port for any input path

➤ Bring the path onto the AFU by pressing the path's access switch. The alphanumeric in the centre of the AFU confirms the path selection.

➤ Press the INPUT switch so that its LED lights red (if it isn't already red).

➤ Press the ON/OFF switch so that the rectangular LED is off. (The input selection cannot be changed while an existing input is switched on).

➤ Press the double-headed arrow key so that its LED illuminates red. This enables the BANK or port type selection.

➤ Turn the Logicator and note that the left hand alphanumeric steps through the input types 1lin, 2aes, 3mad etc.

➤ When the correct bank has been selected in the display, press the double-headed arrow switch so that the LED turns green.

➤ Turn the Logicator and note that the alphanumeric steps through the ports within the bank: 1 lin 1A, 1lin1B etc.

➤ When the correct port has been selected, enable the input by turning the ON/OFF switch on.

To select an output port for any output path

➤ Use the same method as for selecting an input port, but use the OUTPUT switch instead of the INPUT switch in the second step.

✍ *If after selecting an output port the ON/OFF switch will not turn on, this is probably because the port is being used by another port. If this is the case, the alphanumeric in the centre of the AFU will display the path name that is currently using the output port. It will be necessary to either select a different port, or to call the other path to the AFU and deselect its port routing first.*

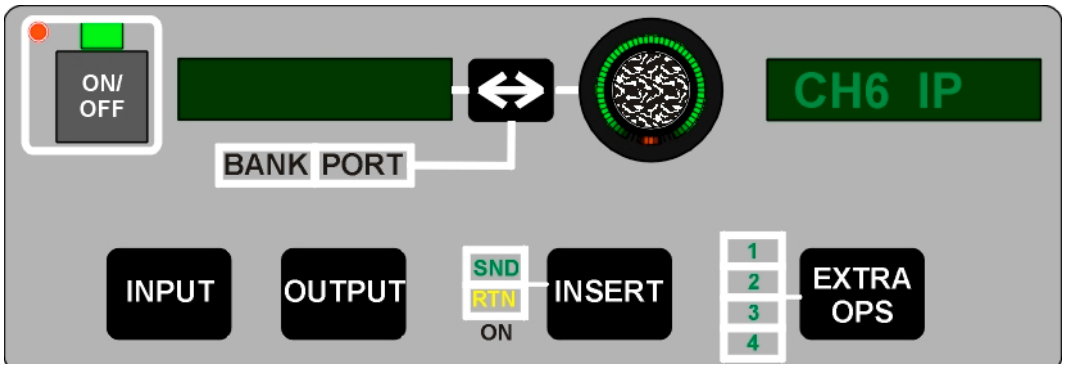
Libra Live allows main output paths to be routed to two ports simultaneously *if so configured in Desk Editor*. This is useful for generating both analogue and digital outputs, or to create two digital outputs at different sampling rates.

To route a main output path to a second port

➤ With the main output path on the AFU, press the EXTRA OPS switch so that 2 is displayed in the hidden-till-lit display next to the switch.

➤ Use the same porting procedure as previously described for inputs and outputs.

Insert Porting



Each signal path can have up to two inserts allocated to it from Desk Editor. The outputs and inputs (sends and returns) for each insert can be ported independently and switched on/off independently. It is sometimes useful to use an insert send as a direct output from a path by switching the output on but leaving the input switched off, for example to route to more than two output ports from a main output path, or to create pre-fader direct outputs on input channels.

To set up the I/O ports for insert 1

➤ Call the path with the insert to the AFU.

➤ Press the INSERT switch so that the switch LED is green.

➤ Press the OUTPUT switch to port the insert send, or the INPUT switch to port the return.

➤ Port the insert send or return in the same way as the path inputs and outputs.

To set up the I/O ports for insert 2

➤ Call the path with the insert to the AFU.

➤ Press the INSERT switch until the switch LED is red.

➤ Press the OUTPUT switch to port the insert send, or the INPUT switch to port the return.

➤ Port the insert send or return in the same way as the path inputs and outputs.

✍ *The on/off status for the selected inserts send and return are indicated on the hidden till lit display next to the INSERT switch.*

✍ *The I/O porting for inputs, outputs and inserts may also be done via Encore, which is sometimes easier when an overview of the whole porting system is needed.*

✍ *Porting is stored as part of the basic console configuration, but different porting arrangements can also be stored in snapshots. Porting is not stored as part of the I/O configuration, which keeps track of port names, dither, delay and SRC settings.*

✍ *Should the power be lost to the remote IO unit, the porting on the console will show an asterisk at the end of the port name. This denotes that the remote IO is not available at present. During this time the controls to the remote IO remain available even though the unit is switched off. When the power returns to the remote IO unit the asterisk is replaced with the full and proper port name. Any new settings are now put into effect for the control of the remote IO unit.*

Version 2.7 (and later) software includes provision for port ganging. When an output path is routed to an output port that is a member of an output gang, it is automatically routed to all other output ports in the port gang. Port gangs are created when installing or commissioning the console using the Grouped Ports tag in the I/O Designer utility. I/O Designer can be accessed via Windows Start/Programs/AMS-Neve/System/IO Designer.

When routing to a port that is already in use through output ganging as described above, the alphanumeric in the centre of the display will not indicate which path is already using the port.

A/B M/S Selection

On non MIOS systems there is a dedicated switch on the INPUT/OUTPUT/INSERT panel to toggle between A/B inputs and M/S (Mid/Side) inputs.

To select A/B or M/S inputs on both MIOS and non MIOS systems.

➤ Press the INPUT switch so that the switch LED is green.

➤ Rotate the I/O Logicator above the INSERT switch. The input format is indicated in the AFU's central alphanumeric

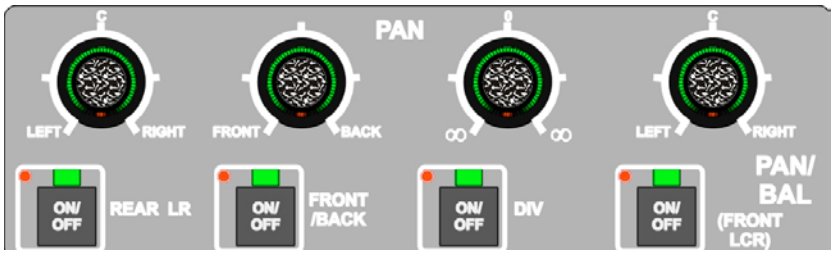
➤ Turn to the left for AA and BA.

➤ Turn to the right for BB, MS and SM.

➤ Press the INPUT switch so that the switch LED goes red to lock the selection.

PAN/BAL Panel

Used to adjust the Panning or Balance of a path.



The PAN/BAL controls are used to route the signal across stereo and suitably surround designated stems (groups of tracks arranged as surround outputs) or group destinations. They have no effect on signals routed to mono destinations.

In most instances the FRONT LCR PAN/BAL Logicator is a duplicate of the PAN/BAL Logicator on the fader strip. The exception is when an output path such as a main output is on the fader strip. Only the AFU PAN/BAL control will affect the output balance and the fader strip control will only be available if the output path is also routed to another path, for example if the main output is routed to a cue.

For surround sound work, the tracks and groups are assigned as mono, stereo or surround sound destinations using the Pan Designators and Pan Macros in Desk Editor. The pan control is then destination sensitive and sends the correct pan law to each destination that it is routed to. It can simultaneously correctly pan across an L-R image, an LCR image and an L, LE, C, RE, R image for example.

The DIV Logicator is used to control divergence of a stereo signal. Divergence is the surround equivalent of the stereo width control and affects the size or spread of the source signal in the surround image.

The FRONT/BACK and REAR LR are for panning across the appropriate axes for surround destinations.

Each Logicator has an individual ON/OFF key for switching the function in and out as needed for surround destinations.

The pan/balance function can also be achieved using optional joysticks.

Surround Panning

Surround panning is covered in more detail in the Surround Sound section of this manual.

When a path is routed to surround destinations (track Monitors or Groups that have been setup as surround destinations Desk Edit) then the panning controls must be enabled according to the surround format being used. If the correct panning controls are not switched on then the signal will be routed to the surround destination(s) with unity gain.

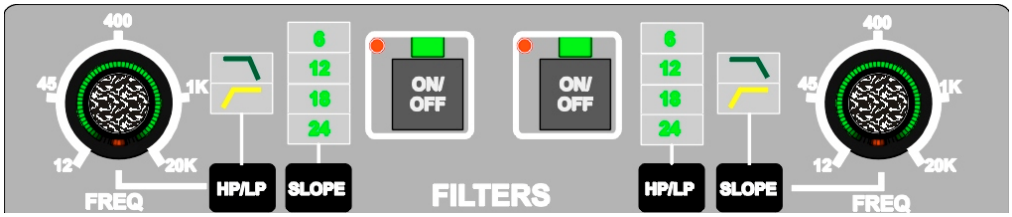
Stereo sources are not generally suitable for routing to surround destinations and the panning controls may not affect the signal in the expected manner. It is advisable to listen to a stereo source as it is panned across the sound field to determine how it will behave before actually using it. Alternatively, feed the input into two separate mono paths and pan these independently (this may not be possible with M/S sources).

To enable panning controls

➤ Press the ON/OFF key associated with the PAN/BAL Logicator.

FILTER Panel

The two filter sections are the same. Either or both can be used to apply High or Low pass filters to the signal path. Only the left hand filter section will be used if only one filter is allocated to the signal path.



The Logicators are primarily used to control the filter frequency.

The HP/LP keys switch the associated Logicator to act as a high/low pass selector.

The SLOPE keys switch the Logicator to select the slope from FLAT to 6, 12, 18 or 24dB/octave.

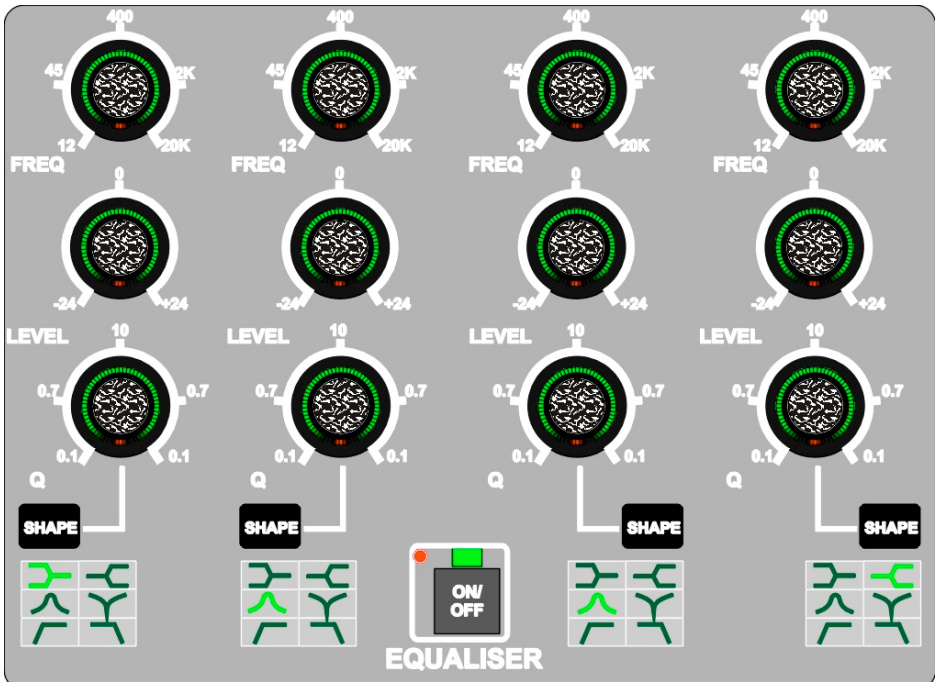
The ON/OFF keys switch the filter in and out of the signal path.

If more than 4 bands of EQ are allocated to a path in Desk Editor, the filters are disabled and the filter ON/OFF keys are used to switch the EQ Panel between EQ bands 1 to 4 and EQ bands 5 to 8.

EQUALISER Panel

Libra Live has a 4-Band Parametric Equaliser panel. A signal path can be allocated up to 8 bands of EQ, so the panel can be switched between bands 1 to 4 and bands 5 to 8. The EQ & Dynamics function can be used to display a graphical representation of the EQ curve as EQ is adjusted.

All bands of EQ are identical: all can be set to any shape and can sweep the entire spectrum from 12Hz to 20kHz.



The LEVEL Logicator provides +/-24dB of cut and boost.

The Q Logicator has a range from 0.1 to 10.

The SHAPE key causes the Q Logicator to change function to a shape selector. As the Logicator is turned the filter shape indicators illuminate as they are selected. The logicator reverts to the Q function when the shape switch is turned off.

The ON/OFF key switches all EQ bands in and out of circuit together.

Encore's Desk setup and Path Editor programs allow more than 4 bands of EQ to be allocated to the path if the filters are not used.

To switch between EQ bands 1-4 and 5-8 when there are more than four bands

➤ Press the left hand Filter ON/OFF key to switch to bands 1-4.

➤ Press the right hand Filter ON/OFF key to switch to bands 5-8.

➤ The Filter ON/OFF keys are used because there are no filters in a path with more than four bands of EQ.

To view the EQ curve as it is adjusted

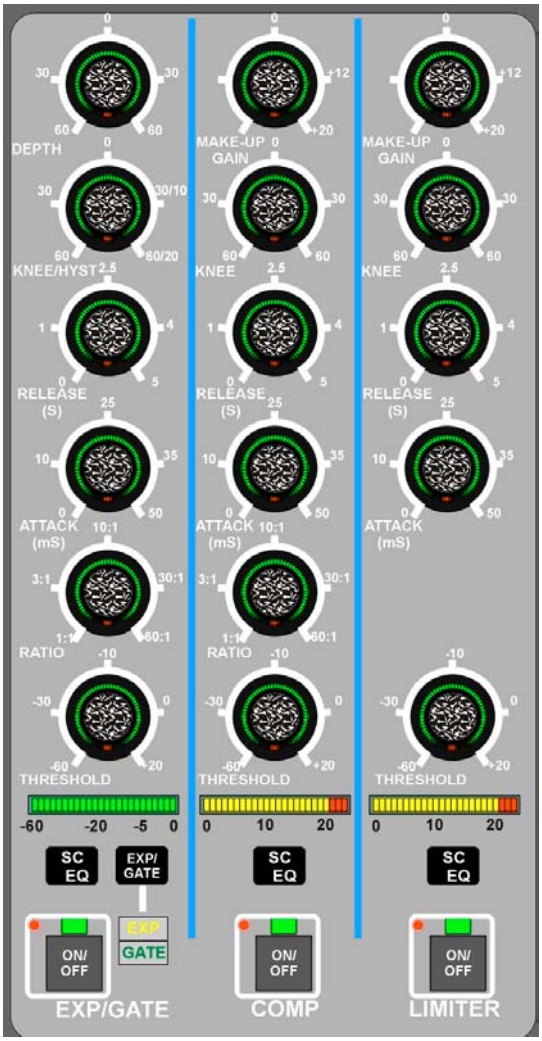
➤ Press the EQ/DYN key.

or

➤ Click the EQ & Dynamics Icon.

DYNAMICS Panel

The dynamics processing may either be a DRC (the most efficient in terms of processing power) or any combination of an Expander, Gate, Compressor and Limiter. The Dynamics elements always operate at the same point (pre/post fader, EQ etc) in the signal path. Other types of signal processing cannot be placed between the different Dynamics elements.



The Expander and Gate use a shared set of controls.

- The Expander uses the Logicators for depth, soft knee, release time, attack time, ratio and threshold.
- The Gate uses the Logicators for depth, hysteresis, release time, attack time and threshold.
- The EXP/GATE bargraph meter shows the gain reduction imposed by the Expander or Gate on the signal.
- The EXP/GATE key switches the set of controls between controlling the Expander and Gate.

The Compressor has Logicators for make-up gain, soft knee, release time, attack time, ratio and threshold.

The bargraph shows the amount of gain reduction applied to the signal. It also shows the additional effect of the limiter if a limiter is present.

The Limiter can only be present if the Compressor is also present. It functions as a second compressor with a fixed ratio.

The bargraph shows the combined effect of the Compressor and Limiter on the signal (the Compressor bargraph shows the same value).

Each dynamics section has it's own ON/OFF switch.

A graphical display of the dynamics settings can be shown on the Encore screen by selecting EQ/Dynamics from the menu system, or by pressing the EQ/DYN hot launch switch in the centre section keypad.

Using the DRC

It is recommended that Encore's graphical display of the EQ and dynamics curves is used when first setting up a DRC dynamics element to get a feel for how the compressor and expander interact.

The DRC can be used as a compressor only, expander only, or by the brave as a combined expander/compressor.

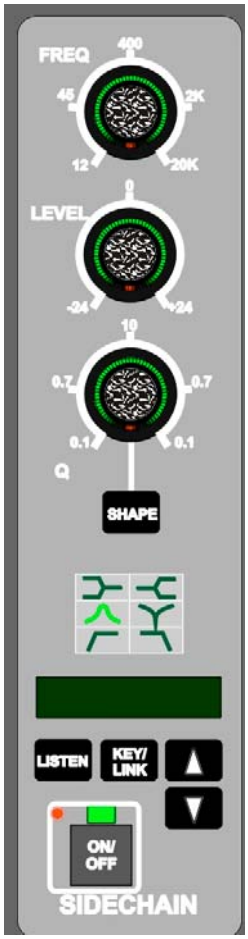
To use the DRC as an expander only

➤ Increase the compressor threshold to maximum and use the expander controls as normal.

To use the DRC as a compressor only

➤ Reduce the expander threshold to minimum and use the compressor controls as normal.

SIDECHAIN Panel



The Sidechain is used in conjunction with the Dynamics elements when allocated to the signal path using Desk Editor or Path Editor.

The Logicators are used to adjust the frequency, level and Q of the sidechain equaliser in the same way as a single band of the equaliser panel.

The alpha display shows which path (if any) has been selected for Key Input to the sidechain.

The LISTEN key is used to monitor the sidechain. It is latching.

The KEY/LINK key is used to switch between a normal sidechain input and a key input.

The up and down keys are used to select which Channel or Monitor path is used as the key input.

The ON/OFF key turns the sidechain on and off.

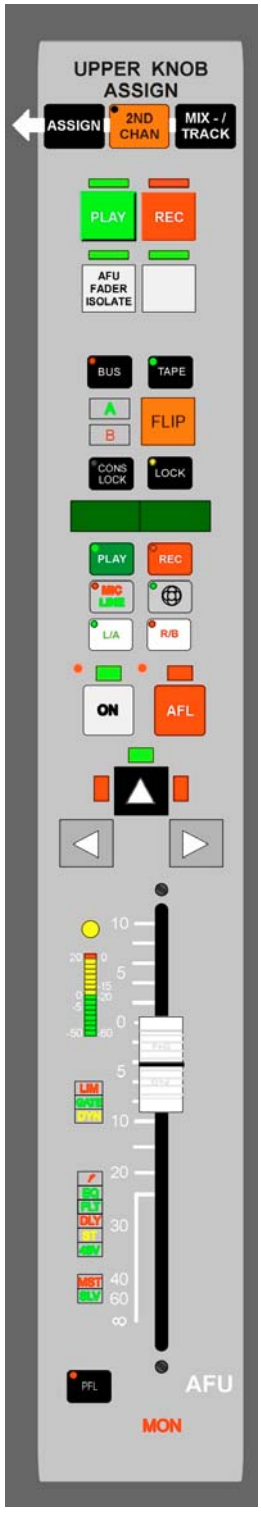
AFU Parameter Display

The Display has two lines and is used to show the path currently assigned to the AFU and the value of touched controls.

The display is also used to give other information relating to control use, for example a confirmation that console KEEP function has completed or that an output port is being used by another path.

AFU Fader Strip

The AFU Fader is used to duplicate the functionality of any other Fader Strip in a central position on the console. Some of the keys are also used to select the function of the top Logicator on the fader Strips and to lock selected controls to prevent inadvertent operation.



Upper Knob Assign Keys

These are used to select the function of the top fader strip Logicator.

To Assign the top Logicator on the fader strips to any AFU function:

➤ Press and hold the central ASSIGN switch in the AFU fader strip while touching the required control on the AFU. This will assign the function of the touched control to the top logicator on all fader strips that do not have the LOCK KNOB switch engaged.

To assign a second layer of faders to the upper logicators

➤ Press and hold the 2ND CHAN button switch in the AFU fader strip and select the required layer using the FADERS GLOBAL CONTROL panel layer selector switches.

To assign the MIX MINUS or TRACK output level trim controls to the upper logicators

➤ Press the MIX-/TRACK switch in the AFU fader strip. This will assign the function to the top logicator on all fader strips that do not have the LOCK KNOB switch engaged.

Fader Strip Keys

The large PLAY and REC are used to set the dynamic automation mode of everything in the path except the fader and ON key.

AFU FADER ISOLATE (V2.7 and later) is used to temporarily isolate the AFU fader so that it does nothing.

CONS LOCK is used with the ISOLATE key to lock all the controls on the console surface.

The remaining keys replicate the keys in the fader strip of the path the AFU is currently assigned to.

ACCESS Key

The Access key can be used to interrogate the routing of the path currently assigned to the AFU. It is also used when assigning System Paths to the AFU (e.g. SELs).

The access key can be used in conjunction with the adjacent selector keys to quickly bring signal paths on to the AFU.

To bring a cue, aux, ext, group or main output onto the AFU

➤ Select the cue, aux, group or main key on the selector panel (this will affect the monitoring as well). E.g. MAIN.

➤ Select and hold down the number key for the specific output. (E.g. 1) and press the AFU fader ACCESS key at the same time. This will load the selected path (in this example Main Output 1) onto the AFU.

To bring a monitor selector path on to the AFU

➤ Hold down the Studio Loudspeaker SELECT key and press the AFU fader ACCESS key once to bring SEL1 (main control room monitors) path to the AFU; twice for SEL2 (Studio loudspeakers); three times for SEL 3 (Small PFL control room speakers); four times for SEL 4 (Headphones); five times for SEL 5 (nominally the analogue meter selector in the routing panel) and six times for SEL 6 (nominally the analogue meter selector in the upstand).

➤ Alternatively, hold down the Studio Loudspeaker SELECT key and press the AFU fader ACCESS key once to bring the SEL1 path to the AFU, then use the Arrow-Left and Arrow - Right buttons to step the AFU around the system paths.

To bring the talkback, PFL and AFL paths to the AFU

➤ Hold down the Talkback SELECT key and press the AFU fader ACCESS key once to bring the talkback path to the AFU; twice for LS 1(Listen bus 1=AFL) and three times for LS2 (Listen Bus 2 = PFL).

The left and right arrow keys above the access key can also be used to step the AFU through the available paths once one of the above system paths has been selected.

Fader

The AFU Fader duplicates the functionality of the Channel Strip faders.

When a path is assigned to the AFU, the fader on the normal Fader Strip will take control precedence if both are moved simultaneously.

Control locks

A Control lock will lock the current values of controls such that they cannot be accidentally changed. It prevents alteration of the control until the lock is removed. Control locks do not affect routing. They can be applied to the AFU fader, individual sets of controls, individual signal paths or to the whole console.

To control lock an entire path

➤ Press and hold the ISOL key in the snapshot control section and touch the access keys of the paths that you wish to control lock. A red LED next to the channel switch (ON or CUT) indicates that the path is locked. ISOL plus the AFU access switch will lock the path which is on the AFU.

To control lock the entire console

➤ Press and hold the ISOL key in the snapshot control section and press the BLANK (or SAFE) key directly above the electronic scribble strip for the AFU fader.

To control lock the AFU fader and its On switch.

➤ Press and hold the ISOL key in the snapshot control section and press the LOCK key directly above the electronic scribble strip for the AFU fader. This does not affect the rest of the path.

To control lock the AFU fader and On switch of just the AFU fader without affecting any other fader that the path is on.

➤ Press and hold the ISOL key in the snapshot control section and press the left hand side blank key underneath play in the AFU automation section.

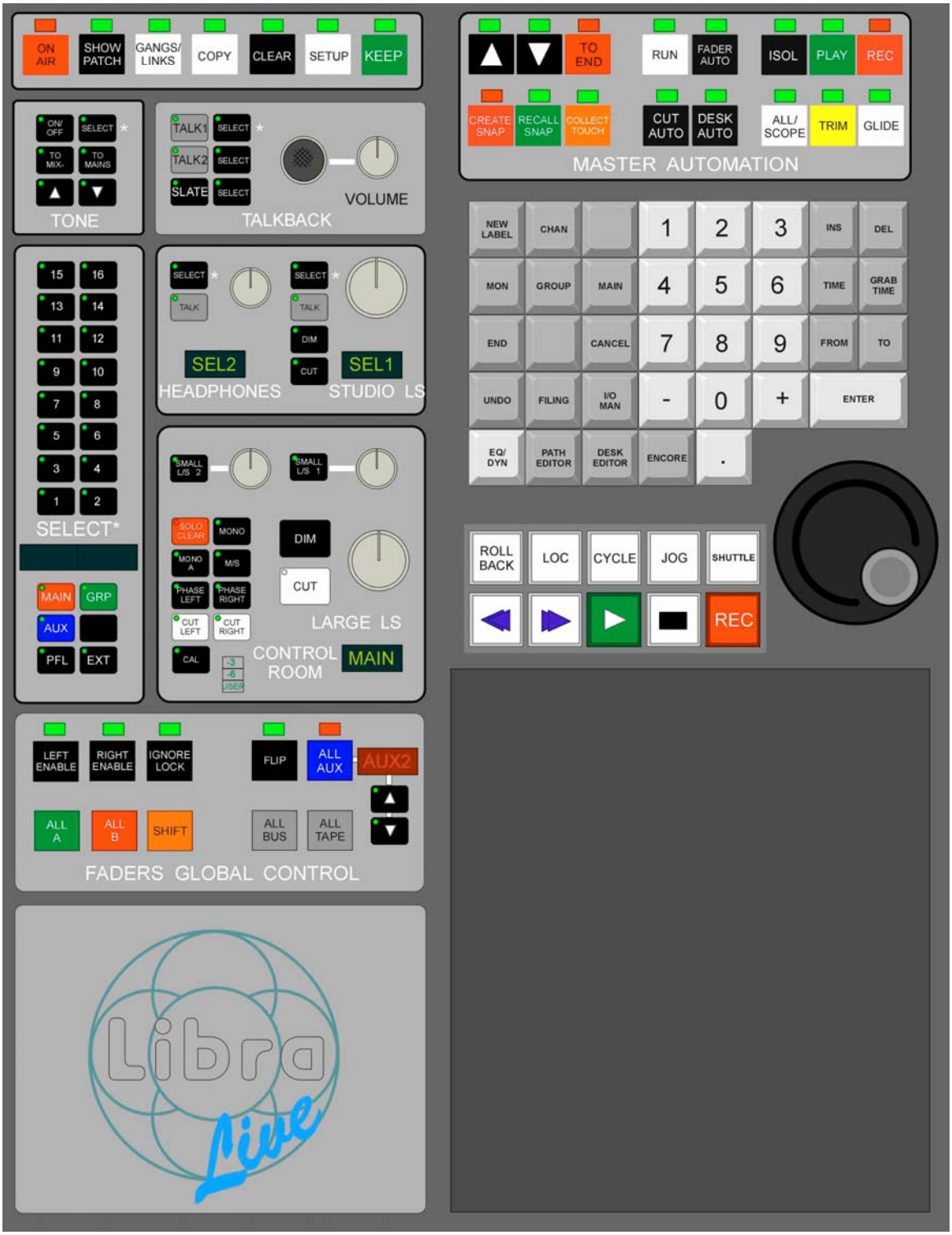
To control lock a group of parameters in the AFU section for example the EQ section

➤ Press and hold the ISOL key in the snapshot control section and press the ON key for that parameter. E.G. the ON key for the EQ section.

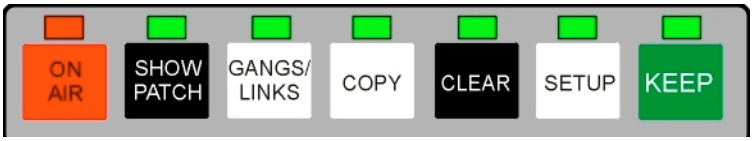
To un-lock simply repeat the lock procedure.

Master Control Section

The Master Control Section is used for global controls, utilities, monitoring, automation and transport control.



UTILITY KEYS Panel



ON AIR

The ON AIR key activates the On Air system which prevents tone and talkback being routed to the main outputs.

ON AIR can be mapped to a relay using the GPI system for controlling external equipment. Similarly it can be mapped to an opto-isolator input for control from external equipment. It can be used in conjunction with other GPI functions to mute studio speakers.

ON AIR prevents any re-configuring of the console that may cause the console to mute.

SHOW PATCH

SHOW PATCH is used to show the input and output routing of paths on the fader strips. Pressing the switch once will display the names of input ports connected to the paths on the faders in the scribble strip associated with the fader. Blank scribbles indicate no input port is routed (patched). Pressing the switch a second time will reveal the output ports that paths with outputs are routed to. Pressing the switch a third time will return the display to the path name.

If a Main Output has more than one output, only the first will be shown.

GANGS/LINKS

The GANGS/LINKS switch is used to form faders and their CUT (ON) switches into “gangs” that follow the movements of the designated master. The slave faders normally move to show their true value whenever the master fader is moved. An option in Encore’s User Preferences utility (VCA style gangs) allows the slave movement to be disabled. In this mode the position of the slave faders represents their value only when the master fader is set to 0dB.

A multi-level ganging system is supported, with any number of faders in a gang.

Any number of gangs may be created.

Any number of nestings of gangs within gangs is permitted with the proviso that a fader can only be a slave to one master.

Gangs can be created and removed at any time without affecting the audio signal.

Gang members can be on any layer.

To setup a Gang Structure

➤ Turn on the GANG/LINKS switch in the Utility Keys panel.

The LED above the key will flash and the displays for all strips (including Master Faders) will flash ‘Ganging’.

➤ Select a master by pressing and holding down the ACCESS key for the required path.

➤ Select slaves for this master by touching the faders of the required slaves.

The LEDs above the slave ACCESS keys will illuminate.

The SLV indicator next to the slave faders will illuminate green.

The MST indicator next to the fader for the gang master will illuminate red when the first slave is selected.

➤ Release the master ACCESS key for the master when all slaves have been selected.

To create another gang

➤ With the GANG/LINKS switch still on, select another fader to be a master by pressing and holding down its access key.

➤ Select slaves for this master by touching the faders of the required slaves.

➤ Note that faders cannot be slaves to more than one master.

➤ To finish creating gangs.

➤ Turn the GANG/LINKS switch off.

To identify the master of any slave fader, or the slaves of any master fader

➤ Press and hold down the access key of that fader.

Only the MST and/or the SLV indicators of faders related to the selected fader will illuminate. All MST and SLV indicators on faders that are not part of the selected fader's gang will be extinguished. Flashing MST or SLV indicators mean that the master or slave path is on a hidden layer (not on the faders).

To create submasters and sub-gangs

➤ Repeat the gang creation process, holding down a slave faders access key to select it as a submaster.

➤ Touch the faders for the required sub-group slaves.

or

➤ Select a new master by holding down its access key and include existing masters as slaves within the new gang by touching their faders.

Sub master faders have both the MST and a SLV indication illuminated

To modify a gang structure

➤ Press and hold the ACCESS key of the required master or submaster.

➤ Touch the faders for the paths to be deselected and/or added.

The SLV indicators will toggle on and off. If all slaves are de-selected then the MST indicator for the master will cease to be illuminated. While the MST indicator remains illuminated, there is at least one slave fader still ganged to the master.

To use a Gang

➤ Move the master's fader or press the ON/CUT key.

The slaves will follow the master's fader moves and will retain the original offset. Slaves may be moved independently of the master creating a new offset between slave and master.

Slaves will follow the master's ON/CUT key unless they are switched independently so that the LEDs above them are lit.

✍ ***Caution****: If VCA-mode Gangs are not selected, (i.e. the slave faders move with the master) and the master and slave faders are at the bottom of their travel, then a slave fader is moved up slightly, this will apply a large offset because of the non-linear fader law. Consequently, when the master fader is opened, the slave fader will move rapidly to the top of its travel in an attempt to maintain that large offset. This danger is averted by using the VCA mode of ganging.*

To save the Gangs setup with the Console Configuration

➤ Press the KEEP key in the utility panel.

COPY

The COPY key is used for fast duplication of signal processing settings between paths.

To initiate a copy command to copy control settings from one path to others

➤ Press the COPY key in the Utility Keys Panel.

The COPY key LED will flash and the channel displays will flash the message ‘Copy’. The touch LEDs on all controls in the AFU will illuminate red to indicate that they are in scope and will be copied.

To select which controls are to be copied

➤ Define the scope of the copy by touching the controls to be copied on the AFU. To select the fader, touch the lower AFU fader.

When the first control is touched, the rest of the AFU will be taken out of scope.

The touch LEDs on each control will toggle on and off each time that control is touched to indicate whether it is included in the scope or not.

To select whole processing elements to be copied

➤ Press the ON/OFF key associated with the processing element. For example pressing the EQ ON switch will toggle the whole EQ section in and out of scope.

All touch LEDs in the selected section will toggle on and off each time the ON/OFF key is pressed.

To execute the copy

➤ Press and hold down the ACCESS key on the source path to copy.

The ACCESS LED will illuminate and its display will flash ‘Copy Src’.

➤ Press the ACCESS keys for the destination paths in turn.

The displays for selected destination strips will flash ‘Copy Dest’ and the copy will be executed.

To finish the copy command

➤ Press the COPY or the CLEAR key in the utility panel.

CLEAR

The CLEAR key is used to clear certain functions, such as fader assignments; to reset controls to their default value and to end certain operations such as snapshot creation and recall.

To clear a control back to its default value

➤ Hold down the CLEAR switch and touch the Logicators or press the switches you wish to restore to default values.

To remove a path from a fader

➤ Turn SETUP on.

➤ Hold down the access switch for fader you want the path removed from.

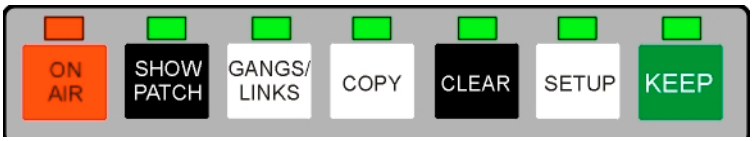
➤ Press Clear.

To clear Paths to Default Values

➤ Press and hold the CLEAR button, and press the ALL/SCOPE button.

This will reset all controls including the fader and any I/O porting to default positions.

This operation cannot be performed whilst in either of the snapshot modes (create or recall), or while in SETUP mode.



SETUP

The SETUP key is mainly used to turbo-assign signal paths to faders. When the Desk Editor application in Encore is used to create a console configuration, signal paths are assigned to specific faders on different layers using Desk Editor's Desk Designer utility. After the configuration has been loaded onto the console, the assignment of paths to faders and layers can easily be changed using the SETUP utility.

SETUP also allows paths that were not initially assigned to faders in Desk Designer to be assigned to faders later.

SETUP allows paths that have been assigned to faders to be moved to different faders.

SETUP also allows paths to be assigned to more than one fader. Paths that are on more than one fader will be controlled by both faders in parallel. This is sometimes useful if there are two operators on the console and either operator may need to control the signal path without reaching in front of the other operator.

Using SETUP does not interrupt the audio signal and so it can be used at any time, including when the console is on air. (V2.7 software and later).

To "Turbo-assign" signal paths to faders

➤ Bring the desired fader to the surface using the layer controls.

➤ Turn SETUP mode on by pressing the SETUP switch. This will launch Path Editor in offline mode.

➤ The SETUP switch LED will illuminate and the fader strip scribbles will flash SETUP.

➤ Select and hold down the switch on the routing panel that corresponds to the desired signal path.

➤ Press the ACCESS switch on the fader strip(s) you wish to assign the signal path to.

To swap paths between faders

➤ In SETUP mode simultaneously press the ACCESS switches on the faders whose paths are to be swapped.

Setup can also be used to turbo allocate signal processing into paths without the need for Encore. However, Setup allocates processing in a fixed order, so using Path Editor is usually more convenient. Pressing SETUP to launch Path Editor puts Path Editor into "offline" mode, allowing several changes to be made with Path Editor, which are then executed in one action by turning Setup off.

With ESP and earlier processor cards turbo allocation via Setup or Path Editor will mute the console for several seconds and so this operation is barred when the ON AIR switch is on.

To remove paths from faders

➤ In SETUP mode, press and hold down the CLEAR switch in the utility area while pressing the ACCESS keys of the faders that paths are to be removed from.

This only affects the layer that is currently on the fader.

To Turbo Allocate signal processing via surface controls

➤ Bring the desired path fader to the surface using the layer controls.

➤ Turn SETUP mode on by pressing the SETUP switch. This will launch Path Editor in offline mode.

➤ The SETUP switch LED will illuminate and the fader strip scribbles will flash SETUP.

➤ Press the ACCESS key of a path to be edited.

➤ Touch (for example) one of the Logicators in the EQ Panel on the AFU.

The number of columns of Logicators that illuminate indicates how many bands of EQ have been selected. The AFU Parameter Display will also indicate the number of bands selected (e.g. 3 EQ for three bands of EQ).

The ON/OFF switches in processing sections such as Filters and the Compressor can be used to turbo allocate the whole section to the signal path.

To make several changes and implement them in one action

➤ Proceed to make other changes, using the access buttons to select different channels as necessary.

➤ When all the changes have been made, execute them by pressing the SETUP button again, or by clicking on the Off-line/On-line button in the Path Editor page of Encore.

The AFU Parameter Display will show a spinning bar while the new processing is allocated. When this is complete then the display will show OK. If there is not enough spare processing available then the display will show XXXX and the processing will not be assigned.

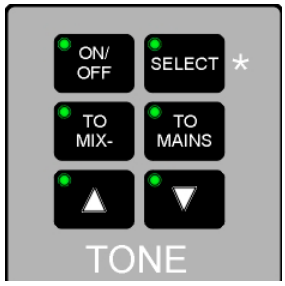
Pressing SETUP will also launch Path Editor allowing turbo-allocation via the Encore screen.

KEEP

KEEP updates the hard disk copy of the configuration with any changes to the console setup. It is not necessary to press KEEP to update the copy of the configuration that is kept in non-volatile RAM. This is continuously updated so that the console can re-boot at any time to the state it was in before power is removed or the boot command is issued. KEEP is disabled if the configuration on the hard disk is write protected.

Keep is also used to manually keep the most recent automation record pass to disk when using dynamic automation.

TONE Panel



The ON/OFF key switches the tone generator on and off to all destinations.

The SELECT key is used to set the destinations for tone.

The TO MIX- key routes tone to the Mix Minus (track) outputs.

The TO MAINS key sends tone to all the Main Output paths in the current console setup.

The up and down keys are used to adjust the frequency of the tone. Holding the SELECT key down while adjusting the frequency causes the display in the SELECT Panel to show the frequency.

To route oscillator to outputs other than MAINS and MIX-MINUS (track) busses

➤ Press and hold down the TONE Select key.

➤ Press the required destination keys in the monitor selector panel below, for example press AUX, then 2 for AUX 2. This creates the routing.

➤ Turn the TONE ON/OFF switch on to send tone to all selected destinations.

There are additional oscillator controls in the User Preference section of the Encore suite. These include:

- Selection of Glitz (interrupted) tones for channel idents
- Selection of frequency
- Selection of level

See the Encore User Preference section for more details.

MONITORING Panel

The monitor section comprises a shared selector panel and dedicated volume control sections for the control room, studio loudspeakers and headphones. The selector is also used as a source selector for the two assignable meters and as a destination selector for talkback and oscillator.

Monitoring Selectors

There may be up to 6 monitoring and metering output paths that use the Selector panel in addition to the talkback and oscillator panels. The selectors, known as SELs are normally used as follows:

SEL1:	Main Control Room
SEL2:	Studio loudspeakers
SEL3:	Small Loudspeakers 2
SEL4:	Headphones
SEL5:	Routing Panel analogue meters
SEL6:	Upstand analogue meters

The paths used to carry the AFL and PFL signals are called listen busses, and are abbreviated to LS1 and LS2 (this should not be confused with the two sets of small loudspeakers, L/S1 and L/S2).

SELECT Panel

The Select Panel is used in conjunction with other panels as a source or destination selector. The alphanumeric displays the Select panel's current use. It defaults to being the source selector for the control room monitors.

To select an input for the control room monitors

➤ Select the input type, e.g. MAIN.

➤ Select the number of the source; e.g. press 1 to select MAIN 1.

Available sources are indicated with a green LED, the selected source is indicated with a red LED and also displayed in the control room monitor panel alphanumeric.

To use the selector with other panels

➤ Press and hold down the SELECT key in the appropriate panel.

➤ Select the source or destination as described above.

PFL is normally directed to SEL 3, the second pair of small loudspeakers. If the SELECT panel PFL switch is engaged (green LED on) PFL is redirected to the main speakers whenever a PFL is selected elsewhere on the console (indicated with a red LED).

The blank switch may be used for monitoring cue outputs.

EXTernal inputs to the monitoring are stereo by default. The source ports for the EXTs can be selected using the I/O configuration utility in Encore or by calling the AFU to the EXT path and using the I/O panel on the AFU.

To call the AFU to an EXT

➤ Press EXT on the SELECT panel.

➤ Press and hold down the required EXT input using the numerical selector above.

➤ Press the AFU fader ACCESS key.

✍ *The same technique can be used to call the AFU to any select panel path.*

PFL

The PFL switch is used to allow PFL to over-ride the control room monitor selection (Latent PFL). The switch LED is green when PFL over-ride is enabled and red when a PFL has been activated somewhere on the console and is routed to the main control room monitors.

✍ *The AFL and PFL busses will not become active (i.e. they will not do anything) until LS1 and LS2 are ported to outputs (using the I/O patch utility in Encore for example). The outputs can be real outputs if you wish to have dedicated speakers or meters on the outputs for example, or just spare unassigned MADI ports if real outputs are not needed. Porting is also required to use the latent PFL selection on the SELECT panel (i.e. when PFL is selected as a monitoring source, but does not take over until PFL is activated on a fader strip).*

To call the AFU to the AFL and PFL Listen busses

This may be done in order to route the Listen busses to I/O ports for example

➤ Press and hold down the Talkback SELECT key and press the AFU fader strip ACCESS key 2 or 3 times.

The AFU fader scribble and central Alphanumeric display will step around TBK (talkback), LS1 (AFL) and LS2 (PFL) as each path is called to the AFU.

Cues (blank key)

Cues provide for cue mixes that are typically used to feed the headphones or studio loudspeakers. There can be up to twelve mono or stereo Cues in a Mix Setup (Cues default to stereo).

Cues can use Auxiliaries and Mains as routing sources. Cues can only output via the monitoring system (to the control room, headphones, etc.).

To assign the AFU to a Cue

This is useful if you have not assigned Cues to faders with Desk Designer in Desk Edit.

➤ Press and release the CUE key (this may be a blank key, next to AUX) on the lower part of the SELECT panel.

➤ Press and hold the number key for the required Cue.

➤ Press the AFU ACCESS key.

The Cue name will appear in the electronic scribble above the AFU fader.

➤ Release the number key.

The Cue can now be swapped to other faders, have Auxes and Mains routed to it and have signal processing applied.

The Cue will also be selected to the Control Room Monitor.

Externals (EXT)

Externals are direct inputs to the monitoring that are typically used for 2-Track returns, Off-Air monitoring etc. There can be up to sixteen stereo Externals.

The default path names for Externals are EX1, EX2, EX3, etc.

Externals must be connected (ported) to an Input Port. This is achieved using I/O Patch or the I/O Panel on the AFU.

To assign the AFU to an External

➤ Press the EXT key on the lower part of the SELECT panel.

➤ Press and hold the number key for the required External.

➤ Press the AFU ACCESS key.

The External's path name will appear in the electronic scribble above the AFU fader.

➤ Release the number key.

The External can now be swapped to other faders using SETUP.

The External will also be selected to the Control Room Monitor.

TALKBACK Panel

There is provision for 2 user programmable talkback circuits in addition to talkback to studio, headphones and mix-minus outputs which are located elsewhere on the console surface. The talkback bus (TBK) can also be routed to a hard output (i.e. a physical output port).

To select the input and output ports for talkback

➤ Use I/O PATCH in ENCORE to select the microphone input or talkback output port.

or

➤ Hold down the SLATE SELECT switch and press the AFU fader's ACCESS switch. This calls the Talkback path to the AFU, so that the I/O parts can be selected from the I/O section of the AFU panel in the normal way.

The talkback VOLUME pot is used to control the level of the pickup from the adjacent microphone when this is used as the TBK microphone. The output from the microphone is on a connector on the rear of the console, which must subsequently be connected to the line level analogue input port that has been selected for talkback input.

To route Talkback circuit 1 to any output destination

➤ Press and hold down the SELECT key next to the TALK1 key.

➤ Press the required destination keys in the monitor selector panel below, for example press AUX, then 2 for AUX 2. This creates the routing.

➤ Press the TALK1 switch on to send talkback to all selected destinations.

The TALK2 key and its SELECT key are currently the same as TALK1 (secondary talkback is yet to be implemented).

The control room monitors are automatically dimmed when talkback is used.

The SLATE key is operated in the same way and is used to switch talkback and low frequency tone to the selected destination.

The mode of the TALK1 and TALK2 keys (latching or momentary) and the LS Dim level (adjustable in 1dB steps from 6dB to 30dB) are set in Preferences.

CONTROL ROOM Panel

The SMALL L/S 1 key switches the Control Room Monitor output from the normal main monitor speaker(s) to Small Loudspeaker. The associated pot controls the level on the speaker.

SMALL L/S 2 is normally used for PFL. However, the SMALL L/S 2 key switches the Control Room Monitor output to Small Loudspeaker 2 and inhibits the output from the PFL bus to Small Loudspeaker 2. The associated pot controls the level on the speaker.

If SMALL L/S 1 and SMALL L/S2 are active at the same time then the source will be sent to SMALL L/S 2 only.

The switching for the speakers is shown in the Monitoring Schematic.

The SOLO CLEAR key turns off any AFL or PFL active solo on the console.

The MONO key sends a mono mix of the control room monitor selection to both left and right speakers.

The M/S key inserts an M/S decoder into the control room monitor path.

PHASE LEFT and PHASE RIGHT reverse the phase of the signal sent to the left and right speakers respectively.

CUT LEFT and CUT RIGHT cut the signals sent to the left and right speakers respectively.

The CAL key selects a pre-defined output level. This is used to set standard monitoring levels for surround sound monitoring. Pressing the switch will step through CAL, -3, -6, a user defined level and back to the normal variable level.

The DIM and CUT keys affect all three sets of speakers.

The large pot controls the level on the main monitor speakers.

The alpha display shows the currently selected Control Room Monitor source.

To call the AFU to the control room monitor path

➤ Hold down the STUDIO LS SELECT switch and press the AFU fader's ACCESS switch to step through the available selectors:

SEL 1 - Control room selector

SEL 2 - Studio Loudspeaker selector (PFL)

SEL 3 - Small Loudspeaker 2 Selector

SEL 4 - Headphones selector

SEL 5 - Routing panel analogue meters selector

SEL 6 - Upstand analogue meter selector

✍ *Small Loudspeaker 1 uses the same selector as the control room selector.*

Once called to the SEL path the AFU can be used to route the selector output to physical ports using the I/O section as previously described. The AFU balance control can also be used to set the left/right speaker balance. The AFU fader must be left at 0dB for the monitoring system to work correctly.

PFL

The PFL switch in the selector area is used to allow PFL to over-ride the control room monitor selection. The switch LED is green when PFL over-ride is enabled and red when a PFL has been activated somewhere on the console and is routed to the main control room monitors.

HEADPHONES and STUDIO LS Panel

Used to control the output to the headphone socket and the studio loudspeakers.

To select the output ports for the HEADPHONES and STUDIO LS outputs

➤ Use the “OTHERS” page of the I/O PATCH utility in ENCORE to select the headphone (SEL 4) and Studio LS (SEL 2) output ports.

or

➤ Hold down the STUDIO LS SELECT switch and press the AFU fader’s ACCESS switch to step through the available selectors:

SEL 1 - Control room selector

SEL 2 - Studio Loudspeaker selector

SEL 3 - Small Loudspeaker 2 Selector

SEL 4 - Headphones selector

SEL 5 - Routing panel analogue meters selector

SEL 6 - Upstand analogue meter selector

This calls the path to the AFU, so that the output parts can be routed from the I/O section of the AFU panel in the normal way.

The volume controls are analogue and the output ports are normally connected to them as part of the system installation.

To select a source for the HEADPHONES or STUDIO LS outputs

➤ Press and hold down the appropriate SELECT key.

➤ Use the selector panel to select the source, e.g. press AUX and then 2 in order to select AUX2.

The selected source is displayed in the associated alpha display.

To force the HEADPHONES or STUDIO LS selection to follow the Control room selection

➤ Briefly tap the appropriate select key to turn the follow function on and off.

FOLL is displayed in the associated alpha display.

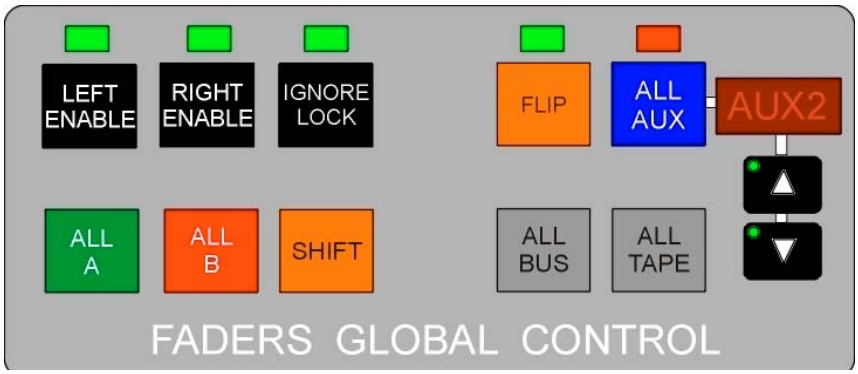
The **TALK** keys are used to inject talkback onto the outputs.

The **DIM** key reduces the level on the studio loudspeaker to the level set in Monitoring Preferences.

The **CUT** key cuts the signal to the studio loudspeaker completely.

FADERS GLOBAL CONTROL Panel

Used for selecting which paths are on the surface on the left and/or right hand side of the console, setting the Assignable Logicators to control Monitor path output levels, global Bus/Tape switching and setting the faders to control Aux contribution levels.



ENABLEs

The LEFT ENABLE and RIGHT ENABLE switches can be used to select just the left or right side of the console for global actions. The dividing line between left and right can be set at any fader position using the User Preferences in Encore.

IGNORE LOCK

Critical paths such as presenter's mics can be locked on the fader strips with either the fader strip LOCK or LOCK KNOB switches. These locks can be over-ridden from the centre by using the IGNORE LOCK switch.

FLIP

FLIP swaps the paths on the logicators with the paths on the faders across the console (except where the fader or Logicator is locked).

Layer Select

The **ALL A, ALL B** keys select Layers A and B to the fader strips. Hold down **SHIFT** (may also be labelled SUB or MON) and press ALL A and ALL B to put Layer SUB A and SUB B on the surface.

ALL AUX causes the faders to operate as auxiliary contribution level controls for the aux shown in the adjacent display. The up and down keys select which aux bus contributions are brought to the fader.

To change the layer on the logicators

➤ Hold down the 2nd CHAN key on the AFU fader strip and press the appropriate combination of ALL A, ALL B, SUB A and SUB B.

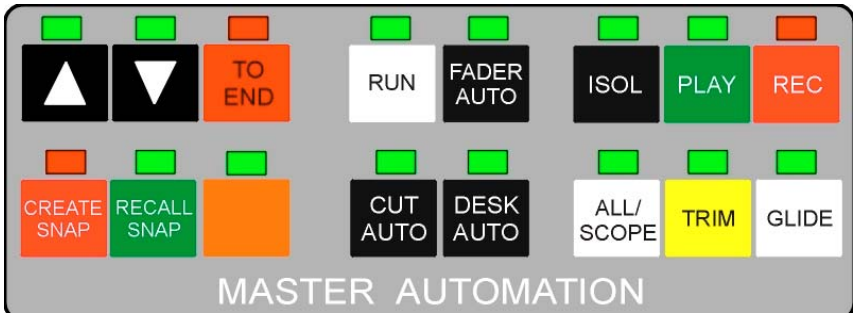
ALL BUS and **ALL TAPE** switch all Monitor path returns to the bus or tape inputs respectively.

The ALL BUS and ALL TAPE switches do not affect the bus outputs - they merely switch the monitor returns between console output and console input. If the metering is set to FOLL FADER, then the meters will follow this selection. This will cause metering of mix-minus and surround sound outputs to disappear when the monitor paths are switched to tape, though the outputs will still be there. BUS/TAPE switching may be disabled on selected monitor paths by holding down the ISOL switch in the centre section and pressing the fader strip BUS or TAPE switch on each channel.

When aux contribution levels are on the faders the scribble strip flashes to warn the user that the console is in an unusual state and the fader CUT switches become the ON/OFF switches for the aux sends.

MASTER AUTOMATION Panel

Used in conjunction with the Encore screen for dynamic automation and to create and recall snapshots. Both Snapshots and dynamic automation are covered in more detail in separate sections of this manual.



Mix/Pass Selection

The up and down arrow keys are used by for selecting dynamic automation mix/passes.

TO END

The TO END key is used to overwrite subsequent dynamic automation moves to the end of the current mix pass for any controls that are in a record mode.

Snapshots

CREATE SNAP and **RECALL SNAP** are for creating and recalling snapshots (described fully in the Snapshot section).

Snapshot/Dynamic automation selection

The **RUN** key toggles between snapshot (off) and dynamic (on) automation modes.

Scope

The **FADER, CUT** and **DESK AUTO** keys are used with **the ALL/SCOPE** key for defining the scope of the dynamic and snapshot automation.

ISOL, PLAY, and **REC** are used with the **ALL/SCOPE** key to set the global scope in snapshot automation, or to set the global automation mode in dynamic automation.

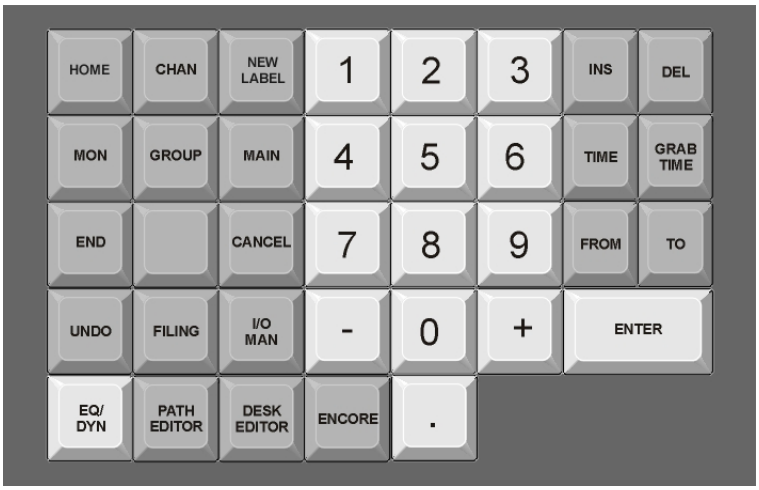
Dynamic Automation Modes

TRIM and **GLIDE** are used in dynamic automation mode to select global trim and glide automation modes for controls that are in scope.

Keypad and Transport Controls

Keypad

The keypad is used for dynamic automation, snapshot automation, calling paths to the AFU and launching Encore screens. Dynamic and Snapshot automation functions are described in their respective sections within this manual.



To call a signal path to the AFU

➤ Type the path number on the numeric keypad - the numbers appear in the monitor selector alphanumeric display. The path selected does not have to be on the control surface already.

➤ Press the CHAN, MON, GROUP or MAIN switches to confirm the path number and select the path type.

For example, to bring channel 105 to the AFU fader, press 1,0,5,CHAN.

To launch Encore pages

➤ Press EQ/DYN; PATH EDITOR; DESK EDITOR; ENCORE; FILING or I/O MAN to launch these pages.

➤ Press HOME to close all open pages and return to the Encore menu.

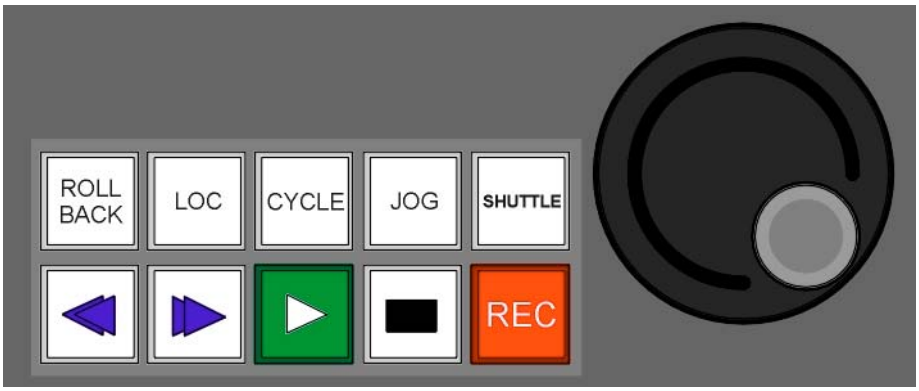
To launch Diagnostics (V2.8, XSP equipped consoles only)

➤ Press UNDO.

This causes the electronic scribble to display the processor card and chip that is handling the signal path on the faders. Pressing UNDO a second time will display the processor card and chip that is handling the mix process (outputs only). If a spare XSP is fitted into the system, pressing the ACCESS button will cause the processing to be moved to the back-up processor.

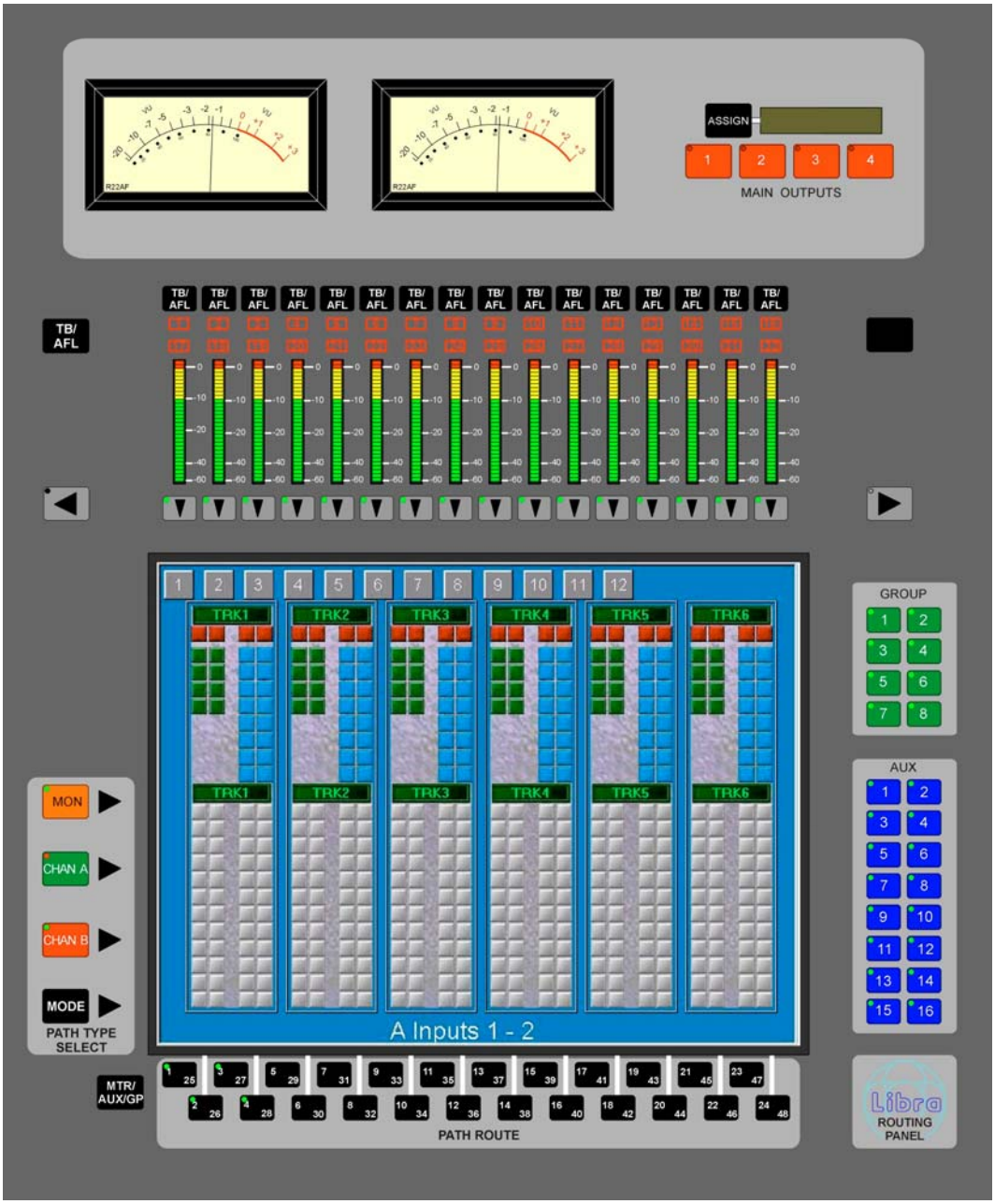
Machine Control

The machine control keys will control serial transports through Encore's comprehensive MCS system described in the MCS section of this manual, or alternatively, the switches may be brought directly to a customer connector on the console for customer use.



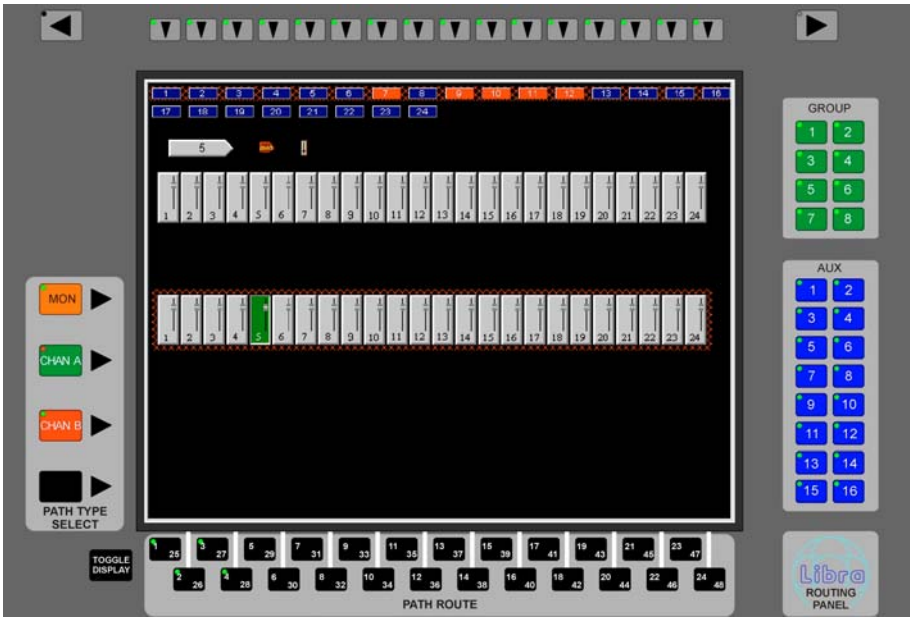
ROUTING and METERING Section

The Routing Panel is used to route signal paths through the console and in assigning signal paths to fader strips. There is a choice of routing screen displays available in addition to the one shown above.



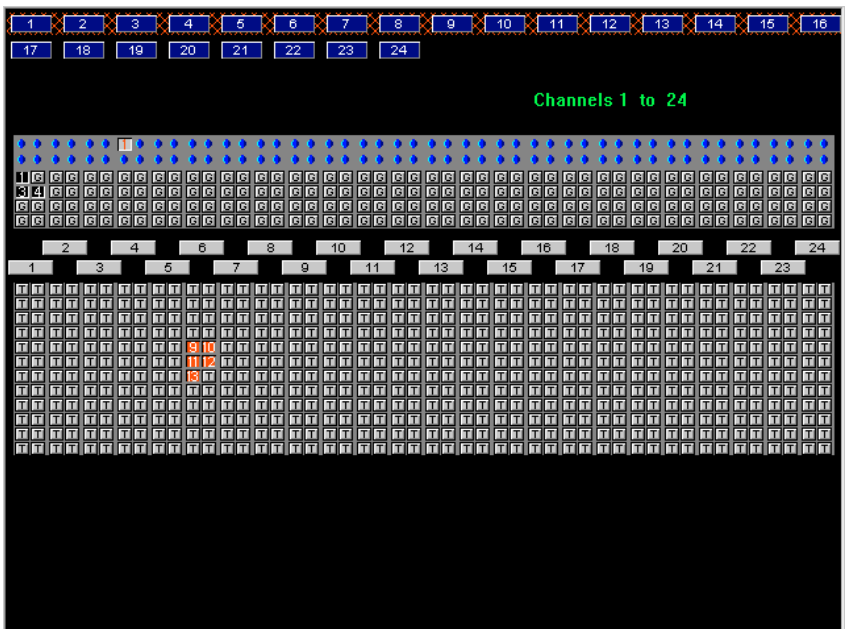
Routing Screen Displays

There are 3 different routing screen displays to be selected from using the TOGGLE DISPLAY key. The picture on the previous page shows the “forward” routing screen. The screen shows the routing for 6 faders to main output, group, auxiliary and track outputs in a traditional format. The faders displayed are those of the 6-fader pack where an ACCESS key (or the equivalent source key below the routing screen) was last pressed. The colour code and layout of the screen match those of the physical routing destination switches arranged around the routing screen. At the top of the screen switch icons provide labelling for the track destination switches located above the screen.



The routing screen shown above is the “reverse” routing screen. There are up to 6 rows of 24 fader icons on the screen at any time, representing up to 144 input sources. The advantage of this screen is that by pressing any destination path ACCESS button any input routed to that destination will be highlighted, regardless of whether or not it is currently on the control surface.

The third screen (below) is the global routing screen and is only suitable for use with smaller consoles. It shows Main, Group and track routing for up to 24 inputs at one time.



Routing Panel Switches

The switches around the routing screen always work in the same way, regardless of the screen display chosen.

The routing switches use a standard convention:

- If the LED is not illuminated, the source or destination is not available. This may be because only 8 out of a possible 16 auxiliaries have been configured for example, or that the destinations are not valid for selected sources.
- When the integral LED is green, the source or destination is available, but is not currently selected.
- When the LED is red, the source or destination is available and is currently selected.

Source switches

The switches below the screen represent 24 input sources as selected using the selector switches on the left of the routing screen.

Source Selector switches

The switches to the left of the display screen are used to select the 24 sources that are on the source switches below the screen.

Track switches

The switches immediately above the screen represent 16 of the track outputs. The arrow switches either side of the track switches are used to page the 16 keys through the available track outputs. The current selection is shown by red hatching around the icons on the screen below the switches. Track outputs are used for mix-minus and surround sound outputs, as well as for multitrack sends.

Group, Aux and Main Output switches

These colour-coded switches are arranged to the right of the screen and at the top of the panel near the VU meters. These switches are used to identify routing destinations. The group switches can also be used to identify a group as a routing source when routing to a main output for example.

TB/AFL switches

These switches are only used on track sends designated as being Mix-Minus outputs. The switches are used either to route talkback to the mix-minus outputs when the large TB/AFL switch to the left of the meters is red, or to monitor the mix-minus outputs through the AFL system when the large TB/AFL switch is green.

Routing

Routing can be done using the control surface (the most usual way) or through Encore's Routing Assistant utility (used mostly when setting up routing away from the console with Offline Encore). Routing Assistant is described in the Encore section of this manual.

Legal routing combinations are as follows:

- Channels to Track Monitors, Groups, Main Outputs and Auxiliaries.
- Track Monitors to other Track Monitors, Groups, Main Outputs and Auxiliaries.
- Groups to Track Monitors, Main Outputs and Auxiliaries.
- Main Outputs to Cues.
- Auxiliaries to Cues.

This does not include selections made in the monitoring system (monitoring, talkback, tone).

The routing software inhibits feedback loops (e.g. it blocks circular routing patterns such as routing TK 1 to GRP1, GRP1 to TK 2 and then TK 2 to TK 1). Whichever step is attempted last in making such a routing pattern is simply ignored.

To route signals using the fader strip access keys

➤ Hold down the ACCESS switch on the source path's fader strip.

➤ Press the ACCESS switches on the fader strips of the destination paths. The adjacent LEDs will illuminate to indicate a route is made, or will extinguish if the route is turned off.

When the source ACCESS key is pressed, the ACCESS switches on the fader strips of destinations to which the source is already routed will illuminate.

To reverse route

Sometimes it is easier to select the sources which should be routed to a given destination.

➤ Hold down the ACCESS switch of the destination path's fader.

The Access switch LEDs on source path faders already routed to the destination will illuminate

➤ Press the ACCESS switch on the fader strips of the source paths. The adjacent LEDs will illuminate to indicate a route is made, or will extinguish if the route is turned off.

To route signals using the routing screen

To save stretching across the console to reach distant ACCESS buttons, the switches below the routing screen can also be used to route signals.

➤ Use the source selector keys on the left side of the routing screen to select the range of source paths to be on the source keys below the screen.

The MON switch is used to cycle through the 96 possible monitor paths

1-24	Switch LED is red, solid
25-48	Switch LED is red, flashing
49-72	Switch LED is green, solid
73-96	Switch LED is green, flashing

The CHAN A switch is used to cycle through the first 96 input channels using the above LED indication and the CHAN B switch is used to cycle through input channels 97- 192.

The keys around the screen refer to the path numbers, not the fader number, so the selection is independent of the layer that the paths are on.

If the reverse routing screen display is being used, the 24 input paths assigned to the source switches are indicated by a red box surrounding the row of fader icons on the screen.

➤ Press and hold the required source path key at the bottom of the screen.

The routing screen will confirm the path selected (The exact way will depend on the display selected).

The switches around the screen that the path is already routed to will illuminate red. The ACCESS keys on faders that the source is routed to will also illuminate and the destinations will be shown on the screen (if the forward or global routing displays are selected).

The LEDs in destination switches that the path could be routed to will illuminate green - impossible routes will go dark.

➤ Press the keys for the required destinations.

The LEDs will reflect the changes immediately. The screen will normally update when the source button is released and pressed again. Each press of a destination key toggles routing to the destination on and off.

To route a Group to multiple Track Monitors and/or Auxiliaries

➤ Use the Group keys as source keys as described above.

To reverse route using the routing screen

➤ Press and hold the required destination path key.

Paths that are already routed to the destination will be shown by red LEDs around the routing screen and by illuminated ACCESS keys. If the reverse routing display is used, any of the paths shown on the screen that are routed to the destination will be highlighted. This is a very powerful feature of Libra Live as it quickly shows all contributions to an output with just one button press (two if the console has more than 96 channel inputs as the CHAN B key will have to be pressed for inputs above 96).

➤ Press the source keys, or the access keys for the required sources.

➤ Release the destination key.

To change the background colour of the routing screen

➤ Double click anywhere on the background.

A Colour dialogue box will be displayed.

➤ Click on the required colour.

➤ Click OK.

The background colour will be changed as selected.

To show names instead of path numbers for the source paths

➤ Move the trackball pointer across to the routing display and right click.

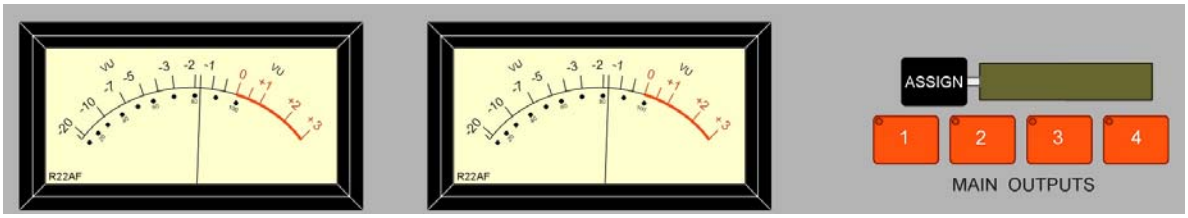
A small “flyout” menu will appear with options for Tracks, Channels A, Channels B and Names.

➤ Click the Names option.

The path names (if any) will be used in place of the path numbers.

Next time the trackball is right clicked on the routing screen, the Names option on the flyout menu will be ticked.

Routing Panel Analogue Meters



Either VU meters or mono PPM meters may be fitted.

The meters’ inputs are on the rear of the console and may be connected to any signal source.

Alternatively a dedicated pair of DACs can be used together with the ASSIGN switch to the meter's right to allow the meters to be switched to the console outputs on the monitor selector panel.

The console meter assign switch uses SEL 5 and so at least 5 SEL paths must be configured in Encore's Desk Editor for the assign switch to work.

To assign the analogue meters to a selector panel output.

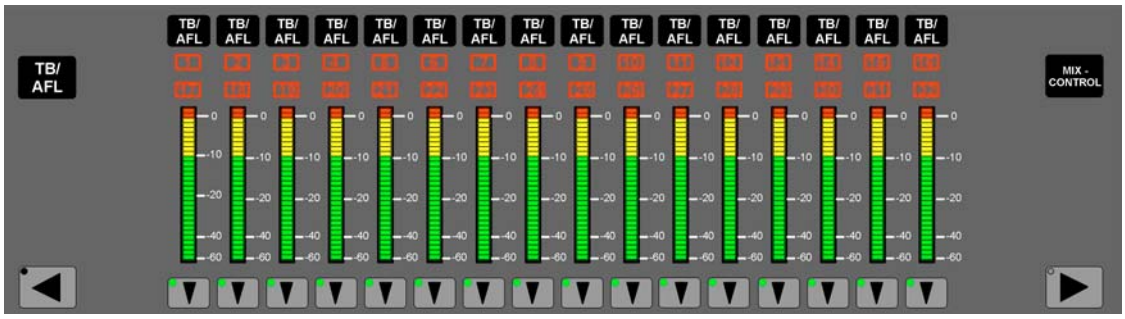
Press and hold down the ASSIGN switch.

Use the selector panel to select the source, e.g. press AUX and then 2 in order to select AUX2.

The selected source is displayed in the adjacent alpha display.

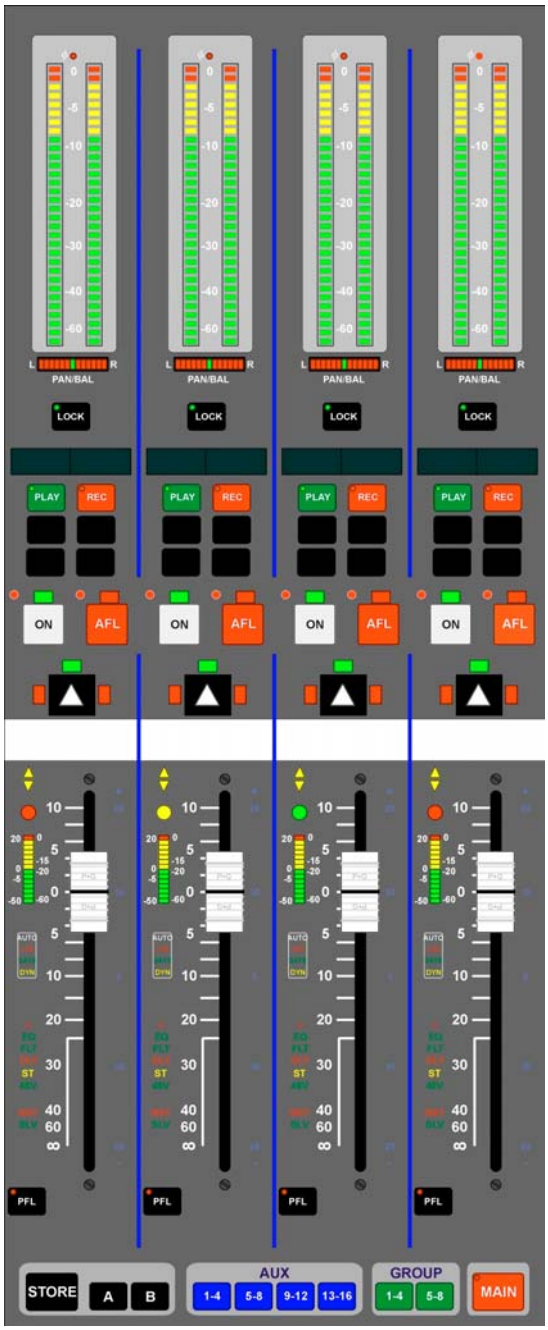
Routing Panel Bargraph Meters

Sixteen meters are provided above the routing screen for "track" outputs. Track outputs are normally used for Mix-minus, but may also be used for multitrack and multiple surround sound outputs. The meters are paged to track outputs greater than 16 when the arrow switches either side of the track switches are used to select different banks of track outputs.



The function of the buttons above the meters is set by the TB/AFL switch at the top left of the panel. They may be used for inserting talkback into individual track (mix-minus) outputs, or to route the track output into the console's AFL system for monitoring the track output.

MASTER FADER Section



The Master Faders are normally used by the Main Output, Group and Auxiliary paths. It is not necessary to assign these paths to these faders in Desk Designer - they are automatically made available on these faders. Up to 3 Master Fader Sections may be fitted in a console.

Output Meters

The phase LED shows when there is phase reversal on the path assigned to the associated Master Fader. The phase switch is on the AFU.

The bargraph meters show the signal level of the left and right legs of a stereo signal, or the left hand meter will show the level for a mono signal.

✍ *The meter point is at the output port of the signal path, so it is necessary to route the output to a valid port before the metering will work.*

The PAN/BAL indicator shows the amount of pan or balance applied.

Strip Keys

LOCK

The LOCK key locks the current path to the Master Fader to prevent the Fader from being re-assigned.

PLAY and REC

The PLAY and REC keys are used to set snapshot and dynamic automation modes for the fader.

Access Key

The Access Key is primarily used for routing and to assign (or call) the path assigned to the fader to the AFU.

Fader

The fader has two scales.

The white scale shows the gain setting.

The blue scale is used for fader trim (a dynamic automation function).

The yellow nulling LEDs show the direction that the fader should be moved to match to the Play Pass position during Automation (a dynamic automation function). In V2.8 software these LEDs also indicate when the fader is a VCA slave to a master fader that is set above or below 0dB.

The large round tri-colour LED shows signal presence at the input or output port of the signal path. The levels are set in User Preferences. Green indicates a detectable signal, orange a high level signal and red a signal that is close to clipping.

The small meter gives an indication of signal level at the input or output port of the signal path or the dynamics gain change, according to the User Preference.

PFL

The PFL key works in parallel with the overpress fader and automatically cancels when the fader is opened.

Master Fader Assignment Keys

These keys are used to rapidly select which paths are currently assigned to the Master Faders.

Two sets of Master Fader assignments can be saved and recalled with the **STORE A** and **B** keys.

To store and recall a fader assignment

➤ Press and hold the STORE key while pressing the A or B key. This will store the current fader assignments. To recall press the A or B switch.

The **AUX** keys are used to assign the Auxiliary paths to the Master Faders in groups of four.

The **GROUP** keys are used to assign the Group paths to the Master Faders in groups of four.

The **MAIN** key assigns the Main Output paths to the Master Faders from left to right. Only as many faders as there are Mains will be used.

ENCORE SCREEN and KEYBOARD

Dockable Keyboard

The Dockable Keyboard is used in conjunction with the Trackball to operate the Encore part of the system. The space above the Encore TFT Screen is for storing (docking) the keyboard when it is not in use.

Encore TFT Screen

This screen is used by Encore to display information relating to configuration and setup of the Libra Live. Encore is also used for Snapshots and Automation.
The screen is a flat TFT type, giving a high-resolution display that is easier on the eye than conventional screens.

✍ *Applications and use of the screen are described in the Encore section of this manual.*

Upstand Metering

Libra Live has extensive Metering and Signal Presence Indication distributed across the control surface as well as in the upstand. The metering serves two functions: To check the level of the signal at key input and output points on the console and to confirm that signal has been correctly routed and is reaching its destination.

The compact frame meter bridge consists of a Main Meter Section which is normally fitted above the AFU, and Strip Meter Sections on either side. The bargraphs are in stereo pairs, with mono signals being displayed on the left side.

In addition to the meter bridge, the Routing and Metering Section has sixteen mono bargraph meters used to show the level of the 16 track outputs (normally mix-minus outputs) that are on the 16 routing buttons below. Two assignable moving coil VU or mono PPM meters are also provided here.

Each strip in the Master Fader Section has a large stereo bargraph meter that shows the output level of the path assigned to the strip. Any path can be assigned to a Master Fader (using the SETUP switch as described in the Console Surface centre section description) and this allows any path to be metered by a Master Strip meter. The meters also have phase reversal indicators.

Finally, the fader modules have 10 segment bargraph meters that can be used for input level or for dynamics gain reduction display.

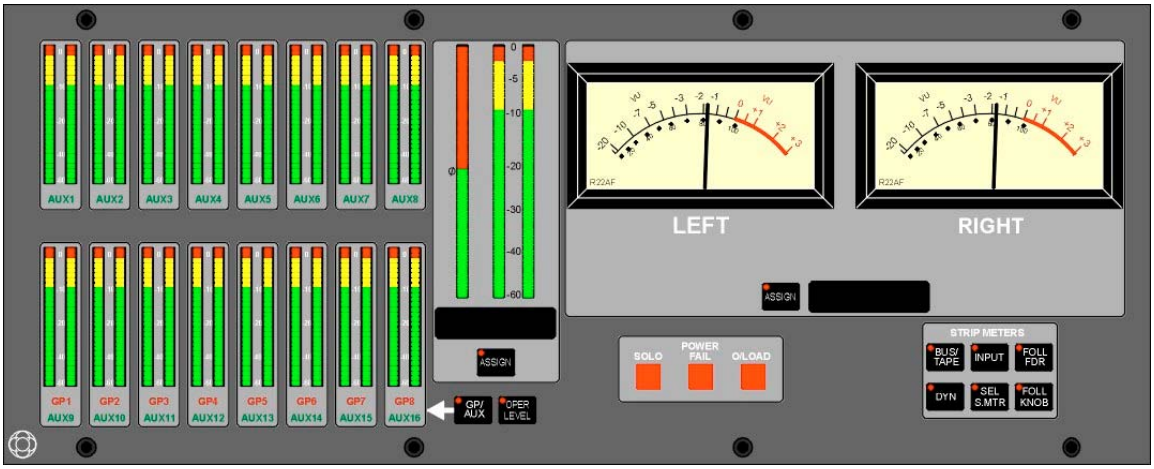
Libra Live I/O metering is performed on the signal at the input or output port. It is before any digital trims on the inputs and after any trims on the outputs. Only the analogue input trims and processing will affect the input metering. It is necessary to route the signal path to an I/O port before the meter will work.

Meter Bridge

The Libra Live may be supplied with standard full height bargraph meters for each fader strip, or with dual meters for each strip allowing two layers to be seen simultaneously. Optionally, the meter bridge may be omitted completely allowing for a custom meter bridge to be fitted.

Centre Meter section

There are 16 pairs of bargraph meters on the left side of the Main Meter Section capable of showing 8 stereo Aux levels and 8 stereo Aux/Group/Film output levels according to the selector switches next to them. In the centre is a stereo bargraph meter with an associated phase meter (width display) that follows the control room monitor selector. The alpha display below the meters shows the currently selected source (see the monitoring description in the Libra Live Console Surface chapter).



On the right are two moving coil VU (or mono PPM) meters. These may either be hard-wired to a fixed signal source, or may be assigned a selector (SEL 6).

At the bottom at the centre there is an LED panel for indicating solo, power and overload status and a set of 6 keys for selecting sources and for controlling the meter display.

Strip Meter Control

The strip meter controls fitted will depend on the type of meters the console has. The dual meter strip controls have an additional SEL S.MTR switch.

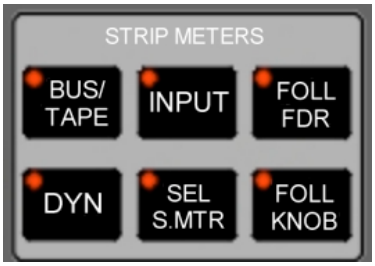
To toggle the bottom row of 8 centre section meters between displaying group outputs and displaying Aux 9-16 outputs

➤ Press the GP/AUX switch.

To display the alignment level indicator

➤ Press the OPER LEVEL switch.

A single LED marker on the bargraph meter will illuminate to indicate where the console operating level is. A nominal 0dBu is set with respect to 0dBFS in User Preferences. The operating level mark is 4dB above this value.



To assign the strip meters to inputs

➤ Press the INPUT key on the Main Meter Section.

The integral LED on the key and the I/P LED on the full height strip meters will illuminate.

The meters will display the level on the associated fader's path input port, or for output paths, the output port.

To assign the strip meters to bus outputs

➤ Press the BUS/TAPE key on the Main Meter Section.

The integral LED on the key will illuminate green and the BUS LED on the strip meters will illuminate.

The meters will display the level on monitor path outputs. The monitor paths are displayed sequentially across the meter bridge and do not relate to the fader layout.

To assign the strip meters to tape returns

➤ Press the BUS/TAPE key on the Main Meter Section.

The integral LED on the key will illuminate red and the TAPE LED on the full height strip meters will illuminate.

The meters will display the level on the inputs to the tape monitor paths. The monitor paths are displayed sequentially across the meter bridge and do not relate to the fader layout.

To assign the strip meters to follow fader selection

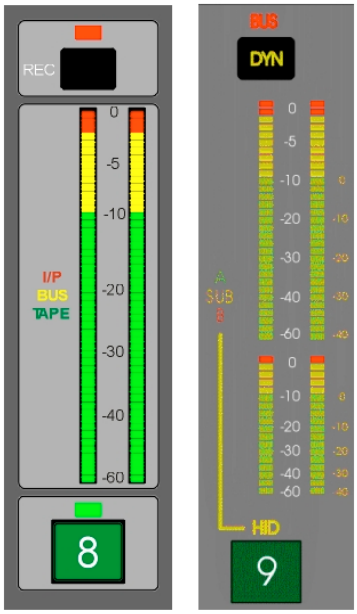
➤ Press the FOLL FDR key on the Main Meter Section.

The integral LED on the key will illuminate and the path type LEDs on the full height strip meters will illuminate according to the path selected on the fader.

The meters will display the level on the inputs to the tape monitor paths or the outputs of the paths according to the path's bus/tape switch. The monitor paths are displayed sequentially across the meter bridge and do not relate to the fader layout.

Dual Meter\Strip Control

The large upper section of the dual meter strip is assigned to the path that is on the fader. The small lower section can be assigned to any other layer, either globally or locally.



To assign the lower bargraphs to alternate layers globally

➤ Press the SEL S. MTR (select small meter) switch.

The small meters will step round the four layers with each successive switch press. The layer selected will be displayed on the meter strips.

To assign the lower bargraphs to alternate layers locally

➤ Press the large numbered switch at the bottom of the individual meter strip.

The small meters will step round the four layers with each successive switch press. The layer selected will be displayed on the meter strip.

To assign the lower bargraphs to follow the assignable Logicator selection

➤ Press the FOLL KNOB key on the Main Meter Section.

The integral LED on the key will illuminate and the path type LEDs on the meters will illuminate according to the path selected on the assignable Logicator.

To assign the right hand bargraph of each pair to dynamics gain reduction globally

➤ Press the central section DYN switch.

The right hand meter of each stereo pair (large and small sections) will display the gain reduction caused by the dynamics section compressor. The left hand meter will display the greater of the left or right side of a stereo pair.

To assign the right hand bargraph of each pair to dynamics gain reduction locally

➤ Press the DYN switch at the top of the individual meter strip.

The right hand meter of the individual stereo pair (large and small sections) will display the gain reduction caused by the dynamics section compressor. The left hand meter will display the greater of the left or right side of a stereo pair.

Full Height Meter Strip Control

To assign the right hand meter to follow the assignable Logicator selection

➤ Press the FOLL KNOB key on the Main Meter Section.

The integral LED on the key will illuminate and the right hand meter of each section will display the greater of right or left signal of the Logicator's path. The left hand meter will show the greater of right or left signal of the Fader's path.

To assign the right hand bargraph of each pair to dynamics gain reduction globally

➤ Press the central section DYN switch.

The right hand meter of each stereo pair (large and small sections) will display the gain reduction caused by the dynamics section compressor. The left hand meter will display the greater of the left or right side of a stereo pair.

Aux/Group Metering

Sixteen stereo bargraph meters on the Main Meter Section of the Meter Bridge are used for Aux metering. Eight of these may be re-assigned for Group metering.

To re-assign Aux meters 9 to 16 to meter Groups

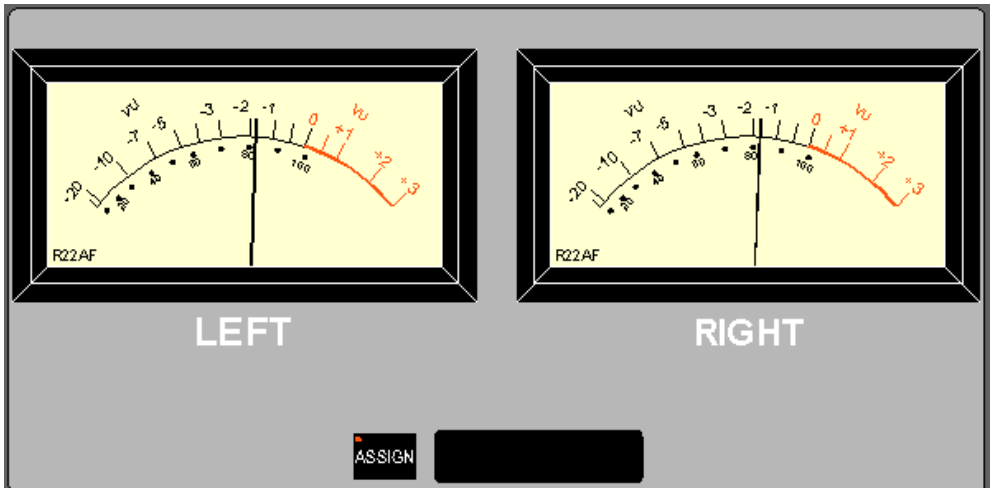
➤ Press the GP/AUX key on the Main Meter Section.

The integral LED will illuminate.

The GP1 to GP8 LEDs under the Group/Aux meters will illuminate.

Assigning the Analogue Meters

There are 2 sets of analogue moving coil meters in the console as standard. These may be VU or mono PPM and may be hardwired to specific console outputs or have their own source selectors. Console selector SEL 5 is used for the meters in the routing panel and SEL6 is used for sending a signal to the meters in the Meter Bridge. These SELs should be ported to the DACs that are wired to the meters.



To select the signal to be metered by the analogue meters

➤ Press and hold the ASSIGN key to the right of the routing panel meters or the ASSIGN button below the meterbridge.

The SELECT Panel is now used for selection of the required signal.

➤ Press the MAIN, GRP, AUX or EXT key on the SELECT Panel.

The integral LED will illuminate red.

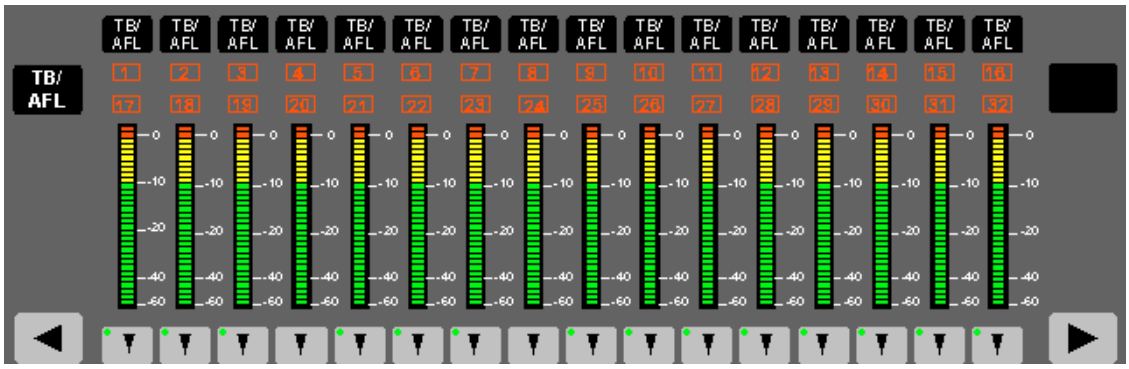
➤ Press the key for the required path number.

Available paths are indicated by keys with the integral LEDs illuminated green. The LED in the selected key will illuminate red. The source selector is interlocked (i.e. the previous source will be de-selected automatically when a new source is selected).

The selected path name will appear in the alpha display next to the ASSIGN key.

Routing Screen Bargraph Meters

The meters above the routing screen are assigned to the Monitor paths that are currently on the routing switches below. They follow the Bus/Tape switching on the Monitor paths, so for mix-minus outputs the switches in the Global Fader control area of the centre section should be left in the “BUS” position.



The bus/tape switches on the Monitor path fader strips can be locked into the BUS position on the mix-minus outputs using the LOCK facility. This will prevent inadvertent bus/tape switching which, although it doesn’t kill the mix-minus sends, will switch the meters to unused tape inputs, often causing concern.

To lock the BUS/TAPE switch into the BUS position (V2.7 and later)

- ➤ Bring the layer with the monitor faders to the surface.
- ➤ Press and hold the centre section ISOLATE switch.
- ➤ Press the BUS switch on the channels to be locked.

Fader Strip Level Indicators

Each fader has a signal present indicator and a 10 segment level meter. The 10 segment meter can be used to monitor input level on input channels, or the dynamics gain reduction. The meter function can be toggled at any time using the “Extended Libra” user preferences in Encore.

Using Libra Live

Starting Up Libra Live

This process is also known as booting the system.

These instructions assume that the console has been installed and cabled-up correctly.

System Startup

Libra Live Series II is designed to be powered up in any sequence, however in some sync sensitive installations, the power sequence may be more critical. The following sequence will work for all installations.

➤ Switch on all the I/O racks, then the console surface, the processor rack and finally the Encore PC.

➤ When the Encore screen prompts, press Ctrl-Alt-Del to Login.

➤ Enter the appropriate user name and password and click OK.

When the login is complete, the Windows NT desktop will be displayed.

➤ Wait for the console to boot.

When the console is ready, the alpha displays on the fader strips will display the assigned path names and the faders will respond to touch.

➤ Double click on the Encore icon.

The system will now launch Encore and the Encore screen will display either the Broadcast Home Page or the Encore Dynamic Automation Screen (see the Encore chapter). The Routing Screen will load and display routing information.

✍ *It is advisable to wait for the Routing Screen to complete its initialisation before any further actions are taken.*

✍ *If any problems are encountered during the power-up sequence, a reset can be initiated with the T1-LOC Service Control icon.*

Turning Off and Re-Starting Libra Live

WARNINGS

➤ It is recommended that the volume control is turned down to protect the monitoring system during power-up and power down.

➤ To avoid potential file corruption, it is always best to follow the Windows shutdown procedure.

➤ Remove all Zip and floppy disks from drives before power is removed or applied. Never force a disk into or out of the Zip Drive. Failure to adhere to these procedures will result in damage to the Zip Drive heads which will not be covered by the manufacturer's warranty.

Turning the system off (shutting down)

All the racks except Encore can be just switched off without any special procedure. For Encore,

If Encore is running in dynamic automation Mode

➤ Select Exit Encore from the System menu.

If the current mix has not been kept, a warning prompt will be displayed to indicate this.

➤ Click OK to exit or Cancel to remain in Encore.

If the current mix has been kept, a dialogue prompt box will be displayed asking for confirmation.

➤ Click OK.

Encore will terminate and you will be returned to the Windows NT desktop.

If using Broadcast Mode displays

➤ Return to the Home screen and click the Exit icon.

A dialogue box will be displayed for confirmation.

➤ Click the Yes button.

The Broadcast Mode Home page will terminate and you will be returned to Windows NT desktop.

➤ Click the Start button on the Taskbar.

The Start Menu will pop up.

➤ Click on Shut Down and select the Shutdown option.

A message will appear when it is safe to switch off the Encore computer.

Restarting Libra Live

This procedure will vary according to whether the console is Series 1 or Series II.

A re-start differs from the power up sequence in that power has already been applied to the racks and audio may be being processed already.

Libra Live Series 1

➤ Close down Encore from Standard or Broadcast Mode as described on the preceding pages.

➤ Click the Start button on the Taskbar.

The Start Menu will pop up.

➤ Click Shut Down and select the Restart option.

➤ Click on OK.

The Encore Rack will automatically re-boot and all the other racks and the console surface will also re-boot. The racks are already powered up so the sub-systems will be forced to re-start in the correct order.

➤ Press Ctrl-Alt-Del to Login when the prompt appears.

When the login is complete, the Windows NT desktop will be displayed.

➤ Wait until the alpha displays on the fader strips show the path names and the faders respond to touch.

➤ Double click on the Encore icon to relaunch Encore.

When the main Encore screen is displayed in Standard Mode a dialogue box may be displayed asking about Mix/Pass Recovery. If this happens:

➤ Select the desired option and click OK.

If either of the Reload Tree options is selected then additional dialogue boxes and timers may be displayed indicating the progress of the Reload process.

✍ *It is advisable to wait for the Routing Screen to complete its initialisation before any further actions are taken.*

Libra Live Series II

➤ Exit the Encore application as described above.

➤ Locate and launch the Service Control application. This may be via the Flash Boot option in the start menu, via an icon on the desktop (T1-LOC), or via Start/Programs/AMS-Neve/System/Service Control.

➤ Double click Flash Boot from the list of option Icons. This option will always restart Libra Live's control system, but will only restart the audio processing and I/O subsystems if it detects a fault in these systems. For more information, see the Flash RAM part of the Maintenance section of this manual.

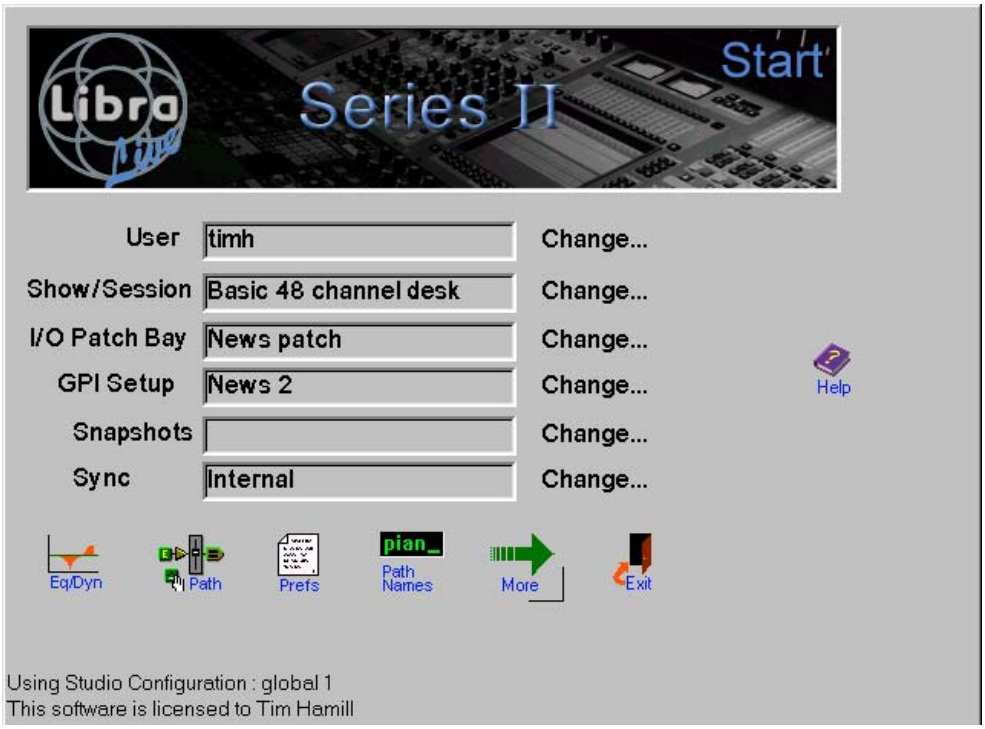
✍ *Restarting Encore will not force a system restart on Libra Live Series II because Encore has been made an independent sub-system. Encore can be restarted at any time independently of the console.*

Using Libra Live for the first time

Libra Live will power up in either the dynamic automation page, or the broadcast home page depending on the selection made in AMS Neve Hardware Settings within Windows Control Panel (See Encore chapter). Most systems will use the broadcast home page.

Broadcast Home Page

The Libra Live “Home” or “Start” page is essentially a check list for the console configuration.



This gives information about the configurations that were last loaded onto the console.

Libra Live Series I

On Libra Live Series 1 consoles, the console is always restored to pre-defined default values.

Libra Live Series II

Series II consoles will power up in the same state that they were in before they were powered down. It is possible that control settings and routing may have been changed since the configurations were loaded as the system automatically tracks changes on the control surface and restores these changes when the console is powered up. To return the console to the configuration as it was when originally stored, reload the show/session by clicking on the word “Change” and re-selecting the configuration from the list.

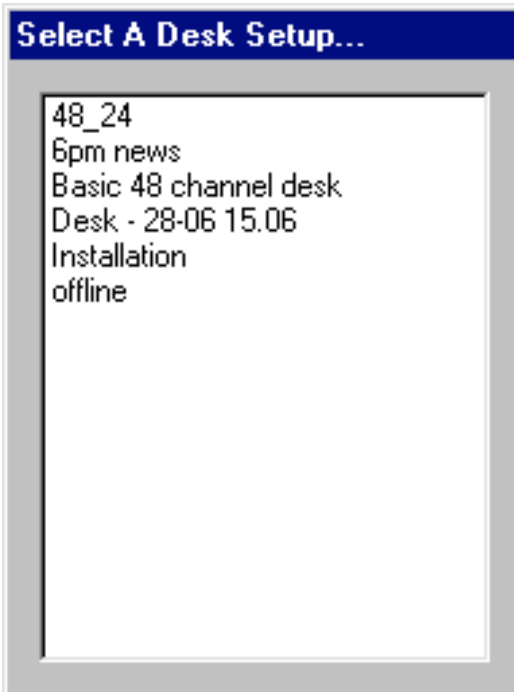
User

This is the User logged in via the Windows Login script. The identity of the user has 2 effects. It establishes the user’s administration rights and it resets the preferences for that user.

The administration rights are to do with configuration filing and are described in the Filing part of the Encore section.

The preferences are accessed via the preferences icon on the Home page and include options such as sample rate, headroom, oscillator frequency etc.

Show/Session



The Show/Session is the Desk Setup as created using the Desk Editor application. It determines how the system processing is used in terms of how many input and output channels, which are stereo, which are mono; the order of signal processing etc. The console mutes for about 20 seconds when the Desk Setup is changed and so the action is barred when on-air.

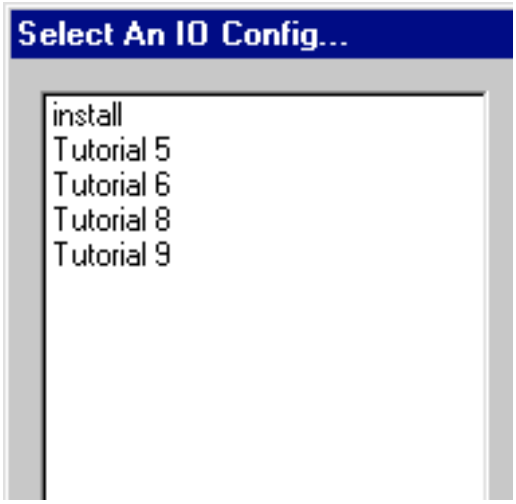
Clicking on the CHANGE button will allow the operator to select an alternative Desk Setup, or reload the current Setup with the controls reset to their saved position.

The *Filter Setups* radio buttons determine whether the list of desk setups displayed is the complete list of setups available on the console, or just those created by the user who is currently logged on to Encore.

Each Desk Setup may have an associated I/O configuration, GPI configuration, snapshot list and set of default values linked to it. These files are listed at the bottom of the dialogue box and are automatically recalled when the show/session is changed. The associated configurations are may also be changed independently of the selected show/session.

The Floppy disk icon is a shortcut button to Backup Manager, a utility that allows Desk Setups to be imported from removable media (e.g. a floppy disk on which a desk setup was created offline) or over a network from another console.

I/O Patch Bay



This is the I/O configuration file that can be edited using the I/O Configuration utility on the “MORE” page. It holds the SRC, dither, delay settings etc for each I/O port in the system. It does not hold the port routing information, which is stored as part of the Show/Session file.

GPI Setup

This is the GPI (General Purpose Interface) configuration file that can be edited using the GPI config page within the I/O Configuration utility. It recalls the way opto-isolators and relays control (and are controlled by) the console.

Snapshots

This recalls a list of snapshots for use by the snapshot recall system.

Sync

This item shows the current reference source for the console. If the display is yellow, this means the preferred sync source is not available and the system has had to switch to an alternative source.

When sync is lost during a session, the console will freewheel for approx 30 seconds while attempting to regain sync. (First a small red message, then a large window warning the operator that sync has been lost will appear). After 30 seconds the console will switch to internal sync.

Libra Live Series II consoles remember and recover to the sync setting of the last session when they boot. This means it will lock to the correct reference before Encore has started (instead of running on internal until Encore sets the correct reference - as Series 1 consoles do). This prevents the momentary interruption to signal as Encore boots up, but only if the user logging on to Encore has the sync source preference set to the same sync source as the last user. So that a change is not required.

Once the checklist items have been confirmed, the console is ready to use and most users select the EQ/DYN icon to display the processor graphics on the Encore screen. The other options available from the Encore screen are discussed in this manual in the context of their applications.

Routing a Signal through the Console

These instructions assume that a signal source (e.g. a CD player) and control room monitor speakers have been connected and the console has been correctly booted up.

✍ *The instructions are outlines. For more detailed information, refer to the control descriptions in the previous section.*

To bring channels on to the console surface

➤ Use the Global Fader controls in the centre section to select an input layer on to the faders.

To select inputs for faders

If there are a lot of inputs to be ported, use Encore's I/O manager. If there are just one or two inputs use the control surface.

To use the control surface to select inputs for channels

➤ Press the Access key on the path's fader strip to call the AFU to that path. Use the controls in the I/O section of the AFU to dial up an input.

✍ *Remember to turn the INPUT switch off before changing the selection, turning it back on to complete the selection.*

If there is audio on the selected port when it is switched on, the fader's signal presence LED will illuminate and the input meters will show level.

To route the input path to Main Output 1

➤ Press and hold the path's Access key (or the associated source key below the routing panel). If the path is already routed, the MAIN 1 key on the routing panel will illuminate red.

➤ Press the MAIN 1 key (or the MAIN 1fader strip's access key) to turn the switch red (routed) if necessary.

This can also be done by selecting the destination first and then routing several paths to that destination at the same time (e.g. hold the MAIN 1 key then press the appropriate Access keys).

➤ Turn the channel ON (or un-CUT it), open the input fader and do the same for the main fader.

Signal should appear on the meters above the main fader.

✍ *If signal doesn't appear on the main fader meters, the main output is probably not ported. (The metering point is at the port).*

To check that the Main Output is ported

➤ Bring the main output fader to the surface if it isn't already there by pressing the MAIN button at the bottom of the Main Output fader panel. (If it doesn't appear, check that the fader's LOCK switch isn't on).

➤ Press the MAIN 1 fader's ACCESS key to call the AFU to the main output path.

➤ Use the I/O section of the AFU to check the output port and to port the output if necessary.

To monitor the Main Output

➤ Press the MAIN key on the SELECT Panel.

➤ Press the 1 key on the SELECT Panel.

The alpha display on the CONTROL ROOM panel will display Main.

➤ Check volume level, monitoring cuts and dims etc.

✍ *It is probable that Main 1 is already selected as the Control Room Monitor source.*

If there is signal on the main output meters, but no audio when the control room monitor is turned up, this may be because the control room monitors have not been ported. (This normally only has to be done once for an installation, but sometimes changes are made).

To check the Control Room monitors are ported correctly

➤ Call the AFU to the control room monitor path (SEL1) by holding down the STUDIO LS SELECT key and pressing the AFU fader's ACCESS key so that the AFU fader scribble displays SEL 1.

➤ Use the I/O section of the AFU to check and amend the porting if necessary.

➤ Check that the AFU fader is set to 0 and that the path is not cut.

➤ Press any other ACCESS key to exit SEL 1.

Using Signal Processing

Signal Processing may be assigned to any signal path using the Desk Editor utility in Encore. The type and order of the processing in individual paths may be edited using the Path Editor utility. Both of these utilities are described in the "Configuring Libra Live" section of this manual.

Processing can also be added or removed from a signal path using turbo allocate, as described in the Libra Live Console surface section description of the SETUP key.

The controls for all the signal processors are located on the Assignable Facilities Unit (AFU) which is called to any signal path by pressing the ACCESS switch on the path's fader strip. The AFU facilities are described in the "Libra Live Console Surface" section of this manual. Any controls that are illuminated are available to use. Any controls not illuminated are not available. (This is useful for checking how many aux busses are available for example).

Using Layers

Layers as a concept are explained in the Glossary of this manual. Libra Live Series II allows up to four layers (i.e. four different signal paths of any type) on each fader. The layers are referred to as A, B, Sub A and Sub B (or Mon A and Mon B depending on the vintage of the console), and the paths assigned to each layer are initially determined with Desk Designer in Desk Setup (as described in the configuration section). Individual signal paths can be re-assigned to any layer on any fader at any time using the SETUP key (as described in the Libra Live Console Surface Section of this manual).

The paths that are currently active on the faders are said to be “on the surface” and are indicated with the A, B and SUB (MON) indicators on each fader strip. The global switches in the centre section only illuminate “ALL A” etc when All of the faders are on the same layer.

The layers on the faders and on the assignable Logicators can be set across the console using the central global faders keys. Individual faders and Logicators can be set to alternative layers by using the local lock and local flip keys. The operation is described in the Faders Global Control Panel section of the Libra Live Console Surface chapter of this manual.

In theory, any signal path can be assigned to any layer on any fader. In practice, layers are used to organise inputs into manageable groups and the distribution of signal paths across multiple layers is normally restricted.

Some typical uses for layers:

- For sets of inputs that are not normally used at the same time - e.g. different bands in a music show.
- For a group of microphones (e.g. audience mics) that are under control of a master fader on the surface.
- For output faders, e.g. to set mix-minus output levels.
- As back-up faders, e.g. Layer 1 on the left side of the console may be copied as layer 2 on the RHS and vice versa.

Mix Minus

Libra Live has a flexible mix-minus system that is nevertheless straightforward to use. It makes use of the track outputs in a matrix that allows any number of inputs to be subtracted from any number of outputs (max 96 outputs).

Configuring Mix Minus

✍ *Note: The terms mix-minus output, track output and monitor output mean almost the same thing and are often interchangeable.*

In version 2.7 software and later, a special mix-minus group is automatically configured in every desk configuration. This is sometimes referred to as Group 0.

To create outputs for mix-minus and other applications

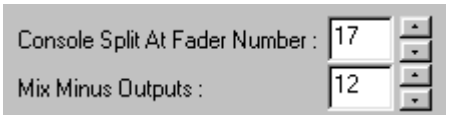
➤ Use Encore’s Desk Editor to configure sufficient monitor paths for mix-minus, surround sound outputs and multitrack I/O. (See the Configuring Libra Live section of this manual).

To set how many of the monitor paths are to be used as Mix Minus outputs

➤ Open the Preferences utility in Encore.

➤ Select the Extended Libra tab.

➤ Enter the number of required mix-minus outputs in the appropriate box.



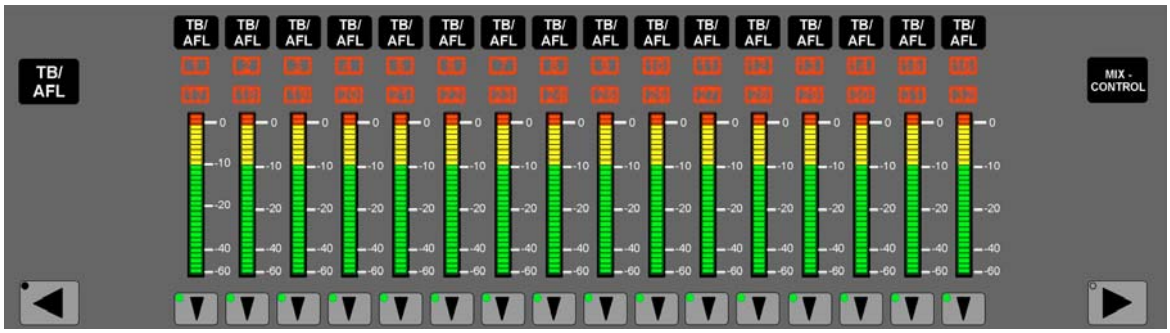
✍ *In version V2.8 software and later, the number of outputs to be used for mix-minus is defined in Desk Editor Configuration page.*

These tracks outputs (starting with track 1) use special processing to allow selected inputs to be fully subtracted from them under operator control.

To select which inputs can contribute to mix-minus outputs

➤ Hold down the Mix Minus Control key on the routing screen and route all the inputs to it by pressing their access keys, or the source keys under the routing screen. (See routing section of this chapter).

This allows inputs that need never be sent to any mix-minus output to be excluded. However, normal operation is to route all inputs on all layers to the mix-minus master.



To route the whole mix to the mix-minus outputs

➤ Hold down the Mix Minus Control key and route it to all the mix-minus outputs by pressing their destination keys above the routing screen. (See routing section of this chapter).

This effectively routes all the selected inputs to all the mix-minus outputs via the Mix Minus Control key (Group 0).

Using Mix Minus

As an example, assume that there are journalists in Paris, Rome and New York - each with an interview mic and an ambience mic and each needing to hear programme without themselves or their ambience. Their microphones are coming into channels as shown:

13	14	15	16	17	18
Paris Main	Paris Ambience	Rome Main	Rome Ambience	New York Main	New York Ambience

To create a mix-minus output on Track 1 for Paris

➤ Hold down the Track 1 switch above the routing screen.

➤ Press the ACCESS switch on channels 13 and 14 so that the adjacent green LEDs illuminate.

This results in channels 13 and 14 being subtracted from the mix on track 1 output.

To create a mix-minus output on Track 6 for Rome

➤ Hold down the Track 6 switch above the routing screen.

➤ Press the ACCESS switch on channels 15 and 16 so that the adjacent green LEDs illuminate.

To change Track 1 output to be a mix-minus feed for New York

➤ Hold down the Track 1 switch above the routing screen.

✍ *The ACCESS lights above the Paris faders illuminate to show that these channels are currently subtracted from this mix. The same information will be shown on the routing screen if you are using the reverse routing display.*

➤ While holding down the Track 1switch, cancel the Paris subtraction by pressing the ACCESS buttons on channels 13 and 14 so the LEDs go out and subtract New York instead, by pressing the Access button on channels 17 and 18.

✍ *It is not necessary to do any patching or re-porting of the hybrids attached to tracks 1 and 6.*

✍ *To check which channels have been cancelled from a mix-minus output at any time, press the appropriate mix-minus output (track) switch above the routing screen and the access lights above the faders subtracted will illuminate and subtracted paths on the reverse routing screen will turn blue.*

✍ *Meters above each mix-minus output button show the output level.*

To monitor each mix-minus output

➤ Press the large TB/AFL switch at the top left of the routing screen so that it's LED is red. This puts the small TB/AFL switches into AFL mode.

➤ Press the TB/AFL switch above the mix minus switch to route the output to the monitoring system via AFL.

To adjust the level of mix-minus outputs

➤ Press the MIX-/TRACK button at the top of the AFU fader strip to assign output trim controls to the top row of Logicators across the console.

✍ *If the monitor faders for the mix-minus tracks are positioned in the track send part of the monitor path (see Configuring Libra Live) and the monitor paths have been assigned to faders (on another layer perhaps), then the levels can be set using faders instead of Logicators.*

Mix Minus and Talkback

This description assumes that the talkback microphone has been connected to a console input and that the talkback path has been ported to the talkback microphone's ADC.

To check that the talkback mic is connected and ported correctly

➤ Hold down the SELECT key next to the SLATE key in the talkback panel and press the AFU fader's ACCESS key so that the AFU fader scribble displays TBK. This calls the talkback path to the AFU. Check in the I/O section of the AFU that the correct input is selected and turned on. The signal present indicator next to the AFU fader should respond to talkback audio.

To route talkback to all mix-minus outputs simultaneously

➤ Press the SLATE key on the talkback panel.

To route talkback to individual mix-minus outputs from the routing screen panel

➤ Press the master TB/AFL key above the routing screen to switch the TB/AFL keys to talkback.

The LED in the master TB/AFL key will illuminate green.

➤ Press the required MIX- TB key above the track meters.

To route talkback to individual mix-minus outputs from the fader strip

➤ Configure one of the user assignable switches in the fader strip to be a Mix-minus talkback key. (This is done using the Assignable buttons page in the Preferences utility in Encore).

Whenever a channel is subtracted from a mix-minus output, the LED in the Mix Minus Talkback switch will illuminate green.

➤ Press the Mix Minus Talkback switch in the fader strip. This will route talkback to all the mix minus outputs that the channel is subtracted from. The integral LED will illuminate red and the appropriate LEDs in the TB/AFL keys above the routing screen will also illuminate red if they are set to be talkback switches by the master TB/AFL switch.

✍ *This system means that mix minus with talkback facilities can be set up with just two button presses.*

Using the earlier example where the two New York channels (17 and 18) are subtracted from Track 1 and the two Rome channels (15 and 16) are subtracted from Track 6:

The Mix Minus Talkback switches on the New York and Rome channels will be lit green (available).

The Mix Minus Talkback switches on the Paris channels will be dark (not in use).

Pressing the talkback switch on either of the 2 New York channels will route Talkback to New York.

Pressing the talkback switch on either of the 2 Rome channels will route Talkback to Rome.

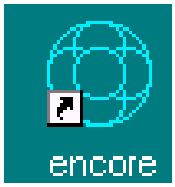
Using Encore

Encore is the suite of applications that runs on a Windows NT platform, providing configuration and automation facilities for Libra Live. (It is also the name used for the PC itself and for the dynamic automation application within the suite.)

In addition to the operational suite of applications in Encore, there is also an Engineering suite that includes utilities for system configuration, diagnostics and console reset options. For day-to-day use, only the operational suite is required.

Libra Live has been intentionally designed so that no console operations are reliant on Encore, making the console safe and fully operable if for any reason it is necessary to power down or reset Encore.

Operational Suite



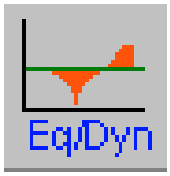
The Operational Suite is launched by clicking on the Encore icon on the Windows NT desktop as described in the Using Libra Live chapter. The checklist options on the Start page are also discussed in that chapter. This chapter deals with the configuration utilities.

There are several utilities within Encore used to configure different aspects of the console. Many of the facilities are duplicated to allow for different ways of working and to ensure convenient access to the appropriate tools at all times. The principle utilities are:

- Desk Editor - Used to configure the numbers and types of signal paths.
- Path Editor - Used to make adjustments to processing configuration in individual paths.
- I/O Patch editor - Used to connect signal paths to physical I/O ports.
- I/O Config - Used to set the properties of the physical I/O ports (e.g. names, dither, SRC etc).
- GPI Config - Used to map the systems opto-isolator inputs and relay outputs to console controls.
- Preferences - or System Defaults. The User preferences are linked to the user who is logged into Encore. The preferences cover general console options, from operating level to switch functions.
- Path Names - Used to set the scribble names.

Starting with the Utilities on the START page:

EQ/DYN

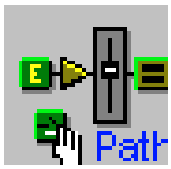


This icon launches the EQ and dynamics display.

This display provides a graphical and numerical view of the EQ and dynamics settings of the currently accessed signal path. It requires no user input other than the option of choosing an alternative path to display.

Path Editor

Path Editor is used to alter the signal-processing configuration of individual paths. It can also be used for Port Routing on individual paths.



Changes to the path structure will cause the console to mute for several seconds when applied and for this reason Path Editor changes are not permitted when the console is ON AIR.

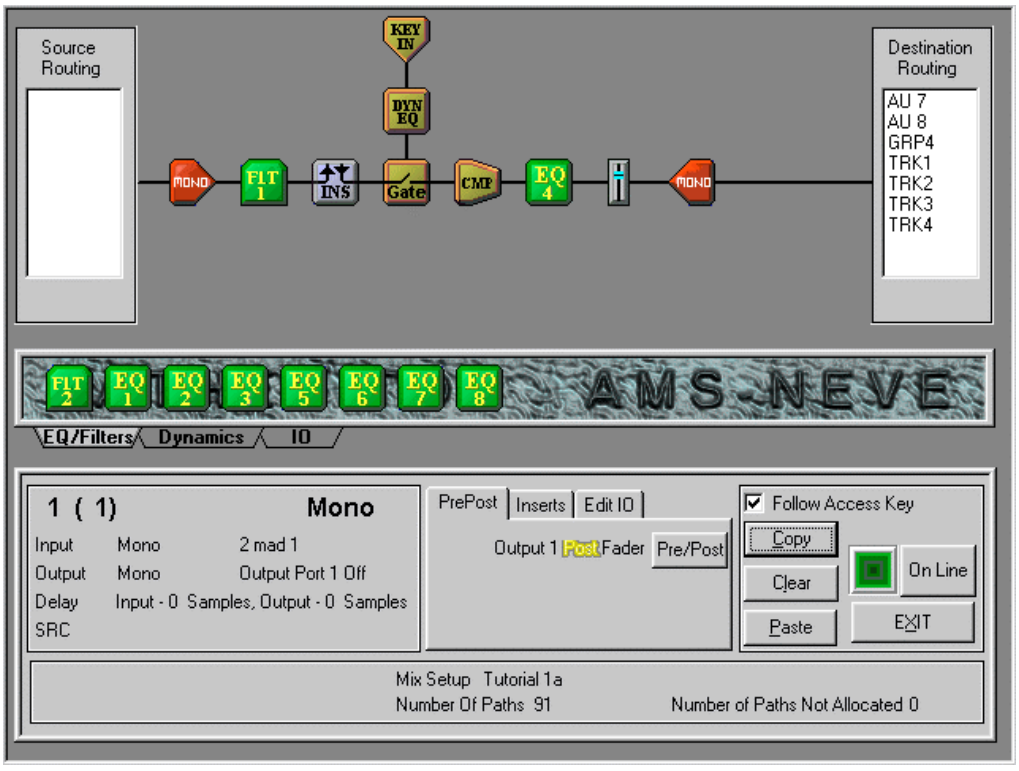
To access Path Editor

➤ Click the Path Edit icon.

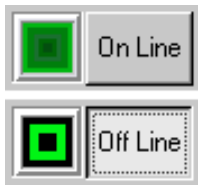
✍ *Path Editor is also automatically launched when the console SETUP switch is pressed.*

The upper part of the Path Edit screen shows the structure of the path that is indicated on the lower left side of the screen. It shows the processing allocated, the order of the processing and any routing that has been made.

The lower part of the screen provides additional information about the path and tools to edit the path.



On-Line and Off-Line Operation



When Path Editor is On-Line, all changes are updated in the signal processing system as they are made on the screen. There is a small time-lag between the change on the screen and the change showing on the console surface. Further changes can be made while the console is allocating. A timer on the screen indicates when all changes are being allocated.

When Path Editor is Off-Line, changes are not implemented immediately. Instead they are accumulated and implemented in one action when Path Editor is put back On-Line.

To switch between On-Line and Off-Line

➤ Click the On-Line/Off-Line button.

Path Selection

There are two methods of selecting paths, using either the PATH access keys on the surface or a drop-down list on the screen. This is controlled with the Follow Access Key check box.

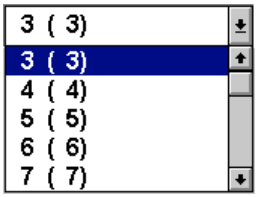
To select paths with PATH access keys

➤ Click the Follow Access Key check box so that it is checked.

➤ Press the ACCESS key on the required path's fader strip.

The processing for the selected path will be shown in the top part of the screen.

To select paths from the screen



➤ Click the Follow Access Key check box so that it is not checked.

➤ Click the drop down arrow next to the currently displayed path name.

A list of all paths in the current configuration (Desk Setup) will be shown.

Scroll through the list to the required path and click its name in the list.

The processing for the selected path will be shown in the top part of the screen.

Changing Signal Processing

The signal processing elements are shown as icons. These are dragged from the processing resources bar onto the path in the required order. The icons can also be dragged left or right along the path to change the processing order of existing processing.

To add a processing element

➤ Click on the required tab of the processing resource bar. (EQ/Filters, Dynamics or I/O).

➤ Click and drag the icon to the required location on the path.

The processing element will be placed on the path. If an item was dragged to an illegal position, it will jump to the nearest legal position.

To remove a processing element

➤ Click and Drag the icon to the process resource bar.

The item will be removed from the path. Dependent items may also be removed (e.g. if there is a sidechain, it will be removed if all the dynamics elements are removed).

To remove all processing in the current path

➤ Click the Clear button.

or

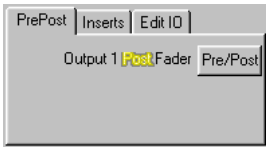
➤ Right click on the signal path, then click the Clear option on the popup menu.

✍ *Dynamics elements cannot be split and Path Editor will not allow this to happen.*

✍ *A dynamics element must be present to add Key Input and/or Sidechain EQ. When the Key Input or Sidechain EQ is added it will attach to the first dynamics element. If the dynamics order is changed then the sidechain will stay attached to the first dynamics element. If all dynamics are removed then the Key Input and Sidechain EQ will be removed with the last dynamics element.*

✍ *If a DRC (Dynamic Range Controller) is added then all existing dynamics will be removed automatically, and vice-versa.*

To move an output pre or post fader



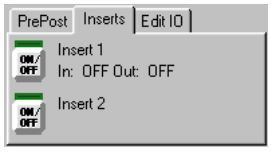
(For paths that have a direct output allocated)

➤ Drag the output icon to the required location.

or

➤ Click the PrePost tab of the extra function panel and set Pre or post with the PRE/POST button.

To show the Insert status

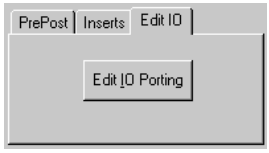


➤ Click the Inserts tab of the extra function panel.

Inserts in the path will have their port routing status shown. If a port is shown as OFF (e.g. Input: OFF) then this means that the Insert has been allocated to the path, but the port is switched off.

The insert port cannot be changed or turned on/off from this page, but it can be changed with EDIT I/O.

To change Port Routing

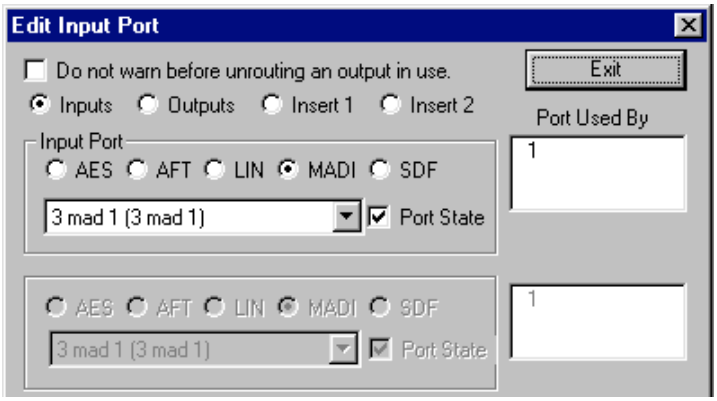


The Port Routing on the current path can be changed from within Path Edit. This saves having to close Path Edit to run I/O Manager or use the console surface for I/O patching.

➤ Click the Edit IO tab of the extra function panel.

➤ Click the Edit I/O Porting button.

The Edit Ports dialogue box will be displayed.



➤ Click the Inputs, Outputs, Insert 1 or Insert 2 radio button as required.

The current porting (if any) will be shown and the Input Port and Output Port selection boxes will become available as applicable.

✍ *The title bar changes according to the radio button selected.*

The Port Used By boxes show which paths are already using the selected port.

To change an I/O Port

➤ Click the Port State check box so that there is no X in it.

This turns off the selected port.

➤ Click the AES, AFT, LIN, MADI or SDF radio button as required.

➤ Click the drop down arrow next to the port name.

A list of available ports of the selected type will be shown.

➤ Scroll through the port list and click on the required port name.

➤ Click the Port State check box so that there is an X in it.

If an output is selected that is already in use by another path then a confirmation dialogue box will be displayed to re-assign the port.

If the Disable Output Route Overwrite Warning check box is checked then the confirmation dialogue box will not be displayed and the path that was originally ported to the output will be de-routed transparently.

Copy and Paste

The Copy and Paste functions allow the configuration of a path to be copied to other paths of the same type (e.g. Channel to Channel).

To copy the configuration of a path

➤ Click the Copy button.

or

➤ Right click on the signal path and select Copy from the popup menu.

To paste the configuration to a single path

➤ Select the required path of the same type using the fader strip ACCESS switch.

➤ Click the Paste button.

or

➤ Select the required path of the same type.

➤ Right click on the signal path and select Paste from the popup menu.

The signal processing shown will change to be the same as the source path.

To paste the configuration to multiple paths of the same type

➤ Click the Paste button before another path is selected.

A list of paths will be displayed in the Multi-Paste Operation dialogue box with a check box next to each path name.

➤ Click the check boxes for the paths to paste the processing to.

or

➤ Press the PATH access keys for the required paths.

➤ Click OK.

Preferences

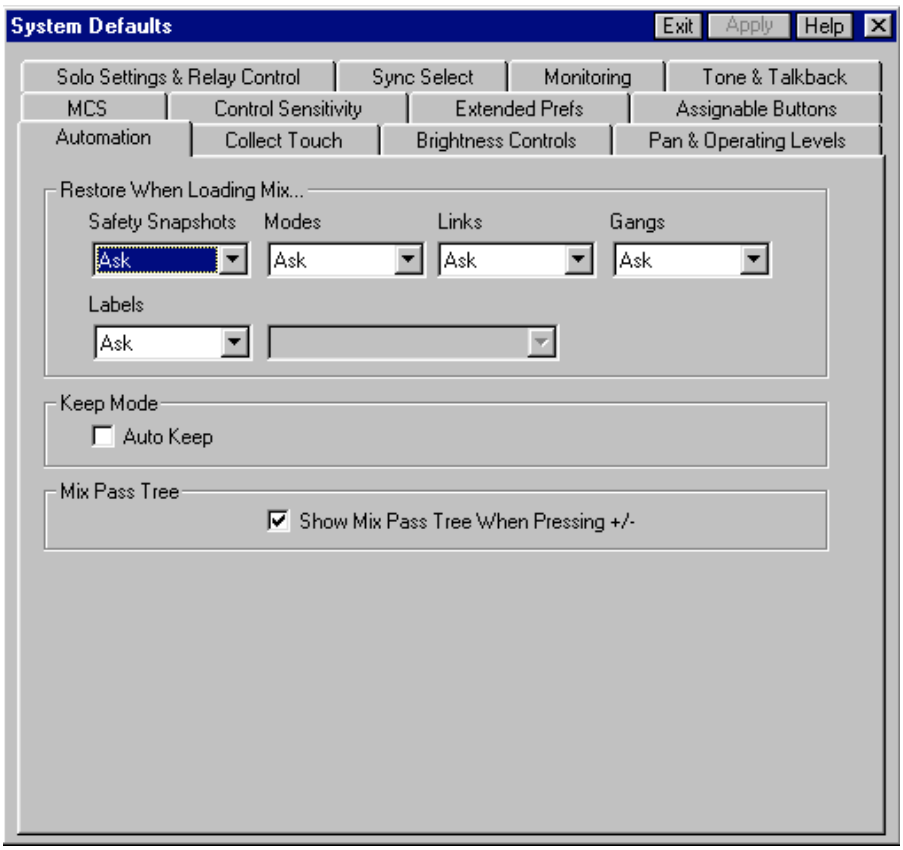
The Preferences (or System Defaults) utility is used to setup various constant settings for the console which are not usually changed on a daily basis. Preferences are associated with the User who is logged onto Encore and so the settings will change as different Users log on.

✍ *Preferences vary between software releases and there may be small variations in the available options from those described in this manual.*

To access Preferences (System Defaults)

➤ Click on Preferences.

The tabbed preferences screen will be displayed. The Automation page will be on top.



Automation Preferences

The Automation page is displayed by default when Preferences is selected.

Restore When Loading Mix

The Restore Modes options determine whether or not to automatically restore Safety Snapshots, Automation Modes, Links and Gangs when a Mix/Pass is loaded or if the user should be asked.

The options are Ask to ask the user, Always to restore automatically and Never to not restore at all.

Labels

Allows the user to set how labels are handled when loading a new mix. There are four options: Load Labels, Clear labels, Keep Current Labels and Merge Labels. The three operation options are Always Load, Never Load or Ask to Load.

Keep Mode

To automatically keep each Mix/Pass in the Mix/Pass Tree

➤ Click the Auto Keep checkbox so that it is checked.

Mix Pass Tree

To automatically display the mix tree when using the +/- keys in the Automation panel on the console to step through mix/passes

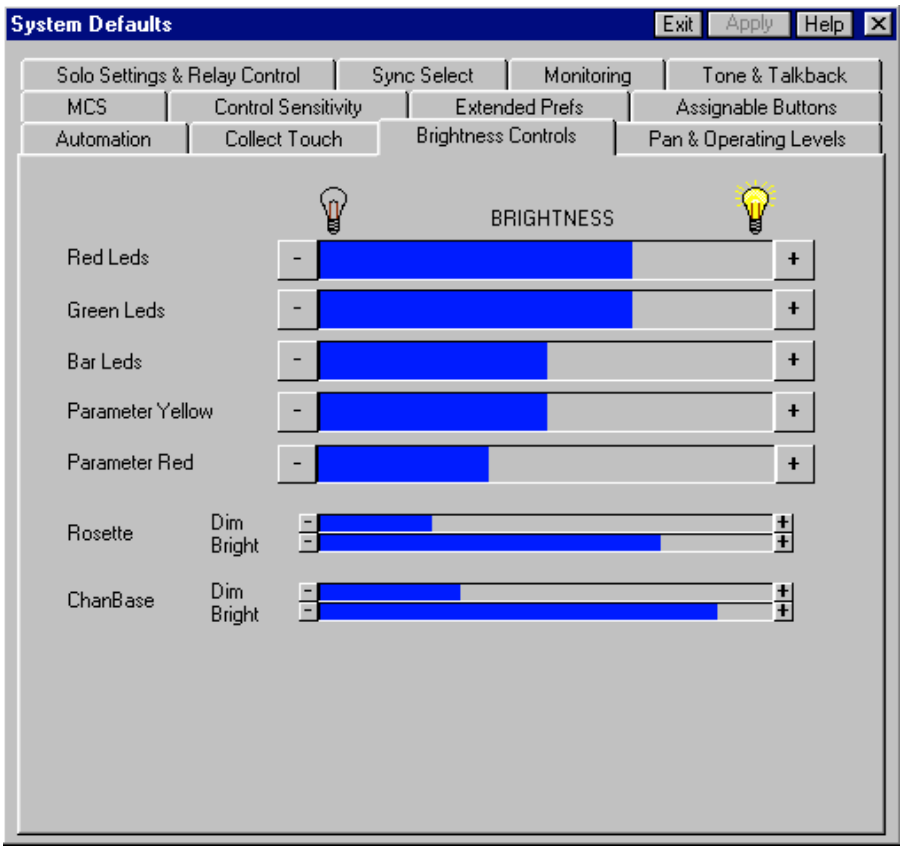
➤ Click the Auto Keep checkbox so that it is checked.

Collect Touch Preferences

The Collect Touch feature is not implemented on Libra live.

Brightness Control Preferences

The Brightness Controls page is used to set the illumination levels for LEDs and displays on the console surface. This feature is intended for the DFC console and is only partially implemented on Libra Live.



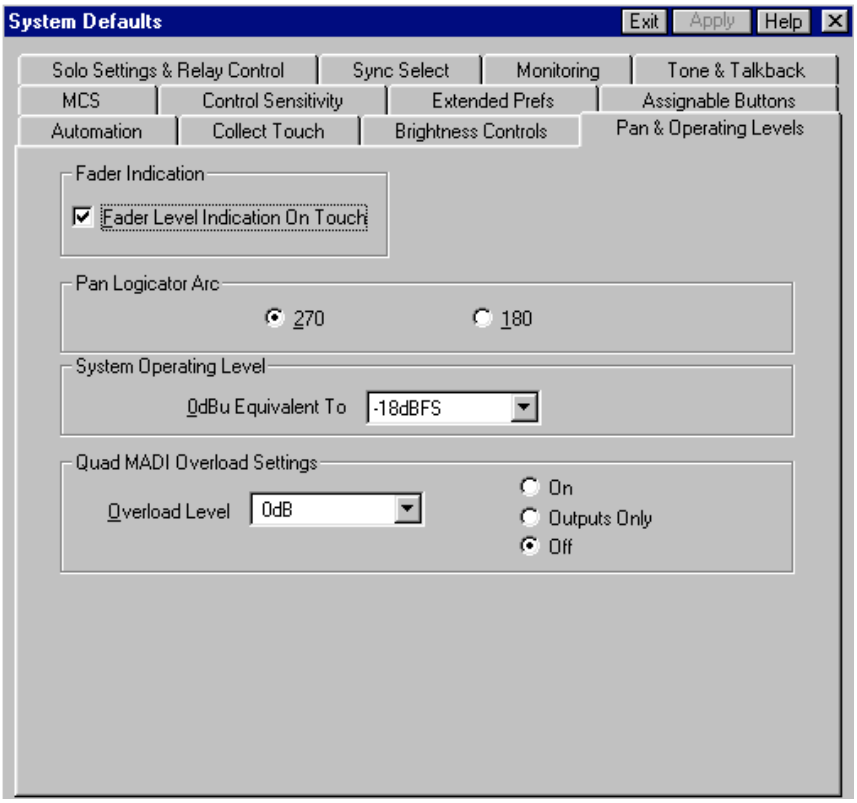
To increase brightness of an LED group

➤ Click on the plus button to the right of the bar for the required item.

To decrease brightness of an LED group

➤ Click on the minus button to the left of the bar for the required item.

Pan & Operating Level Preferences



Fader Indication

By default, the alpha for the path on the surface will indicate the fader level when the fader is touched.

To prevent the alphas displaying the fader levels

➤ Click the Fader Level Indication On Touch checkbox so that it is cleared.

Pan Logicator Arc

The sweep of the Logicators can be set to 180° or 270° for when they are used for panning. The lower value allows the pan to be changed more rapidly with a greater panning effect for less Logicator movement.

Quad MADI Overload Settings

To enable/disable the O'LOAD indicator in the centre section of the optional meter bridge.

➤ Select the On, Outputs Only or Off radio button.

The On option will detect an overload on any input or output port. This may cause the O'LOAD light to be on excessively if pre-recorded digital inputs such as CDs are used where the recorded level is very close to clipping. The overload detection is before the digital level trim, so input "overloads" are not within the control of the operator. The Outputs Only option will indicate output overloads only since this is determined by the output fader and trim, this is under control of the operator and is consequently the best option. The Off option disables the overload lamp.

➤ Select the overload threshold from Overload Level box. The choices are 0dB, -1dB, -2dB, -3dB, -6dB or -9dB.

System Operating Level

This defines the console operating level with respect to the maximum digital encoding level and in effect sets the digital headroom to a value between 8dBu and 30dBu. The default is 18dBu.

Changing the operating level alters the level of the tone generator and changes the dynamic processing threshold levels.

To change the operating level

➤ Select a value in the 0dBu Equivalent To box.

✍ *Operating Level Notes*

➤ *Digital levels are expressed relative to the maximum level before clipping starts. This is 0dBFS or 0dBFSD, meaning 0dB Full Scale (Digital).*

➤ *The analogue level that 0dBFS translates to is set by the Analogue to Digital and Digital to Analogue c*onvertors independently of the console's operating level.

Choosing the Operating Level

Most broadcasters have house standards for the analogue level 0dBFS equates to and for the operating level. In the UK 0dBFS is normally set at +18dBu and the operating level is set at +4dBu. In Europe, 0dBFS is usually at +15dBu with an operating level of +6dBu and in the US 0dbFS usually equates to +20 dBu with an operating level of +4dBu. There are variations, but even here there is a variation in headroom of 9dB in Europe and 16dB in the US.

In practice, input headroom will vary according to the type of signal. Digital sources such as CDs are usually recorded at a high level with respect to 0dBFSD. Microphone sources with wide dynamic range may have a nominal headroom in excess of 20dB. This input headroom variance is accommodated by using a combination of analogue and digital gain trims.

The console tone generator is preset to produce a signal at the operating level +4dB when set to 0dB (to read '0' on an analogue meter set for an operating level of +4dBu). The dynamics thresholds will be similarly normalised.

Example 1

Analogue convertors set for 0dBFS = +18dBu, Operating level set 0dBu =-18dBFS.

ADC clip level: +18dBu (Factory standard)
DAC clip level: +18dBu (Factory standard)
Console 0dB reference: -18dBFS
Meter zero: +4 dBu
0dB tone level: +4 dBu (reads 0 on meter)

Example 2

Analogue convertors set for 0dBFS = +24dBu, Operating level set 0dBu =-20dBFS. (Sony/US convention)

ADC clip level: set to +24dBu
DAC clip level: set to +24dBu
Console 0dB reference: set to -20dBFS
Meter zero: +8dBu
0dB tone level: +8dBu (reads 0 on meter)

Example 3

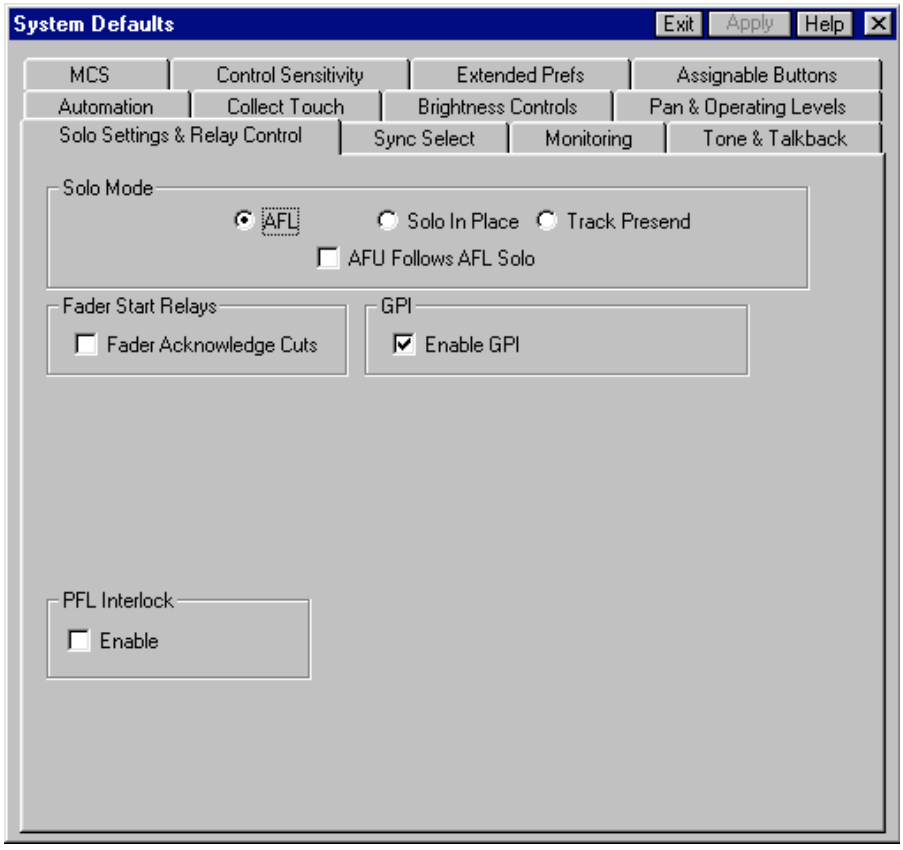
Analogue convertors set for 0dBFS = +15dBu, Operating level set 0dBu =-15dBFS.

ADC clip level: set to +15dBu
DAC clip level: set to +15dBu
Console 0dB reference: set to -15dBFS
Meter zero: +6dBu
0dB tone level: +4dBu (reads -2dB on meter)

The meter reading can be corrected by setting the oscillator to +2dB, or by setting the 0dB reference to -13dB, which will also correct the dynamics threshold.

Solo Settings & Relay Control Preferences

The Solo Settings & Relay Control page is used to select the Solo mode and how the (optional) relays are operated.



Solo Mode

The Solo Mode allows the AFL switch to be used for other forms of solo. Non-destructive solo (AFL) is used universally in broadcast applications, but the other destructive solo modes may be useful in post-production and music mixing applications.

AFL

When AFL is selected, the SOLO signal is routed to the AFL bus (LISTEN1). The signal to the control room monitors will be replaced with the AFL signal. Audio going to the main outputs is not affected.

Solo In Place

When Solo In Place is selected, operating a SOLO key will cause all the other paths to be cut, leaving only the SOLOd path routed and monitored. This makes Solo In Place a destructive operation.

Track Presend

Track Presend is the same as Solo In Place, except that the Track/Monitor auxiliary pre-sends are not cut.

Fader Start Relays

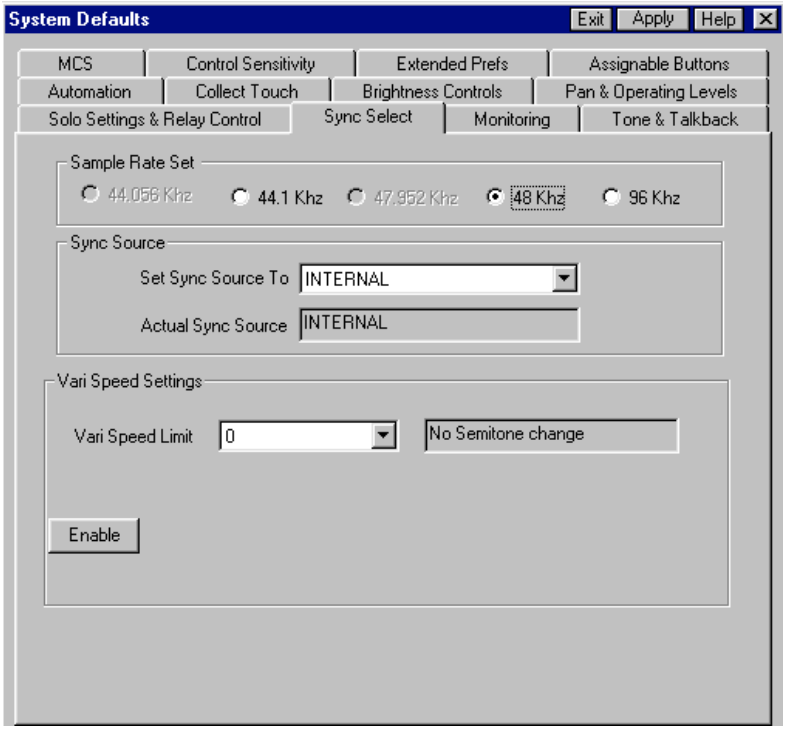
This determines whether or not the fader-start system interprets channel cuts as being the equivalent of the fader at bottom if travel.

GPI

The Enable GPI check box determines whether the GPI (General Purpose Interface) configuration software is used to control the relays and opto-isolators, or, when the check box is unchecked, the simpler I/O config page screen is used.

Sync Select Preferences

The Sync Select page is used to determine the console sample rate, where the synchronisation source is and whether or not vari-speed is in operation.



Sample Rate Set

This is used to select the console sample rate.

✍ *96kHz requires the correct hardware – MIOS and XSP processing*

✍ *The pull-down rates will only be available with VIDEO reference sources.*

Sync Source

This is used to select the synchronisation source for the console.

✍ *The Actual Sync Source will be automatically set to INTERNAL if the selected external source is not available.*

Vari Speed Settings

This is used to select the limit to which the system sample rate will accept a variation in sampling rate frequency.

The Vari Speed Limit is in 2% steps up to 10%, and sets the processing headroom allowed for vari speed calculations.

To set the actual Vari Speed

➤ Click on the Enable checkbox, if it is not enabled already.

The Enable checkbox will change to a checked Disable checkbox.

A bar will appear with a + and - at each end and boxes indicating the selected vari speed.

➤ Click on the + and - buttons to change the vari speed.

The buttons can be pressed and held for continuous change.

The Reset To Zero button will set the vari speed back to zero.

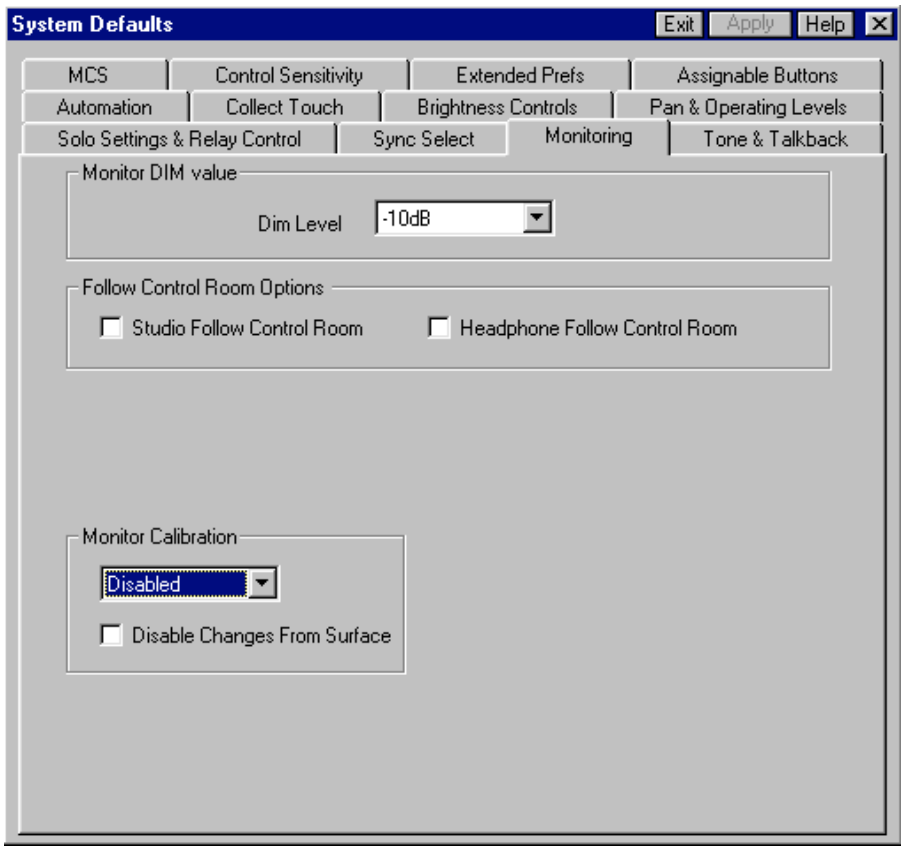
To save the changes to the Sync Select page

➤ Click the Apply button.

The system will attempt to use the requested settings. If a source is not available, the Actual Sync Source will automatically set to INTERNAL and the Sample Rate will jump to the nearest of 44.1kHz or 48kHz if a pull down rate was selected.

Monitoring Preferences

The Monitoring page is used to set the dim level the monitors are reduced to by DIM keys and whether or not the Studio and Headphone outputs follow the Control Room source selection.



Monitor DIM Value

This sets the dB level the monitor outputs drops to when the relevant DIM key is pressed.

Follow Control Room Options

Studio Follow Control Room

When this is selected the source for the Studio Loudspeakers will use the same monitor source selection as is made for the Control Room. The SELECT key for the Studio Loudspeakers is effectively disabled. (This mode may also be temporarily engaged and disengaged by briefly tapping the Studio loudspeaker select key).

Headphone Follow Control Room

When this is selected the source for the Headphones will follow the Control Room selection, like the Studio selector. The SELECT key for the Headphones is effectively disabled.

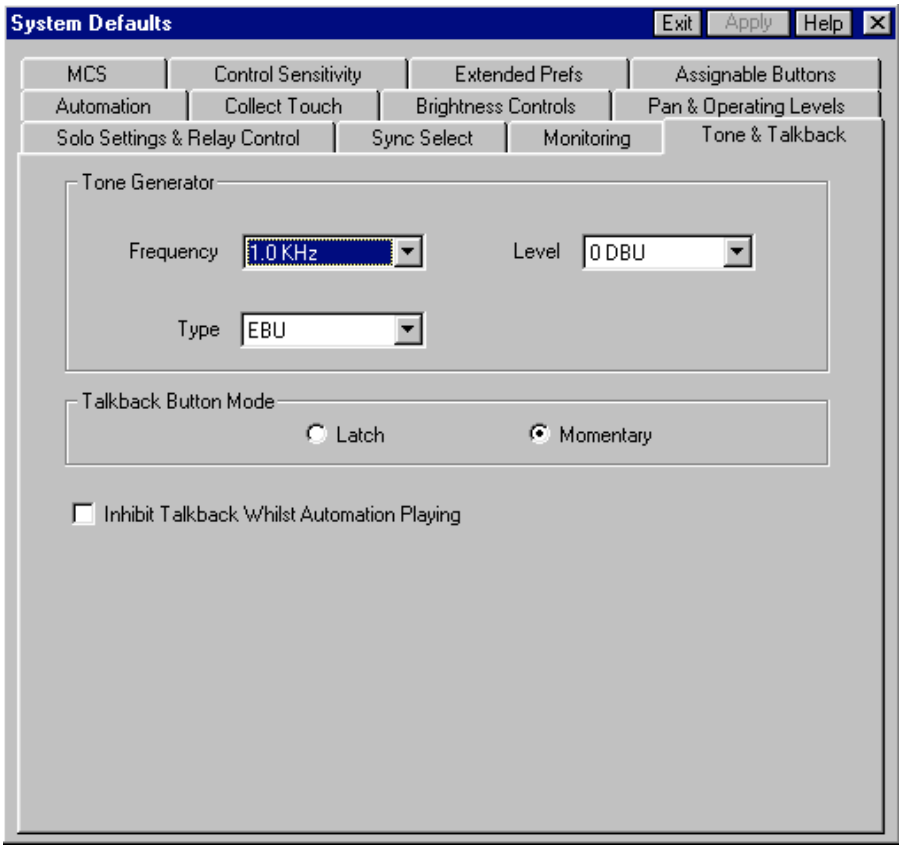
Monitor Calibration

This is used to set the monitoring level when the CAL switch is pressed (Surround Sound only).

These levels are relative and assume that the monitoring system has been correctly aligned at the standard 85dB level.

Tone & Talkback Preferences

The Tone & Talkback page sets the defaults for the tone generator (oscillator) and the operation of the talkback (TBK) key.



Tone Generator

These options can be used to set the frequency, level and type of Glits (stereo identification - BBC, EBU, etc.) for the generation of tone.

Talkback Button Mode

This selects the operation of the TALK keys to be latching (toggles on and off) or momentary (on until it is released).

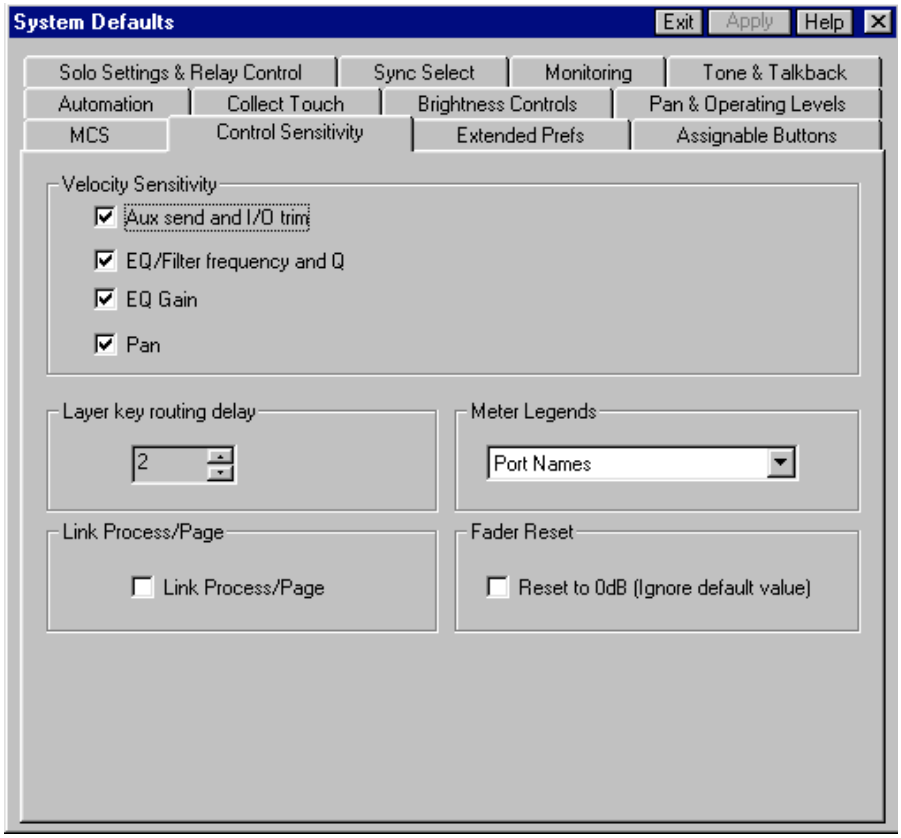
Inhibit Talkback Whilst Automation Playing

When this check box is ticked (check) then Talkback will not operate when the Automation System is on and timecode is running at play speed.

MCS Preferences

These preferences are described in the Transport Control section of this manual.

Control Sensitivity Preferences



Velocity Sensitivity

To allow both fine control when the control is moved slowly and rapid movement to the opposite end of the control range, the Logicators have gearing that makes them sensitive to the velocity with which they are turned. In some instances the velocity sensitivity can cause overshoot, and so can be disabled with the options on this page.

Layer key routing delay, Link Process/Page, Meter Legends

These options are not relevant to Libra Live

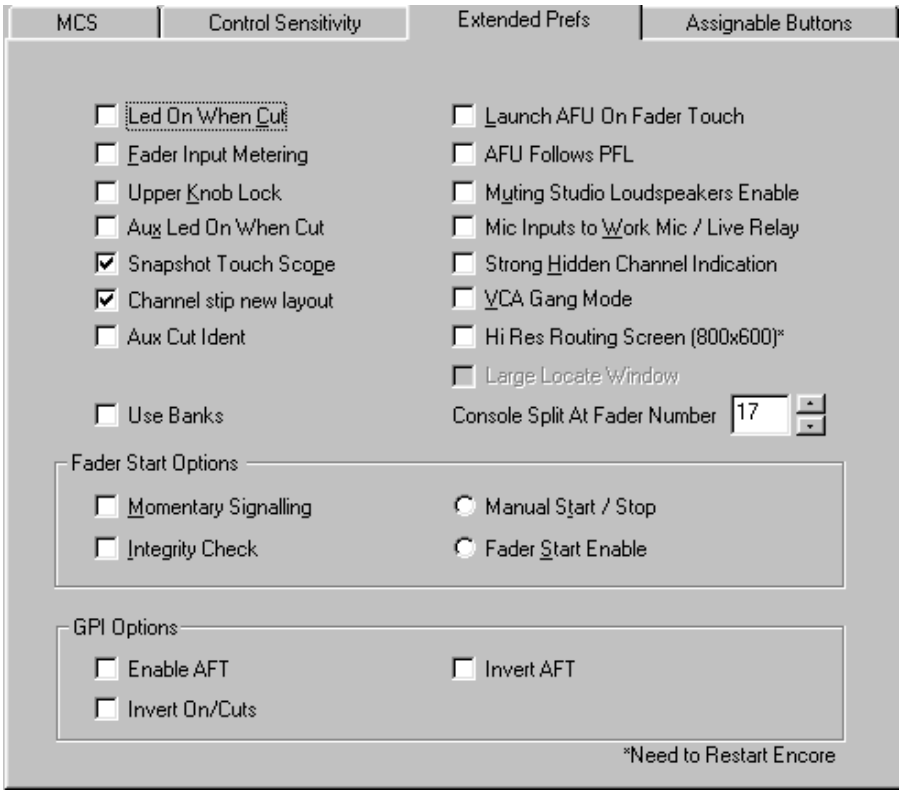
Fader Reset

Holding Clear and touching the AFU fader will normally reset it to the default value specified in Defaults Manager. Checking this box will override the default value and reset the fader level to 0dB.

Extended Preferences

The Extended Libra page is used to set miscellaneous Libra Live options.

Each option on this page is turned on and off by clicking in the checkbox.



Led On When Cut

When checked, the status LED above the channel mute key will be illuminated when the signal is cut by the key. Normally used when switches engraved CUT are fitted to the fader strips.

If the option is un-checked then the status LED above the mute key will be illuminated when the signal is on (i.e. not cut). Normally used when switches engraved ON are fitted to the fader strips.

Fader Input Metering

The fader strips are fitted with a mini bargraph meter. These are normally used to show gain reduction caused by Dynamics elements in the signal path. If this option is checked then the meter will show the level of the input to the path.

Upper Knob Lock

When this option is checked then the LOCK KNOB key is enabled for freezing the operation of the Assignable Logicator. When unchecked, the LOCK key locks both the fader path and the Logicator function.

Aux LED On when CUT

When selected, the aux switch illuminates when the Aux is cut. (This option is for people who feel the AUX send switch should be consistent with the channel ON/CUT switch.

Snapshot Touch Scope

Touching controls to drop them in or out of the scope of snapshot control is now integrated into Snapshot automation on the console and so this checkbox is now redundant.

Channel Strip New Layout

(V2.8 software and later) Not currently supported.

Aux Cut Ident

When selected the RED LED at the bottom of the Auxiliary level Logicators will illuminate when the level control has been turned all the way down.

Use Banks

For a description of Banks and Layers, see the glossary of this manual. When this option is turned on, an additional selector box appears in Desk Designer in the Desk Editor application. The selector box allows paths to be located on any of the four layers in any of 6 banks.

The AUX ON FADERS selector keys in the centre of the console are used to select the bank on the console whenever ALL AUX is not selected.

Launch AFU on Fader Touch

Instead of pressing the ACCESS button, the AFU jumps to the channel whose fader is touched.

✍ *There is a deliberate delay before the AFU jumps to a new fader to minimise the occurrence of accidental fader touches causing the AFU to jump.*

AFU follows PFL

The AFU jumps to the channel path whose PFL button has been pressed.

Muting Studio Loudspeakers Enable

When this option is checked then the ON AIR key will cause the studio loudspeakers to be muted as part of the On Air Inhibit function.

Mic Inputs to Work Mic/Live Relay

This has been superseded by GPI Configuration

Strong Hidden Channel Indication

The red LIVE indicator next to the Assignable Logicator has “weak” and “strong” modes of operation, as selected by this option.

Weak indication means that the LIVE indicator will illuminate when a Fader Strip has a Channel assigned to it that is not currently on the surface.

Strong indication is similar, but the Channel must also have an open route from an input port (signal source) with a clear path to an output port (via routing to other paths) and the Channel’s fader must be open (above -60dB).

VCA Gang Mode

This affects the behaviour of slave faders in a gang.

When this option is ticked then the response of slave faders is changed so that when a master is moved down to the cut position then all slaves will also move down to the cut position, regardless

of the original offset from the master. The slaves will move at variable rates according to their offset from the master so that all gang members reach the cut position together.

Fader offsets are retained and will be restored when the master is moved back to the original position.

Hi-Res Routing Screen

This option is selected when a high-resolution TFT screen is fitted to display routing.

Console Split at Fader Number

Allows the user to set the position at which Left Enable and Right Enable layer control keys split the console. It also specifies which faders are accessed by the left hand AFU and which by the right when two AFU panels are fitted.

Mix-minus Outputs

(This option is moved to Desk Editor in later versions of software). This option specifies the number of track outputs that are designated as mix-minus outputs and modifies the pan laws to the mix-minus outputs so that the inputs are cancelled correctly.

Fader Start Options

These options apply to the relays associated with ports in I/O Config (i.e. these options do not affect the GPI). These checkboxes are largely redundant – it is recommended that fader start operation is set up using GPI configuration within the I/O configuration utility.

✍ *Momentary Signalling is not implemented at this time.*

Integrity Check

This check box is synonymous with the Fader Start Integrity System check box on the GPI Configuration page of I/O Config (page:).

When this is checked then a relay associated with a path by GPI Configuration will only fire if the path has a clear route to an output. This is in addition to any other conditions that affect the relay (e.g. when the Link Logic is set to AND).

Manual Start/Stop

When this option is checked then the blank key adjacent to the MIC/LINE key on the Fader Strips can also be used to close or toggle the relay. The integral LED in the blank key illuminates green when a relay is associated with the path and illuminates red when the relay is closed or has been toggled to ‘on’.

Fader Start Enable

When this option is checked then the Fader Start system is enabled (i.e. moving a fader up will close or toggle the associated relay).

Relays are associated with ports in I/O Manager.

GPI Options

(V2.8 software and later)

These options are duplicated in the GPI Configuration page.

Enable AFT

This switches on the Audio Follow Tally System that is described in the GPI section of this chapter (Using Encore).

Invert AFT

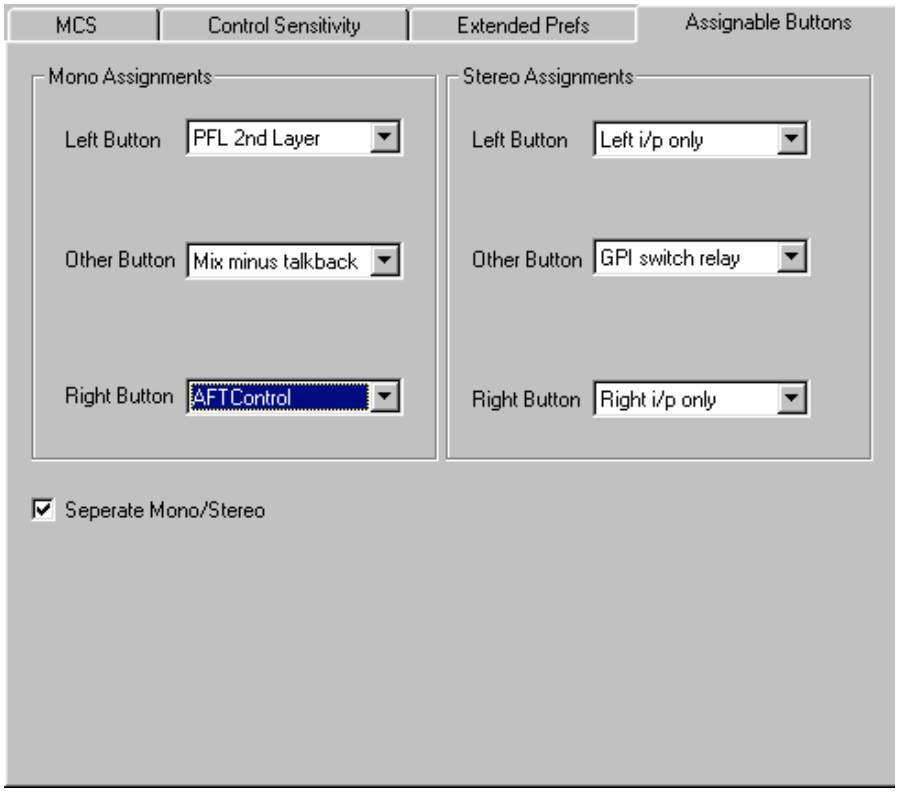
This toggles the input sense of the GPI opto inputs so that a low-level signal activates the AFT inputs rather than a high level signal.

Invert On/Cut

This toggles the input sense of the GPI opto inputs so that a low-level signal activates the ON/CUT switch function rather than a high level signal.

Assignable Buttons Preferences

This page allows three buttons (L/A, R/B and the AMS Neve logo) on each fader strip to be assigned to user selectable functions. The list of functions may expand as new software is introduced.



Checking the Separate Mono/Stereo checkbox allows the assignable buttons on mono and stereo channels to be assigned to different functions.

The left button can be assigned to the following functions:

Left i/p only	GPI fader relay
GPI switch relay	Mix Minus Talkback
Insert 1 divert	Insert 2 divert
Pre/post route	AFT Control
PFL 2nd layer	Not defined

The Other (logo) Button can be assigned to:

GPI fader relay	GPI switch relay
Mix Minus Talkback	Phase Switch

Insert 1 divert	Insert 2 divert
Pre/post route	AFT Control
PFL 2nd layer	Not defined

The Right Button can be assigned to:

Right i/p only	GPI fader relay
GPI switch relay	Mix Minus Talkback
Insert 1 divert	Insert 2 divert
Pre/post route	AFT Control
PFL 2nd layer	Not defined

Assignable Button Notes

Left (Right) i/p only

This allows the left (right) leg of a stereo input to be selected to both sides of a stereo input channel. When the switch has been assigned to this function, it is used together with the ACCESS switch as a safety function.

To assign the left (right) input to both sides of a stereo channel

➤ Hold down the ACCESS switch and press the L/A (R/B) switch.

To create a mono mix of both left and right inputs on a stereo channel

➤ Press the L/A and R/B switches together.

Repeating the switch action cancels the function.

Phase

The logo switch may be used as a phase switch when the other switched are assigned to left and right input select.

To phase reverse left, right or both inputs of a stereo channel

➤ Assign the phase function to the logo switch as described above.

➤ Press and hold down the phase switch while pressing the L/A, or R/B switches.

The hidden till lit phase indicator in the fader strip and the red phase switch LED illuminate to indicate that a phase change is active in the path. Pressing the phase switch will show whether left or right inputs are phase reversed by illuminating the red LED in the L/A and/or R/B switches. (A green LED indicates that the function is available, but is not active).

GPI fader relay and switch relay

The GPI system allows a relay to be operated by the fader moving away from the bottom position (for example to start a tape machine) and it also allows a separate relay to be operated by a channel switch. When the fader switch is assigned to the fader relay, the GPI system allows the switch to be a fader-start enable (i.e. the switch has to be on before the fader start circuitry will work) or the switch may be a parallel fader start function (so either opening the fader or pressing the switch will start the tape). When the fader switch is assigned to the switch relay, it works independently of the fader start relay.

Mix Minus Talkback

When assigned to this function, the switch will route talkback to the mix-minus outputs that the channel has been cancelled from. If the channel is an input from a remote journalist for example and the journalist has a mix-minus feed that the input has been cancelled from, then the talkback button on that channel will route talkback back to the journalist.

Insert 1 and 2 divert

Each channel may have up to two inserts. The divert facility is essentially the same as switching the insert return on/off. This facility may be useful if an insert is used to switch a back-up mic into the channel.

Pre/Post Route (V2.7 software and later)

This affects routing from the input path to the mix-minus group and all track outputs that are not part of a surround sound stem. Routing is taken from the normal post-fader position, or from a point immediately prior to the fader. The switch LED changes from green to red using the same colour code as the aux pre/post send indicator on the AFU.

✍ *The Routing Assistant screen allows the routing from a channel to tracks to be set pre/post fader on a track-by-track basis, whereas the fader strip button affects all tracks that the input is routed to. This means that it is possible to use Routing Assistant to set the track sends into a pre/post state different to that indicated by the switch LED.*

AFT Control (V2.8 software and later)

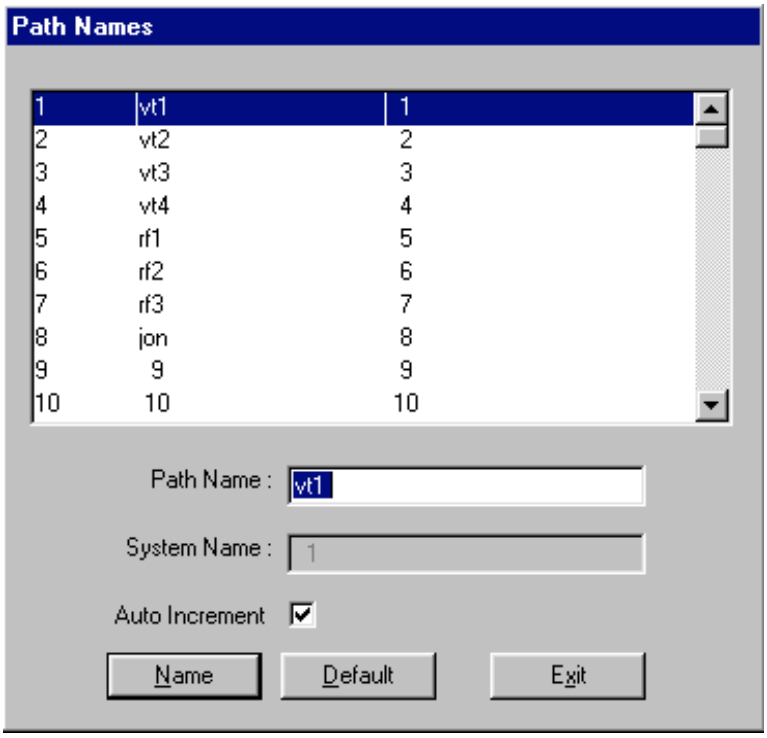
This function allows individual faders to be switched in or out of AFT control from the fader strip. See the description of AFT in the GPI section for more details.

PFL 2nd Layer (V2.8 software and later)

This feature is not yet supported fully.

Path Names

Path names may be set in Desk Editor and Path editor, but the easiest way of naming paths is with the dedicated Path Naming facility. The path name, which may be up to 4 characters long, is displayed in the electronic scribble.



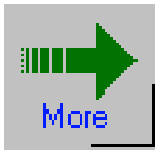
The path list automatically moves to the currently accessed path. Alternatively, the path may be selected manually.

With the Auto Increment checkbox checked, a name for the currently selected path can be typed into the Path Name: box and entered by pressing the Enter key on the keyboard. This will cause the path indicator to move to the next path on the list automatically.

Pressing any ACCESS key on the control surface will cause the path indicator to jump to the associated path in the list.

More and Exit

Clicking on the MORE icon will open a page of icons for launching more configuration and automation applications.



Clicking on Exit will open the Encore close-down dialogue.

Desk Editor

Libra Live's DSP (digital signal processing) can be used in different ways to provide signal paths and signal processing according to the type of session or show the console is to be used for. The amount of DSP is hardware dependent and varies from one Libra Live to another. There can be many different Desk Setups to suit different uses.

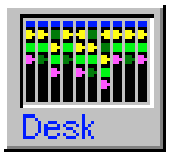
The number of each type of signal path can only be set with Desk Editor, and this is the starting point for new Desk Setups. All other information in a Desk Setup is dependent on the number of paths. Desk Edits other main uses are to allocate processing and place paths on the console surface. A desk setup holds the following information:

- How many paths of each type there are - inputs and outputs
- Whether the paths are mono or stereo
- What kind of signal processing is in the path and in what order it occurs
- The starting position for all the controls, including routing
- The layout of the console - which paths are on which faders and on which layers
- The names of the paths as displayed in the scribble strip

The patching and routing configuration (e.g. the mic/line source for Channel 6, the other paths that Channel 6 is routed to, the input and output used for the Insert on Channel 6, etc.)

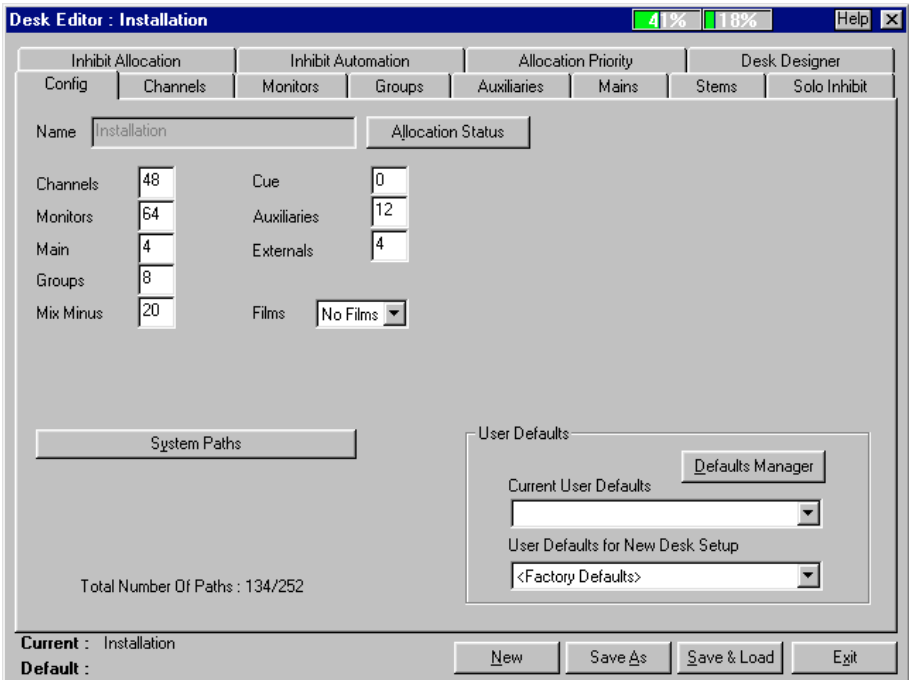
Desk setups are stored on the hard disk and are loaded onto the console via Encore. Libra Live Series II also keeps a copy of the current Desk Setup in non-volatile memory. This copy is used to restore the console to the last working state when the console is powered up. The copy in non-volatile memory is continuously up-dated as control positions are adjusted, whereas the original on the disk is only updated with a manual action, such as by pressing the KEEP button on the console. The disk based original can also be write protected against inadvertent change. This is useful when you want to return all controls to a known initial state. Loading a configuration from the Filing page, or from Libra Live's Home page loads the setup from disk.

To launch Desk Editor, click on the Desk Edit icon in the Encore "MORE" page.



Creating a New Desk Setup

A new Desk Setup is created, or an existing Desk Setup is changed with the Desk Edit utility in Encore. This is a multi-paged application, that opens with the Config page used to define quantities of paths. The exact appearance of the screens may vary between software releases. When Desk Editor is opened, it dispays the Desk Setup that is currently loaded on the console.



To create a new Desk Setup

➤ Select the NEW button at the bottom of the screen.

In the Name box the system will display a default name and the date (e.g. Desk - 22/03 14.33).

The name can be left as is or changed to something more useful, up to 28 characters long.

To create a new version of an existing configuration

There are two ways to achieve this:

➤ 1. Before launching Desk Editor, load the existing configuration (on which you want to base the new configuration) onto the console from the Encore Start page or from the Filing utility. Edit the Desk Setup using Desk Editor. After changes have been made, use the SAVE AS button to save the configuration with a different name.

➤ 2. (This is the recommended method). Before loading Encore, use the Filing utility to create a new copy of the configuration with a different name. Load the copy of the configuration on to the console and use “Load and Save” to save the modified configuration after editing.

To copy a configuration using the Filing utility

➤ Launch the Filing Utility. This can be done using the hot key on the Libra surface. Alternatively, from Encore’s Home page, click on the MORE icon, then on the HOUSEKEEPING icon and then on the FILING icon.

➤ Select the configuration to be copied from the list of Desk Setups. If the required Desk Setup is not visible, you may need to use the USER, STUDIO or TECH tabs to select alternative filing locations, or you may need to set the dialog box above the list to view ALL DESKs instead of just USER’S DESKS.

➤ Click on Copy. A dialogue box will appear displaying the name of the selected file.

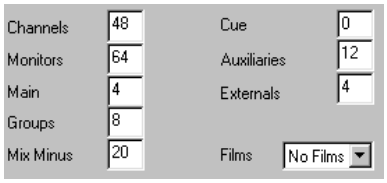
➤ Enter a new name for the copied Desk Setup and click OK.

➤ Open Desk Editor and make any necessary changes.

Configuration Page

To define how many paths of each type are to be on the console

➤ Enter the required quantities in each box on the Config page of Desk Editor. The tab key on the keyboard can be used to step through the list.



Channels

Channels are regular input channels. (Max 192)

Monitors

Monitors are used for mix minus outputs, multitrack outputs, and surround outputs. For example to create 16 mix-minus outputs and one 5.1surround output, enter 22. (Max 96)

Mains, Groups and Auxiliaries

Main outputs, groups and auxiliaries can be made mono or stereo on another page. For example, to create 4 stereo and 2 mono groups, enter 6. (Max 4 mains, 8 groups, 16 aux)

Externals

Externals are direct stereo inputs into the monitoring system (Max 16)

Cues

Cues are not normally used in a broadcast environment. They are normally headphone outputs formed by a mix of the main output and auxiliaries. (Max 12)

Films

Films are used as outputs to the monitoring speakers only if the optional Surround Sound Panel is installed (see the Surround chapter). If there is no surround sound monitoring option fitted, Films should be set to “No Films”.

The number of Film paths determines which speaker keys are available on the optional Surround Monitoring panel. The selection of Film paths made in Desk Edit and the speakers keys that become available are as follows:

Desk Edit Selection	Speaker keys available
None	None
LCRS	L, C, R and LS
5.1	L, C, R, LS, RSand SW
6.1	L, C, R, LS, RS, SW and EX1
7.1	All

The number of Films also determines the number of Film Listens.

✍ *In later versions of software, there will be an additional entry for Mix-minus. This item specifies how many of the monitor paths specified above are to be used as mix-minus outputs.*

System Paths

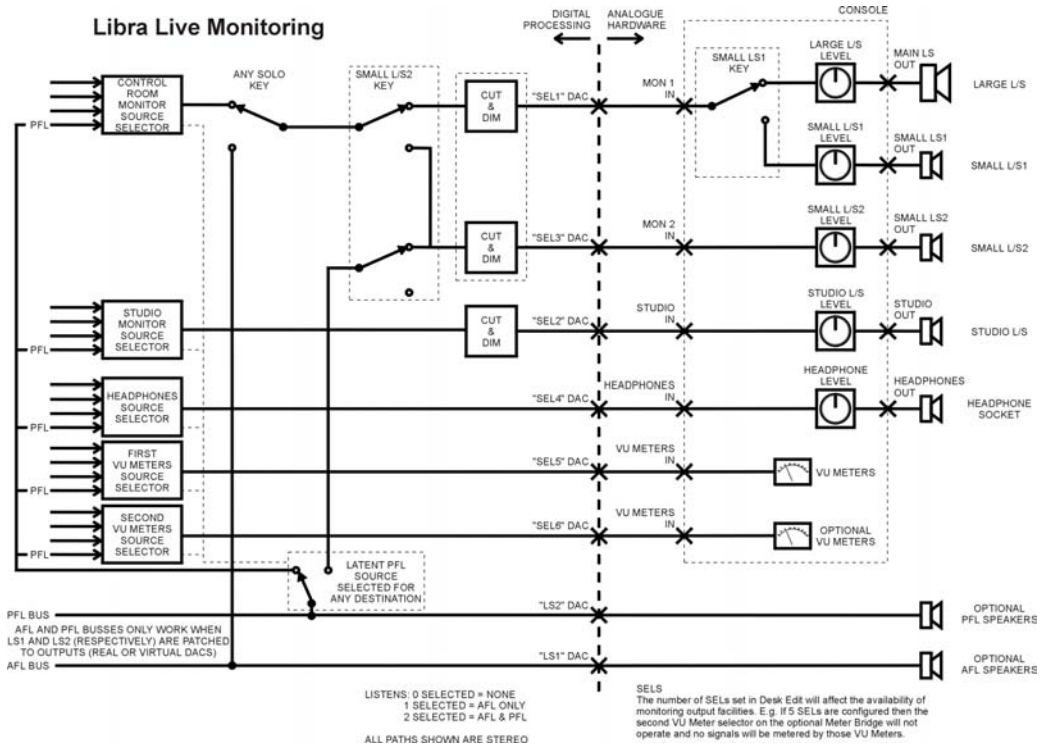
The System Paths are special path types that are required by Libra Live for the monitoring, solo, talkback and tone functions to operate correctly.

It is not advisable to change the numbers of System Paths, except SELs which may vary between 3 (Main monitors, PFL and Studio Loudspeakers) and 6 (an additional set of headphones outputs and two sets of meter selectors) depending on your monitoring and metering requirements.

SEL

There are three SEL paths by default (SEL is an abbreviation of 'select'). There can be up to six SELs, named SEL1 to SEL6. They are used by the monitoring system and for selecting a source for the VU Meters.

The usage of SELs (and LISTENs) is shown in the Libra Live Monitoring diagram:



LISTEN

There are two LISTEN paths by default, LS1 and LS2, that are used by the AFL and PFL solo busses.

The AFL and PFL busses will not become active (i.e. they will not do anything) until LS1 and LS2 are ported to outputs. The outputs can be real or just spare MADI ports, depending on whether or not you wish to use AFL and PFL speakers and metering. This also affects latent PFL selection on the SELECT panel (i.e. when PFL is selected as a monitoring source, but does not take over until PFL is activated on a fader strip).

✍ *LS1 and LS2 should not be confused with the small loudspeakers (L/S 1 and L/S 2) that can be fed by SEL1 and SEL3.*

TALKBACK

There are two TALKBACK paths that are used for the talkback system. They are named TBK1 and TBK2.

TBK1 is shared by the tone/slate generator.

FILM LISTENS

These are used to provide a non-destructive AFL solo bus that feeds the Surround Monitors directly. The number of FILM LISTENS is automatically changed to match the number of Film paths, and this should not be changed manually. They are named FLS1 to FLS8.

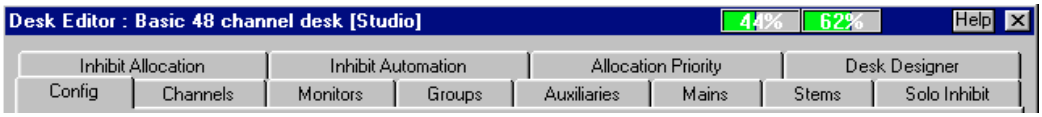
FILM LISTENS are only used if the optional Surround Sound Panel is installed.

Defaults Manager

The defaults section at the bottom right of the screen is used to select the default positions of controls on the console. For example, some users prefer auxiliary sends to be set to 0dB and turned off, whilst others prefer the controls to be turned all the way down, but switched on. These preferences can be stored as defaults files and used to set the initial conditions for a new mix setup. More detail is given under the Defaults Manager section of this manual.

Fuel Gauges

At the top of the screen are two fuel gauges that show how much of the available processing power has being used.



The left hand gauge is loosely connected with the number of paths configured and the right hand gauge is loosely connected with the amount of processing in the paths, but the two gauges do interact. The gauges are not calculated until one of the other pages is entered, so to check how much processing a mix will use, click on the CHANNELS tab, then click back on the CONFIG tab.

The fuel gauges are colour coded:

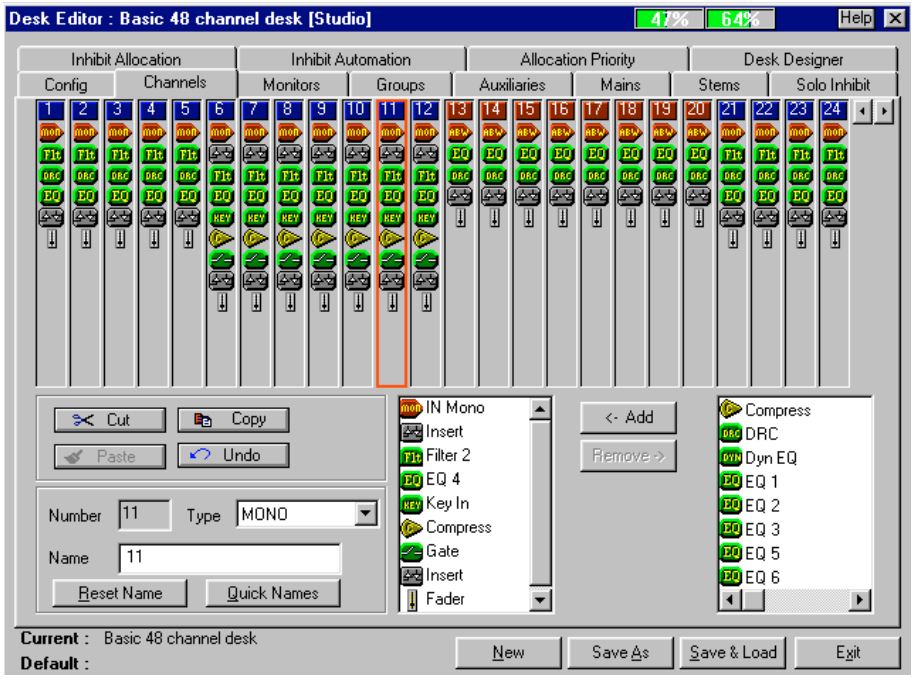
Green:	Within acceptable limits - this will display up to 80%.
Orange:	The threshold of encountering problems, but the system will allocate correctly. This is displayed between 81% and 90%.
Red:	You will possibly encounter allocation failure errors. Displayed between 91% and 100%.

If there is insufficient processing the console will fail to allocate paths when the console is saved or loaded. Allocation failures will be clearly reported.

Channels Page

To configure the processing used in each channel path

➤ Select the “Channels” page tab at the top of the screen.



The screen shows a graphical representation of the first 24 channel paths. If this is a new configuration, all of the numbered boxes will be blue (mono) and there will only be a fader in each path. The first channel will be outlined by a red box and details for this channel will be given at the bottom of the screen.

The path can be made mono (blue) or stereo (red) using the “Type” selector.

The name of the path can be edited in the “Name” edit box, but in practice it is easier to name paths after the desk configuration has been completed, using the Path Name utility.

At the bottom right of the screen processing can be added or removed from the selected signal path. The left hand list box shows the processing that has been assigned and the order in which it occurs. The processing that is available for use but that has not been assigned is shown in the right hand list box.

To allocate processing to a path

➤ Highlight a required processing element in the right hand list box by clicking on it, then transfer it to the selected channel by clicking on the ADD button. Alternatively double click the required element.

To re-arrange the processing order

➤ Click and drag the processing elements in the left list box to re-arrange. (Clicking and dragging elements in the graphical display in the upper part of the screen does not work).

✍ *Some rules apply to the processing order:*

The names EQ 1, EQ 2, Filter 1, Filter 2 etc indicate the number of bands of EQ or filter to be allocated. It is only possible to allocate 1 filter and 1 EQ. If more than 4 bands of EQ are allocated, then neither a filter nor a side-chain EQ can be allocated.

All dynamics elements must be grouped together.

To make a signal path stereo

➤ Click on the path in the upper part of the screen and then select stereo from the MONO/STEREO selection box in the lower part of the screen.

There are 3 types of stereo input that are then selectable from the processing selector: AB; MS and ABW. ABW (called AB Wide) uses slightly more processing but is the most useful as it allows the use of the width control. It also allows switching between an AB input and an M/S input and allows selection of just one leg of a stereo pair as a mono input to a stereo channel, either from the fader strip or from the AFU.

✍ *The direct output may only be positioned at the end of the processing. Up to two inserts may be used in the signal path and because the insert returns may be switched independently of the sends, an insert send may be used in place of a direct output at any other position in the signal path.*

✍ *The fader can also be removed from paths if no level control is required.*

To clear the processing in a path back to the default minimum

➤ Select the path by clicking on it and then click on the CUT button.

To copy a path's processing configuration to other paths

➤ Select the source path by clicking on it and then click on the COPY button. This copies the path configuration to the clipboard.

➤ If the source is to be copied to just one other path, select this path by clicking on it. Click on the Paste button to open the paste menu; select "paste to selected" and click OK.

➤ If the source is to be pasted to more than one other path, click on the Paste button directly. Select either "Paste to All", or "Select Paste Range" and click OK. If "Select Paste Range" is selected, a path list is displayed to allow the choice of which paths the processing configuration is copied to.

Alternatively, the processing configuration may be copied by clicking and dragging paths in the upper section of the screen.

Monitor Page

To configure the processing used in each monitor path

➤ Select the Monitors tab at the top of the screen.

➤ Configure processing in the same way channel paths are configured. Monitor paths may only be mono.

✍ *Monitor paths shown in white have been designated as mix-minus outputs in Encore's preferences page.*

✍ *Monitor paths are in two parts: a track send and a track return. Processing may be inserted in either part. In the example shown here a compressor has been configured before the red*

send/return MON icon putting it in the output of the white mix-minus path. The fader has been left in the return path. On the other grey path, the processing is shown after the MON icon, i.e. the return side of the path.

To set the pan designators for monitor outputs

The pan designator tells the monitor path how to respond to a pan action on another path that is routed to the monitor path. For more detail, refer to the glossary entry.

There are three ways to set up the pan-designators in Desk Editor:

➤ Select the path to pan-designate by clicking on it. Click on the Pan Designator button and select the pan designation.

or

➤ Click on the PAN MACROS button and select the format to be applied repeatedly across all tracks.

or

➤ Use the Stems tab at the top of the page to apply a pan macro to smaller ranges of tracks.

✍ *The icons at the bottom of each path graphic that resembles a red dot in a blue rectangle indicate the pan designation set for each path.*

✍ *The pan designations are:*

Mono: *This is a normal mono path. The signal received will not be affected by surround panning.*

Centre Mono: *This causes a Track to act as a normal mono routing destination (i.e. un-affected by surround panning), but is routed to the Centre film monitor when used in a stem.*

Left and Right: *These are normal stereo left leg and right leg routing destinations. The signal received by a Track or Group is only affected by left/right panning (i.e. front/back, surround left/right and divergence controls have no effect).*

Front Centre, Front Left and Front Right: *These are the surround destinations corresponding to the front speakers.*

Surround Mono: *This panning destination has two different uses. In LCRS format, it is the panning destination for rear surround. In wider formats (5.1 and 7.1) it is the destination corresponding to the sub-woofer.*

Surround Left and Surround Right: *These are the panning destinations for the rear left and right speakers. These are normally only used with the wide formats (5.1 and 7.1).*

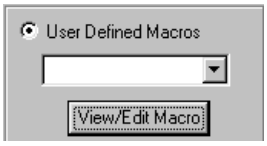
Surround Centre: *This is the rear centre destination (i.e. opposite front centre) used by the 6.1 format (also known as Surround EX).*

Inner Left and Inner Right: *These are panning destinations that sit between Front Left/Front Centre and Front Right/Front Centre to provide a smoother image across the front. These are normally only used with 7.1 format.*

Custom Surround Macros

Surround Sound Manager is used to define custom surround monitoring formats.

To access the Surround Macro Editor/Viewer

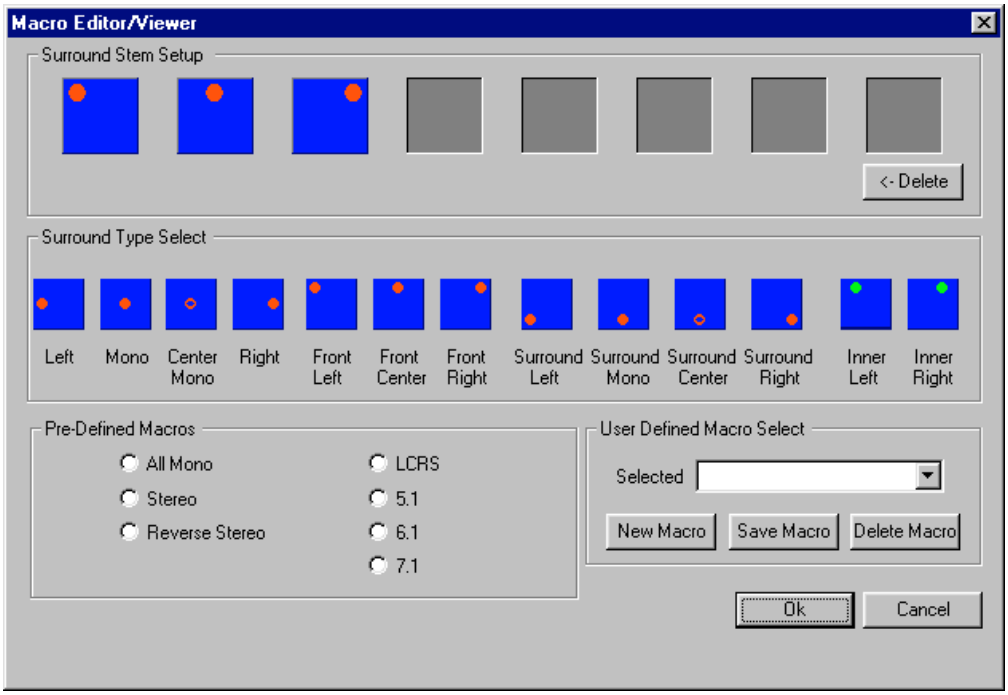


➤ Click the Pan Macros button when on the Monitors page of Desk Editor.

The Pan Designators Macros dialogue box will appear.

➤ Click the View/Edit Macro button.

The Macro Editor/Viewer will be displayed.



To create a new macro

➤ Click the New Macro button.

The name in the Selected box will be cleared and the Surround Stem Setup boxes will be blanked.

➤ Click and drag symbols from the Surround Type Select box Surround Stem Setup box starting with the first empty position.

If an icon is dropped in an empty box when there are still empty spaces to the left, then a warning dialogue will appear to indicate that the macro items must be consecutive.

➤ Click the <-Delete button in the Stem Setup area to remove the most recently placed icon if an error is made.

➤ Click the Save Macro button when the custom macro is complete.

➤ Type a name for the macro and press Enter or click OK.

The macro will be saved and the name will be displayed in the Selected box.

➤ Click OK.

The Macro will be selected automatically in the Pan Designators Macros dialogue box.

To edit an existing macro

➤ In the Macro Editor/Viewer dialogue box click the drop down arrow next to the Selected macro box.

A list of available macros will be shown.

➤ Click the required macro name.

The name will be shown in the Selected box and the speaker icons that form the macro will be shown in the Surround Stem Setup.

➤ Drag and drop the replacement speaker position icons as required.

➤ Re-save the Macro as before.

To delete a macro

➤ Click the drop down arrow next to the Selected macro box.

A list of available macros will be shown.

➤ Click the required macro name.

The name will be shown in the Selected box and the speaker icons that form the macro will be shown in the Surround Stem Setup.

➤ Click the Delete Macro button.

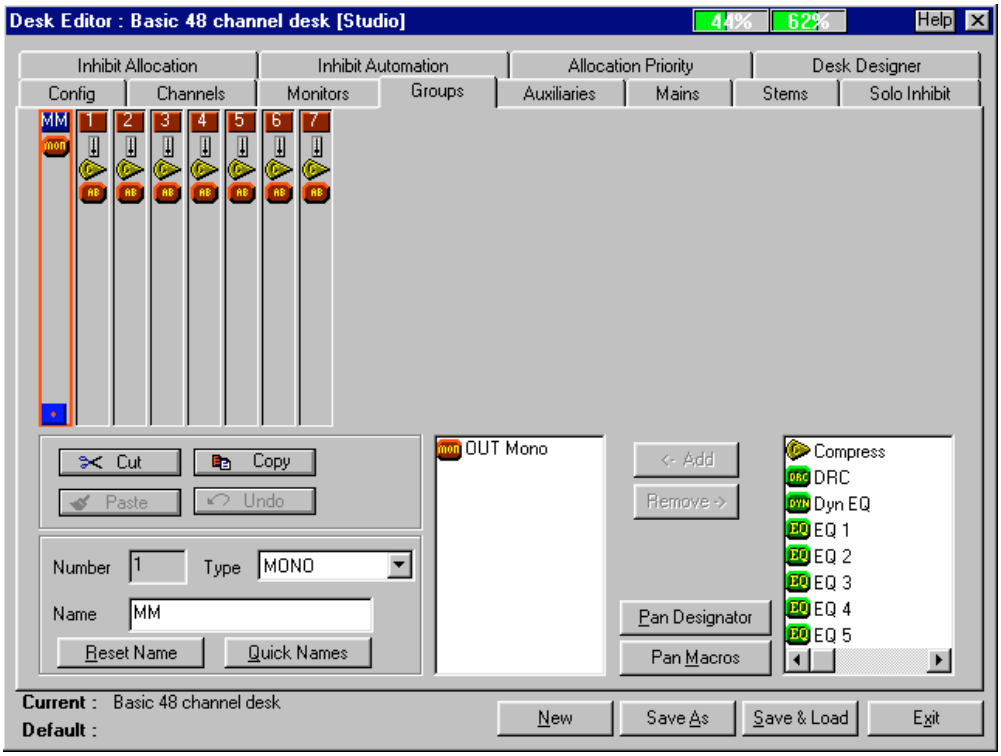
A confirmation dialogue box will be displayed.

➤ Click OK.

The Macro Name and the Stem Setup will be cleared.

Groups Page

To configure group paths



Configure groups in the same way as channels and monitors

✍ *There is always one mono mix-minus group (MM) in addition to the number of groups specified on the config page.*

✍ *The mix-minus group should always be a mono path with a mono pan designation and no fader.*

✍ *Groups may be mono or stereo.*

✍ *Mono groups may have pan designations, like monitor paths.*

To configure Auxiliaries and Main outputs

➤ Configure these paths in the same way as channels, monitors and groups are configured.

✍ *Auxiliaries and main outputs may be mono or stereo*

✍ *Auxiliaries and main outputs cannot be pan designated*

✍ *Main outputs may be configured with up to two outputs, allowing the main output path to be sent to two different ports. If additional ports are needed, it is possible to use insert sends or to use "port grouping". Port Grouping is an installation-time option that configures a group of output ports such that when a signal is sent to any one port it will automatically be routed to all the ports in the group. Refer to I/O Designer description in the Encore: Engineering suite section of this manual for more information.*

Desk Designer

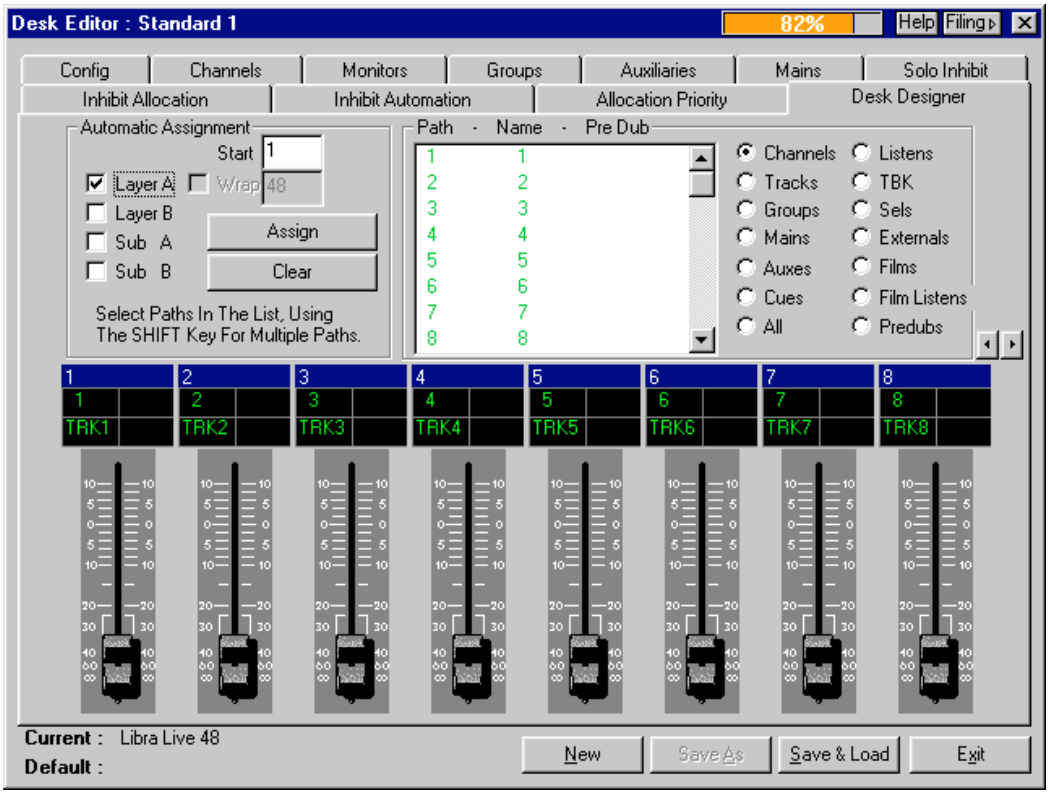
Desk Designer is used to decide which signal paths are assigned to which fader strips. This is necessary whenever a new desk is created, additional paths are created, or a desk configuration has been imported from a system with a larger console surface.

Each fader strip can have up to four signal paths assigned to it on layers A, B, SUB A and SUB B.

✍ *Pre-dubs are not supported on Libra Live yet.*

To access Desk Designer

➤ Click the Desk Designer tab.



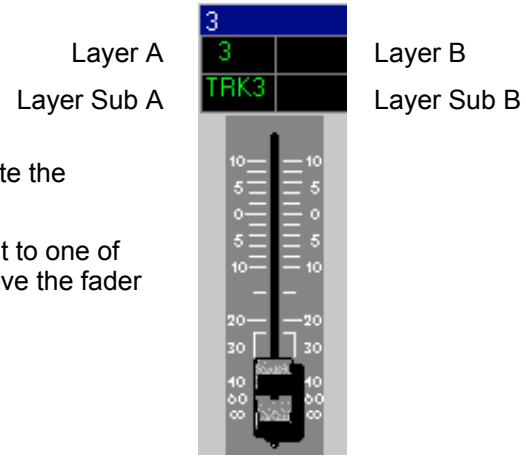
The screen has three zones: The top right zone is used to select paths from those created on the config page. Notice that the Channels radio button is selected by default. The top left “Automatic Assignment” zone provides tools for quickly assigning multiple paths to multiple faders. The bottom half of the screen shows how paths are assigned to each layer.

To position a single path on a fader

➤ Select the path type using the radio buttons.

➤ Use the arrow buttons to the right of the radio buttons to scroll the lower display and locate the required fader for the path.

➤ Click and drag the path number from the path list to one of the black boxes representing the four layers above the fader icon.



✍ *When the path numbers in the list are green they have already been assigned locations, but they can still be assigned to additional locations*

To assign a block of paths to locations

➤ Select the path type using the radio buttons.

➤ Select a block of path numbers.

For example, click on path 2, then hold down the shift key on the Dockable Keyboard and click on path 8. Paths 2 - 8 will be highlighted (selected). To make a non-contiguous selection, hold down the control key while selecting individual paths. To select a path and all the higher numbered paths, click on the path, hold down the shift key and press the END key. To select a path and all the lower numbered paths, click on the path, hold down the shift key and press the HOME key. To change the selection, click on a non-selected path or select a different path type.

➤ Enter the fader number that the assignment is to start from in the Start Box in the Automatic Assignment zone. Alternatively click on the fader icon of the first fader and the number will be entered automatically.

➤ Select the layer that the block of faders is to be assigned to by clicking the check box so that it is checked.

If there are more paths to be assigned than there are faders available in one layer (e.g. assigning 48 channels on a 24 fader console), additional layer buttons may be selected. Only the first layer will be used unless the WRAP check box is also ticked. If this box is checked, the paths will be assigned to the first layer checked until it is full and the remaining paths will then be assigned to the next checked layer (starting with the “start” fader) until all the paths are assigned or all the checked layers are filled.

✍ *The start number will be applied to all layers that the assignment wraps around to.*

➤ Click the Assign button.

The Channel numbers will be displayed in the boxes above the faders corresponding to Layer A.

To clear assignments

➤ Select the layers to be cleared using the check boxes.

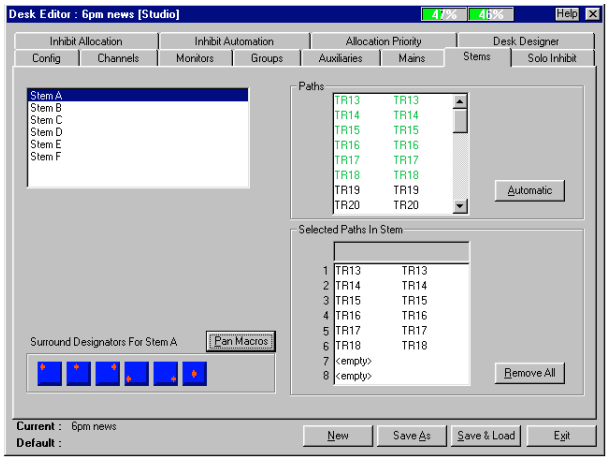
➤ Select the lowest fader number to be cleared by clicking on it or by entering the number in the Start box.

➤ Click on the CLEAR button.

Stems, Solo Inhibit, Inhibit Automation

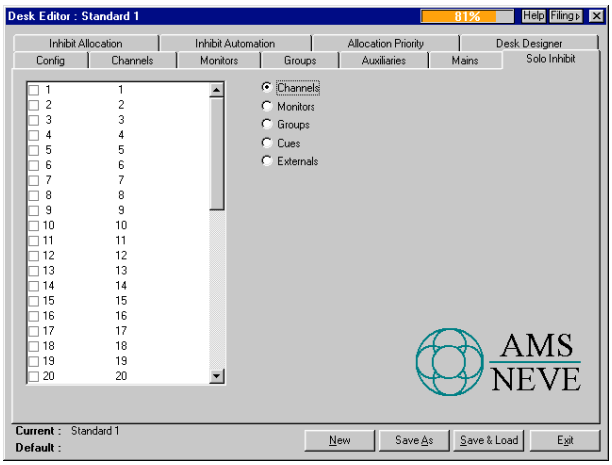
Stems

The Stems page of Desk Editor is used to configure groups of track outputs as surround sound outputs. This page interacts with the pan designations that are set on the Monitors page of Desk Editor. The operation is described in the Surround Sound section of this manual.



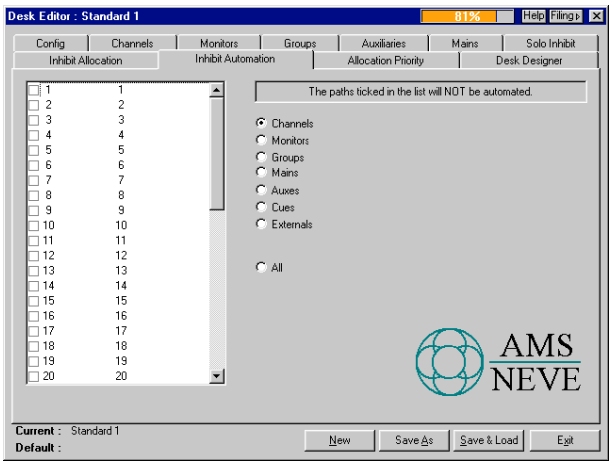
Solo Inhibit

The Solo Inhibit page of Desk Editor is used to make signal paths “safe” when destructive solo is used. Destructive solo is normally only used in music mixing applications and this page can be ignored for most broadcast applications. The Solo mode is set in Encore’s Preferences and is normally AFL.



Inhibit Automation

The Inhibit Automation page of Desk Editor is used to turn off the dynamic automation of selected signal paths. This does not affect Snapshot Automation and for most broadcast applications it can be ignored.

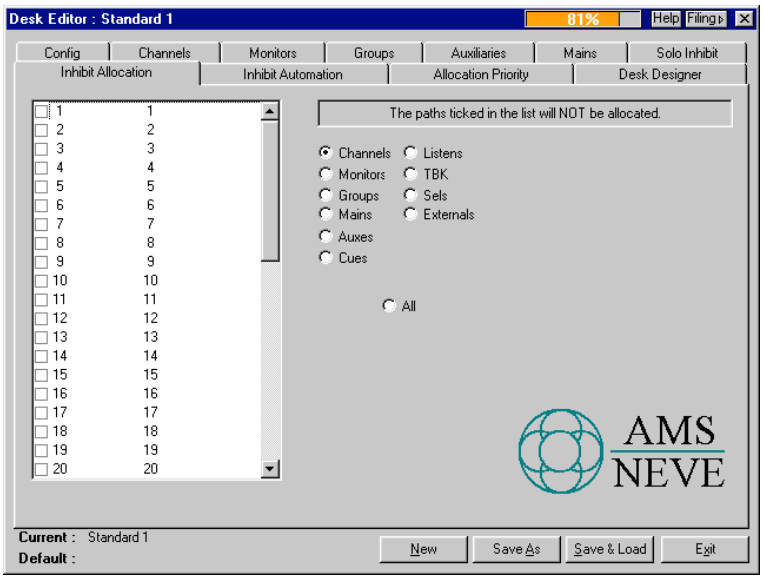


Inhibit Allocation, Allocation Priority

The use of these two pages is optional.

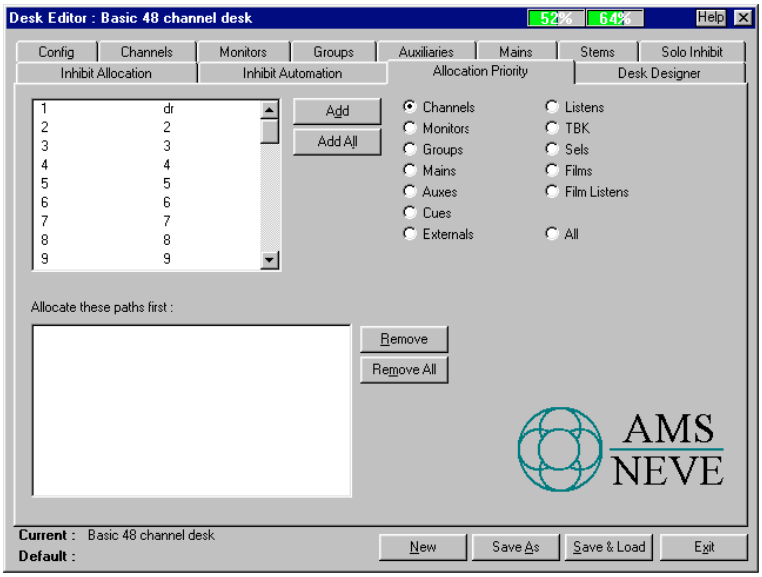
Inhibit Allocation

This page in Desk Editor is used to select paths in the desk configuration that will not be allocated when the desk configuration is loaded onto the console. This facility is typically used when a desk configuration is transferred from a large console to a smaller console that has in sufficient resources to handle the whole configuration.



Allocation Priority

Allocation Priority is used to tell the system which signal paths should be allocated first. This facility is typically used to protect against losing critical signal paths should the system find insufficient processing to allocate the whole configuration.



Saving the Desk Setup

To save the desk setup when the Desk Configuration is complete, either

➤ Click the Save & Load button.

A confirmation dialog box will appear, displaying the name of the configuration as entered on the Config page.

➤ Click the OK button.

The configuration will be saved to disk and loaded onto the console. This will take approximately 20 seconds.

Changing the configuration will mute the console, so this action is inhibited when the console is On Air.

or

➤ Click the Save As button.

A dialogue box will appear

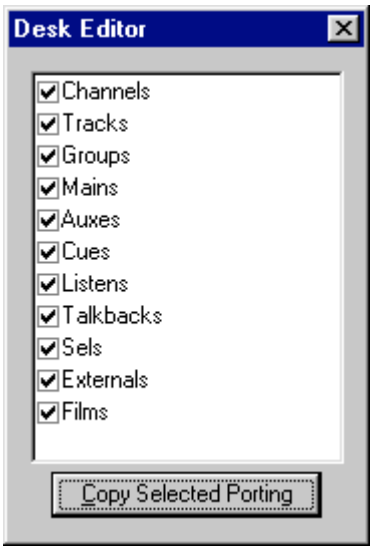
➤ Enter the name of the new configuration and click OK

The configuration will be saved to disk and loaded onto the console. This will take approximately 20 seconds.

✍ *Changing the configuration will mute the console, so this action is inhibited when the console is On Air.*

✍ *Saving the desk configuration will always load the configuration onto the console. It is not possible to save a configuration to disk without loading it onto the console.*

If the configuration has been created using the “NEW” button a copy porting dialogue box will be displayed before the Desk Setup is saved or allocated. It allows the port routing (I/O patching) to be re-used from the Desk Setup that is currently allocated on the console before it is replaced by the new Desk Setup.



Click the check boxes for the required path types and then click the Copy Selected Porting button.

It is recommended that the porting for system paths (Listens, Talkbacks and Sels) is copied, and for Films if the Surround Sound Panel is installed. This will retain the output patching for the monitoring and/or surround monitoring systems.

When Desk Editor has finished allocating the desk configuration a message will be displayed either confirming that the allocation was successful, or stating that the allocation was incomplete and specifying the paths that were not allocated. This will happen if the system has insufficient processing capacity, or the paths were prevented from allocating by use of the Inhibit Allocation page.

I/O Patch

I/O Patch is used to configure input/output routing from signal paths to physical connections. The application works in parallel with the alternative method of using the AFU to select ports for individual paths.

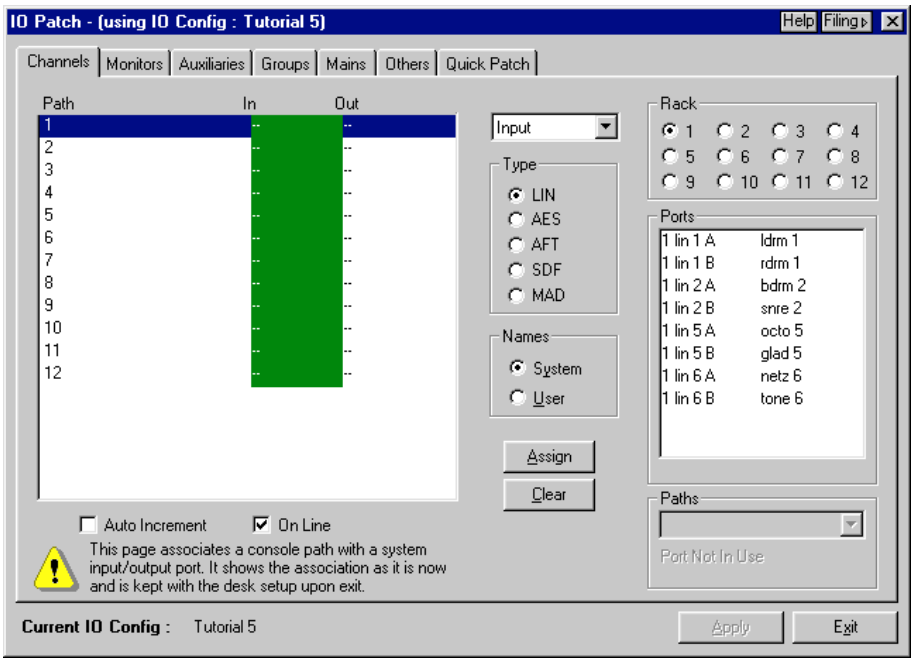
I/O patch does not create an independent “patch” file like I/O config. Instead, the I/O patch is stored as part of the Desk Setup. Any changes made to the patch either via the console’s AFU or via ‘I/O Patch’ are automatically applied to the current Desk Setup.

The number and availability of different path types will depend on the mix setup as set in Desk Editor. The number and availability of input and output ports will depend on the hardware setup.

Changes to Input and Output routing are saved as part of the Desk Setup when an automatic Keep is executed on exit from I/O Manager.

To access I/O Patch

➤ Click on the Icon on the Encore “More” page.



To assign and de-assign I/O Ports to Paths (porting)

➤ Click on the tab for the Path Type you wish to port.

The selected I/O assignment page will appear.

➤ Click on the In column in line with the required Path.

The In column will be highlighted in green. The path will be highlighted in blue

➤ Click on the required Port in the Ports list.

If the required Port is not in the list

➤ Click on the Rack and Type radio buttons to select the correct location of the port.

➤ Use the scroll bar on the Ports list to view more ports in the list.

If the Port is already in use then it will be greyed out, the paths already using the port will be listed at the bottom right of the page and the words "Port Used By x Other Paths" will flash. Input ports can be assigned to multiple input paths.

➤ Click the Assign button.

The Port name will be displayed against the Path in the In column.

If Auto Increment is enabled

The next Path and Port in each list will be selected.

➤ Click Assign repeatedly to assign sequential Ports and Paths.

To route a Path to an Output Port

➤ Click on the Out column for the required Path.

or

➤ Select Output 1 from the drop down list. (Output 2 may be selected for Main paths).

The Out column will be highlighted in red.

➤ Assign output ports to paths in the same way as inputs.

If an output Port is in use by another path a warning message will be displayed giving the operator the choice of re-assigning the port to the new path or leaving it alone. Only one path can be routed to an Output Port.

✍ *Input and Output ports can only be assigned to Paths if the Path type is appropriate. E.g. Input ports cannot be assigned to Main Paths and Outputs cannot be assigned to Channel Paths (unless a direct output has been added to the Channel Path in Path Edit or Desk Edit).*

To assign Ports to Inserts in a Path

➤ Select Insert In 1 from the drop down list.

The In and Out columns will show Insert In 1 and Insert Out 1.

The Insert In 1 column will be highlighted in green.

➤ Assign insert output (send) and input (return) ports to paths in the same way as other inputs and outputs.

If the Path has a second Insert

➤ Repeat the procedure by selecting Insert In 2 from the drop down list.

✍ *Input and Output ports for Inserts can only be assigned to a path which has been configured with an Insert in Desk Edit or Path Edit.*

On Line and Off Line Routing

On Line routing is enabled when the check box is ticked. If On Line is enabled the changes will appear on the console immediately.

If On Line is disabled the changes will not appear on the console. The Apply button can be used to implement routing changes or Exit can be used to exit without implementing changes.

To Clear routing settings

Clearing a setting resets it to the system default and the entry will change back to -- or 0.

To clear a single setting

➤ Click directly on the required entry.

➤ Click the Clear button.

To clear all settings for a single port

➤ Click on the System Name of the required port in the Ports column.

➤ Click the Clear button.

To clear all settings for multiple ports

➤ Click and hold the trackball button on the first System Name of the ports to be cleared.

➤ Drag down the list until the last port to be cleared is selected.

➤ Release the trackball button and click the Clear button.

To clear multiple entries in a single column

➤ Click in the column containing the entries to be cleared.

➤ Click and hold the trackball button on the first entry to be cleared.

➤ Drag down the list until the last port to be cleared is selected.

➤ Release the trackball button and click the Clear button.

To use Quick Patch for I/O Routing

Quick Patch is used to assign all of the inputs or outputs for one path type to a sequence of ports.

➤ Click on the Quick Patch tab.

➤ Click on the drop down arrow next to the path type box.

The list of valid path types for use with Quick Patch will appear.

➤ Click on the required path type.

➤ Click on the drop down arrow next to the port type box.

The port type list will appear.

➤ Click on Inputs or Outputs as required.

➤ Click on the drop down arrow next to the port names box.

The list of available sets of ports will appear.

➤ Click on the required port name and click the Apply button.

The selection will be applied to the current Desk Setup and allocated on the console. If there are more ports than paths then the remaining ports will be unused.

If there are more paths than ports then the remaining paths will be cleared.

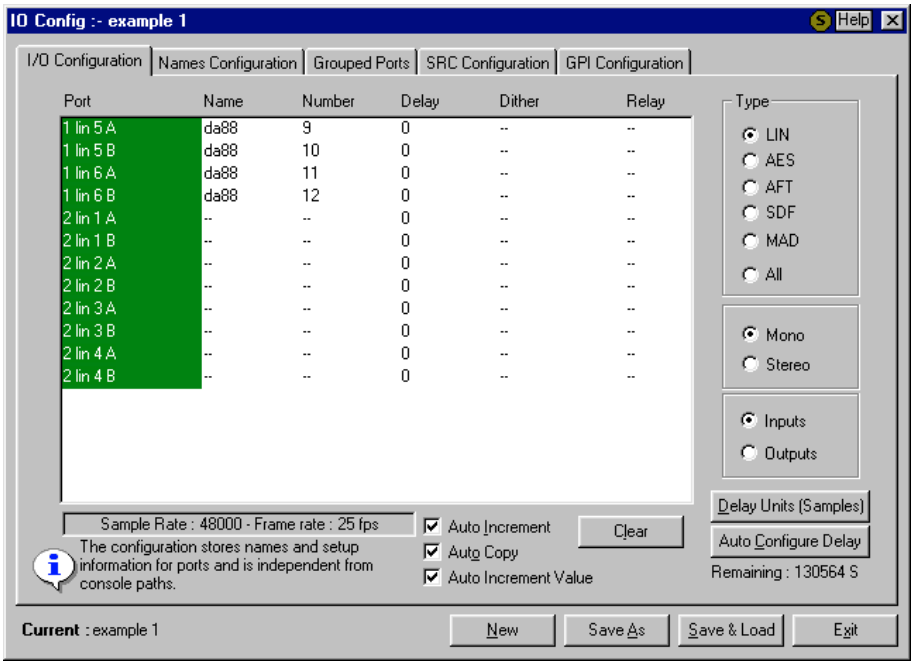
I/O Config

I/O Config is used to configure the properties of input and output ports such as dither and delay. I/O Config is also used to configure the Sample Rate Conversion settings on suitable AES/EBU cards in the older (pre MIOS) I/O systems.

I/O Config can be launched from the icon on the MORE page of Encore, from the Tools menu in the dynamic automation application, or from within the filing utility.

Unlike I/O Patch, I/O configuration is a completely separate configuration to the Desk Setup as it applies to the I/O hardware rather than to the processing paths currently loaded on the console. However, to make it easier to load whole console setups, the I/O configuration is “linked” to all of the Desk Setups that it is used with. When a desk Setup is recalled it recalls the associated I/O configuration automatically, but it is also possible to manually load an alternative I/O configuration.

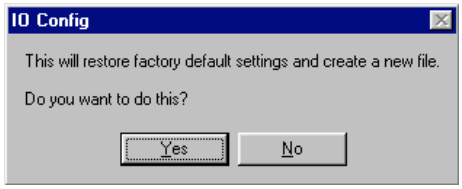
The name of the I/O Configuration being edited is shown in the title bar. The name of the currently loaded I/O Configuration is shown against Current in the bottom left corner of the page.



Creating an I/O Configuration

To start a new I/O Configuration in the I/O configuration application

➤ Click the New button.



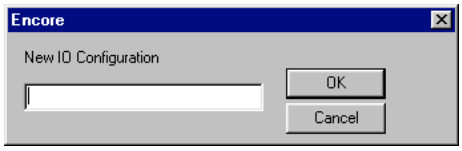
A confirmation dialogue box will be displayed, indicating that the new file will start with factory default settings.

➤ Click the Yes button.

The current settings will be cleared back to factory defaults and no name will be shown in the title bar or against the Current: name space.

Save As must be used to store the I/O Configuration before exiting I/O Config.

To start a new I/O Configuration from the Filing utility in Encore:



➤ On the Systems page of Filing, click on the I/O Configuration box.

The red highlight will go to the I/O Configuration box.

➤ Click the New button.

A dialogue box will be displayed for the new I/O Configuration file name.

➤ Type the new name as required and click OK.

✍ *If the name already exists then a prompt will indicate this. Click OK and an extended naming dialogue box will be displayed showing all the current I/O Configuration file names, and the name of the existing file will be highlighted. Edit the name for the new file so that it does not match anything in the list, then click OK.*

I/O Config will start with all port settings at factory default

Input and Output ports

To assign I/O ports to signal paths

➤ Click on the I/O Configuration tab.

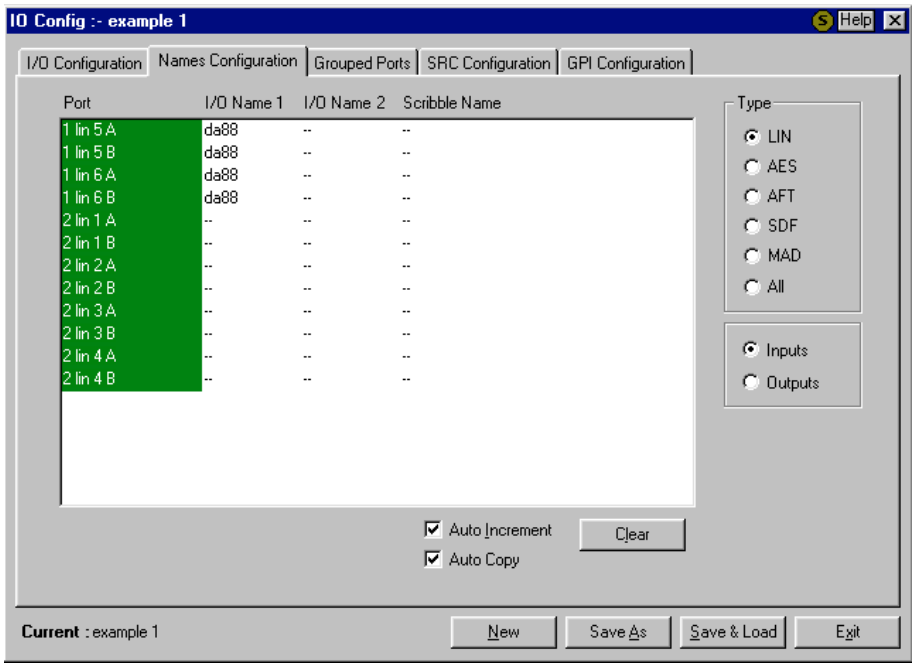
The I/O Configuration page will appear.

The ports shown will depend on the hardware in the system and the selection made by the Type radio buttons.

The Inputs and Outputs radio buttons select whether Input or Output ports are being configured.

Configuration of Input and Output ports is identical except for Dither. Dither may only be applied to Output ports.

To assign a User Name to a port



➤ Double click on the Name for the required port.

A text entry box will appear with an X next to it.

➤ Enter a four letter name using the Encore keyboard.

➤ Press ENTER on the Encore keyboard.

The new name will be shown in the Name column.

If Auto Increment is enabled

The text entry box will move to the next port.

If Auto Copy is enabled

The text entry box will contain the last User Name entered.

To cancel selection or exit from Auto Increment mode

➤ Click on the X at the side of the list.

To assign a number to a port

➤ Double click on the Number for the required port.

A text entry box will appear with an X next to it.

➤ Enter a number using the Encore keyboard.

➤ Press ENTER on the Encore keyboard.

The new number will be shown in the Number column.

If Auto Increment is enabled

The text entry box will move to the next port.

If Auto Copy is enabled

The text entry box will contain the last Number entered.

To cancel selection or exit from Auto Increment mode

➤ Click on the X at the side of the box.

Making a port Mono or Stereo

The ports may optionally be assigned in pairs to make a stereo input or output. The ports will still follow the paths if they are not specifically set (i.e. a pair of mono ports assigned to a stereo path will be treated as a stereo pair).

Adjacent odd and even ports make a stereo pair (e.g. A and B on LIN ports, an odd numbered port and the following even numbered port on MADI ports, etc.).

To make a port Stereo

➤ Click on a mono port.

The Mono/Stereo radio buttons will indicate Mono.

➤ Click the Stereo radio button.

The second port of the pair will be removed from the list.

The first port will be renumbered with a trailing S to indicate stereo (e.g. 1LIN 3A will become 1LIN 3S).

The system name in the Ports column will be displayed in red.

To make a port Mono

➤ Click on a Stereo port.

➤ Click on the Mono radio button.

✍ *The Auto Increment and Auto Copy functions are not applicable to toggling ports between Mono and Stereo.*

Clearing Settings

Clearing a setting resets it to the system default and the entry will change back to -- or 0.

To clear a single setting

➤ Click directly on the required entry.

➤ Click the Clear button.

To clear all settings for a single port

➤ Click on the System Name of the required port in the Ports column.

➤ Click the Clear button.

To clear all settings for multiple ports

➤ Click and hold the trackball button on the first System Name of the ports to be cleared.

➤ Drag down the list until the last port to be cleared is selected.

➤ Release the trackball button.

➤ Click the Clear button.

To clear multiple entries in a single column

➤ Click in the column containing the entries to be cleared.

➤ Click and hold the trackball button on the first entry to be cleared.

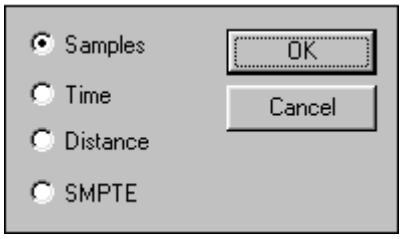
➤ Drag down the list until the last port to be cleared is selected.

➤ Release the trackball button.

➤ Click the Clear button.

Delay

To set Delay Units



➤ Click on the Delay Units button.

A dialogue box will appear containing the options for Delay Units.

➤ Click the radio button for the required Units.

➤ Click OK.

or

➤ Click Cancel to leave the Units unchanged.

The legend on the Delay Units button will change to indicate the selected Units.

The Remaining amount will display the amount of Delay left to assign in the new Units.

Any Delay configured will change to show the setting in the new Units.

To configure Delay on single ports

➤ Double click in the Delay column for the required port.

A box will appear with an X next to it.

➤ Enter the amount of Delay from the Encore keyboard.

➤ Press ENTER on the Encore keyboard.

✍ *Auto Increment and Auto Copy can be used when entering delay times.*

To automatically configure Delay on multiple ports

➤ Click in the Delay column.

➤ Click and hold the trackball button on the first Delay entry to be configured.

➤ Drag down the range of ports to configure.

➤ Release the trackball button.

➤ Click on the Auto Configure Delay button.

The delay Remaining will be divided equally amongst the highlighted ports leaving a remainder which will be the new Remaining amount.

Any Delay already assigned to the selected ports will be added to the Remaining amount before it is divided up.

Dither

Dither is used to replace distortion caused by quantiasation with a low level wide-band noise that is subjectively easier on the ear. Dither is set automatically on ADCs for the word length of the convertor. The facility in I/O config is to re-dither a digital output to match the word-length of a subsequent digital input.

Dithering is 16, 18, 20 or 24-bit with an LSB Rounding, Rectangular or Triangular pattern.

To set Dither on Output ports

➤ Click on the Outputs radio button.

The list will show Output ports.

➤ Click on the Type radio button as required.

➤ Double click on the Dither entry for the required port.

A drop down list of Dither settings will appear.

➤ Double click on the required setting.

✍ *Auto Increment and Auto Copy can be used when setting dither.*

Relays

The relay control in I/O Configuration is a simpler alternative to the full GPI configuration control. The choice of using GPI Configuration or I/O Configuration settings is made in the User preferences page.

When a Relay is associated with an Input port, the Relay is closed when the fader is above -60dB.

When a Relay is associated with an Output port, the Relay is closed by Rec Enable.

To associate a Relay with a port

➤ Double click on the Relay column for the required port.

An entry box will appear with an X next to it.

➤ Enter a valid Relay Number using the Encore keyboard.

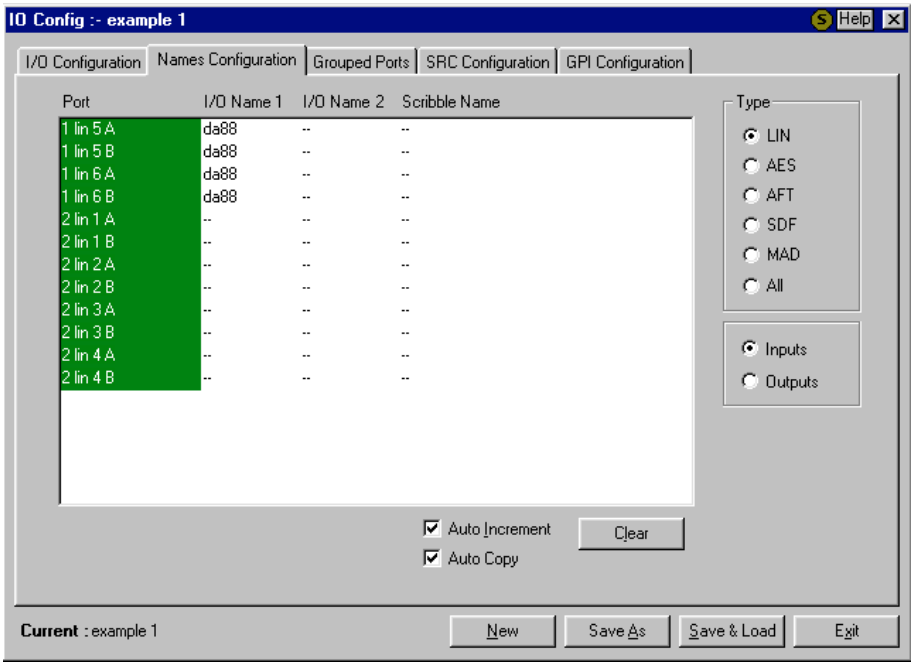
➤ Press ENTER on the Encore keyboard.

The number will be shown in the Relay column.

✍ *Auto Increment and Auto Copy can be used when associating Relays with ports.*

Names Configuration

The Names Configuration page is not supported on Libra Live. Use the I/O Configuration page as described above



Port Grouping (V2.8 software)

Port Grouping allows a number of groups to be ganged like a distribution amplifier, so that when a path is routed to one of the outputs, it is routed to all of them.

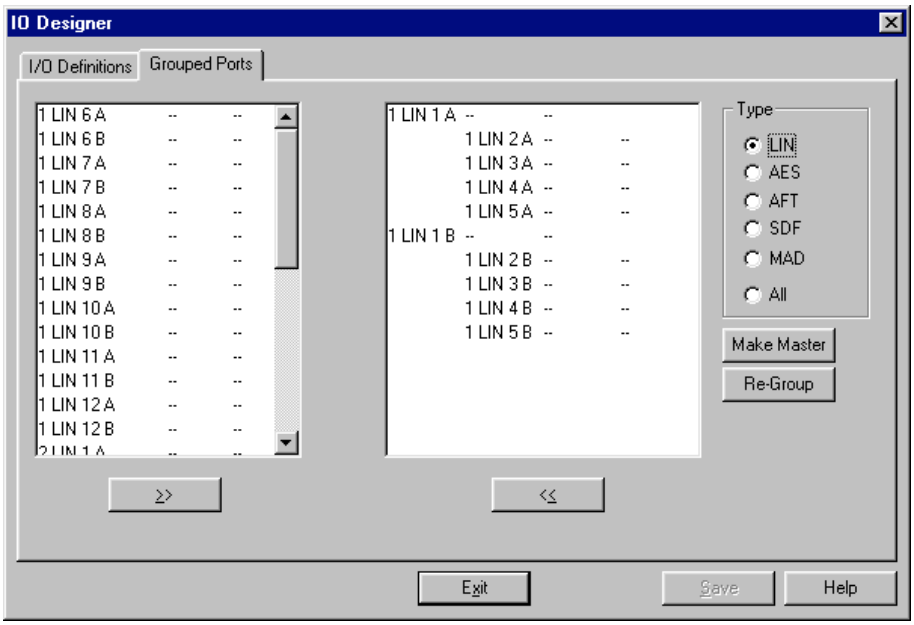
This page is used to interrogate the Port Grouping which is set up in a utility called I/O Designer. I/O Designer is a system utility used when the console is installed - and is not normally part of the operational Encore suite.

✍ *Changes made in I/O Designer apply to all Console configurations that are subsequently loaded onto the console.*

To change the Port Grouping

➤ Launch I/O Designer using the Edit (I/O Designer) button. This is a password-protected application as changes will affect all subsequent console users.

➤ Select the Grouped Ports tab.



➤ Select the type of ports to be ganged on the right of the screen, then select the individual ports to be ganged using the >> button to move them to the right hand side list.

➤ Highlight a group of up to 6 ports using the left hand mouse button when holding down the SHIFT key on the keyboard (for a contiguous block of ports in the list) or when holding down the CONTROL key (for non-contiguous ports).

➤ Click the Re-Group button to form the ports into a group.

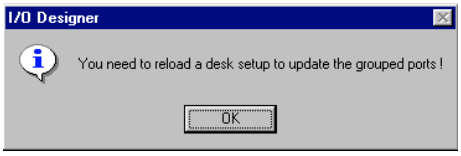
➤ Highlight a port to be the master (i.e. the port to which a path is routed to when routing to the group) and click on Make Master. (1LIN1A and 1LIN1B in the example above).

✍ *The ports must all be on the same Quad MADI board, e.g. using MADI ports 1-4, or MADI ports 5-8.*

✍ *The left-hand ports of stereo pairs should be in one group and the right hand ports in another.*

➤ Click Exit to complete.

A reminder will be displayed that the Grouping will not take effect until the Desk configuration is re-loaded:

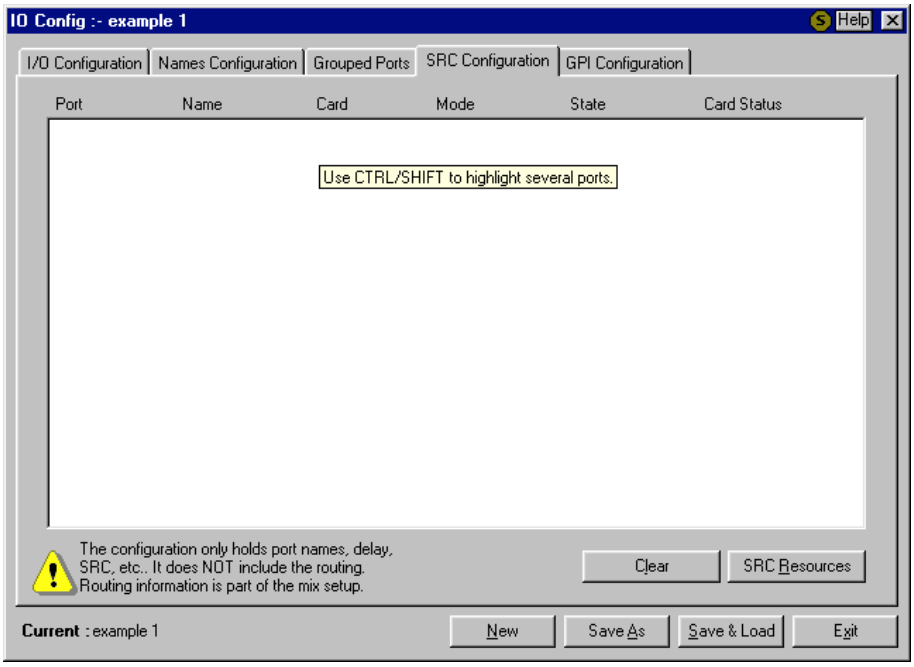


Sample Rate Configuration

To configure Sample Rate Conversion

➤ Click on the SRC Configuration tab.

The SRC Configuration page will appear.



The SRC Configuration page shows AES cards which are installed in the system and allows the SRC Mode and State to be modified.

The SRC State may only be modified when a suitable Mode has been selected.

The Port column shows System Names for input ports in lower case and output ports in capitals.

SRC Mode

Shows the current mode of SRC on the port and is used to enable and disable SRC.

The mode is selected from a drop down list.

The modes available depends on the card type:

820A154	No SRC
820-154	No SRC or USRC (Universal SRC)
820-091	No SRC or SSRC (Synchronous SRC)

This page is not used at all with stand-alone AES Racks, whose SRCs are either automatic, or configured from the rack front panels.

To set SRC Mode

➤ Double click in the Mode column for the required AES port.

A small drop down list will appear with an X next to it.

➤ Double click on the required Mode.

or

➤ Click on the X to cancel the operation.

The new Mode will be displayed in the column.

✍ *If the resources on a particular card have been used up then the system will prevent attempts to enable SRC on more ports.*

SRC State

Shows the current state of SRC on ports with SRC Mode selected and is used to select the output rate from a drop down list.

The options available depend on the card type:

820-154 Cards

These are Issue 4 cards (this is not indicated because there are very few systems with the Issue 2 cards described below).

Input ports will have SRC On or Off according to the SRC Mode selected (i.e. the State is set automatically by Mode).

Input ports with SRC On will convert the incoming signal to match the console sample rate.

Output may be at sample rates of 44.1k, 48k, 44.056k, 47.952k, 32k or Lock In -> Out.

When Lock In -> Out is selected, the output rate is matched to the input rate on the matching input port (e.g. output port 1 AES 2 AB would lock to 1 aes 2 AB).

820-154 Issue 2 Cards

The 820-154 Issue 2 cards are older and have the same features as above except for the following:

If the desk sample rate is set to 44.1 then no SRC conversion to 47.952.

If the desk sample rate is set to 44.056 then no SRC conversion to 32.

If the desk sample rate is set to 47.952 then no SRC conversion to 44.1 or 32.

✍ *Only a few systems have Issue 2 cards and this will be clearly indicated in the SRC Configuration page.*

820-091 Cards

Options for both Input and Output ports are:

Synchronous - the port is locked to the system sample rate.

Always 44100 - port locked to 44.1kHz regardless of system sample rate.

Always 48000 - port locked to 48kHz regardless of system sample rate.

Additional Input port options are:

Asynchronous - the incoming signal is buffered and truncated or interpolated with crossfade to compensate for sample rate discrepancies.

NTSC Pullup - port locked to 44.056kHz if the system sample rate is 44.1kHz, or locked to 47.957kHz if the system sample rate is 48kHz.

To set SRC State

➤ Double click in the State column for the required AES port which has been enabled.

A drop down list will appear with an X next to it with options according to the card and port type.

➤ Double click on the required State.

or

➤ Click on the X to cancel the operation.

The new State will be displayed in the column.

To check SRC Resources

➤ Click on the SRC Resources button.

The SRC Resources dialogue box will be displayed.

➤ Click the OK button to close the dialogue box.

GPI (General Purpose Interface) Configuration

The GPI page is used to map relays and opto-isolated inputs (optos) to console controls and events. GPI is an alternative to the simpler relay setup (associating relays with ports) in the I/O Configuration page.

There are several places in a Libra Live System where relays and optos may be physically located:

➤ A relay card may be fitted in the control surface, providing 8 relays and 8 optos.

➤ 8 relays and 8 optos are provided in each MIOS rack in the system.

➤ A relay card with 8 optos and 8 relays may be fitted in an IOS rack.

➤ There are two types of dedicated relay/opto racks:

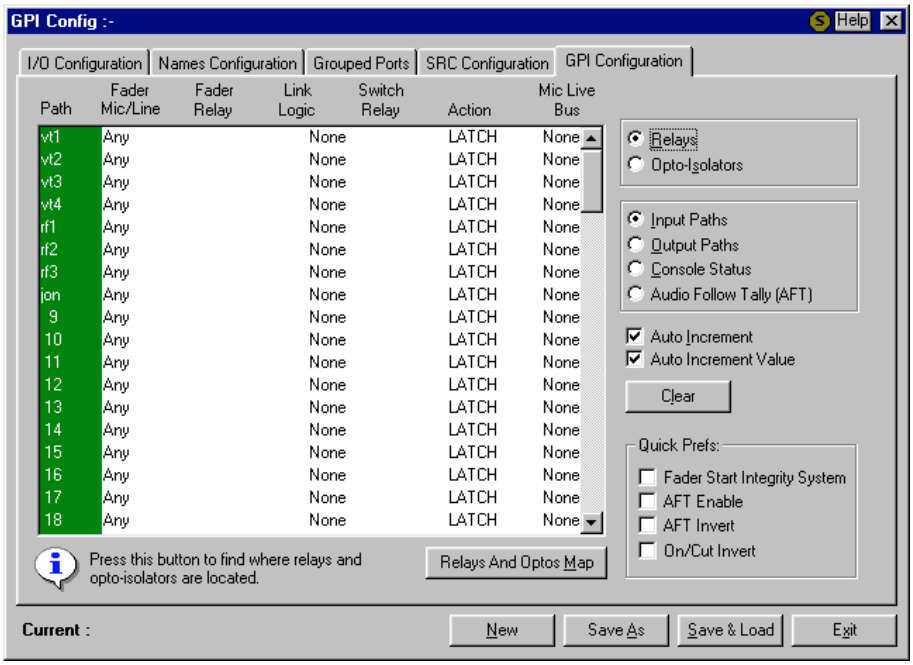
Fader Start Box: Normally fitted with 16 optos and 64 relays, but is expandable.

Track arming box: Normally fitted with 48 optos and 48 relays

A map utility displays the quantity and location of the GPI facilities within the system.

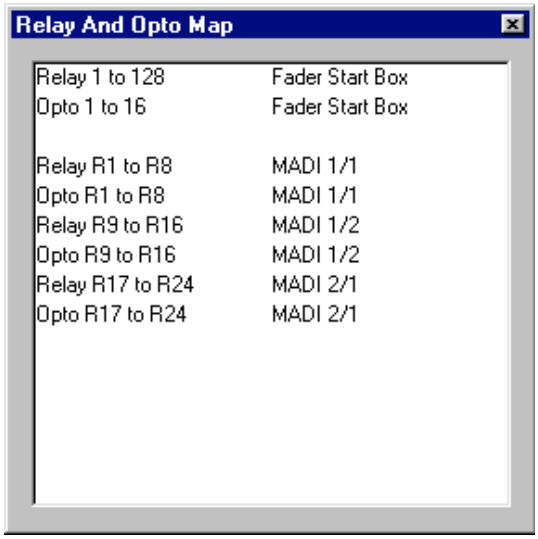
To launch GPI configuration,

➤ Select the GPI Configuration tab from within I/O Configuration.



To check how many optos and relays are available and what their numbering system is

➤ Click on the Relays and Optos Map button.



A list of the available optos and relays will be displayed, together with their identification.

✍ *When GPI is located in a MIOS or IOS rack, the rack is identified by its MADI connection to the console.*

EG: MADI 1/2 indicates that the rack attached to MADI port 2 on Quad MADI board 1 has GPI facilities.

There are two sets of radio buttons on the right hand side of the GPI page. The first is used to select Relays or Opto-Isolators. The second set is used to select Input Paths, Output Paths or Console Status. The combination of radio buttons determines the console controls or events that are displayed in the list.

Configuring GPI Relays

To configure Relays associated with controls in signal paths

➤ Click the Relays radio button and either the Input Paths or Output Paths radio button.

The list will show a list of all the input or output paths.

Path

This shows all valid input paths (Channels and Track Monitors) or output paths (Groups, Auxes and Main Outputs).

Fader Mic/Line

This can be set to Mic, Line or Any and is set to Any by default. This determines whether the relay associated with the fader will be activated when the path's input is selected to Mic or Line or any input.

For instance, if this is set to Mic for Channel 1 then the fader relay will only fire (when the fader is over-pressed) if Channel 1 is switched to Mic and there is a source connected to the Mic input.

To select Fader Mic/Line

➤ Double click the entry for the required path.

A small drop down list will be displayed.

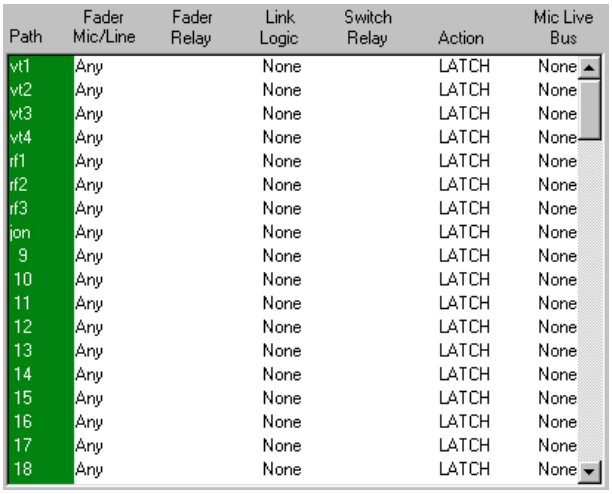
➤ Click Mic, Line or Any as required.

or

➤ Click the red X to cancel.

If Auto Increment is enabled

The drop down list will move to the next path for selecting Mic, Line or Any.



Path	Fader Mic/Line	Fader Relay	Link Logic	Switch Relay	Action	Mic Live Bus
vt1	Any		None		LATCH	None
vt2	Any		None		LATCH	None
vt3	Any		None		LATCH	None
vt4	Any		None		LATCH	None
rf1	Any		None		LATCH	None
rf2	Any		None		LATCH	None
rf3	Any		None		LATCH	None
jon	Any		None		LATCH	None
9	Any		None		LATCH	None
10	Any		None		LATCH	None
11	Any		None		LATCH	None
12	Any		None		LATCH	None
13	Any		None		LATCH	None
14	Any		None		LATCH	None
15	Any		None		LATCH	None
16	Any		None		LATCH	None
17	Any		None		LATCH	None
18	Any		None		LATCH	None

Fader Relay

This is the relay number that is switched by the fader bottom of travel detector.

To select the relay number

➤ Double click the entry for the required path.

An entry box will appear in the list.

➤ Type the required relay number and press <ENTER>.

If Auto Increment is enabled the entry box will move to the next path. If Auto Increment Value is also selected the next unused relay number will be automatically entered in the box.

To cancel Auto Increment

➤ Click the red X at the side of the entry box.

Switch Relay

Any of the 3 user assignable buttons in the fader strip may be assigned to being a relay control switch by setting the preference in the User Preferences utility. The switch may be programmed to operate an independent relay by entering a relay number in the column as described above for the fader relays, or it may be programmed to work in conjunction with the fader relay by using Link Logic.

Link Logic

This is set to None, AND or OR. If it is set to AND or OR then the blank key on the fader strip operates on the same relay as the fader bottom of travel switch. This is set to None by default.

If the logic is set to OR then either the fader bottom of travel switch or the fader strip button can be used to fire the relay.

If the logic is set to AND then the fader strip switch must be on before the bottom of fader switch will fire the relay. In practice this allows the fader strip key to used as a fader start relay enable.

To set the Link Logic

➤ Double click the entry for the required path.

A small drop down list will be displayed.

➤ Click None, AND or OR as required.

or

➤ Click the red X to cancel.

✍ *If Auto Increment is enabled the drop down list will move to the next path for selecting None, AND or OR.*

Action

This is used to set the relay action to latching (switch closed or switch open and stay until changed) or momentary (close for a moment and then open again). If relays are assigned to both the fader and switch then they will both have the same action. The action is set to LATCH by default.

To set the Action

➤ Double click the entry for the required path.

A small drop down list will be displayed.

➤ Click LATCH or MOM as required.

or

➤ Click the red X to cancel.

✍ *If Auto Increment is enabled the drop down list will move to the next path for selecting LATCH or MOM.*

Mic Live Bus

This is used to select whether or not the path will affect either of the Mic Live busses when the relays are closed. Mic Live Busses A and B are 'virtual' busses that can be used to switch relays when they are active. They are activated by an open path from a Mic input to an output. This provides a signal integrity system which can be customised as needed.

This is set to None by default.

For instance, Channel 1 is set to activate Mic Live Bus A. For Mic Live Bus A to go active then Channel 1 must be set to Mic, the Mic input must be on, and the signal must have a clear path to an output.

To select the Mic Live Bus

➤ Double click the entry for the required path.

A small drop down list will be displayed.

➤ Click None, A, AB or B as required.

or

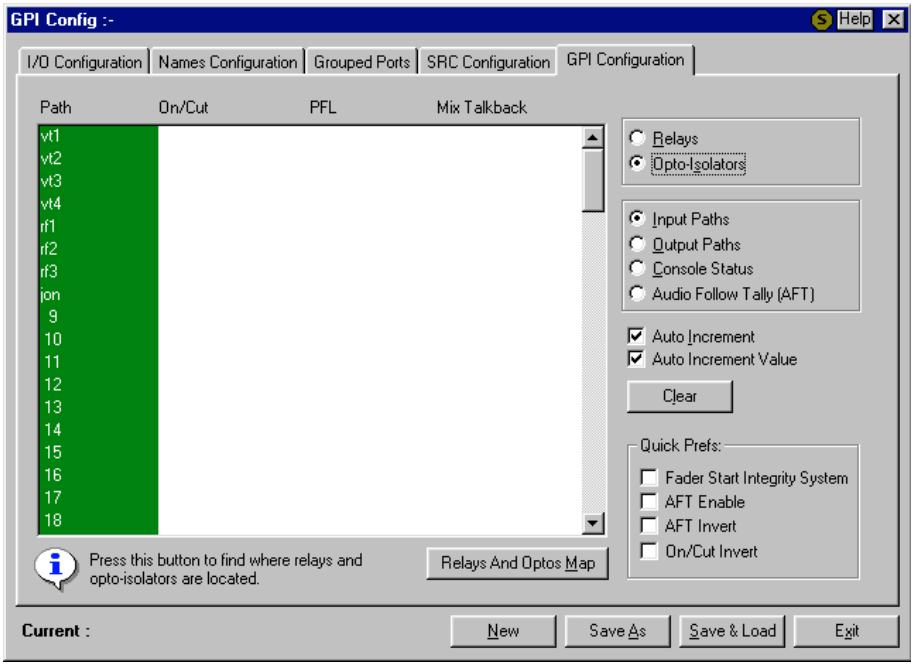
➤ Click the red X to cancel.

✍ *If Auto Increment is enabled the drop down list will move to the next path for selecting None, A, AB or B.*

Configuring GPI Opto-Isolators

To configure opto-isolator inputs

➤ Click the Opto-Isolators radio button and either of the Input Paths or Output Paths radio buttons.



The list will show opto-isolator setup for input or output paths (as shown for inputs above). The columns are the same for input and output paths.

Opto-isolators must be assigned uniquely (i.e. to only one function or path) except when the same opto-isolator is used for ON/CUT and PFL for a Channel.

Path

This shows all valid input paths (Channels and Track Monitors) or output paths (Groups, Auxes and Main Outputs).

On/Cut

This is used to select the opto-isolated input that will toggle the ON switch (the operation of the ON switch is set by the Led On When Cut option in Preferences.

If the path is on the surface then the switching will be visible as the ON key LED illuminates or extinguishes.

PFL

This is used to select the opto-isolated input that will switch the PFL solo function. If the path is on the surface then the switching will be visible as the LED in the PFL key illuminates or extinguishes.

✍ *The LED in the SOLO CLEAR key will flash as for normal solo operations.*

This can be set to the same opto-isolated input as On/Cut. This is useful for Lazy Talkback where a presenter has a microphone with an associated switch that can be used to cut the Channel and switch on the PFL.

Mix- Talkback

This is only used by Track Monitors, and sets the opto-isolated input that will activate talkback to mix minus output (i.e. the Track Monitor output). The TB/AFL key (above the routing screen) for the selected Track Monitor will illuminate (if the Track is in the selected range and the TB/AFL keys are set to TB operation).

To select the opto-isolator id for On/Cut, PFL or Mix- Talkback

➤ Double click the entry for the required path.

An entry box will appear in the list.

➤ Type the required opto-isolator number and press <ENTER>.

If Auto Increment is enabled

The entry box will move to the next path.

If Auto Increment Value is also selected.

The next unused opto-isolator number will be automatically entered in the box.

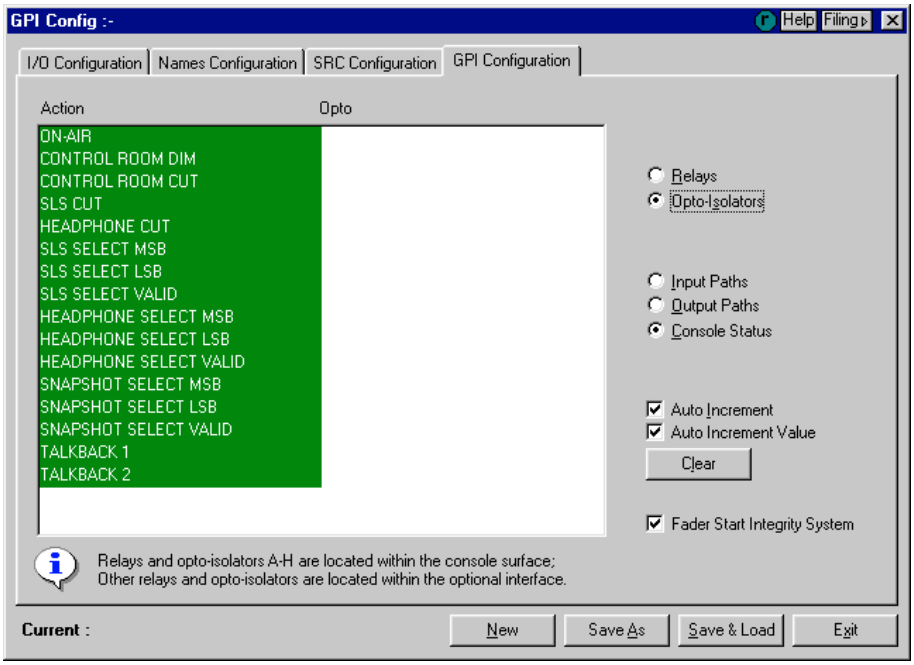
To cancel Auto Increment

➤ Click the red X at the side of the entry box.

Console Status and Relays

To configure GPI optos and relays for Console Status

➤ Click the Relays radio button and the Console Status radio button.



The list will show relay or Opto Isolator setup for console status events (as shown for above).

The columns show the console status items and the relay/opto for each item. Console status relays are latching only.

ON-AIR

The specified relay will close when the ON AIR key is active.

MIC-LIVE A and MIC-LIVE B

These are the 'virtual' busses that are activated by a clear signal path from a mic input to an output. When this condition is met then either or both of the Mic Live busses will close the specified relay.

TALKBACK 1 and TALKBACK 2

The specified relay will close when the Talkback bus is activated. This will also happen if an opto-isolated input activates Mix Minus Talkback.

There is only one talkback at present.

AFL

The specified relay will close when the AFL solo bus is active.

PFL

The specified relay will close when the PFL solo bus is active. This will also happen if an opto-isolated input activates PFL on a path.

SNAPSHOT MSB and SNAPSHOT LSB

These are used to specify a range of relays that represent the current Snapshot number in binary form. The relays should not be used for anything else. The LSB relay number must be after the MSB relay number (see example below).

The number of the Snapshot is as it is numbered in the current Snapshot file.

The MSB (most significant bit) is the highest digit in the binary number and the LSB (least significant bit) is the unary digit (i.e. the 'ones' column of the number). Each relay represents 1 when it is closed or 0 when it is open.

The following table illustrates an example using four relays (33 to 36) for snapshot numbers:

MSB	Relays in between		LSB	Snapshot Number
Relay 33 (binary 8)	Relay 34 (binary 4)	Relay 35 (binary 2)	Relay 36 (unary bit)	
1	1	0	1	13 (8+4+1)
0	1	0	0	4

SNAPSHOT VALID

The specified relay closes when the Snapshot is loaded.

Console Status and Opto-Isolators

ON-AIR

The specified opto-isolator will switch the ON AIR key on and off. If a relay has been assigned to ON AIR then this will close when the ON AIR key is activated. See the description of the On Air Inhibit function (page:).

CONTROL ROOM DIM

The specified opto-isolator will switch the DIM key for the Control Room monitors.

CONTROL ROOM CUT

The specified opto-isolator will switch the CUT key for the Control Room monitors.

SLS CUT

The specified opto-isolator will switch the CUT key for the Studio Loudspeakers.

HEADPHONE CUT

The specified opto-isolator will cut the output to the Headphones.

SLS SELECT MSB and SLS SELECT LSB

These are used to specify a range of seven opto-isolators that represent a source for the Studio Loudspeakers in binary form. The opto-isolators should not be used for anything else. The LSB opto-isolator number must be after the MSB opto-isolator number (see example below).

The seven digits are split into two binary numbers: a three digit number that indicates the path type and a four digit number that indicates the path number. The MSB (most significant bit) is the highest digit in the binary number that indicates the path type. The LSB (least significant bit) is the unary digit (i.e. the 'ones' column of the number) of the number that indicates the path number. Path numbers are obtained by adding 1 to the binary number.

Each opto-isolator represents 1 when it is closed or 0 when it is open. All zeros indicates an invalid selection (i.e. nothing will change).

The following table illustrates how the opto-isolators are used, with examples using opto-isolators 4 to 10:

MSB	Optos in between		Path Type	Optos in between			LSB	Path
Opto 4 (binary 4)	Opto 5 (binary 2)	Opto 6 (unary bit)		Opto 7 (binary 8)	Opto 8 (binary 4)	Opto 9 (binary 2)	Opto 10 (unary bit)	
0	0	1	1 = Main	0	0	1	0	MAI3
0	1	0	2 = Aux	1	1	1	1	AU16
0	1	1	3 = Ext	0	1	1	0	EXT7
1	0	0	4 = Group	0	0	1	1	GRP4
1	0	1	5 = Cue	0	0	0	0	CUE1

SLS SELECT VALID

This is used to execute routing of the path to the Studio Loudspeakers, as selected with SLS SELECT MSB and SLS SELECT LSB.

HEADPHONE SELECT MSB and HEADPHONE SELECT LSB

These are used to specify a range of seven opto-isolators that represent a source for the Headphones in binary form. The opto-isolators should not be used for anything else. The LSB opto-isolator number must be after the MSB opto-isolator number.

The usage of the seven opto-isolators is identical to the format used for the Studio Loudspeakers.

HEADPHONE SELECT VALID

This is used to execute routing of the path to the Headphones, as selected with HEADPHONE SELECT MSB and HEADPHONE SELECT LSB.

SNAPSHOT SELECT MSB and SNAPSHOT SELECT LSB

These are used to specify a range of opto-isolators that represent a Snapshot number in binary form. The opto-isolators should not be used for anything else. The LSB opto-isolator number must be after the MSB opto-isolator number (see example below).

The number of the Snapshot is as it is numbered in the current Snapshot file (see Filing, page: and Snapshot, page:).

The MSB (most significant bit) is the highest digit in the binary number and the LSB (least significant bit) is the unary digit (i.e. the 'ones' column of the number). Each opto-isolator represents 1 when it is closed or 0 when it is open.

The following table illustrates an example using four opto-isolators (13 to 16) for snapshot numbers:

MSB	Optos in between		LSB	Snapshot Number
Opto 13 (binary 8)	Opto 14 (binary 4)	Opto 15 (binary 2)	Opto 16 (unary bit)	
1	1	0	1	13 (8+4+1)
0	1	0	0	4

SNAPSHOT SELECT VALID

When the specified opto-isolator closes then the snapshot will be loaded, according to the number identified by the opto-isolators in the SNAPSHOT SELECT MSB to SNAPSHOT SELECT LSB range. If relays are assigned to show the selected Snapshot and if it is valid then they will close.

TALKBACK 1 and TALKBACK 2

When the specified opto-isolator closes then the Talkback will be switched on. This is the same as pressing the TALK 1 or TALK 2 key on the TALKBACK Panel.

Audio Follow Tally (Version 2.8 software)

This feature allows fader positions to be controlled by external switch closures. A typical application is “Audio Follow Video” when audio channels open in response to camera or video switcher tallies.

When in AFT mode, the faders do not physically move in response to the external control, but the audio is faded up and down at pre-programmed rates as though the fader was moving. This feature allows the operator to adjust the level to which the fader will open even while the channel is off, or is in the process of fading. Thus there is the physical fader position representing the “Open” position and a DSP fader position which is the real audio level as controlled by the AFT system. The scribble strip always displays the DSP fader level.

Individual channels can be switched in and out of AFT control using one of the user assignable switches on the fader strip and the whole facility can be turned on and off using a User Preference in Encore.

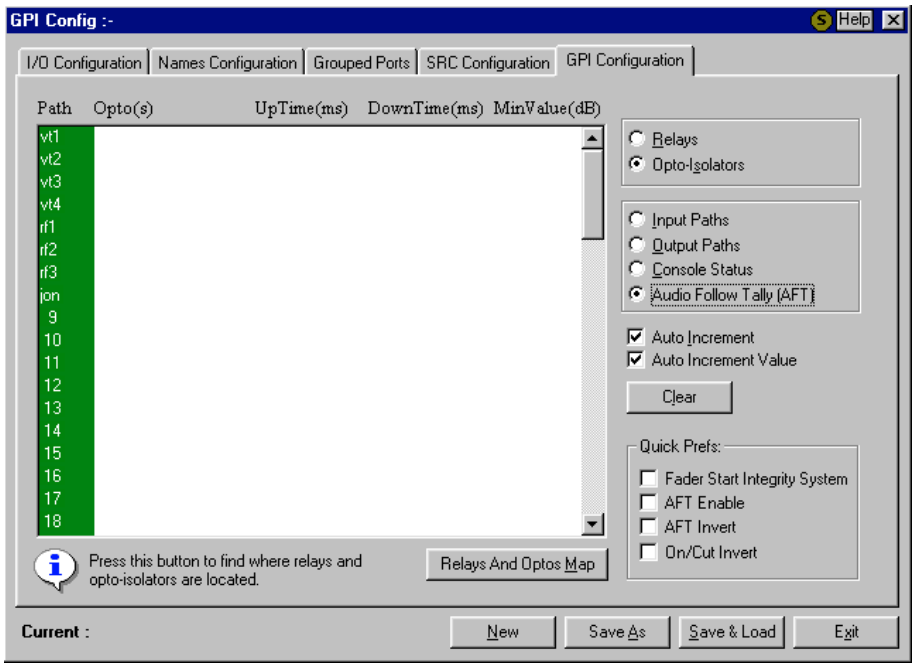
Configuration

Any opto input may be mapped to any signal path with each opto capable of controlling up to 8 different paths and each path being controllable by up to 4 optos. Each input path is given a fade-up time and a fade-down time via the Encore screen. The “fader open” value is set using the fader and can be adjusted at any time. The fader closed (minimum) value is set via the screen so that the value may be saved and recalled with the console configuration. The minimum value is usually set to CUT (= -103dB), but may be set higher to allow an ambience bleed-through when the fader is “closed”

The facility is set up using GPI Configuration in I/O Config.

To configure AFT

➤ Select the Audio Follow Tally (AFT) radio-button on the right hand side of the screen.



Opto isolators are mapped to paths in the same way as other GPI functions, except that up to four different optos may be mapped to a path using commas to separate the numbers, e.g. 1, 8, 27, 64. This allows up to 4 cameras to open one microphone in an Audio Follow Video application. Opto isolators may also be assigned to multiple signal paths (max 8), to allow a camera to select multiple microphones.

When AFT is turned on, the optos will control whether the fader is opened or closed. At the bottom right of the screen an 'AFT Invert' check-box determines whether an active opto input drives the fader up or down.

Three other columns are used to set the fade-up and fade-down rates and the minimum level to which a fader will go to when closed. To set the minimum value to CUT, enter a value of –103, or type CUT on the keyboard. If no values are entered the minimum value defaults to CUT and the fade rates to 1mS.

The AFT facility can be turned on using the AFT Enable check-box. The "Quick Prefs" checkboxes are also accessible via the standard Encore User Prefs utility.

Configuring the fader strip button

Any one of the three user-assignable channel buttons can be designated as an AFT control button using the Assignable Buttons tab in the User Prefs utility. Assigning a button allows AFT to be turned on and off from the channel strip on individual channels. It is not necessary to assign a button in order to be able to use AFT. If AFT control is not assigned to a button, any path with an AFT opto assigned to it will be assumed to be under AFT control when the AFT system is turned on via the User Preference.

✍ *A new check-box on the Assignable Buttons page allows mono and stereo channels to be configured differently.*

Using AFT

✍ *Faders that are in AFT mode cannot be part of a ganging structure and cannot be included in the scope of a snapshot recall. This is to avoid conflicts arising if 2 automation systems attempt to control the same fader. Faders in AFT are indicated by one of the 2 triangular trim indicators next to the fader being illuminated.*

Once configured, the AFT Control button allows channels to be switched in and out of AFT control individually. When the control is first switched on the switch LED will be green, indicating that the fader is in the closed (minimum value) position. The bottom of the two triangular trim indicators next to the fader will illuminate to indicate the DSP fade is at the bottom. The physical fader however will remain in the "open" position. This allows the operator to move the fader to the level it should be at when the external tally opens the fader. Touching the fader will confirm the DSP fade value, i.e. the pre-programmed minimum value.

When a tally is applied to any of the opto isolators that have been mapped to a channel's AFT function, the channel's fader will open. The upper trim indicator next to the fader will flash during the transition to indicate the direction of travel. The fader knob will remain stationary, but the audio will be faded up at the pre-programmed rate till it reaches the level that the fader knob indicates, when the Control AFT switch will go red and the upper trim indicator will illuminate. The fader can be moved at any time to adjust the open fader level, but the audio level will not follow the fader if it is moved below the minimum value.

When the tally is removed, the audio will fade to the minimum value at the pre-programmed rate, though the physical fader remains stationary.

Switching AFT Control off will restore the fader to normal manual control and the DSP fade will ramp up/down to match the physical fader position.

Quick Prefs

Fader Start Integrity System

✍ *This check box has the same function as the Integrity Check check box on the Libra Live Preferences page.*

When this is checked then a relay associated with a path will only fire if the path has a clear route to an output. This is in addition to any other conditions that affect the relay (e.g. when the Link Logic is set to AND).

To exit from I/O Config

➤ Click the Exit button.

If all changes have been saved I/O Config will close.

or

If there are un-saved changes a warning dialogue box will be displayed.

➤ Click the Stay In IO Config or Exit, Do Not Save button as required.

If Exit, Do Not Save is selected then I/O Config will close. Any changes made since the last save will be lost.

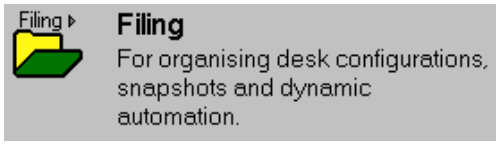
This is useful if erroneous changes have been made that would be time consuming to undo (e.g. accidentally clearing delay on all inputs).

Housekeeping

The Housekeeping icon opens up a page of Encore utilities associated with file maintenance.

Filing

Filing is the central utility for managing automation and configuration data that has been saved to the Encore hard disk.

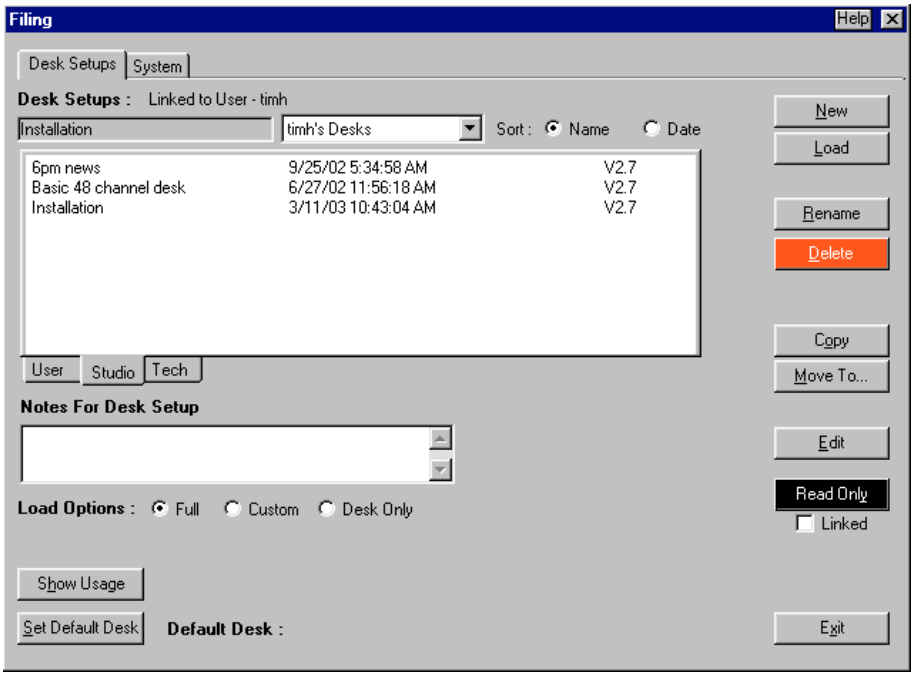


To start the Filing utility

Click the Filing icon.

➤ The Filing screen will be displayed.

Alternatively, Desk Edit, I/O Config and Defaults Manager each have a <Filing> button in the title bar. When this button is clicked, the program will close (with any appropriate exit messages as normal) and the Filing screen will be displayed.



All the Files associated with the configuration of the console are linked in a hierarchical structure. At the top of the hierarchy is the dynamic Automation data. When an automation mix is selected from the list in Encore's dynamic automation application, it automatically recalls the desk, I/O and GPI configurations together with any snapshot lists that were in use when the dynamic automation was recorded. The Filing page in Libra Live omits the dynamic automation layer and so the top layer is the Desk configuration layer. The dynamic automation layer is available only through the dynamic automation application.

This linked hierarchy is also evident in the Home Page, where selecting a desk configuration will automatically select the linked files lower in the hierarchy. Because the files are linked and not embedded, it is possible to select alternative I/O, GPI and Snapshot configurations to go with the selected Desk Configuration.

Desk Filing

The Desk Filing page is used to organise and manage Desk Setups. The main utility for changing Desk Setups is Desk Edit.

The Desk Setups are organised into three groups:

User
User desks can be created and modified by any user. These can be linked to Mix Trees and other configuration files. They cannot be used as the default desk. (The default desk is loaded when the console is booted from disk).

Studio
Standard Desk Setups, used as starting points for User Desk Setups, or used by visiting engineers who need a standard setup. Only a Studio Desk Setup can be selected as the Default Desk Setup.

Tech
Custom Desk Setups for use by technical staff who need to load special setups for testing purposes. These are used for line-up purposes.

Only administrators can create Studio and Tech Desks. Similarly Administrators can choose where desk setups are copied to, while User's copies are always made in the User Desks section.

A viewing option allows the operator to see all the available desk setups or only his own.

To see details of a Desk Setup

➤ Rest the pointer on a Desk Setup name.

A popup box will display the number of each type of path in the Desk Setup.

Selecting Desk Setups

To select a Desk Setup to work with

➤ If required, click the drop down box to select All Desks.

The default setting is to display only the desk setups created by the currently logged on user.

➤ Click the User, Studio or Tech tab.

➤ Click the required file name in the Desk Setup list.

When a desk setup is selected any user notes associated with the setup are displayed along with a list of the associated linked files.

Creating Desk Setups

To start a new Desk Setup

➤ Click the New button.

Creating new Desk Setups is described under Desk Edit in the Tools Menu chapter.

Loading Desk Setups

To load a Desk Setup

➤ Select the required Desk Setup.

➤ Click the Full, Custom or Desk Only Load Option radio button.

➤ Click the Load button.

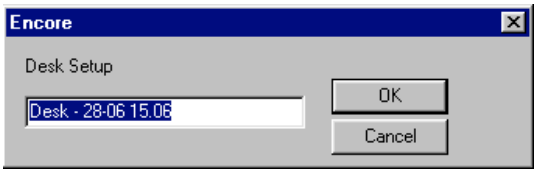
or

➤ Double click the required Desk Setup.

✍ *If the Full radio button is selected for Load Options, the Desk Setup and any linked configuration files will be loaded. If the Desk Only radio button is selected for Load Options, only the Desk Setup will be loaded. No linked configuration files will be loaded. If the Custom radio button is selected for Load Options, the Custom Load Desk Setup dialogue box will be displayed.*

The configuration files selected by default are the files that were already loaded when the Desk setup was last saved. If the Custom option is selected, the links to the default files are cleared and the files to be loaded must be specified using the System page.

Renaming Desk Setups



To rename a desk setup

➤ Click on the Rename button.

➤ Overtype the existing name and click OK.

Deleting Desk setups

To delete a desk setup

➤ Select the Desk Setup and click on the Delete button, or press Del on the Encore keyboard.

A confirmation dialogue box will open with information about other files that are linked to the Desk Setup.

✍ *Desk setups marked as Read Only cannot be deleted.*

Copying Desk setups

To copy a desk setup

➤ Select the Desk Setup and click on the Copy button.

This will open a dialogue similar to the Rename dialogue so that the copy can be named.

Moving Desk Setups

To move a desk setup between User, System and Tech categories

➤ Click on the Move To button and select the category.

Protecting desk setups against inadvertent change

This protects the Desk setup from changes in Filing, in Desk Editor and from instances when the KEEP button is pressed on the control surface.

To make a Desk Setup Read Only

➤ Select the required Desk Setup.

➤ If required, click the Linked check box under the Read Only button.

When the Linked check box is ticked (checked) then any configuration files (IO Configuration, Meter Designs, User Defaults) linked to the selected Desk Setup will also be made read only.

➤ Click the Read Only button.

A dialogue box will be displayed to confirm changing the Read Only status.

➤ Click OK.

The Desk Setup will be marked with the words Read Only.

The same process is used to un-mark the file. Simply select a file with the Read Only flag and click the Read Only button.

✍ *Any user may change the Read Only status. Making a configuration Read Only does not guarantee that someone will not remove the Read Only status and alter the file and so does not remove the need to backup configurations.*

Notes

To enter or edit notes about a Desk Setup

➤ Select the required Desk Setup.

Any existing Notes will be displayed in the Notes box.

➤ Click in the Notes for Desk Setup box and enter and/or edit text as required.

The note is stored with the Desk Setup immediately.

Default Desk Setup

This applies to non-Flash RAM systems only. The default desk setup is the setup that will be loaded by default when the console is powered up. Flash RAM system consoles always load the setup that was on the console when the console was last powered down and the default box is greyed out.

✍ *Only a Studio Desk Setup can be set as the Default Desk Setup.*

Show Usage

This button is used to show any dynamic automation mixes that use the selected desk configuration. This is useful for checking that the desk configuration can be edited without affecting anyone's stored dynamic automation.

System Page

There are four (or five in V2.8) types of configuration file managed on the System Filing page:

IO Configuration

This contains the configuration of the input and output ports that are available to the system, including port names, mono/stereo port types, SRC configuration, delay available on a port, dither on a port and if a relay is associated with a port.

The main utility for changing the IO Configuration is I/O Config, which is described previously in this chapter.

GPI

This contains the relay and opto-isolator configurations for the General Purpose Interface.

The utility for changing the GPI Configuration is I/O Config, which is described previously in this chapter.

Snapshots

A Snapshots file contains a series of Snapshots that have been created from the console surface.

The Snapshots functions, described in the Snapshots chapter, are used to manage the Snapshots within a file.

User Defaults

The User Defaults are used to change the values that controls have by default (i.e. line-up settings).

A file of User Defaults is changed using the Defaults Manager, which is described later in this chapter.

AES (Version 2.8 and later)

This is the equivalent of the I/O configuration utility for the AES 960 interface racks.

Currently Loaded File

Above the selection box for each file type is a box that shows the currently loaded file. This may be blank, indicating that no file of the relevant type is currently loaded.

Selected Type

A red rectangle is used to highlight which file type is currently selected for actions with the filing buttons. For instance, when the red rectangle is shown around the GPI box then the filing buttons will affect GPI files.

To select an IO Configuration, GPI, Snapshots or User Defaults file to work with

➤ Click the selection box for the required IO Configuration, GPI, Snapshots or User Defaults file.

The red rectangle will jump to the selected box.

To select an alternative configuration file

➤ Click the drop-down arrow next to the box.

A list of available files will be shown.

➤ Click the required file.

The filing buttons will now operate on the selected file and the selected file will be displayed in the selection box.

✍ *If the file name in the list is double clicked, the file will be loaded.*

Loading System Files

To load a file

➤ Select the required file.

➤ Click the On Load/Edit or No radio button for Update Links to Desk Setup.

➤ Click the Load button.

The selected file will be loaded.

✍ *If the On/Load Edit radio button is selected for Update Links to Desk Setup the file will be linked to the currently loaded Desk Setup.*

The file will be loaded at the same time as the Desk Setup when Full is selected in the Desk Setup Load Options.

There is a <None Selected> option in each drop down list for IO Configuration, GPI and Snapshots, and a <Factory Defaults> option for User Defaults files that will prevent any file of the selected type being loaded with the Desk setup.

Creating new, loading, renaming, deleting, editing, copying and making System Files Read Only

To operate on a file

➤ Click the selection box for the required file type.

The red rectangle will jump to the selected box.

➤ Click the New/Load/Rename/Delete/Edit/Copy/Read Only button.

➤ Follow the same process as described above for the Desk Setup Files.

Enter Notes about System Files

To enter notes about a configuration file

➤ Select the required file.

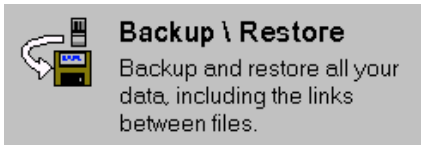
Any existing Notes will be displayed in the Notes box.

➤ Click in the Notes for Desk Setup box.

➤ Enter and/or edit text as required.

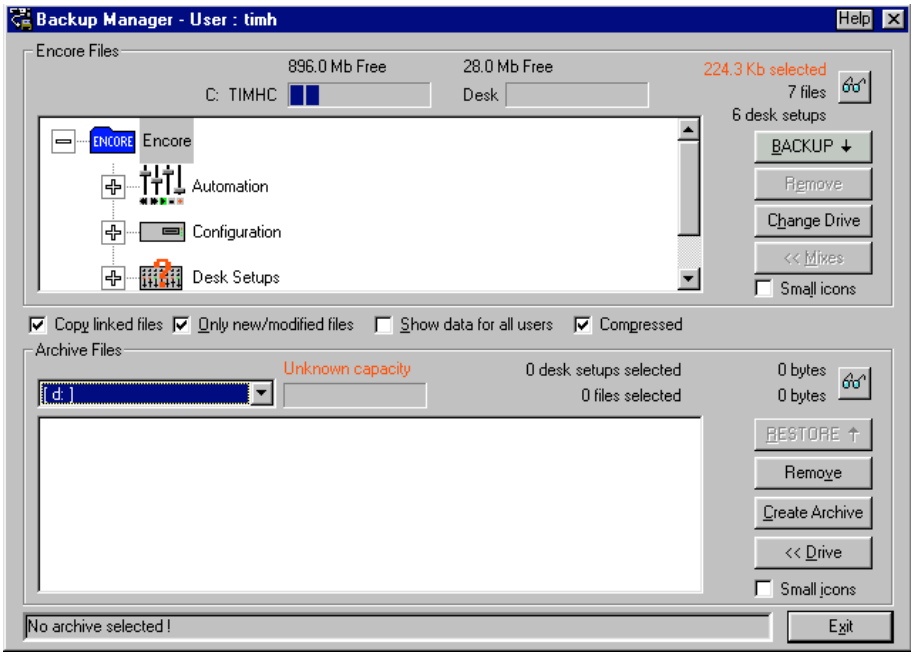
The note is stored with the Desk Setup immediately.

Backup \ Restore



Backup and Restore is used to copy setup information and automation data to and from removable media for safe keeping and data recovery. It is also used to transfer configurations between the console and Offline Encore and between different consoles on a network.

The Backup Manager Data Structure shows the data hierarchy. As described in the previous section on filing, if there is any automation data, this will be the top layer of the hierarchy.



The Backup facility uses named Archives to store backup information. These can be on the local hard disk, removable media (floppy disk or optical Zip disk), or other networked consoles or PCs.

✍ *Removable media must have sufficient capacity to store the information being backed up.*

Floppy disks have a relatively low capacity so it is advisable to save automation data to optical disks.

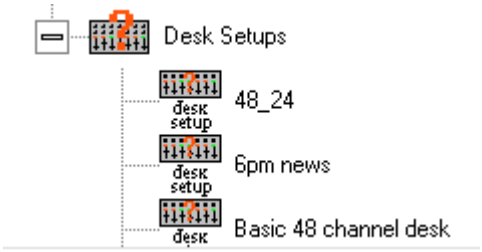
To use Backup Manager

➤ Click on the Backup\Restore icon in the Housekeeping folder.

The Backup Manager dialogue box will be displayed. The top half of the screen shows data that is currently on the console's hard disk. The lower half of the screen shows Archive files that are stored on removable media, or files that are on networked machines. The data structure within an archive is the same as the data structure for Encore.

To view and select specific data within the Encore file structure

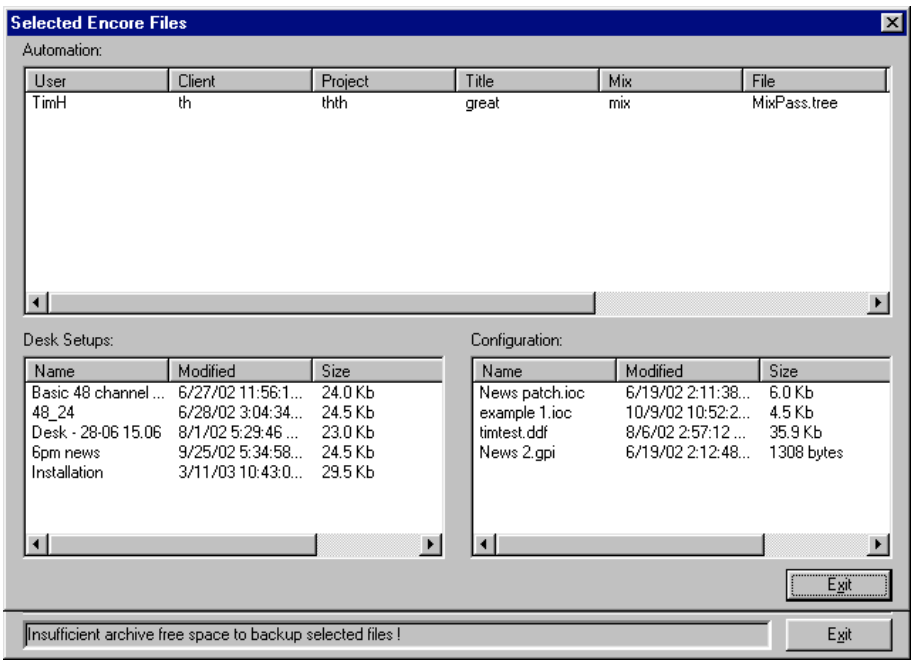
- ➤ Click the Small icons check box for either Encore or the Archive, or both.
- ➤ Click on each icon that appears to see its constituent parts arranged as a directory structure.



Moving the highlight bar up and down the directory structure selects the files that are to be backed up. The highlighted item, together with items in the directory below and any linked files (assuming the linked files checkbox is set) are selected for copying. At the top of the screen, information is displayed about the number of files selected and the total size of the files.

To see details of the files to be backed up.

- ➤ Click on the spectacles icon.



This shows the directly selected files and the linked files that are to be copied and applies to the selected file/directory in either the Encore window, or the Archive window.

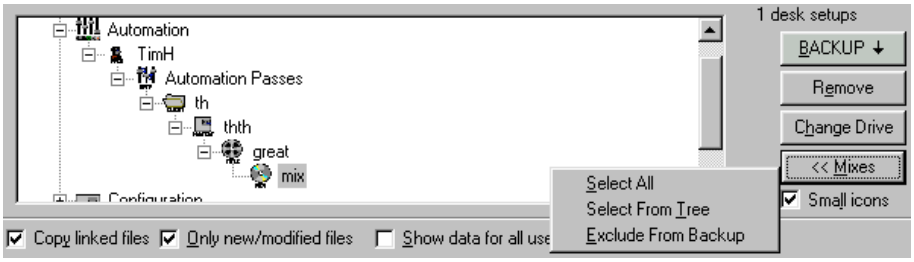
To select Mix/Passes in a Mix Tree (Dynamic Automation)

All Mix/Passes are selected by default.

➤ Click on the automation icon.

The list of users will be displayed. Clicking on this will give access to lower levels of the mix-pass tree. At the bottom of the directory structure, the <<Mixes button will become available.

➤ Click on the <<Mixes button.



A flyout will offer options for selecting all mixes, displaying the mix tree from which to select individual mix passes, or to exclude the mixes from the backup.

If the mixes are excluded, the icon will change to indicate this. 

To delete files from Encore

➤ Select the files in the list.

➤ Click on Remove.

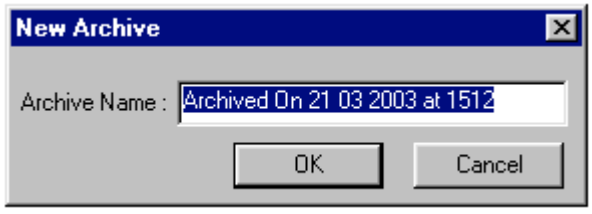
➤ This will delete the file/directory and sub-directories and their contents.

Caution! There is no undo facility

To create a new Archive

➤ Click the Create Archive Folder button.

The New Archive Name dialogue box will be displayed.



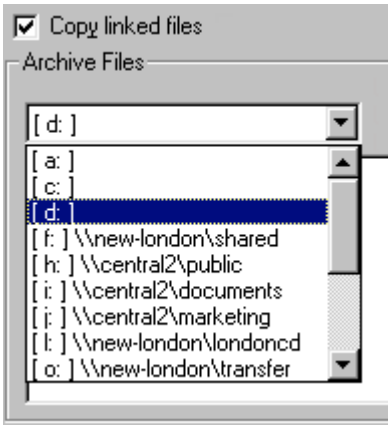
➤ Enter a name for the Archive and click OK.

The new archive will be shown in the archive window.

To change the drive used for Archives

➤ Click the drop down arrow for the Archive Directory box.

A list of available drive letters will drop down.



➤ Click the required drive.

The floppy disk drive is a: and the optical drive will normally be d:. Make sure there is a disk in the relevant removable media

drive before it is selected.

Any existing archives on the selected drive will be shown in the archive window.

To format an Archive Drive

➤ Click on the <<Drive button to access the Format and disc eject options.

Backing up Data to Archives

To make sure linked files will be copied

➤ Make sure the Always copy linked files check box is ticked (checked).

This means that when a Mix Tree is selected (either directly or as part of a Client, Project or Title) then the linked files will also be copied.

To copy only new or modified files

➤ Make sure the Only backup new/modified files check box is ticked (checked).

When the backup is executed, files will be compared with the existing files in the archive. Only new files or files that have changed will be backed up.

To make a compressed backup

➤ Make sure the Compressed Backup check box is ticked (checked).

Compressing the backup allows up to 800Mb of data to fit on a single Zip disk. This will vary according to the complexity of the data.

➤ Select the layer in the file structure in the top window that you wish to back up.

This layer and the layers below it will be selected for copying to the archive file.

➤ Select the destination archive in the lower window.

✍ *The destination archive folder must be selected before the back-up can commence. If necessary create a new Archive folder.*

➤ Click on the Back Up button.

A confirmation dialogue box will be displayed.

➤ Click OK.

The data will be copied. If a sub-set of data was selected then the correct hierarchy will be automatically used in the archive.

Restoring from Archives

This is the reverse procedure to creating a back-up

To make sure linked files will be copied

➤ Make sure the Always copy linked files check box is checked.

This means that when a Mix is selected (either directly or as part of a Client, Project or Title) then the linked Desk Setup and configuration files linked to that Desk Setup will also be copied. When a Desk Setup is selected then the linked configuration files will also be copied.

To restore data from an archive

➤ Select the Drive and folder containing the archived file.

➤ Click on the required item in the Archive data window.

➤ Click the + signs to expand Archives and sub-sets of data.

➤ Click the RESTORE button.

A confirmation dialogue box will be displayed.

➤ Click OK.

The data will be restored to Encore.

To delete data from an Archive

➤ Click the required item in the Archive window.

➤ Click an Archive icon to remove a whole archive.

➤ Click the Remove From Archive button.

A confirmation dialogue box will be displayed.

➤ Click OK.

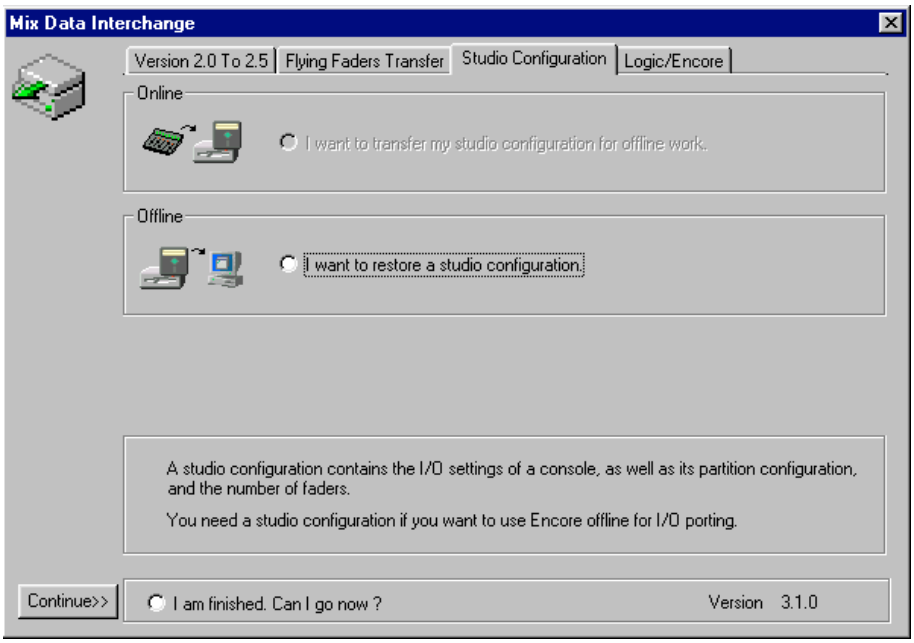
The selected item will be removed. This is useful for deleting items that have been superseded.

Automotion

Automotion is an offline utility that exports a Studio Configuration from the console for use by Offline Encore. A studio Configuration contains all the hardware data about the console such as the available processing, I/O etc, so that workable Desk setups, I/O and GPI configurations can be created away from the console. Automotion is also used for converting Desk Setups and automation Mixes between different software versions and for importing automation data from Logic Series consoles.

To use Automotion

➤ Click the Automotion icon.



To exit from Automotion

➤ Click the 'I am finished' radio button.

➤ Click the Continue>> button.

The Mix Data Interchange dialogue box will close.

Converting from Version 2 to Version 2.5

Desk Setups and Mixes must be copied out of the live data area (from the hard disc in the console to the hard disc in Encore or another PC) before they can be converted. The Online options are for copying data from and to the live (i.e. online) data area. The data can be copied to a different location on the Encore hard disk or to a different drive (e.g. removable hard disk, Zip disk, network drive, etc.).

The Offline conversion option is used to perform the update on mixes created in Version 2 software to make them compatible with version 2.5 and later software. The conversion can be also done on a separate Offline Encore workstation so that the console's Encore computer is free to operate as normal.

To select an operation

➤ Click on the radio button for the required option.

➤ Click the Continue>> button.

A new Mix Data Interchange dialogue box will be displayed according to the operation selected.

The sequence for converting data is:

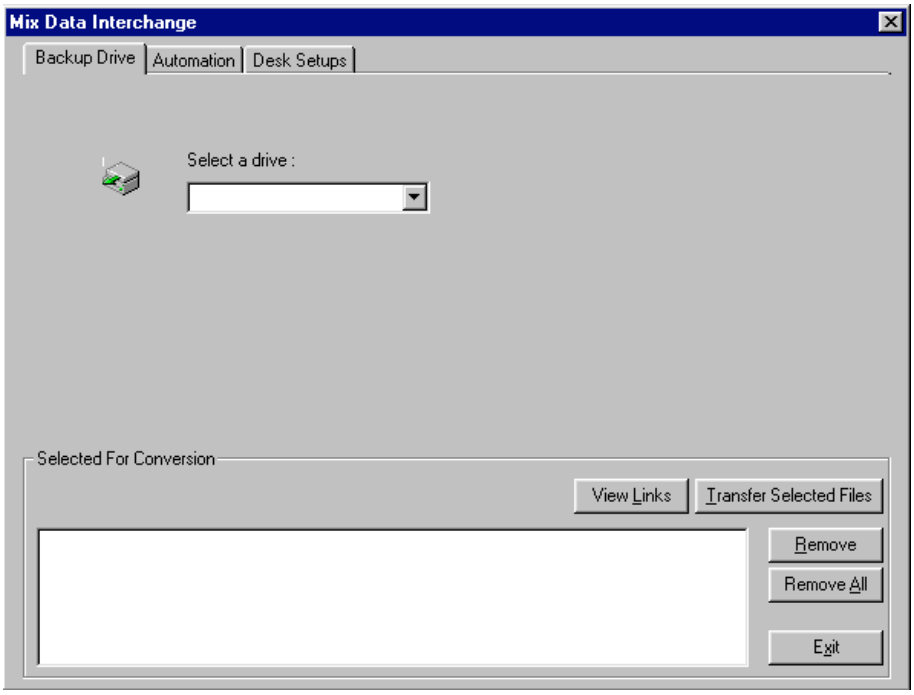
➤ Copy the Desk Setups and/or Mixes to an offline area.

➤ Convert the data.

➤ Restore the converted Desk Setups and/or Mixes to the online data area.

Copying Desk Setups and Mixes to an Offline data area

When this operation is selected, a three page dialogue box is displayed.

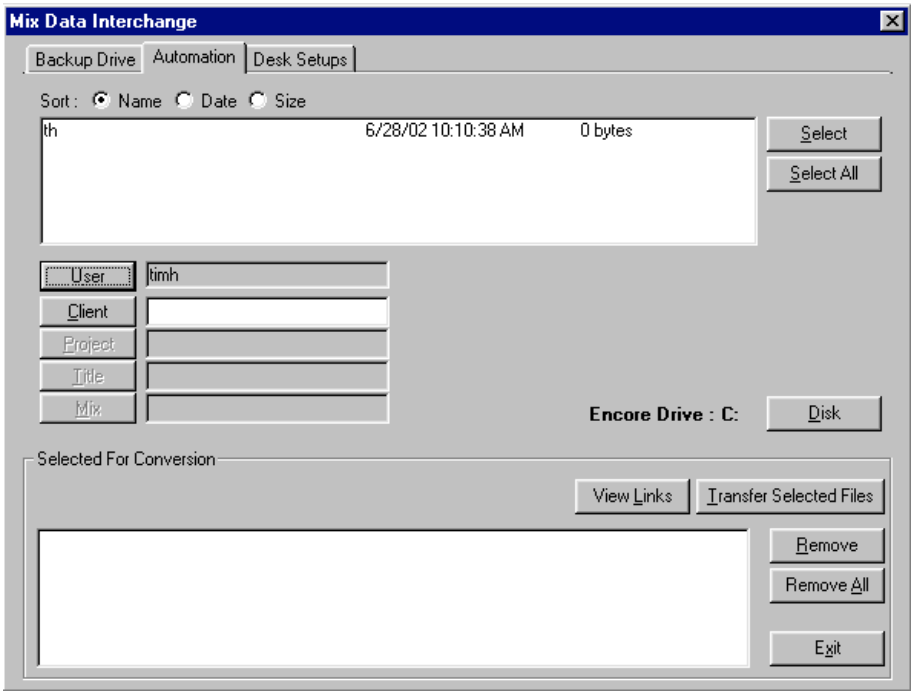


Backup Drive Page

➤ Click the drop down arrow next to the drive box to select a backup drive.

✍ *A backup drive must be selected.*

The same drive can be selected as the source data (i.e. drive c:). This will copy the data out of the live data area to an offline data structure, ready for conversion.



Automation Page

This is used to select which Mixes are to be copied for conversion. The page follows the same User with Clients with Projects with Titles with Mixes structure as the Filing utility. A selection can be made at any level and all dependent data will be selected. All linked Desk Setups will also be included.

➤ Highlight items at the required level (e.g. a Titles within a Project) and click the Select button.

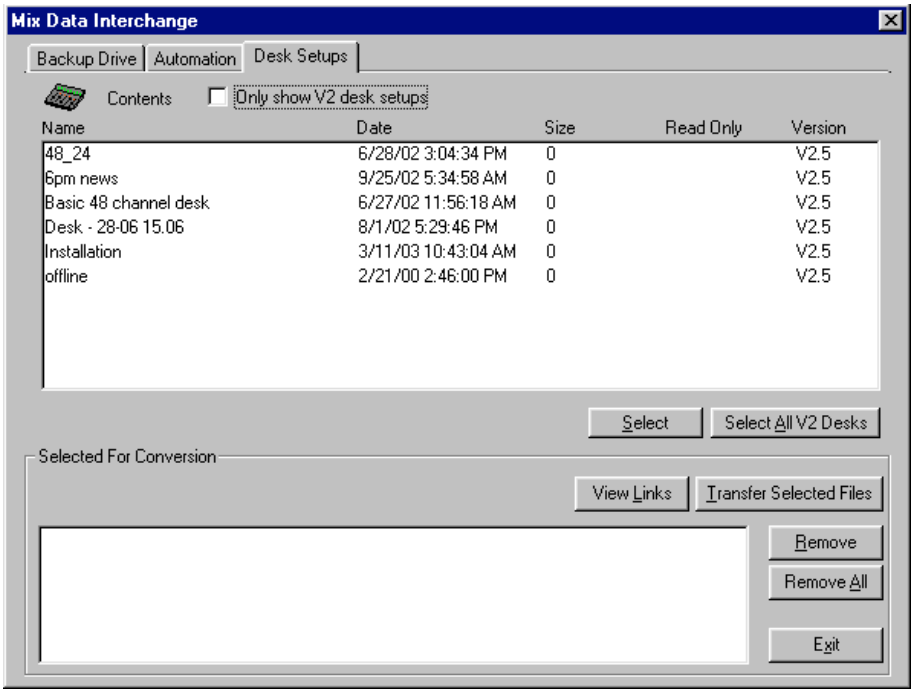
The item will be added to the Selected list.

or

➤ Click the Client, Project, Title or Mix button.

➤ Click Select All.

All the data at the selected level will be added to the Selected list.



Desk Setups Page

This page can be used to select individual Desk Setups for conversion. Only Version 2 Desk Setups are shown by default.

➤ Select the required Desk Setups and click the Select button.

The Desk Setups will be shown in the Selected list.

or

➤ Click the Select All V2 Desks button.

All the Desk Setups will be shown in the Selected list.

All Pages

All three pages have a Selected For Conversion box that shows the items that will be copied to the selected backup drive.

If there is not enough space on the backup drive for the selected items a message will be displayed to indicate this condition.

➤ Click items in the Selected list and click the Remove button.

or

➤ Click the Remove All button and start the selection process from scratch.

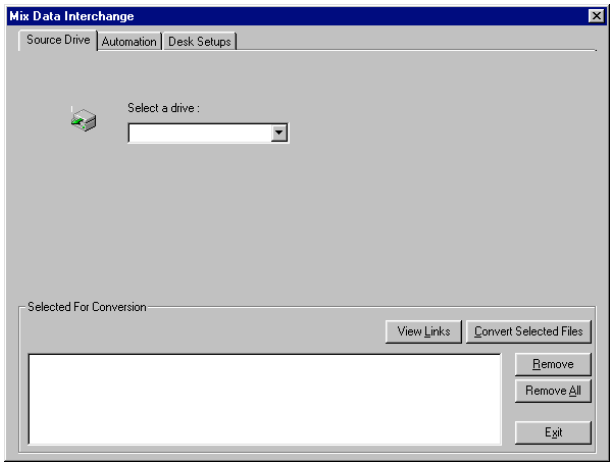
When the selection is complete

➤ Click the Transfer Selected Files button.

The selected Mixes and Desk Setups will be copied to the backup disk.

Convert Desk Setups and Mixes from Version 2 to 2.5

When this operation is selected, a three page dialogue box is displayed.



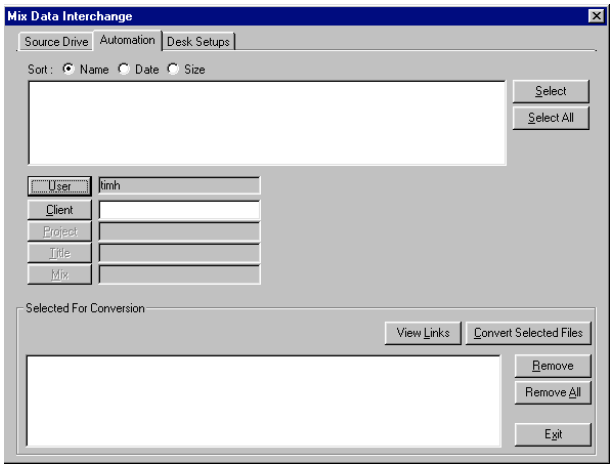
Source Drive Page

➤ Click the drop down arrow next to the drive box to select a source drive.

✍ *A source drive must be selected.*

Automation Page

This is used to select which Mixes are to be converted. The page follows the same User with Clients with Projects with Titles with Mixes structure as the Filing utility. A selection can be made at any level and all dependent data will be selected. All linked Desk Setups will also be included.



➤ Highlight items at the required level (e.g. a Titles within a Project) and click the Select button.

The item will be added to the Selected list.

or

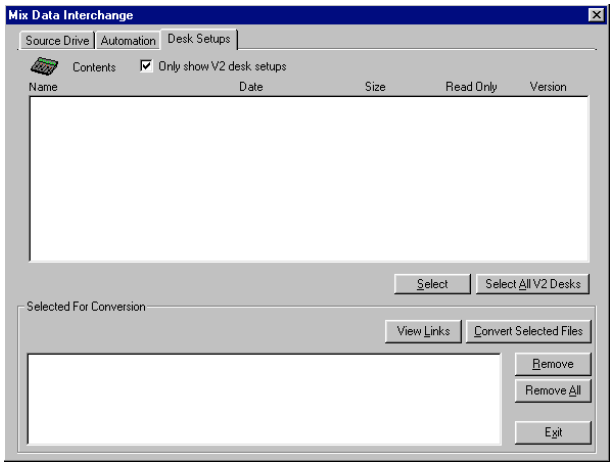
➤ Click the Client, Project, Title or Mix button.

➤ Click Select All.

All the data at the selected level will be added to the Selected list.

Desk Setups Page

This page can be used to select individual Desk Setups for conversion. Only Version 2 Desk Setups are shown by default.



➤ Select the required Desk Setups and click the Select button.

The Desk Setups will be shown in the Selected list.

or

➤ Click the Select All V2 Desks button.

All the Desk Setups will be shown in the Selected list.

All Pages

All three pages have a Selected For Conversion box that shows the items that will be converted on the selected source drive.

To deselect unwanted items in the conversion list

➤ Click items in the Selected list and click the Remove button.

or

➤ Click the Remove All button and start the selection process from scratch.

When the selection is complete:

➤ Click the Convert Selected Files button.

The selected Mixes and Desk Setups will be converted on the selected source drive. If there are linked Desk Setups that are already Version 2.5 then they will be skipped.

Restore converted Desk Setups and Mixes to the Online data area

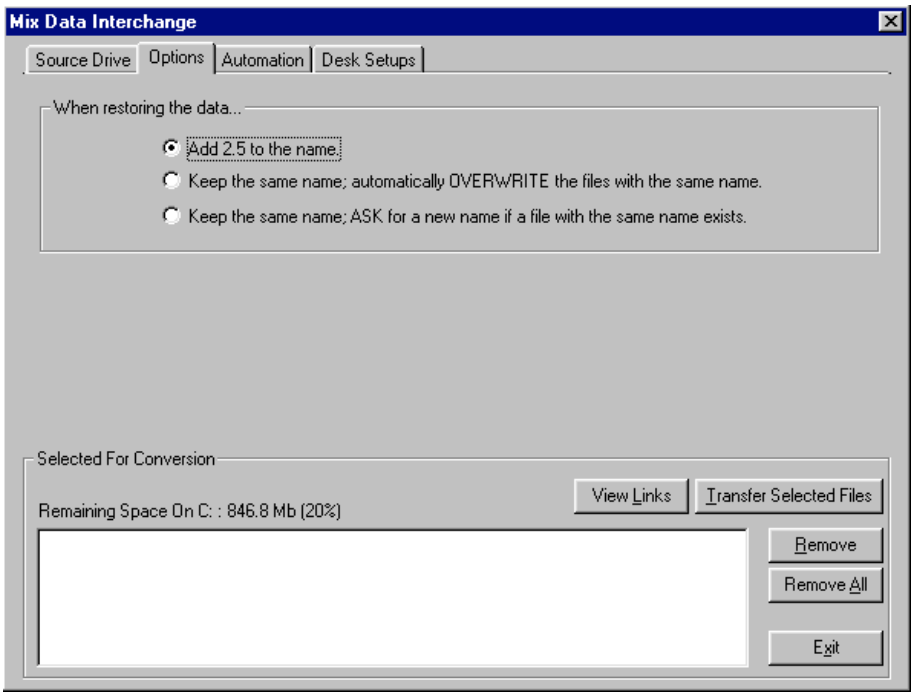
When this operation is selected, a four page dialogue box is displayed.

Source Drive Page (This is similar to the previous Source Drive Page)

➤ Click the drop down arrow next to the drive box to select a source drive containing converted data.

✍ *A source drive must be selected.*

Options Page



This is used to decide what to do about duplicate Desk Setup names.

The options are:

- Add 2.5 to the name
- Keep the same name; automatically OVERWRITE the files with the same name
- Keep the same name; ASK for a new name if a file with the same name exists

➤ Click the radio button for the required item.

✍ *Mixes automatically have "_2.5" appended to their file names. If the file already exists then it will be overwritten.*

Automation Page (This is similar to the previous Automation Page)

This is used to select which Mixes are to be restored. The page follows the same User with Clients with Projects with Titles with Mixes structure as the Filing utility. A selection can be made at any level and all dependent data will be selected. All linked Desk Setups will also be included.

➤ Highlight items at the required level (e.g. a Titles within a Project) and click the Select button.

The item will be added to the Selected list.

or

➤ Click the Client, Project, Title or Mix button.

➤ Click Select All.

All the data at the selected level will be added to the Selected list.

Desk Setups Page (This is similar to the previous Desk Setups Page)

This page can be used to select individual Desk Setups for restore. Only Version 2.5 Desk Setups on the source drive are shown.

➤ Select the required Desk Setups and click the Select button.

The Desk Setups will be shown in the Selected list.

or

➤ Click the Select All Desks button.

All the Desk Setups will be shown in the Selected list.

All Pages

All three pages have a Selected For Conversion box that shows the items that will be restore from the selected source drive.

If there is not enough space on the live Encore drive for the selected items

➤ Click items in the Selected list and click the Remove button.

or

➤ Click the Remove All button and start the selection process from scratch.

When the selection is complete:

➤ Click the Transfer Selected Files button.

The selected Mixes and Desk Setups will be restored to the Encore disk.

Import and Export of Flying Faders Automation data

This option is not available on Libra Live.

Import and Export of the Studio Configuration

Studio Configurations contain the data concerning the hardware associated with the console – the Processing and I/O. This is used by Offline Encore, so that when creating desk setups and routing to I/O, Offline Encore knows what resources are available. For example, a Freelance Engineer may keep Studio Configurations in his or her PC for several different consoles that he or she uses.

To export a Studio Configuration

➤ Select the Studio Configuration tab in Automotion.

➤ Select the transfer studio configuration for offline work radio button.

➤ Click on continue.

A destination drive dialogue box opens

➤ Select the disk drive to be used from the drop-down menu.

➤ Then click on the Transfer File button.

To import a Studio Configuration into Offline Encore

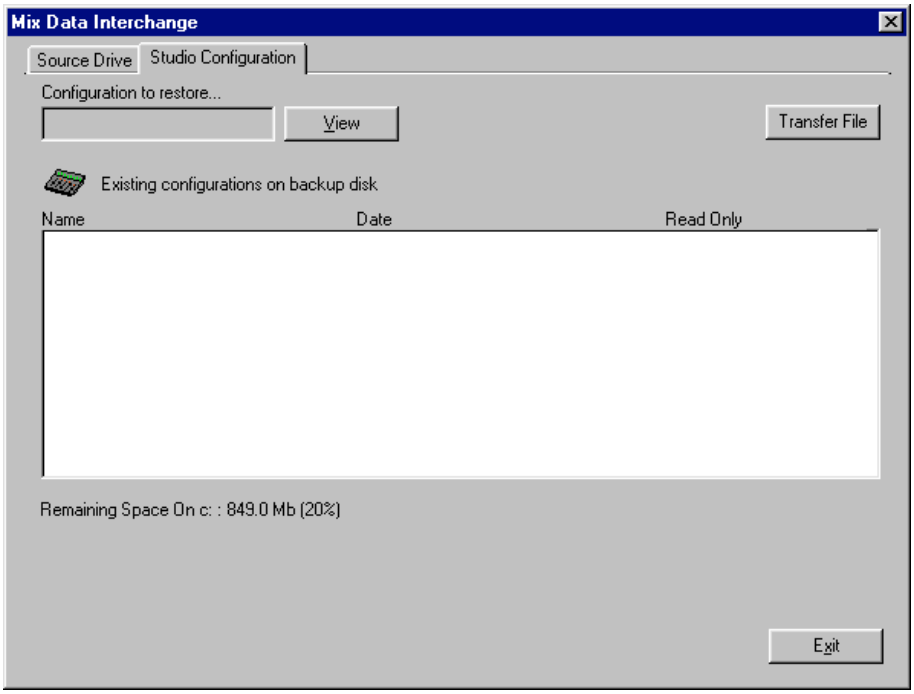
➤ Select the Studio Configuration tab in Automotion.

➤ Select the Restore a studio configuration radio button.

➤ Click on continue.

A two page dialogue appears

➤ On the Source Drive page, select the drive with the Studio Configuration from the drop down menu.



➤ Select the Studio Configuration page.

A list of available configurations appears

➤ Select the studio Configuration for the console you wish to work on.

➤ Check the details of the configuration by using the View button.

➤ Load the Studio Configuration by clicking on the Transfer File button.

Converting from Logic to Encore

The Logic/Encore page allows Mixes and Desk Setups (called Mix Setups on Logic) to be imported from Logic 1, 2 and 3 to consoles using Encore. This is an unlikely requirement for Libra Live, but for the sake of completeness, the utility has been included.

Logic Mixes and Mix Setups are backed up onto Exabyte tapes and must therefore be transferred to other media (or directly to the console) on a computer with an Exabyte tape drive attached. The mixes may be transferred via StarNet if both consoles have access to the network.

Operation of the transfer is similar to the V2 to V2.5 conversion in that it must be done offline. No detailed instructions are given here.

Transferring data from Logic to Encore

There are three basic options:

Transfer Logic data via StarNet.

Transfer Logic data from a Logic backup tape to a different form of removable media (e.g. a Zip disk).

Transfer Logic data from other removable media (e.g. a Zip disk).

Transferring data from Encore to Logic compatible media

There are two options

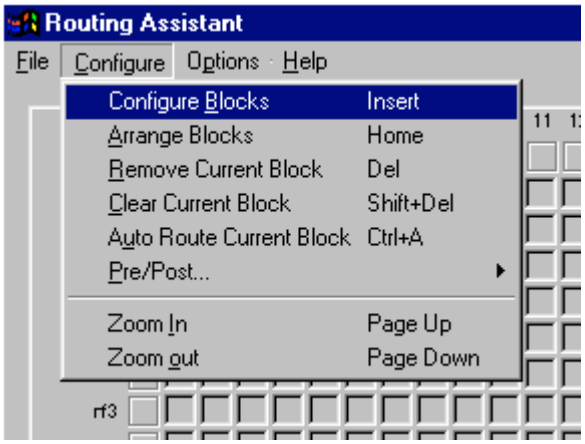
Convert offline Encore data to SC 2.1 project format (Logic compatible format)

Transfer the converted data to an exabyte tape connected to the PC.

Routing Assistant

Routing Assistant uses a traditional routing matrix display as an alternative method of routing to using the hard controls on the console surface. It works in real time when “online”: changes made in Routing Assistant are instantly implemented on the console and the Routing Assistant screen also updates to reflect changes made via the control surface. Routing Assistant may also be used “off-line” to configure (or edit existing) routing away from the console. The changes made in Routing Assistant are stored in the current Desk Configuration, just as they are when made on the control surface.

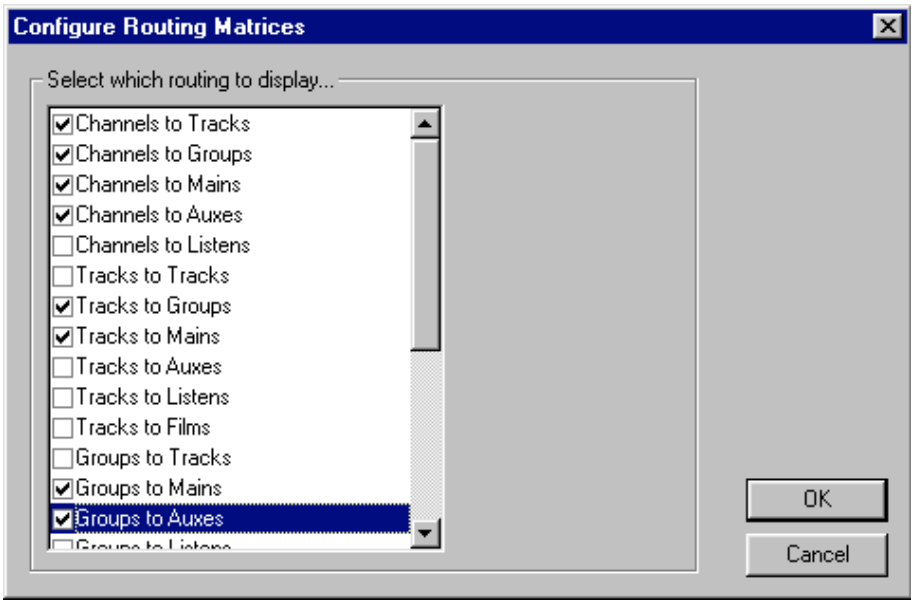
The user can select which parts of the routing matrix are displayed, for example, channels to main outputs, or groups to aux busses, or both.



To configure the routing to be displayed

➤ Open the Configure Blocks dialog from the Configure menu item.

This brings up a screen asking the user which blocks of routes they wish to display.



➤ Tick the blocks you wish to view, and click OK.

To view all blocks,

➤ Click on the first option, and then drag the mouse down the list holding the left hand button down.

Once the chosen blocks have been displayed, you can click and drag the blocks to arrange them on the screen as you like, or use the Arrange Blocks item in the Configure menu to automatically arrange the blocks on the screen.

To create a route

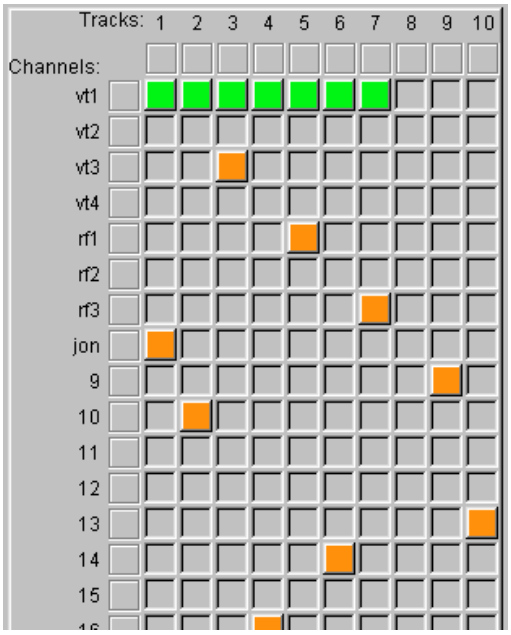
➤ Left-click on the crosspoint of any two paths.

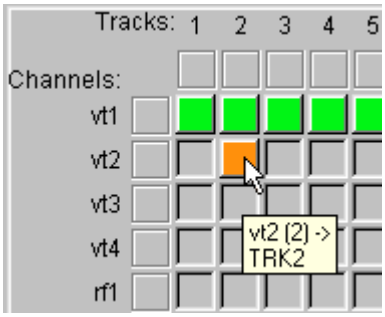
All routes are initially created post-fader (and shown as orange squares, the same convention as the aux pre/post indicator in the AFU. Pre-fade routes are shown in green.)

To create a pre-fade route

➤ Left click to create a route, then right click to toggle the route pre-fade.

✍ *Pre-fade routing is available to tracks that are not in surround stems, groups and auxiliaries only.*





✍ *Setting an individual channel to track routing pre-fade will not affect the mix-minus pre/post switch LED if this function is assigned to a fader strip switch. This is because the fader strip switch toggles all the routing from that path pre/post, not just the routing to a single destination.*

The source of the route is always displayed down the left side of the screen, while the destinations are displayed along the top. Due to space limitations, source user names are displayed, but destination paths are only numbered. However, when the pointer is placed on the crosspoint of two paths, a small flyout will display the source and destination of the crosspoint paths, including any user names for those paths

To clear all routing in the highlighted block

➤ Use the “Clear current block” function in the Configuration menu.

To "Auto-route" sources to destinations

➤ Use the "Auto Route current block" function in the Configuration menu.

This will route the first source to the first destination, the second source to the second destination etc, till either all sources or all destinations have been routed. It will not affect any other routing already in place.

Options Menu

Colours: There are three colours which the user can set. The background of the screen, the Active Block, and any Inactive blocks. Selecting this option will open the standard NT4 Custom Colour screen.

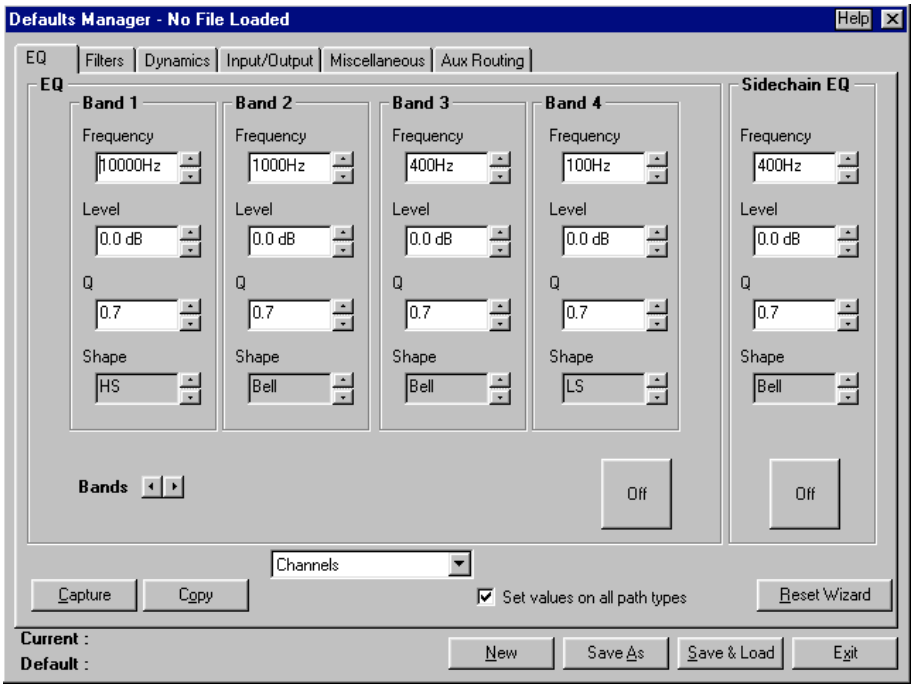
Show Separators: The Separators form a crosshair display (one vertical, one horizontal) that are purely used for marking out sections of the screen.

Defaults Manager

Defaults
Defines default console control positions for new desks and on clearing to line up.

Defaults Manager is used to set the default values for all controls when a new console is configured (e.g. the default frequency for the first band of EQ). The Reset wizard in Defaults Manager can also be used to reset selected (or all) controls on selected (or all) channels across the console. Different sets of defaults can be created, saved and loaded as required. A set of defaults is associated with the each desk setup (console configuration).

Defaults Manager is accessed by clicking on the Defaults Manager icon or from the Filing utility (see the System Menu section under Filing).



Setting Values in Defaults Manager

To set default values

➤ Click on the EQ, Filter, Dynamics, Input/Output, Miscellaneous or Aux Routing tab.

The selected page will be displayed.

➤ Click the up/down buttons at the end of a box containing a required parameter.

or

➤ Click in the box showing the value and edit it using the Encore keyboard.

To set a processing element to be switched on as soon as it is allocated

➤ Click the OFF button for the required element.

The button will be 'pressed in' and the button legend will change to ON.

To set values from existing control settings

➤ Click the Capture button.

A dialogue box will appear requesting an ACCESS key to be pressed.

➤ Press the ACCESS key for the path containing the required control settings.

The dialogue box will be replaced by the capture Scope dialogue box with the All (Current Page Only!) radio button selected.

This means that the values for controls on the current Defaults Manager page will be capture (e.g. all the EQ settings).

To capture the settings for the current page

➤ Click on OK.

or

➤ To capture a selected range of controls.

➤ Click the Select Controls (Touch Activated. Valid for all pages) radio button.

➤ Touch the required controls on the AFU.

Any controls for which there are settings in Defaults Manager can be selected.

The list box in the capture Scope dialogue box will show the selected controls.

➤ Click an item in the list and click the Remove button if a control is incorrectly selected.

➤ Click on OK to execute the capture.

To copy the current page of default settings to other path types

➤ Click the Copy button.

The Copy dialogue box will appear.

➤ Click the check boxes for the path types to copy the settings to.

➤ Click OK.

Resetting Console controls with Reset Wizard

To reset controls on the console surface to the settings in Defaults Manager

➤ Click the Reset Wizard button.

The paths page of the Reset Wizard will appear.

➤ Click the radio buttons next to the path types to show the required paths.

➤ Click the check boxes next to the path names to select the required paths.

➤ Click the Select All button to select all the currently listed paths.

➤ Click the Clear All button to de-select all the currently listed paths.

➤ Click the Next> button.

✍ *At least one path must be selected before you can go to the next page, otherwise there is nothing to reset and a dialogue box will indicate this.*

The controls page of the Reset Wizard will appear.

➤ Click the check boxes for the required controls.

➤ Click the Select All button to select all the controls.

➤ Click the Clear All button to de-select all the controls.

➤ Click the Finish button.

✍ *At least one control must be selected before you click Finish, otherwise there is nothing to reset and a dialogue box will indicate this.*

The selected paths will have the selected controls reset to the current default values.

Defaults Manager File Saving

Defaults Manager allows for any number of sets of default values to be created and saved. Each set of defaults is saved in a file which can be recalled at a later time. The only practical limitation to the number of sets of defaults is the amount of available hard disk space in the Encore computer.

To save the current set of defaults

➤ Click the Save button on any page.

The save file dialogue box will appear.

If the current defaults have been saved previously then the existing file name will be shown.

➤ Click on OK to save the changes to the file.

or

➤ Enter a new file name to leave the existing file un-changed and then click on OK.

Encore (Dynamic Automation)

This is covered in the Dynamic Automation section of this manual.

Machine Control

This is covered in the Transport control section of this manual under MCS Group Setup.

Transport Control

Control for up to 6 transports via Sony 9-pin protocol is supported on Libra Live, which also features an integrated synchroniser system. One of the 6 control ports may be re-configured as an ES-bus port through which transport control may be extended to up to 32 machines and also to parallel interface transports through the use of optional AMS Neve ES-2 modules.

The transport control switches on the Libra Live surface may also be brought to a connector on the underside of the console for direct connection to a transport.

There is a full set of transport controls, including a wheel for jog and shuttle control. The keys illuminate according to the current status of the transport controller.

The Dynamic Automation application within Encore also has transport status indicators on the screen above the timecode display.

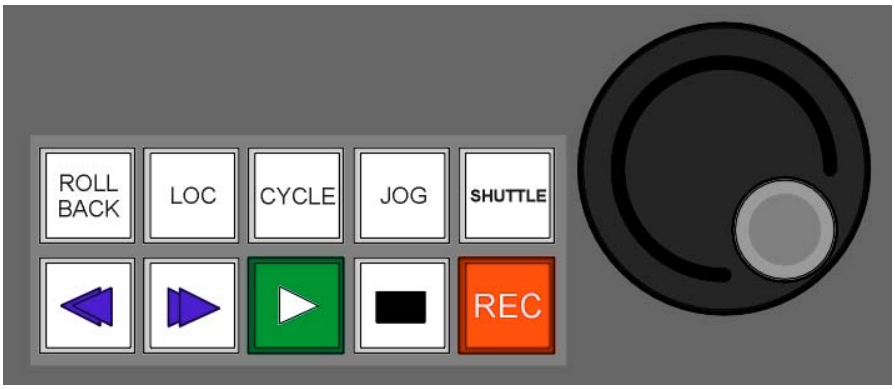
Timecode is read by the MCS (the Machine Control System within Libra Live) and is used to indicate the position of the master tape machine and to control the Encore Dynamic Automation.

Timecode is generated by the MCS to represent the current position of the controlled tape transport. This may be a “virtual” transport if, for example, it is necessary for an external device such as a hard disk recorder to “chase” the position of the Encore dynamic automation.

The Transport Control can be an integrated part of the Encore Dynamic Automation system, or be an independent system

Universal machine control preferences are set up on the MCS page of the User Preferences utility within Encore.

A dedicated Machine Control utility within Encore allows the operator to select which machines are controlled by the transport keys and to set individual machine properties, including offsets when transports are synchronised.



Transport Menus

Group Setup

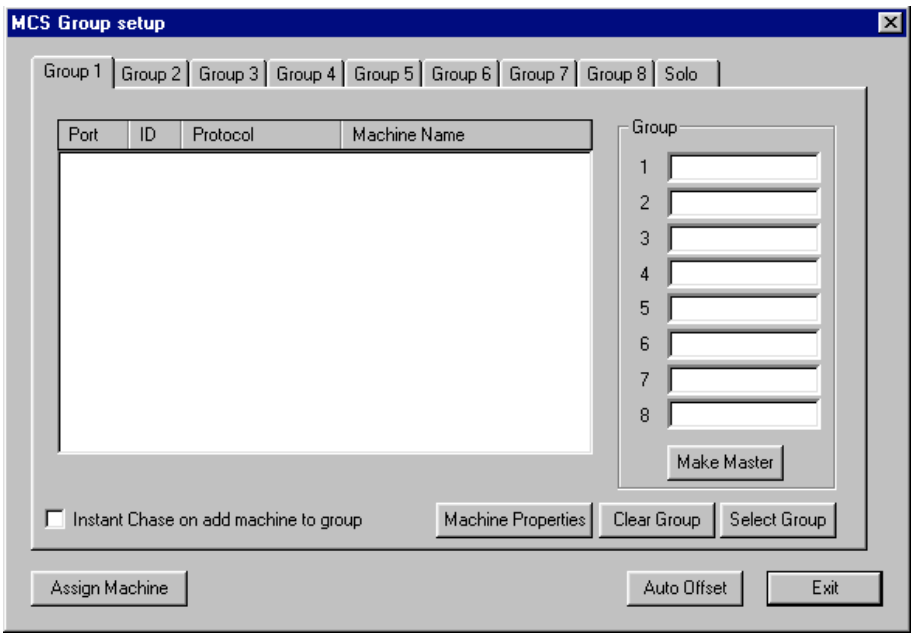
Before the transport controls can be used, the transports have to be assigned to groups and the controls assigned to a group. (A group may consist of a single machine). This is done through the Machine Control System in Encore.

There are 8 groups in the MCS and each may contain up to 6 machines. Only one group is active at a time and the active group is signified by a red asterix in the page tab.

Supported machines will automatically be identified and appear on the transport list (the left side of the screen) when they are plugged into the SPS machine control ports. Any of the 6 ports may be used to connect transports. Five of the ports are 9-pin and the 6th is a 15-pin connector that may be configured to use either the standard 9-pin protocol or ES-Bus with a crash record line.

There are 8 tabbed pages for the eight MCS groups plus a solo tab. Each page is identical, showing the available machines on the left and the machines assigned to the group on the right.

The group's master machine is indicated by an asterix (*) next to the master's Port number. All the other machines in the group will chase the position of the master machine, which may be controlled by the console surface keys or by an external machine controller.



To add a machine to a Group

➤ Click on the numbered tab for the required Group.

➤ Click on the required machine in the machine list.

➤ Click the Assign Machine button.

The machine will be added to the Group list.

If it is the first machine assigned to the Group then it will be the Group Master and a * will be displayed next to the machine's Port number.

To take a machine out of a Group

➤ Click on the numbered tab for the required Group.

➤ Click on the required machine in the Group list.

➤ Click the Remove Machine button.

The machine will be removed from the Group list.

If the machine removed is the group master then the next machine in the Group list will be made the Group Master.

To remove all machines from a Group

➤ Click on the numbered tab for the required Group.

This also selects the Group as the Current Group that is controlled by the MCS card.

➤ Click the Clear Group button.

There will be no machines assigned to the current group.

To change the currently selected (active) Group

➤ Click on the numbered tab for the required Group.

➤ Click the Select Group button.

The red asterix will move to the newly selected Group.

Auto Offset

Clicking the Auto Offset button will capture the current differences in timecode between the various machines in the group and apply them as offsets so that each machine will maintain it's current relationship to the master machine.

Configuring Individual Machines

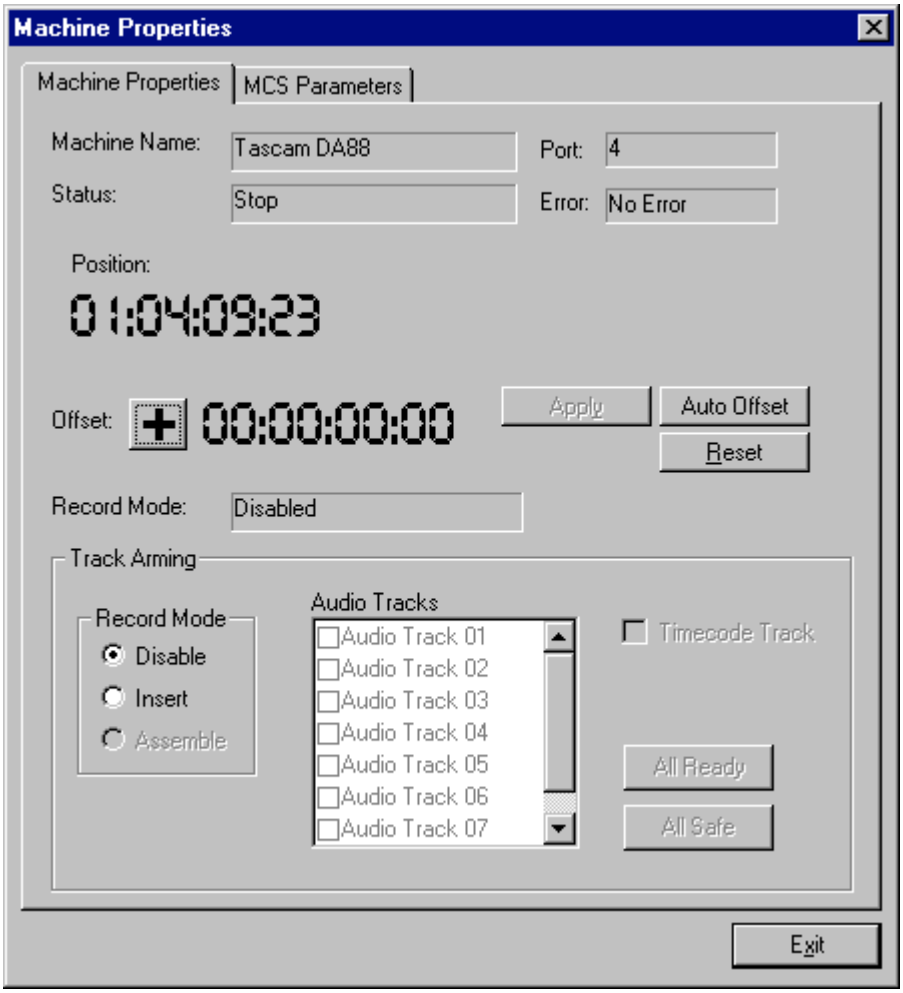
To configure an individual machine

➤ Click on the required machine in the machine list on any MCS Group Setup page.

➤ Click the Machine Properties button.

The Machine Properties dialogue box will be displayed.

The dialogue box has two pages: one for properties and one for MCS parameters for the selected machine.



Machine Properties

The Machine Properties page shows the status of the selected machine, including the machine name and type.

The Machine Properties page has controls for changing the offset and track arming.

Machine Offset

The offset for a machine is applied as a difference between the position of the machine and the position of the group master. A group master may not have an offset.

To set the offset

➤ Click the +/- button in front of the timecode value to set it to plus or minus.

➤ Change the timecode manually to the required value.

To use Auto Offset

➤ Click the Auto Offset button.

This sets the offset to the current difference between the position of the machine and the position of the group master.

Track Arming

The Audio Tracks list shows the tracks for the selected machine. Armed tracks are highlighted and each track has a check box, which will be ticked, when the track is armed.

To arm a track

➤ Click the check box for the required track.

Each click will toggle the track between armed and safe.

To arm all tracks for the current machine

➤ Click the All Ready button.

All the tracks will be highlighted and the check boxes will be ticked.

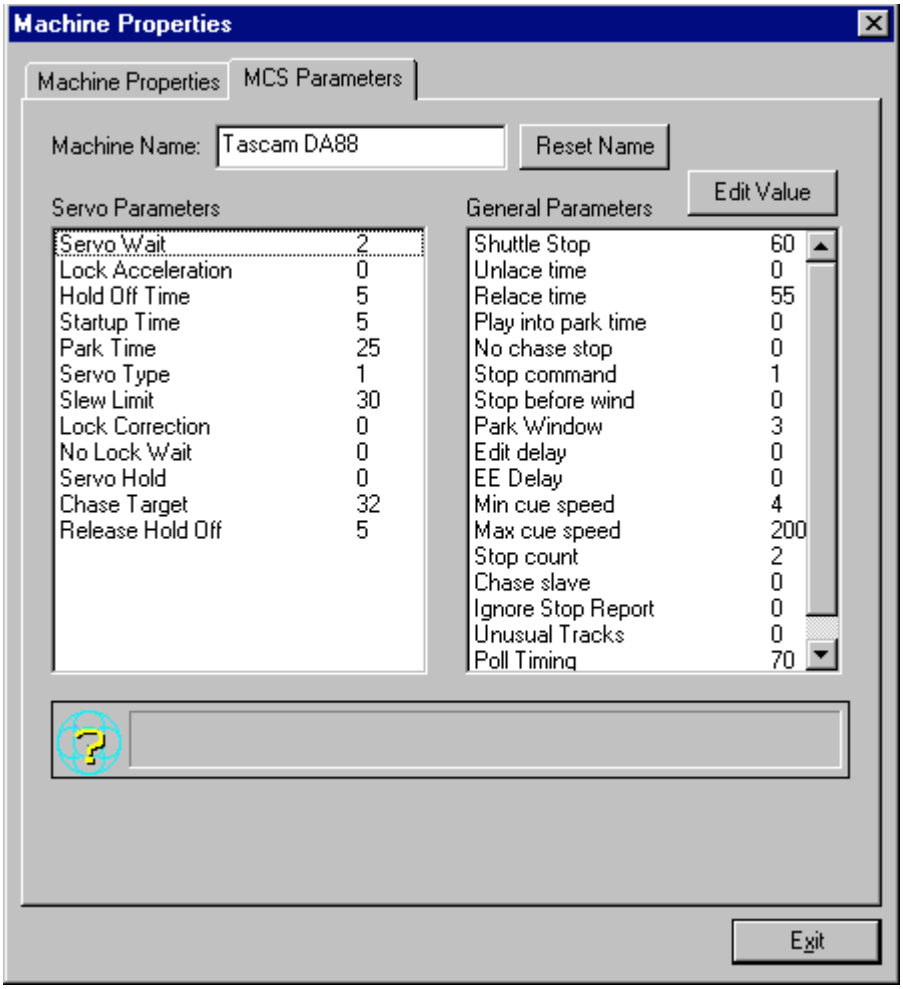
To disarm all tracks for the current machine

➤ Click the All Safe button.

No tracks will be highlighted or ticked.

MCS Parameters

The MCS Parameters are used to change settings for individual machines to optimise performance. The machine name can also be altered (e.g. to identify machines of the same type).



To change the machine name

➤ Click in the Machine Name box.

➤ Type the required name.

➤ Click the Reset Name button to change the name back o the default for the machine type.

To change a parameter

➤ Click the required parameter in either list box.

The parameter will be highlighted and a description will be displayed in the box beneath the parameter lists.

➤ Click the Edit Value button.

➤ Type in the required value and press Enter.

Each parameter has a specific range of values it can use. A value within range for the parameter must be provided.

Values outside the range will be rejected.

Servo Parameter Definitions

Used to “fine tune” the machine for servo into lock.

Servo Wait (frames)

Wait this number of frames after a play command before beginning servo action.

This parameter is used to delay the onset of servo action for a given number of frames. This can be set to allow time for the machine’s transport to stabilise before beginning servo action. Some machines may give inaccurate information to the MCS when servo is begun too quickly. Increasing this value may help to compensate for this.

Lock Acceleration (frames)

Number of frames away from lock that minimum servoing is applied.

Servo action is applied in 3 stages by the MCS, each stage being more aggressive. If the machine persistently overshoots the lock position during locking, increasing this value will apply gentler servoing as the machine approaches lock and may help reduce this.

Hold Off time (frames)

Wait for this number of frames after fine slewing into lock has achieved a zero error before releasing.

Normally, when zero error has been achieved the machine is released from servo in order to lock to the video frame edge. However, depending upon the transport ballistics, some machines may have moved through zero error and be moving away from zero error at this point. If released in this situation the machine may repeatedly report lock & locking. Increasing the hold off time causes the MCS to wait after zero error has been achieved before releasing the machine.

Start-up time (frames)

Play command is issued when the timeline is this many frames behind the machine position.

When machine synchronisation is begun after the PLAY key has been pressed, the system will pre-roll by 16 frames and then run the timeline through the machine position. If the machine error is observed to count down slowly from 16 frames to zero, adjusting this parameter by 2 frames may correct this. If the machine can be seen to have several frames to servo after receiving its play command, adjusting this parameter may correct this.

Park Time (frames)

Machine parks ahead when chasing to a moving timeline by this many frames.

Servo type (0, 1 or 2)

Final approach: 0 means servo up from 1 frame behind; 1 means servo directly into lock; 2 means come back from 1 frame in front.

This parameter determines the way the machine servos into lock. The most common method is to servo up from 1 frame behind. However, this is not suitable for some machines, which will be

unable to lock by this method. If the machine hovers between zero error and 1 frame error, try an alternate servo type. NOTE: The servo software can make automatic changes to this value.

Slew limit (frames)

Maximum number of frames of error which will be made up by servoing rather than shuttling.

Error above this value will cause the machine to go into shuttle mode rather than servo mode.

Lock correction (frames)

Number of frames a machine will ‘jump’ when releasing.

The parameter allows correction for machines whose reported position “jumps” when it is released from servoing. Adjustment of this parameter is normally not necessary.

No Lock Wait

Non zero means assume lock when zero error is achieved before machine reports servo lock.

Setting this to a non-zero value will decrease machine lock up time in some cases (for example 7030). This is because certain machines may achieve and hold zero error for some time before actually reporting lock. Servo Hold (frames)

Hold servoing for this number of frames before issuing play.

Once zero error has been achieved, the MCS will continue to servo at play speed for the time specified. This can help avoid situations where the machine is servoed up from behind and is possibly speeding up when released and therefore could be into the next frame when released.

Release Hold off (frames)

Number of frames to wait after releasing before LOCK is confirmed.

This parameter controls the last stage of the servo process for a machine. After zero error is achieved and the machine is released, the MCS will wait for the specified time before lock is confirmed. This gives more leeway for final errors to be corrected if required. Adjusting this value may help if lock errors are observed after lock has been reported.

General Parameter Definitions

Shuttle Stop

Non-zero means that machine will be slowed down to stop. The larger the number the gentler the action of the stop command.

Unlace time (seconds)

Distance to target in locate/chase above which unlaced or high speed wind will be engaged.

When the “locate to” or chase difference is greater than this time the machine will unlace and fast wind until the difference is within the release time. Setting this value to 255 will cause “infinite” unlace time to be adopted. This will permit devices capable of instant locates to avoid entering shuttle or wind modes.

Release time (seconds)

Distance to target in locate/chase below which laced or shuttle wind will be engaged.

This parameter is essentially the opposite of the above and operates if “unlaced wind” has been engaged. When spooling to a locate time shuttle mode is engaged when the difference between the current position and the locate target is below this value.

Play into park time

Allowed overshoot in a locate operation before new locate command is issued.

When locating, the machine may overshoot the specified location. If the overshoot becomes greater than the value specified in this default the MCS will issue a new locate command rather than allowing the machine to park at the “overshot” position. This is primarily used to cater for devices which have a built in “play into park” mode (for example Tascam DA60).

No chase stop (0 disabled, 1 enabled)

1 = Don’t issue stop command when parked next to master.

If this option is enabled then this machine will be set to shuttle at zero speed when it is parked next to the master position.

Stop command (0 or 1)

0 = Shuttle at zero speed and 1 = STOP command.

This option determines how the machine will behave when the STOP key is pressed. If it is set to 0, then the machine will shuttle at zero speed. If it is set to 1, then the machine will be sent a stop command.

Stop before wind (0 or 1)

1 = issue stop command before going into wind from play.

Setting this option to 1 will cause a stop commend to be sent to this machine between a wind and a play operation.

Park window (frames)

Allowed error after a locate or chase operation.

This is the maximum allowed difference between the position required by the locate or chase operation and the actual final machine position. If the difference exceeds this value, than another locate will be performed.

Edit delay (frames)

Number of frames the machine takes to respond to an EDIT ON command.

This setting should be used to compensate for the time required by the machine to perform an edit on (i.e. enter record) after receiving the command. The compensation is applied during programmed external recording.

EE delay (frames)

Number of frames the machine takes to respond to an E to E (input monitor) command.

This parameter is similar to the previous value but applies to the response time to an E to E command.

Min cue speed

Smallest permitted value of shuttle speed command. Units - 1/64th of play speed, i.e. 4 = 1/16th , 128 = 2*play speed.

This value should be used to set the minimum shuttle speed for the machine. Higher values will result in the machine moving in response to shuttle wheel movements below the normal minimum shuttle speed.

Max cue speed

Largest permitted value of shuttle speed command. Units - multiples of play speed.

This value should be used to set the maximum shuttle speed. Larger values will result in higher shuttling. This parameter can be used to slow down machine shuttling if desired.

Stop count (frames)

Machine must be motionless for this number of frames before stop is reported.

Increasing this value will force the MCS to wait for the specified number of motionless frames before considering the machine to be stopped.

Poll Timing

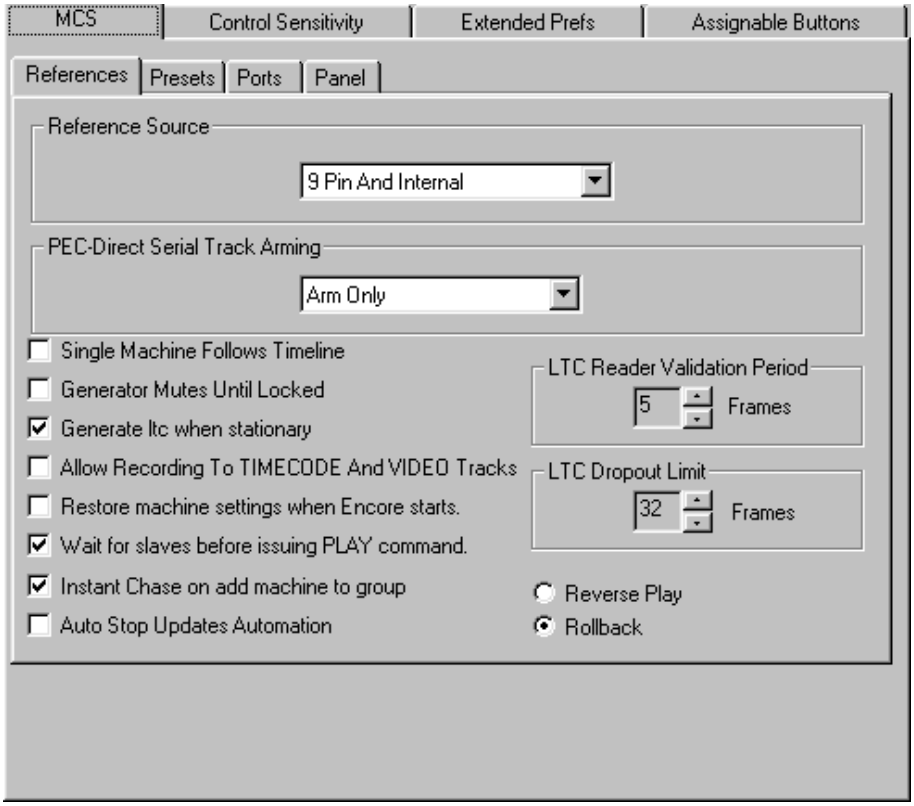
Time after frame edge that machine position reports are requested from the machine. Each “unit” in the value is 128 uS (i.e. 10 = 1.3mS, 80 = 10mS).

Some machines do not update their internal position values until some distance into the frame. Use this parameter to remove any ambiguity about machine position values. A typical result of this parameter needing adjustment is persistent and random 1 frame lock errors.

MCS Preferences

In addition to the machine specific parameters described above, there are more general MCS parameters accessed through the Preferences (System Defaults) utility, or from the drop-down Transport menu in the Encore automation application.

It is split into four sub pages that are selected by clicking on the sub-page tabs.



MCS References

Reference Source

This option informs the MCS how the timeline is sourced.

External LTC

Longitudinal Timecode is read from the Timecode Track on the tape machine via the timecode socket on the SPS rack. The transport controls show the machine status according to the incoming timecode, but the MCS does provide machine control and synchronisation facilities.

9 Pin And Internal

The timecode position as displayed is taken from the master machine via the 9-pin connection. All machines including the nominal master chase a timeline that is generated internally. The MCS controls the master machine.

9 Pin And Video

The frame numbers of the timeline are taken from the master machine via the 9-pin connection as above. The frame edges (used for sub-frame accuracy) of the timeline are locked to a video reference and all the transports chase the timeline. The MCS controls the master machine.

LTC From Master Machine

The MCS controls the tape machines through the 9 Pin serial ports. The timeline the machines chase is derived from the Longitudinal Timecode Track on the tape machine.

LTC Reader Validation Period

This is the number of consecutively incremented timecode frames that are received before MCS acknowledges that the timecode source is in play.

LTC Dropout Limit

This is the maximum amount of time (in frames) that bad timecode will be received before MCS drops synchronisation and timecode display is stopped on the screen.

PEC-Direct Serial Track Arming

This option does not apply to Libra Live.

Single Machine Follows Timeline

When checked, the attached tape machine is servoed until it locks to the internal timeline. This is the usual setting.

When un-checked, the machine starts independently and the internal timeline does not start (take the initial position and start running) until the machine is in lock.

Generator Mutes Until Locked

When checked, the internal timecode generator does not generate a signal until lock has been established. This option is un-checked by default.

Generate LTC when stationary

When checked, the timecode generator outputs timecode with the same frame number when the master transport is stationary.

Allow Recording to TIMECODE And VIDEO Tracks

When checked, this allows the TIMECODE and VIDEO tracks on any attached machine to be recorded over. This option is un-checked by default and should be used with caution.

Restore machine settings when Encore starts

This is used to make sure that the machine settings (offsets, servo parameters, etc.) are restored to the same condition when Encore starts. This will ensure that the machines are in a known state (i.e. as configured from Encore).

Wait for slaves before issuing PLAY command

This is used to make sure all machines in a group are parked at the same position ready to synchronise before the Group Master starts to play. (This allows a faster lock-time)

Instant Chase on add machine to group

This causes machines to immediately position themselves to the Group Master position when added to a group.

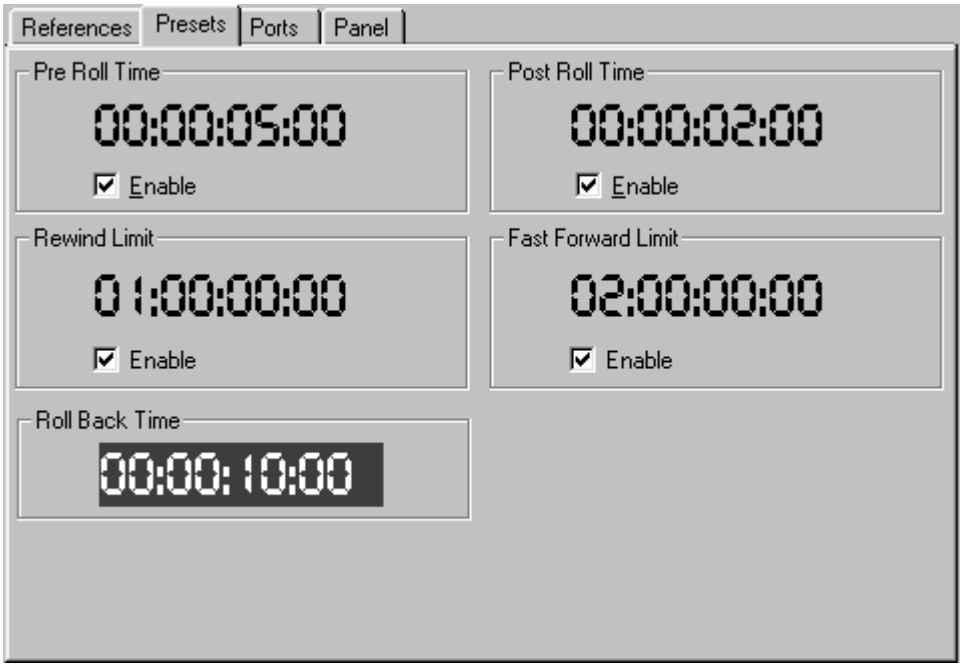
Reverse Play / Rollback

This parameter relates to the MCS control panel, which is not an option for Libra Live.

MCS Presets

This page allows the setting of pre- and post- roll times, i.e. how far before and after a locate time or cycle in and out points the transports will park or continue to run. The main use of a pre-roll time is to give the transports time to synchronise before the target timecode position is reached.

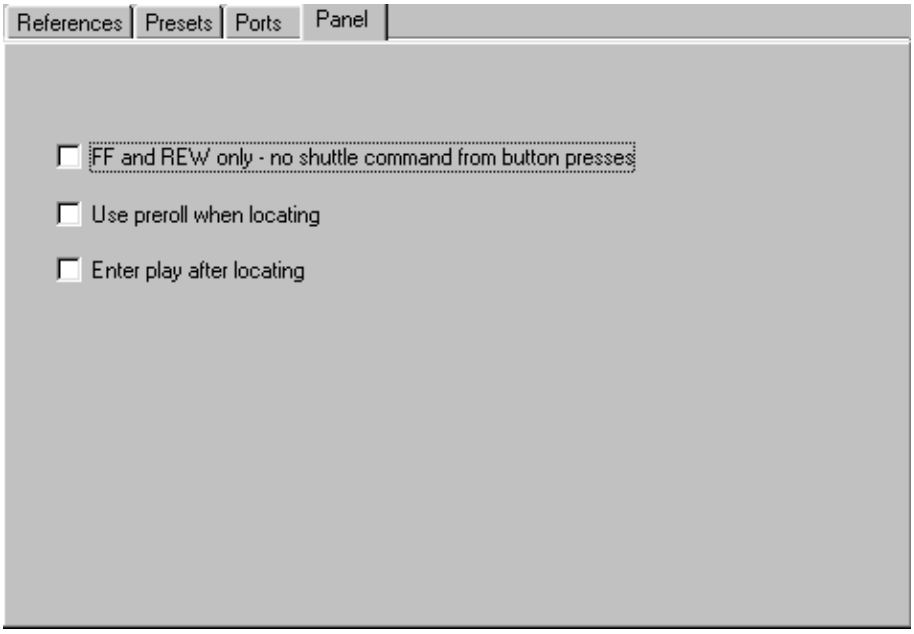
The rewind and fast-forward limits are useful with open spool formats as they can help prevent the tape unlacing.



MCS Ports

(In development) Used to set which of the serial ports use the Sony protocol. Currently all the ports use the Sony protocol, but port 6 may be optionally set to be an MCS port.

Misc Options



Self evident.

Standard Transport Functions

Once configured to control a group of transports as described at the beginning of this chapter, the transport keys behave as a standard transport controller for the group as a single entity. The keys illuminate to confirm the transport command, or flash to indicate the command has been initiated but not tallied back by the transport. A flashing play key indicates a play command has been issued, but that the Machine Control System is not reading valid timecode.

To use Record

Recording requires that tracks are armed and a record command is given. Most transports support arming before or after the record command. Track arming may be done through the MCS Track-arming system, either with serial or parallel commands; or through an external trackarming system, e.g. the transports local controls.

To issue the record command

➤ Press and hold the PLAY key until it illuminates green steady.

➤ Press the RECORD key at the required point.

The RECORD key will illuminate red steady to indicate that the armed Tracks are recording.

If no Tracks are armed then the RECORD key will flash red.

➤ Release the PLAY key.

➤ Press any transport key (other than RECORD) to terminate record mode.

If Jog is used to terminate record then the machine will stay in record until the jog wheel is moved. Cycle and Locate only terminate record when the cycle or locate process actually starts.

Track Arming

Tracks are armed using the individual machine setup page within the Group Setup function as described above.

Shuttle and Jog

To use Shuttle

Shuttle is used to run the transport forwards or backwards at variable rates.

➤ Press the SHUTTLE key.

The key will flash.

➤ Rotate the jog wheel in the required direction.

The SHUTTLE key will illuminate steady.

Initially, clockwise will shuttle forwards and anti-clockwise will shuttle backwards. The faster or further the wheel is moved, the faster the transport will shuttle.

If the maximum shuttle speed is exceeded then the transport will go into fast forward or rewind, as appropriate. The jog wheel will still have control of the transport.

✍ *The shuttle speed can be reduced by moving the jog wheel slowly in the opposite direction.*

To use Jog

Jog is used to move the transport forwards or backwards without running constantly. The transport will only shuttle while the jog wheel is being moved.

➤ Press the JOG key.

The key will flash.

➤ Rotate the jog wheel in the required direction.

The transport will shuttle according to how much the wheel is moved. The JOG key will illuminate steady while the machine is shuttling.

When the wheel is not being moved, the transport will stop shuttling and the JOG key will flash again.

To Jog frame-by-frame

➤ Press the + and - keys on the fixed keyboard while the JOG key is flashing.

The + key moves the transport forward by one frame and the - key moves the transport back by one frame.

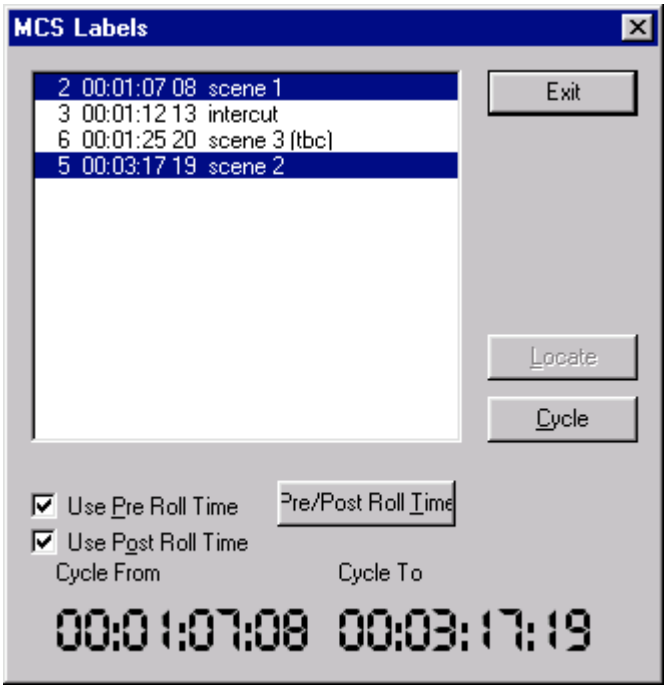
Locate

To Locate

Locate is used to position the transport at a particular point in timecode.

➤ Click on the LOC icon on the screen or press the LOC key.

The MCS Labels dialogue box will be displayed on the screen showing the current Label List.



The LOC key will flash. The MCS is now waiting for a location to be selected.

There are now two methods of deciding where to locate to:

- Auto Locate
- Locate Labels

To Auto Locate

This uses the timecode stored when the GRAB TIME key is pressed. GRAB TIME can be pressed at any point.

➤ Press the LOC key again or press the PLAY key.

The LOC key will illuminate steady. The transport will fast forward or rewind to the grabbed time. If the Play key was used, it will drop into play.

To Locate Labels

The Label selected for Locate can be chosen using the fixed keyboard or by using the MCS Labels dialogue box on the screen. A timecode can also be adjusted or entered manually in the MCS Labels dialogue box.

To select a Label with the fixed keyboard

➤ Type in the number of the required Label.

➤ Click the Locate button or press the LOC key or press the Enter key.

The transport will wind or rewind to the selected timecode.

To select a Label on the screen

➤ Click on a Label.

The Label will be highlighted in blue and the Locate button will become available.

➤ Make sure only one Label (with the required timecode) is highlighted.

➤ Click the Locate button, press the LOC key, press the Enter key or press the Play key.

The transport will wind or rewind to the required timecode. If the Play key was used, it will drop into play.

To change or enter the timecode manually

If required, select the Label from the screen or by typing the number on the fixed keyboard.

➤ Press the TIME key.

The focus of the MCS Labels dialogue will change to the Locate To time which will show the timecode of the selected Label, or zero if no Label has been selected.

The TIME key toggles the focus between the Locate To time and the list of Labels each time it is pressed.

➤ Use the trackball or the fixed keyboard to adjust the timecode manually.

➤ Press the CANCEL key to undo changes to the timecode.

➤ Click the Locate button, press the LOC key, press the Enter key or press the Play key.

The transport will wind or rewind to the required timecode. If the Play key was used, it will drop into play.

The Label List can also be used to create or edit a Label if there is no Label with the required timecode.

Cycle

Cycle is used to continuously play between two timecode points (Cycle From and Cycle To) and rewinds the transport when the end point is reached.

To Cycle

➤ Click on the Cycle icon on the Encore screen or press the CYCLE key.

The CYCLE key will flash and the MCS Labels dialogue box will be displayed on the Encore screen showing the current Label List.

There are now two methods of deciding the cycle points: Auto Cycle or Cycle Labels.

To Auto Cycle

This uses the last timecodes that were the play and stop points. The Auto Cycle From and To points are updated every time the PLAY and STOP keys are pressed, so the play point can be updated at any time while the transport is already in Play by pressing the PLAY key.

➤ While the CYCLE key is flashing, press the CYCLE key again or the PLAY key.

The CYCLE key will illuminate steady and the transport will now cycle between the two points. The other transport keys will indicate the transport status (i.e. rewind, play, stop, etc.).

This will continue until a different transport command is issued.

If the Stop point is in front of the Play point then the Stop point will be used as the Cycle From and the Play point will be used as the Cycle To (if, for instance, the transport is re-wound and stopped ahead of the Play point).

To use Cycle Labels

The Labels used for the cycle points can be selected from the MCS Labels dialogue box or by entering Label numbers on the fixed keyboard.

To select Labels from MCS Labels dialogue box

➤ Highlight the required pair of Labels.

➤ Click the Cycle button, press the CYCLE key, press the PLAY key or press the Enter key on the fixed keyboard.

The CYCLE key will illuminate steady and the transport will now cycle between the two points. The other transport keys will indicate the transport status (i.e. rewind, play, stop, etc.).

This will continue until a different transport command is issued.

To select Label numbers with the fixed keyboard

➤ Type the number of the Label with the required Cycle From timecode.

➤ Press the TO key.

➤ Type the number of the Label with the required Cycle To timecode (this should be after the Cycle From timecode).

➤ Press the Enter key on the fixed keyboard, press the CYCLE key or press the PLAY key.

The CYCLE key will illuminate steady and the transport will now cycle between the two points. The other transport keys will indicate the transport status (i.e. rewind, play, stop, etc.).

This will continue until a different transport command is issued.

Pre Roll

The Pre Roll Time set in MCS Preferences can be used with Locate and Cycle. Pre Roll places the transport an extra amount in front of the Locate To or Cycle From time to allow the automation system to resolve timecode correctly before reaching the Locate To or Cycle From time.

Pre Roll can also be useful when Safety Nets are enabled. If the Safety Net times are matched to the Cycle times (e.g. using the same Labels), then Pre Roll will allow some audio to be heard immediately before the Safety Net start time so that the changeover can be heard in context.

To use the Pre Roll Time

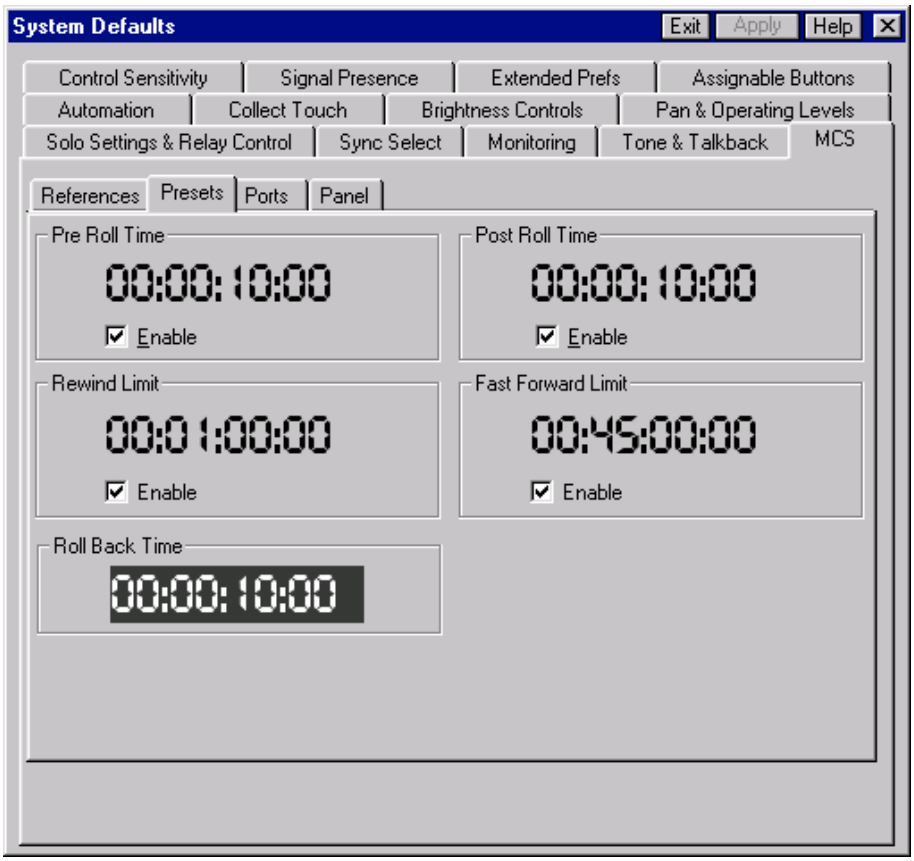
➤ Click the Use Pre Roll Time check box so that an X is shown.

This is the same as checking the Pre Roll Enable check box in the MCS Presets page.

To change the Pre Roll Time

➤ Click the Pre Roll Time button.

The MCS Presets page will be displayed.



➤ Change the Pre Roll Time as required and Exit from Preferences.

Post Roll

The Post Roll Time set in MCS Preferences can be used with Cycle.

Post Roll causes the transport to continue playing by an extra amount after the Cycle To time has been reached. When the Cycle To time plus the Post Roll is reached then the transport will rewind back to the Cycle From time (minus Pre Roll).

Post Roll is useful for preventing sudden transitions at the Cycle To time.

Post Roll can also be useful when Safety Nets are enabled. If the Safety Net times are matched to the Cycle times (e.g. using the same Labels), then Post Roll will allow some audio to be heard immediately after the Safety Net end time so that the changeover can be heard in context.

To use the Post Roll Time

➤ Click the Use Post Roll Time check box so that an X is shown.

This is the same as checking the Post Roll Enable check box in the MCS Presets page.

To change the Post Roll Time

➤ Click the Pre/Post Roll Time button.

The MCS Presets page will be displayed.

➤ Change the Post Roll Time as required and Exit from Preferences.

Roll Back

Roll Back is the amount by which the transport is moved back when the ROLL BACK key is pressed.

The Roll Back time is set with Encore and Roll Back will not operate if Encore is not active.

When Encore starts up, the current Roll Back time set in MCS Preferences is sent to the MCS.

To use Roll Back

➤ Press the ROLL BACK key.

The ROLL BACK key will illuminate.

Depending on how the machine executes a Roll Back, the REWIND key or the SHUTTLE key will also illuminate while the transport is rolling back.

When the Roll Back is complete, the ROLL BACK key and REWIND or SHUTTLE key will cease to be illuminated.

Snapshot System

Snapshots differ from Console Configurations (Desk Set-ups) in that they don't affect the overall structure of the console in terms of numbers of paths and layout. They are snapshots of the positions of the controls that were created in the console configuration. Storing and recalling a snapshot does not affect the audio except in the way that the moving the controls to the recalled position will affect the audio, whereas recalling a console configuration will temporarily mute the console. Snapshots can be used safely On-Air.

The Snapshot system is mutually exclusive with the Dynamic Automation system and shares the same REC and PLAY keys located on the fader strips and in the centre section. In snapshot mode, the red REC switch LEDs are used to indicate which paths will be included when a snapshot is created and the green PLAY switch LEDs are used to indicate which paths will be affected when a snapshot is recalled.

Enabling Snapshots

To enable Snapshot Automation

➤ Turn off the dynamic automation by ensuring the RUN switch in the centre section is turned off.

Snapshot Scope

Creating and recalling Snapshots are 2-stage processes. Pressing Create or Recall Snap once, puts the console into a mode where the controls to be reset are selected (included in the snapshot scope). Once the scope is defined the snapshot is then created or recalled.

Libra Live's Snapshot system allows all, or just individual controls to be included in a snapshot either when created, or when recalled. The advantage of defining the scope when creating a snapshot is that it makes recall quicker and safer as it is not necessary to protect paths in use when recalling a snapshot.

The default state of the Play and Record LEDs on the surface is all off. This indicates that none of the paths are included in either the Recall Snap scope or the Create Snap scope and no controls will be captured or replayed. The Create and Recall scope settings are independent of each other and are not saved with the desk setup. Each time a configuration is loaded the Create and Recall scopes are cleared.

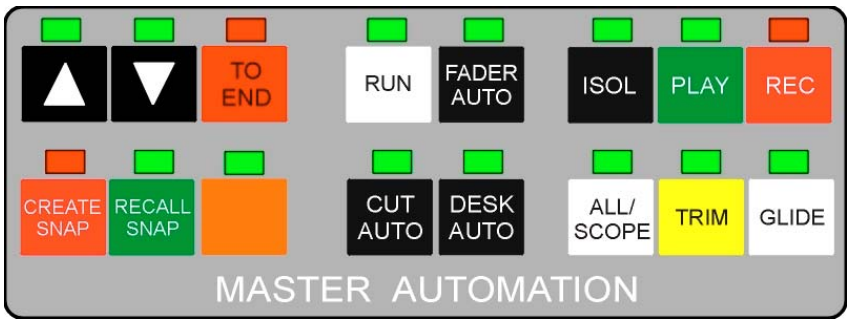
Key to LED indication

The Play and Record LEDs for each path will show one of three states:

Solid LED on: All controls for this path are included in this scope

Solid LED off: All controls for this path are excluded from this scope

Flashing LED: Some controls for this path are included in this scope



To include or exclude all controls across the console in a scope

➤ Turn on either the CREATE SNAP or RECALL SNAP to select the scope.

➤ Press the ALL/SCOPE switch in the centre section of the console.

➤ Press the REC switch in the centre section of the console to set the Create Scope to include all controls in all paths.

or

➤ Press the PLAY switch in the centre section of the console to set the Recall Scope to include all controls in all paths.

or

➤ Press the ISOLATE switch in the centre section of the console to clear the selected Scope (i.e. exclude all controls across the console).

To include or exclude individual paths in a scope

➤ Switch on or switch off the fader strip REC switch to include or exclude the whole path from the Create Scope.

➤ Switch on or switch off the fader strip PLAY switch to include or exclude the whole path from the Recall Scope.

For example, to take or recall a snapshot of just two paths on a desk setup that contains 60 paths, it is easier to exclude all the controls from the scope with the central controls, then set the scope to include the selected 2 paths, or vice versa, to exclude a couple of presenters' microphones from a complete console reset, it is easy to put the whole console in scope and then switch off the presenters' channels.

To include or exclude individual controls in a scope

➤ Call the path into the AFU by pressing its Access button.

➤ Press the Create or Recall Snap switch on the desk to select the scope to be set.

Encore will open the snapshot dialogue.

➤ Press the All/Scope button.

➤ Touch individual Logicators, or press individual switches to the first level to include or exclude them from the scope.

Controls in scope will be lit red.

➤ Touch the AFU fader to include or exclude it from the scope.

➤ Press the ON/OFF switches for the EQ and Dynamics sections to the second level to include/exclude the whole section from the scope in one action.

➤ Press the All/Scope key again when the scope has been set to store and apply this scope.

NB Once Mic / Line controls (including Analogue Gain) have been dropped from a scope, they can only be reapplied globally i.e. by pressing the appropriate Rec or Play key (this will also place all other controls into that scope as well).

To include or exclude control types across the Console (Recall Scope only)

➤ Press Recall Snap.

This brings up the snapshot list on the Encore screen. Below the snapshot list there is a set of check boxes.

➤ Check the control types that are to be included in the snapshot recall.

To copy the scope of a path to other paths

➤ Call the path into the AFU whose scope you wish to copy.

➤ While the desk is in Create or Recall Snap mode (a single press of Create or Recall Snap), press the AFU fader's Access key. This LED will start to flash to indicate the desk is in Copy Scope mode.

➤ Press the Access keys for destination paths. Their Rec or Play LEDs will light (either solid or flashing depending on the scope of controls being copied).

➤ Press the AFU fader Access again to exit Copy mode.

Creating a Snapshot

To Create a Snapshot

➤ Press Create Snap key in the Automation section of the console control surface.

The Encore screen will bring up the existing list of Snapshots.

➤ Define the scope of the snapshot to be created using the procedures described above.

➤ Press the Create Snap key a second time.

An Encore dialogue box will invite the entry of a name for the Snapshot.

➤ Enter the snapshot name and click on Enter, or press the keyboard Enter key to complete the operation

The new snapshot will be added to the list.

Recalling a Snapshot

To Recall a Snapshot

➤ Press the Recall Snap key in the Automation section.

The Encore screen will bring up the existing list of Snapshots.

➤ Define the scope of the snapshot to be recalled using the procedures described above.

Then load the snapshot by

➤ Highlighting the snapshot on the list and clicking on Load.

or

➤ Type the number of the snapshot on the numerical keypad.

➤ Press Enter on the numerical keypad.

The snapshot will be recalled from the disk and loaded onto the console. The progress can be seen in the alphanumeric for the control room monitor, this will also display the number of the last loaded snapshot and the total number of snapshots in the list.

To Recall a Snapshot rapidly

➤ Press the Recall snap key and define the scope as above.

➤ Enter the snapshot number using the numeric keyboard.

➤ Press the period key (.)

The snapshot will be recalled from disk, but will not be loaded on the control surface.

➤ Press the Enter key on the numeric keypad.

The snapshot will be loaded onto the control surface immediately.

Managing the Snapshot List

The Encore Snapshot screen provides various ways to re-order the snapshot list and to name and save the snapshot list.

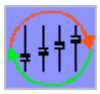
When a Snapshot list is saved, an option is offered to link the Snapshot list with the current Desk Setup. This means that when the Desk Setup is next loaded on the console, it will automatically recall the Snapshot List at the same time. Snapshot lists can also be loaded independently of the Desk Setup, from Encore's Home Page or from the filing utility. Snapshot lists that were created on different desk set-ups be used, but only the paths and controls common to both the current desk set-up and the desk set-up on which the snapshot was created will be affected.

Dynamic Automation

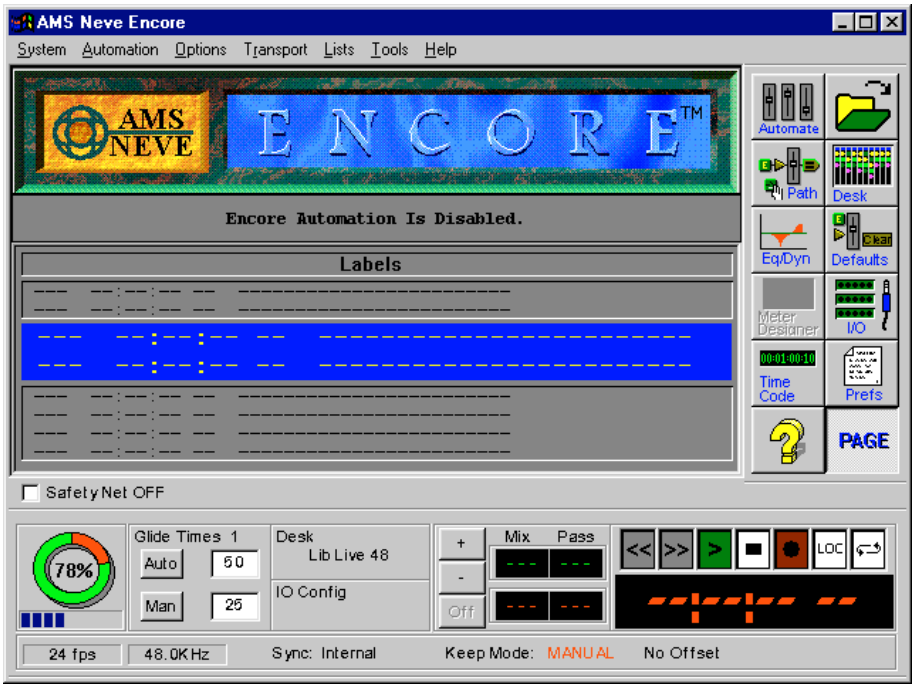
Dynamic Automation on the Libra Live is the recording of control moves against timecode by Encore.

The Automation System must be switched on in order to use automation functions. This is normally done by pressing the RUN switch in the Automation section of the centre of the console. Dynamic Automation is mutually exclusive with Snapshot automation and turning Dynamic Automation on, turns Snapshot automation off. Similarly turning Dynamic automation off turns Snapshot Automation on.

The screens for Dynamic Automation are opened using the Encore Icon in the broadcast menu and Dynamic Automation can then also be turned on and off from within this application, e.g. with Automation Mode in the System Menu or with the Automate icon.



Encore is designed to be driven through the control surface of the console rather than with heavy use of mouse and keyboard. It is possible to turn the automation on and start mixing straight away using default settings and file names.



Overview

Dynamic Automation on the Libra Live is operated with a combination of controls on the console surface and the Encore screen. Historically Encore is the name of the Dynamic automation application as well as the overall suite of programs for Libra Live. Encore is used for overall control of automation and records dynamic automation events against timecode.

There are four main parts to understanding Encore:

- The Mix/Pass structure and Mix Tree
- Automation Scope and the Automation Modes
- The Filing structure
- The Offline editing utilities

Mix/Pass

A Mix/Pass is the combination of the starting state of controls (a snapshot) and the information recorded during an automation run (the Pass).

Each Mix/Pass consists of:

- A Safety Snapshot.
- An Initial Snapshot.
- Dynamic Automation.
- Automation Modes.

This is the information which is stored when a Mix/Pass is saved to disk.

Safety Snapshot

A record of the state of all controls which can be automated, regardless of the mode the control is in. A Safety Snapshot is taken when a New Mix or Clear Mix is executed and when the system is put into Play.

For New Mix or Clear Mix, the Safety Snapshot is stored as part of Mix/Pass 1.0.

When the system is put into Play, the Safety Snapshot is taken but it is not stored in the Mix/Pass Tree unless the Mix/Pass is saved by Autosave or a manual Keep when the Transport has been stopped.

Initial Snapshot

The Initial Snapshot (ISS) list contains the initial state of all controls which are not in Isolate when the system is put into Play (i.e. Timecode is running) or which are taken out of Isolate while the system is in Play.

Dynamic Automation

Dynamic automation events are changes made to controls on the console surface which are recorded by Encore. Examples of this are moving a fader, changing Q with a Logicator, etc.

Each event is recorded for the path it occurred on and the control that was changed, the Timecode (resolved at frame level) and the value of the setting. For instance, if a fader is moved continuously then its level is recorded against every frame of Timecode until the fader is released. This is recorded in the Event List as a series of individual events at each frame.

Automation Modes

The mix/pass data includes a description of which controls are in which of the different automation modes (record, play, isolate etc) described more fully later.

Counting Mix/Passes

The first time a control that is in any of the automation record modes is touched after valid timecode has started playing, a new mix/pass is created automatically. Initially this will be Mix 1/Pass 1. Each time timecode is stopped, the pass will be written into the Mix-tree scratchpad. The next time a control is touched after timecode has resumed, the Mix/pass count will be incremented to Mix 1/ Pass 2. Thereafter the Pass count will be incremented: Mix 1/Pass 3, Mix 1/Pass 4 etc. Reloading an earlier Mix/Pass and starting new automation from that point will cause the Mix count to increment, Mix 2/Pass 1, Mix 2/Pass 2 etc.

Keeping a Mix/Pass

When a Mix/Pass is recorded, it is stored temporarily in memory.

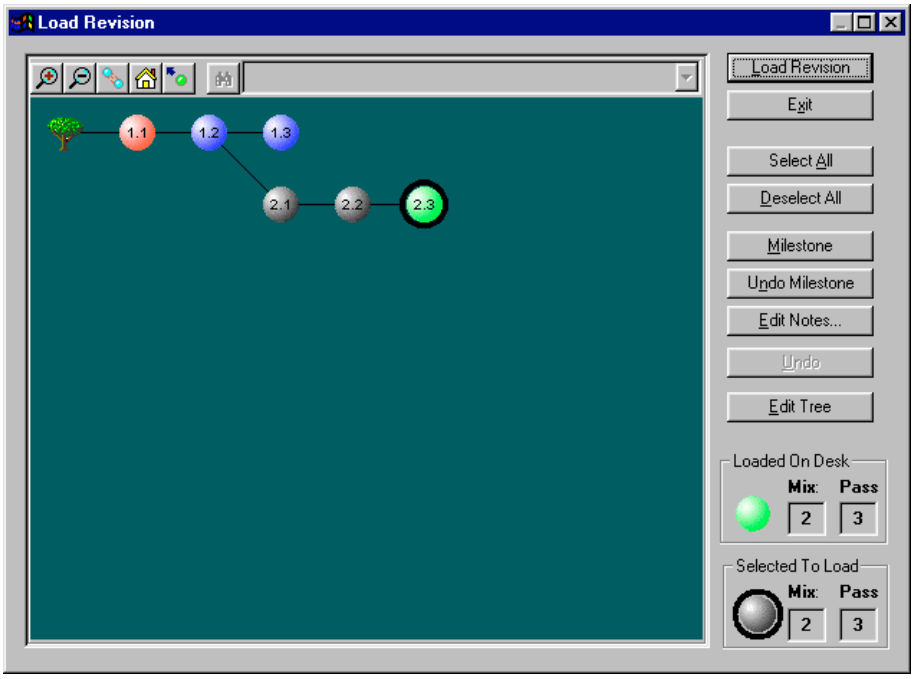
If Auto Keep is active, then the Mix/Pass is added to the Mix/Pass Tree automatically, otherwise the KEEP key must be pressed to add it to the Mix/Pass Tree.

The Mix/Pass Tree is a temporary ‘scratch pad’ for creating variations of Mixes and Passes. If a Mix/Pass is to be saved permanently then the Keep Mix option on the Mixes Sub-Menu of the Automation Menu must be used to save it to disk.

Auto Keep vs Manual Keep

Auto Keep is useful as it saves having to remember to press Keep at the end of each pass, however AutoKeep can quickly fill the available memory, and manual Keep ensures that only useful mix/passes are kept, making it easier to locate required mix/passes.

Mix Tree



The Mix-Tree utility makes it easier to visualise the progression of a job. It allows notes to be recorded for each mix-pass saved and to highlight mix/pass milestones. The Mix-Tree utility is also used to reload previous Mix/passes and is described in more detail later in this chapter.

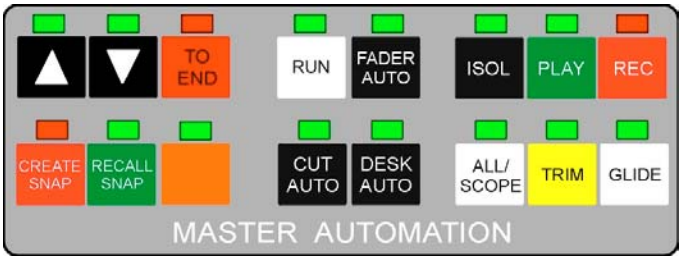
Automation Scope and Automation Modes

Automation Controls

The Automation Controls on the console surface are used to select the Automation Modes and to determine the Scope of automation controls.

There are two sets of Automation Controls on the console surface:

Master Automation keys



Fader REC and PLAY keys on the fader strips.

These are used to change Automation Modes for three groups of controls:

- Faders
- Cut Keys
- All other controls which can be automated

The FADER AUTO, CUT AUTO and DESK AUTO (everything except faders and cut) keys in the master section are used to include or exclude these groups of controls from the scope, i.e. from having their modes changed with the Master Automation Controls.

Faders

The Fader Automation Modes are controlled by the PLAY and REC keys on the fader strips and by the Master Automation keys.

Cut Keys

The Cut Automation Modes are controlled by the Master Automation Controls when the CUT AUTO key is on.

Other Controls

The controls on the AFU and the PAN/BAL Logicator are controlled by the Master Automation keys when the DESK AUTO key is on.

Automation Scope

Controls which are within Scope can have their automation modes changed globally with the Master Automation Controls (PLAY, REC, ISOLATE). The ALL/SCOPE key can be used as an override to change modes of all controls, including those which are currently out of Scope.

The Scope can be over-ridden with the FADER AUTO, CUT AUTO or DESK AUTO keys which disable the automation for the faders, the Mute switches and the rest of the console's controls respectively. (The LED above each switch is on, if that section of the console's automation is enabled).

Scope also determines which controls will be included in the Initial Snapshot for a Mix/Pass and have automation data recorded.

Any control which is not in Isolate is said to be in control Scope.

Setting Automation Scope

To toggle Faders in and out of control Scope

➤ Press the FADER AUTO key.

Faders (not in Isolate) are in Scope if the LED above the key is illuminated.

To toggle CUT keys in and out of control Scope

➤ Press the CUT AUTO key.

CUT keys (not in Isolate) are in Scope if the LED above the key is illuminated.

To toggle all other controls in paths in and out of control Scope

➤ Press the DESK AUTO key.

Controls not in Isolate will be in Scope when the LED above the DESK AUTO key is illuminated.

To place all controls in Scope (including those in Isolate)

➤ Press and hold the ALL/SCOPE key.

➤ Press the Master Automation keys for the required Mode.

All controls will be put into the selected Automation Mode.

If any of the DESK AUTO, CUT AUTO or FADER AUTO keys have been toggled off then the appropriate set of controls will be unaffected.

➤ Release the ALL/SCOPE key.

If a TRIM mode is selected, only the Faders will have their Automation Mode changed.

➤ Now use the Master REC, PLAY, TRIM and GLIDE keys to change the Mode of controls in Scope (i.e. without using the ALL/SCOPE key as well).

To remove individual Faders

➤ Isolate the control by turning off the Automation Mode. E.g. If a Fader is in Lock Record, press the PLAY key twice to Isolate the control.

To remove a control in the AFU from Scope

➤ Press the ACCESS key for the required path.

The processing in the path will be shown on the AFU.

➤ Press and hold the ALL/SCOPE key.

The touch LEDs for controls in Scope in the AFU will illuminate.

➤ Touch the controls to be removed from Scope.

The touch LEDs will toggle off and on each time the control is touched.

➤ Release the ALL/SCOPE key.

To remove all controls from Scope and Isolate them

➤ Press and hold the ALL/SCOPE key.

➤ Press the CLEAR key.

Automation Modes

The Automation Modes are the different automation states that a control which can be automated can be in.

All controls can have the following modes:

➤ Isolate

The control will not have automation recorded.

➤ Lock Record

The control will have automation recorded from the first time it is touched/used.

➤ Play

Replay moves only without the ability to make changes.

➤ Touch Record

Plays back until touched/used and snaps back and resumes play back on release.

➤ Auto Glide

The control will have automation recorded from the first time it is touched/used. Returns to previous pass position on release and follows the Auto Glide Time.

➤ Auto Takeover

The fader will have automation recorded from the first time it is touched/used. Stays in record unless a manual glide is initiated (i.e. the fader is manually matched with the previous play pass). Will drop out of record when the previous play pass position is passed through.

Faders have two additional modes which are:

➤ Trim
Stays in record on touch sense until a Manual Glide is initiated.

➤ Auto Trim
Returns to previous pass position on release and follows the Auto Glide Time.

Selecting Automation Modes

Isolate

Activated on faders by pressing the PLAY key twice or for all controls by the Master key.

If the Master ISOLATE key is pressed then all controls on the console are Isolated (depending on Scope).

Controls in Isolate will not play back or record moves and are not in Automation Scope.

Play

Activated by the PLAY key for faders or the Master key for all controls.

A control will replay moves only.

Lock Record

Activated by the relevant REC key for faders or the Master REC key for all controls.

A control will play back moves until it is touched, at which point it will start to record.

Fader type controls (i.e. continuously variable) will return to the previous play pass position if GLIDE is pressed and the control is not being touched. The Manual Glide Time will be used and the control will return to playing back moves.

Cut type controls (i.e. switching) will return to the previous play pass setting in one frame when GLIDE is pressed.

In both cases, the control will return to the armed status (i.e. play back until touched again).

If GLIDE is pressed when a fader is being touched then the alpha for the path will display arrows indicating the direction to move the fader to match the previous play pass position. The fader will drop out of record when the previous play pass position is reached.

Touch Record

Activated by the PLAY + REC keys for the fader and the Master PLAY + REC keys for all controls.

A control will replay moves until it is touched, at which point it will start to record. The control will snap back to the previous play pass position when it is released.

AutoGlide

This is for Fader type (i.e. continuously variable) controls only.

Activated by the REC + GLIDE keys.

A control will replay moves until it is touched, at which point it will start to record. The control will glide back to the previous play pass position when it is released, using the Auto Glide Time.

Trim and AutoTrim

This is for Faders only.

Trim is activated by the TRIM key.

AutoTrim is activated by the TRIM + GLIDE keys.

The faders will move to the Trim position (by default the centre of the fader travel) and will start to record on touch. In Trim mode, the GLIDE key must be pressed to resume play back and the Manual Glide Time will be used. In AutoTrim, the faders will return to the previous play pass position when they are released and will use the Auto Glide Time.

Automation Filing

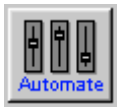
Automation filing, is the top page of the hierarchical filing system described in the Filing section within the chapter on Encore. At the top of the Automation Filing page is the User that is logged on. Each user may have multiple clients, and within each client directory there may be multiple Titles. Again, each Title directory may contain various Mixes and each Mix is linked to the Desk Setup in use when the mix was made and in turn, each desk setup will have linked I/O, GPI configurations etc.as described in the Encore chapter.

The Filing system is accessed most easily via the Filing Icon in the Dynamic Automation page.

It is also opened automatically when Automation is started.

Creating a New Mix

To start a new session

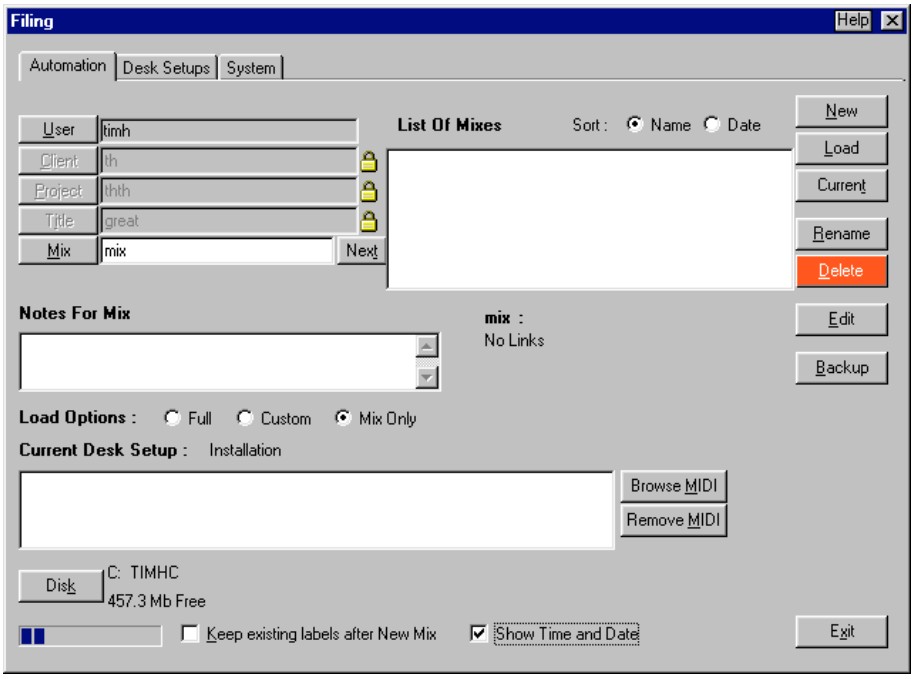


➤ Turn the Dynamic Automation system on by clicking on the Automate icon or pressing the RUN button.

➤ Select Create New Mix.

or

➤ Open the Mix filing application.



If the Client, Project and Title are locked then the next Mix number for the Mix name will be selected automatically.

Otherwise,

➤ Unlock the Client, Project or Title layer as required by clicking on the padlock icon.

➤ Select the Client; Project; and Title.

or

➤ Create a new Client, Project or Title as required by clicking on the NEW button while the appropriate level is highlighted on the left.

When down to the Mix level, the Next button can be used to automatically select the next Mix Tree number.

Or, if preferred,

➤ Edit the existing Mix name.

When the details are correct,

➤ Click the OK button.

If a new mix name is created then a new Mix Tree will also be created. A progress bar will be displayed while the Initial Snapshot is taken and the new files are created. The Initial Snapshot and the automation modes of controls are stored as Mix/Pass 1.1.

When the process is complete a confirmation dialogue box will be displayed.

➤ Click OK.

If the automation system was off, it will be switched on.

New Mix Tree

At any time it is possible to start a new mix tree using the currently loaded Desk Setup by accessing the New Mix Tree item in the Automation Menu item.

To create a new Mix Tree

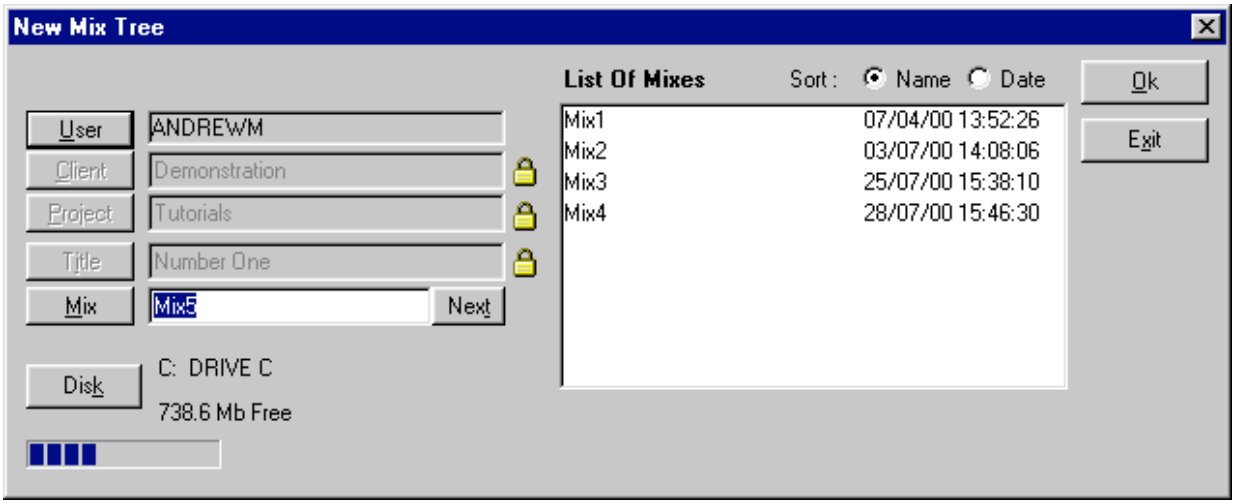
➤ Set controls on the console surface to the required settings.

These will be the positions recorded in the Initial Snapshot (ISS) when the Mix Tree is created.

➤ Set the automation modes as required.

➤ Click on New Mix Tree in the drop down Automation menu.

The New Mix Tree dialogue box will be displayed.



If the Client, Project and Title are locked then the next number for Mix Trees will be selected automatically.

Otherwise, select the Client, Project and Title in the same way as in the Filing utility, or create a new Client, Project or Title as required.

The Next button can then be used to automatically select the next Mix Tree number.

If required, edit the Mix Tree name.

➤ When the details are correct, click the OK button.

If the automation system is off the Mix Tree will be created and automation will be switched on. The Mix Tree will be linked to the currently loaded Desk Setup.

If the automation system is on the Creating Mix Tree dialogue box will be displayed.

There are various options for the new Tree:

- Start a new tree from scratch
  This will simply start a new Mix/Pass Tree, with a new Initial Snapshot.
- Advanced options
  Either or both of these options can be selected (if both are deselected, this is the same as Start a new tree from scratch).
- Insert the new tree into the current tree
  The Mix/Pass Tree will be combined with the current Tree. A new Initial Snapshot is taken.
- Start a new tree from the current revision
  A new Mix/Pass Tree will be created, using the currently loaded Mix/Pass as a starting point. The Initial Snapshot is inherited from the currently loaded Mix/Pass.

- Select the required option(s) and click Create.

The Mix Tree will be created. The Mix Tree will be linked to the currently loaded Desk Setup.

A progress bar will be displayed while the Initial Snapshot is taken and the new files are created. The Initial Snapshot and the automation modes of controls are stored as Mix/Pass 1.1.

When the process is complete a confirmation dialogue box will be displayed.

- Click OK.

Recording Automation

To record some automation (Mix 1, Pass 1)

➤ Turn on the automation.

➤ Select the Mix-tree and Mix/pass.

➤ Arm the controls to be recorded by putting them into a Record mode.

The selected controls will be put in Scope. (See Automation Modes and Automation Scope above).

➤ Set controls to the required initial values.

➤ Put the transport into play.

Timecode should start running on the Encore screen.

A Safety Snapshot will be taken of the settings of all controls on the console which can be automated and of the automation modes they are in. This Safety Snapshot will be part of the new Mix/Pass (in this case 1.1).

An Initial Snapshot will be taken of the settings of all armed controls (i.e. controls not in Isolate or Play).

➤ Move controls as required.

When the first control is touched and starts to Record, the Record/Pass counter on the Encore screen will be incremented. In this case, when starting from new, the Record/Pass will be 1.1.

➤ Stop the transport.

The Mix/Pass is now complete.

If Auto Keep is active the Mix/Pass will be added to the Mix/Pass Tree and the Play/Pass counter will be updated.

Making further Mix/Passes

The procedure is very similar to that above, except that a New Mix does not need to be started and when the transport is put into play, the moves made in the Mix/Pass shown in the Play/Pass counter will be played back. Also, controls for which moves are now correct can be put into Isolate or Play to prevent their moves being changed.

Using TO END

The TO END key is used to write the current settings of all controls in record (i.e. actually writing data) to the end of the current Pass. This actually writes a single move to the Event list with the current setting, and deletes all subsequent moves for controls in write. Other moves can be made after a TO END.

TO END and Safety Nets

If the Safety Nets are active, then TO END will only affect the Pass up to the Safety Net End time. Any moves after the Safety Net End time will not be affected. If the Safety Net End time has already passed then TO END will have no effect.

All To End

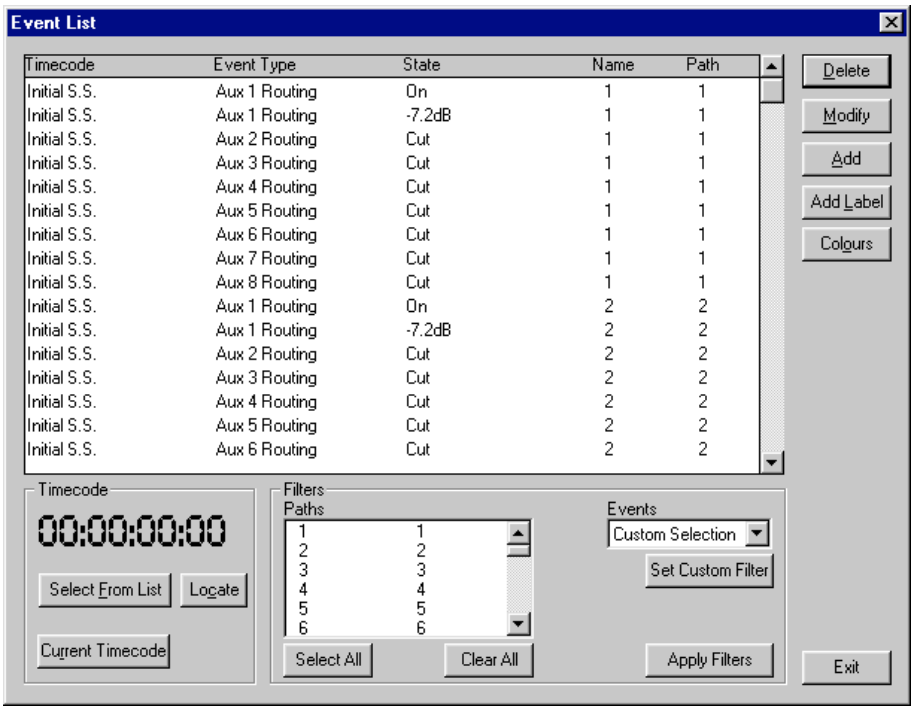
All To End is used to write the current settings of all controls in record to the whole of the current Pass. This is executed by holding down ALL/SCOPE and then pressing TO END.

All To End also respects Safety Nets, so if Safety Nets are active then only the portion of the Pass between the Safety Net Start and End times will be affected.

Offline Editing

In this context, Offline means editing automation data via the screen with the transports stationary, rather than using the console surface to record automation against moving timecode. This contrasts with Offline Encore, which is the version of the Encore program run a computer separate to the mixing console.

The Events Lists

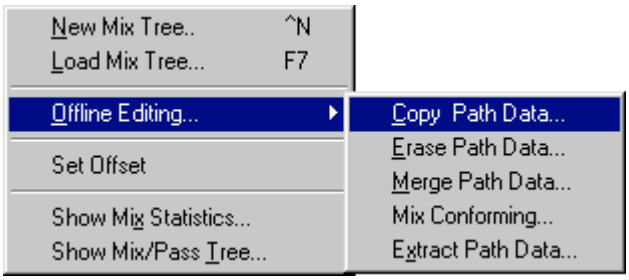


The Events list is an editable text list of control positions against timecode for the current mix/pass. All controls will have an initial snapshot position recorded, regardless of whether they are subsequently automated. The list can be filtered so that only events relating to specified controls are seen. Some preset selections are available directly from the Automation screen – e.g. Fader Events and Mute Events.

The Event List is empty until the first Mix/Pass made is added to the Mix/Pass Tree (by Auto Keep or the KEEP key).

The Event List relates to the current Mix/Pass shown in the Play/Pass counter.

Automation Menu Items



Copy Path Data

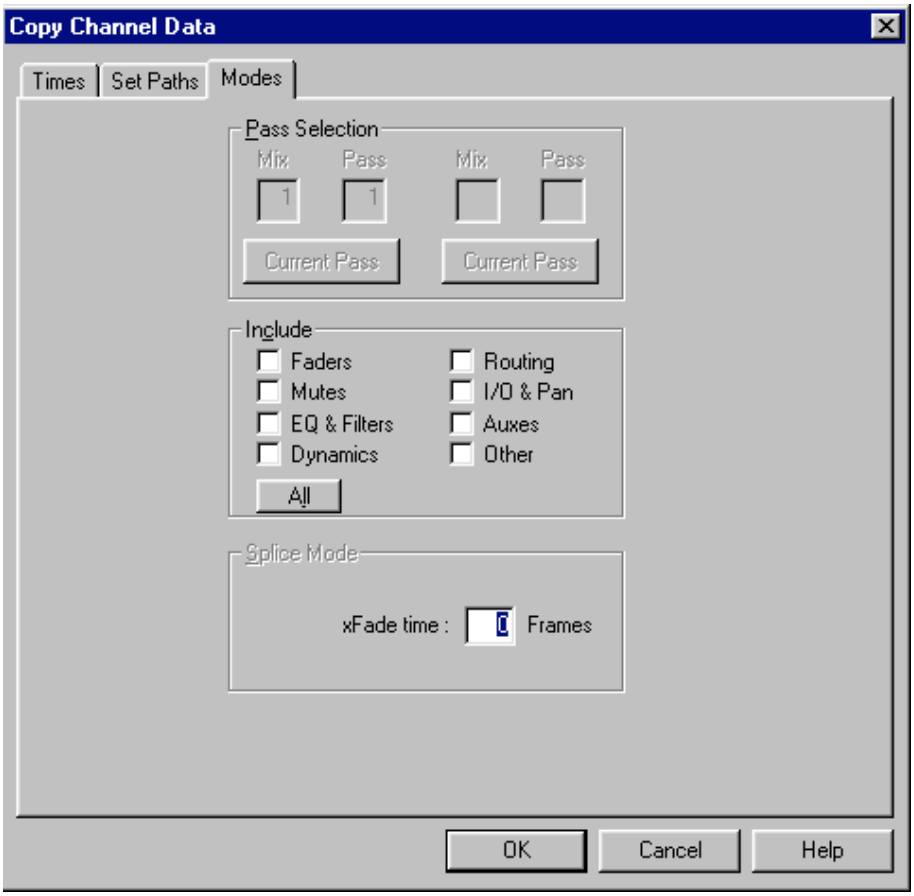
Copy Path Data is used to copy automation data in the current Play Pass from one path to any other paths (including itself). A timecode range can be specified and the destination timecode can be offset. A new Mix/Pass is created and becomes the current Play Pass.

First select the correct Mix/Pass from the Mix/Pass Tree or use Load Mix if the current Play Pass does not contain the required automation data.

To copy automation data

➤ Click on Copy Path Data in the Offline Editing Sub-Menu of the Automation Menu.

The Copy Path Data window will be displayed. There are three tabbed pages for timecode, path selection and copy mode. The Times page will be on top.



To set the source and destination timecodes

➤ Click on the Source Start, Source End or Destination Start timecode.

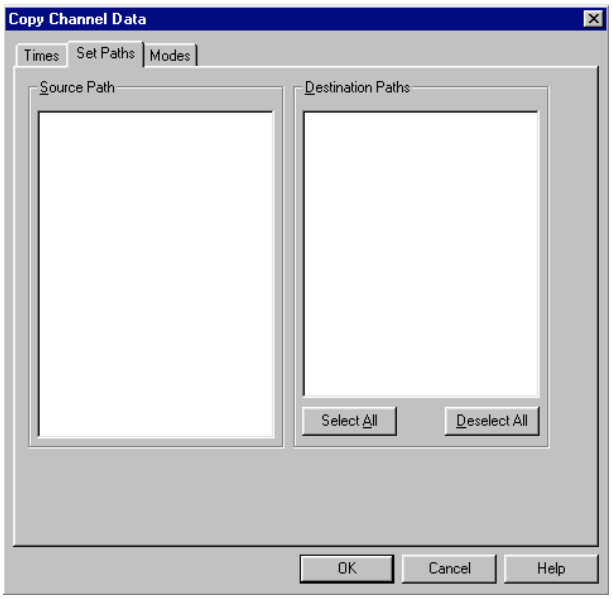
➤ Click on the Label with the appropriate timecode.

➤ Click on the Source Start, Source End or Destination Start timecode again.

Make manual adjustments to the timecode as required.

If all the timecodes are left at zero then all of the automation data from the source path will be used.

To set the source and destination paths



➤ Click the Set Paths tab.

The Set Paths page will be displayed.

➤ Click on the required source path in the source list.

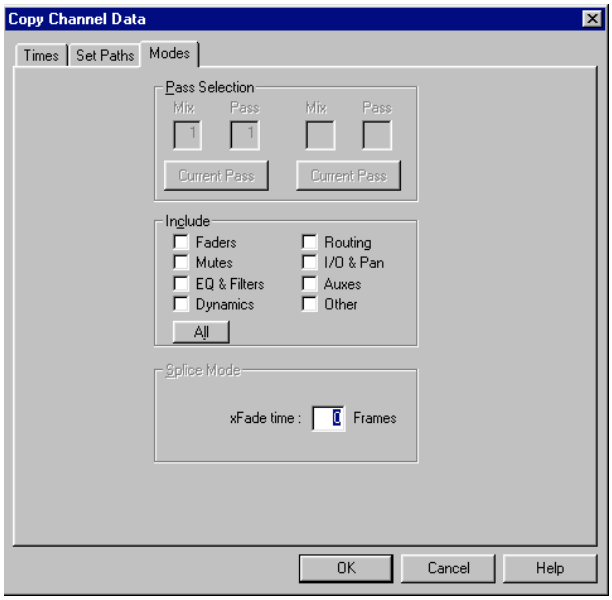
The path will be highlighted.

➤ Click on the required paths in the destination list.

Each selected path will be highlighted.

The Select All button will cause all the destination paths to be highlighted. The Deselect All button can be used to reset the selection if it is necessary to start again.

To set the copy modes



➤ Click on the Modes tab.

The Modes page will be displayed.

➤ Click the Fader, Mute and Other check boxes to select which parts of the automation data to Include in the copy.

The item is included when an X is shown in the check box. Other refers to all controls that can be automated other than the fader and the mute key (ON key).

➤ Enter the required crossfade time in the xFade Time box.

Pass Selection is not currently implemented.

To make the new Mix/Pass

➤ Click on OK.

The data will be copied as selected and the Copy Path Data window will close.

The new Mix/Pass number will be shown as the current Play Pass on the main screen.

If no source or destination paths or have been selected then a dialogue box will appear to request the selection to be made and the copy will not be executed. The same will also happen if no controls have been included.

Erase Path Data

Used to delete automation data (fader moves, mute events, channel button events) from selected paths.

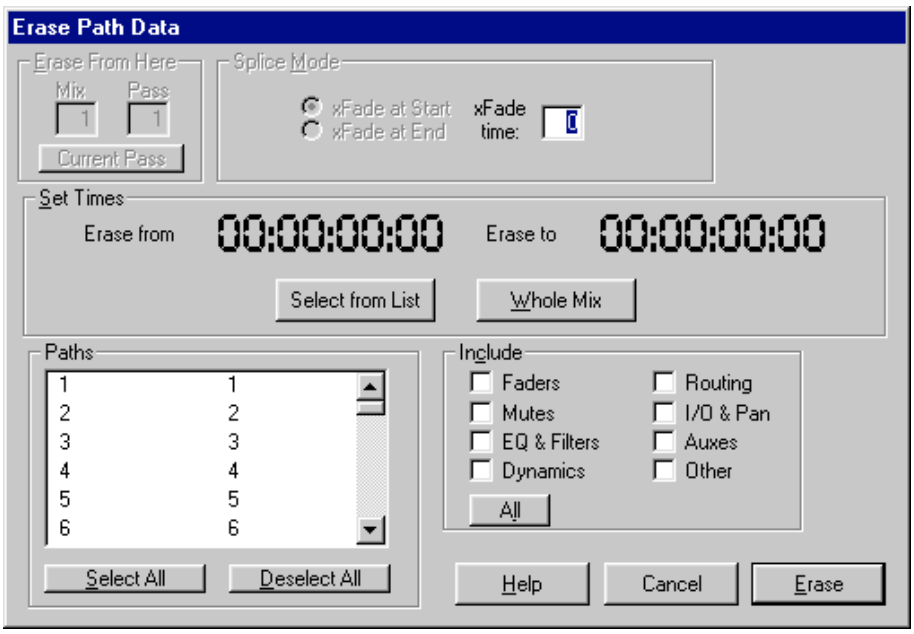
Path information can be erased over any period in timecode.

It does not alter the designated Mix/Pass, but it will create a new mix (displayed in the Mix/Pass area of the main screen).

To select the data to erase

Click on Erase Path Data in the Offline Editing Sub-Menu of the Automation Menu.

The Erase Path Data dialogue box will appear.



➤ Click the Faders, Mutes and Other check boxes to select which parts of the automation data to erase.

➤ Enter the xFade Start and End Times in the Splice Mode box.

Only one xFade time can be used at present. This will be used at both the beginning and the end of the timecode range.

➤ Enter the Erase From and Erase To times in the Set Times box either manually or clicking on Select from List and selecting the times in the Start and End Times dialogue box.

➤ Click the Whole Mix button to set the start to zero and the end to 23:59:59:24.

➤ Click the required paths in the Paths list (click the Select All button to choose all paths).

The selected paths will be highlighted.

➤ Click on Deselect All to deselect all paths.

To create the new mix pass

➤ Click the Erase button.

The Erase Path Data dialogue box will close and a dialogue box will appear confirming that a new Mix/Pass was created.

The new Mix/Pass is automatically selected as the Play Pass.

Merge Path Data

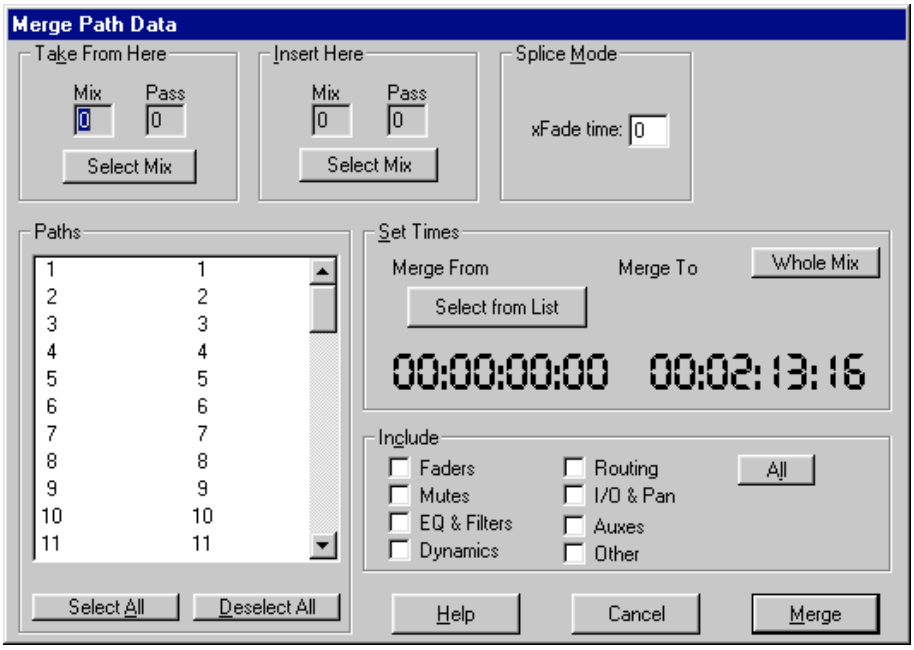
Used to replace automation data from one Mix/Pass in another Mix/Pass. Each Mix/Pass must be in the current Mix/Pass Tree.

A new Mix/Pass is created (displayed in the Mix/Pass area). The source and destination Mix/Passes are not affected.

To select the data to merge

➤ Click on Merge Path Data in the drop down Mix menu.

The Merge Path Data dialogue box will be displayed.



➤ Enter the required source Mix/Pass in the Take From Here box.

➤ Click the Current Pass button to use the current Play Pass.

➤ Enter the required destination Mix/Pass in the Insert Here box.

➤ Click the Current Pass button to merge into the current Play Pass.

The same Mix/Pass cannot be used for both the source and destination.

➤ Click the Faders, Mutes and Other check boxes in the Include box to select which controls to merge automation data for.

➤ Enter the xFade Time in the Splice Mode box for the crossfade period at the beginning and the end of the merged data.

➤ Click on the required paths in the paths list.

The selected paths will be highlighted in the list.

➤ Click the Select All button to highlight all paths.

To set the timecode range

➤ Enter the Merge From and Merge To times manually.

or

➤ Click the Select From List button to choose times from the Label List in the Start and Start and End Times Dial Box.

or

➤ Click the Whole Mix button to set the start to zero and the end to 23:59:59:24.

A timecode range must be specified.

To merge the data

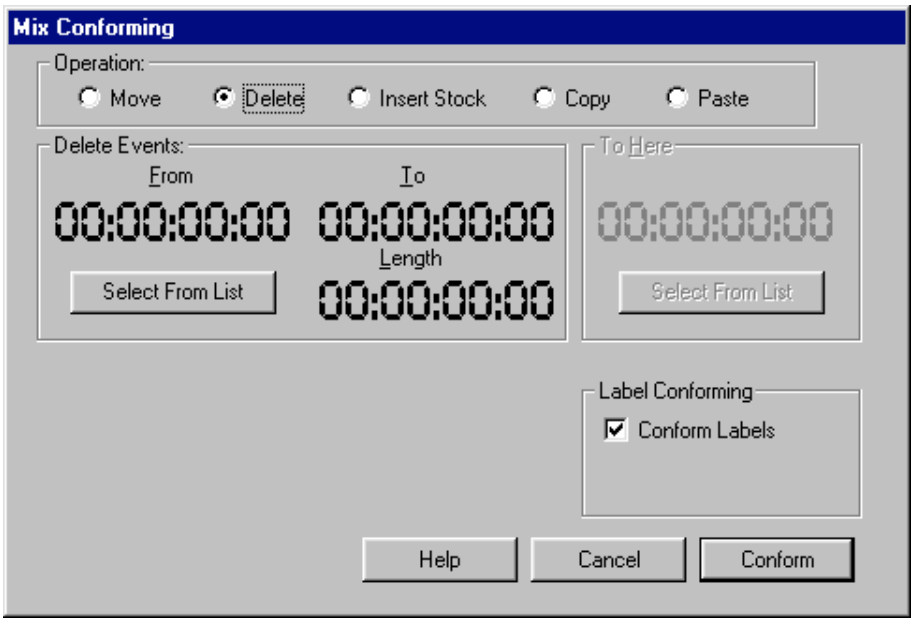
➤ Click the Merge button.

The Merge Path Data dialogue box will close and a dialogue box will be displayed to confirm that the new Mix/Pass was created.

The new Mix/Pass will be shown on the main screen as the current Play Pass.

Mix Conforming

Allows scenes to be inserted or deleted from the automation data, e.g. to conform to picture edits. The system will intelligently make the transitions in control positions across the edit points.



To select the Mix Conforming operation

➤ Click on Mix Conforming in the Offline Editing Sub-Menu of the Automation Menu.

or

➤ Press the F9 key on the dockable Encore keyboard.

The Mix Conforming dialogue box will displayed.

➤ Click on Move, Delete or Insert Stock in the operation box.

The options will change according to the operation selected.

Move

Used to move part of the current mix, creating a new conformed mix/pass. All automation events for the selected paths are moved.

Move first cuts the section out of the mix and then inserts it at the destination time (e.g. Scene 2 has been relocated to appear after Scene 3 and as the picture and sound for this edit are conformed the automation is conformed to match).

Delete

Deletes channel information from the current mix, creating a new conformed mix/pass. All information including fader moves, events and mutes is deleted.

The Delete operation changes the timecodes on events following the removed section so that the new mix has no gaps.

Insert Stock

Inserts a blank space into the current mix, creating a new, conformed mix/pass.

Used for example when a new scene is added to a film (during this space/time all faders, events and mutes have the same initial settings as the start of the inserted time).

To set the From and To times

➤ Click on each timecode and alter it manually.

or

➤ Click the Select From List button to set the times from the Start and End Times dialogue box.

The Length timecode will automatically show the amount of time that will be conformed.

➤ Change the Length timecode manually if required.

To set the To Here timecode for a Move operation

➤ Click on the timecode and alter it manually.

or

➤ Click the Select From List button to set the time from the Select A Label dialogue box.

To select the paths to conform

➤ Click on the required paths in the list.

The selected paths will be highlighted.

➤ Click the Select All button to highlight all paths.

To change the crossfade time

➤ Click in the xFade Time box and enter the required number of frames of crossfade.

This will be used at both the beginning and the end of the conform, or at the “join” for a delete operation.

To force the Label List to follow the conform operation

➤ Click the Conform Labels checkbox so that an X is displayed.

Note that when this is done, the previous Mix/Passes will no longer match the Label List.

To create the new conformed mix

➤ Click the Conform button.

The Mix Conforming dialogue box will be removed and a confirmation box will appear to indicate a new Mix/Pass has been created. The new Mix/Pass will be shown as the Play Pass on the main Encore screen.

✍ *The source Mix/Pass is not changed by Mix Conforming.*

Extract Path Data

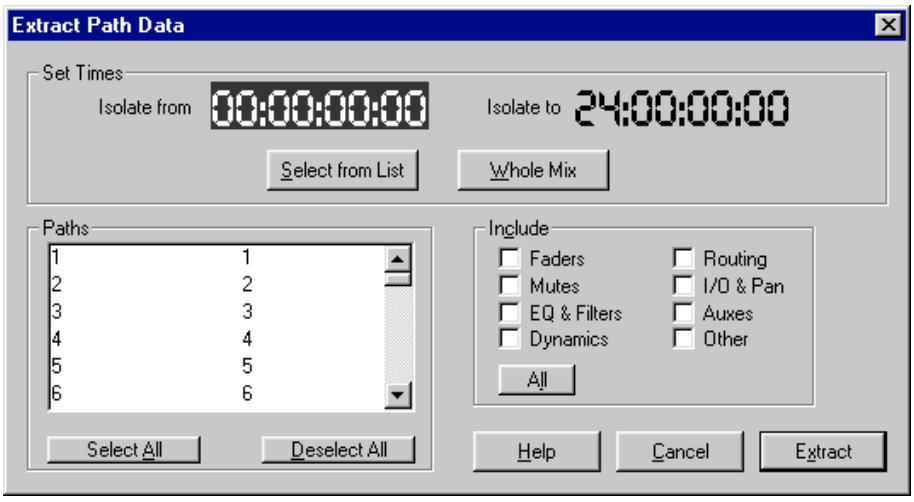
This is used to select part of the current Play Mix/Pass and create a new Mix/Pass.

This is useful, for instance, for extracting a scene (or a short sequence of scenes) to concentrate on that particular part of a Mix. The extracted section can then be merged to combine it with other completed work.

To extract Path Data

➤ Click on Extract Path Data in the Offline Editing Sub-Menu of the Automation Menu.

The Extract Path Data dialogue box will be displayed.



➤ Click the Faders, Mutes and Other check boxes to select which parts of the automation data to extract.

➤ Enter the Isolate From and Isolate To times in the Set Times box either manually or by clicking the Select from List button and selecting the times in the Start and End Times dialogue box.

➤ Click the Whole Mix button to set Isolate from to zero and Isolate to 23:59:59:24.

➤ Click the required paths in the Paths list (click the Select All button to choose all paths).

The selected paths will be highlighted.

➤ Click on Deselect All to deselect all paths.

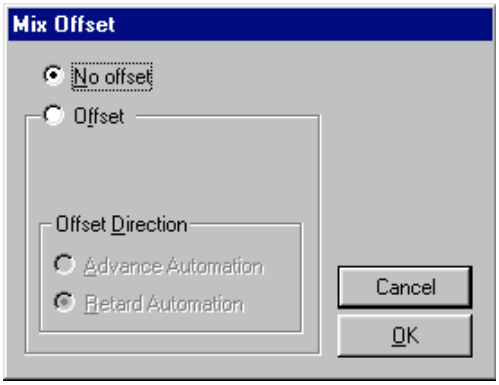
To create the new mix pass

➤ Click the Extract button.

The Extract Path Data dialogue box will close and a dialogue box will appear confirming that a new Mix/Pass was created. The new Mix/Pass is automatically selected as the Play Pass.

Set Offset

This is used to offset the automation system from the incoming timecode, which is useful if you want the mix to start at a 00.00.00 for example so that the timecode displays elapsed time into the mix.



To set a Mix Offset

➤ Click on Set Offset in the Automation Menu.

The Mix Offset dialogue box will be displayed.

➤ Change the timecode manually or use a preset (A to F).

➤ Click the Advance Automation or Retard Automation dialogue box as required.

Advance Automation will deduct the timecode value from the timecode displayed on the Encore screen (i.e. automation events will happen in advance of the actual incoming timecode value they were recorded at).

Retard Automation will add the timecode value to the timecode displayed on the Encore screen.

➤ Click OK.

The status bar on the Main Encore Screen will show the offset value.

Show Mix Statistics

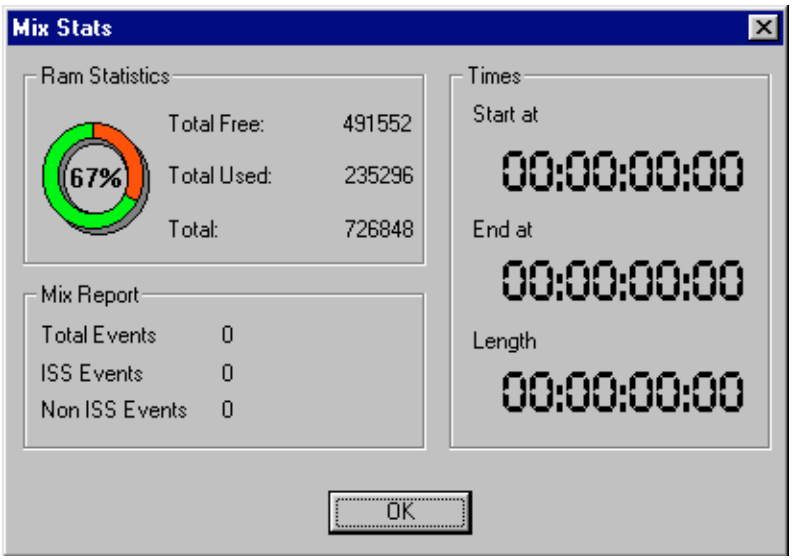
Allows users to view details of the current Mix/Pass. (e.g. points in timecode between which all fader moves have occurred, the faders on which there are fader moves, mute events, and channel button events.

Also displayed is the amount of memory used by the current Mix/Pass chain.

To show mix statistics

➤ Click on Show Mix Statistics in the Mixes Sub-Menu of the Automation Menu or click on the free RAM circle on the main screen.

The Mix Stats box will be displayed.



➤ Click on OK to close the dialogue box.

Show Mix/Pass Tree

To display the Mix/Pass Tree

➤ Click on Show Mix/Pass Tree in the drop-down Mix menu.

or

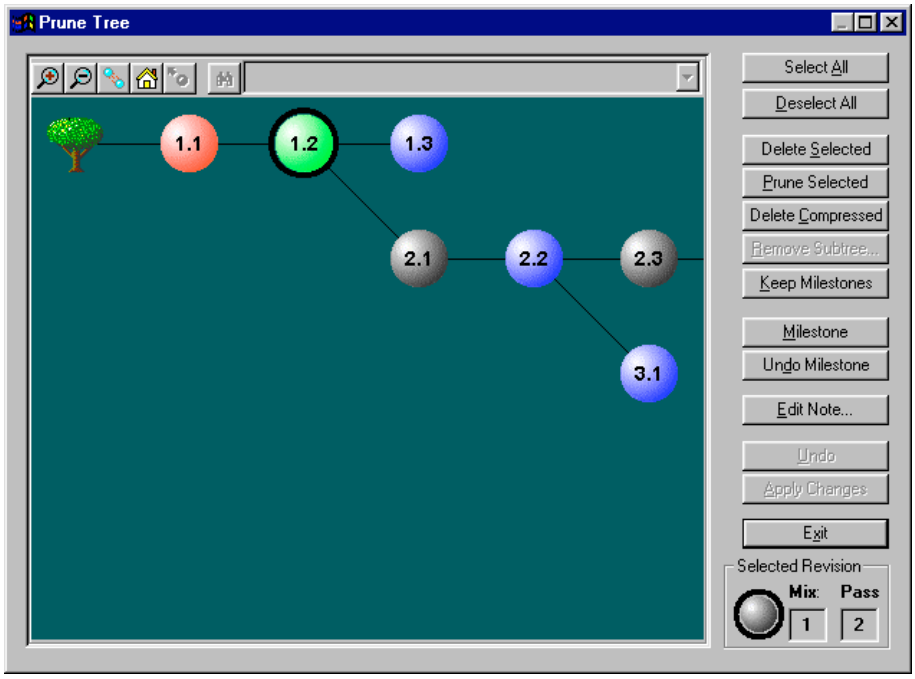
➤ Click on the Mix/Pass Tree icon.

or

➤ Click on the current Mix/Pass number on the Encore screen.

In all three cases, the Load Revision dialogue box will appear which displays the Mix/Pass Tree as shown earlier in the chapter.

If the automation system has been switched off then the Prune Tree dialogue box will be displayed instead (see Editing the Mix/Pass Tree).



If automation has not been switched on since Encore was started then nothing will happen.

The current Mix/Pass will be selected. This is shown in green with a black outline.

Milestone Mix/Passes are shown in red (Mix/Pass 1.1 is a permanent milestone and may not be 'un-milestoned').

Significant Mix/Passes are shown in blue. These are Mix/Passes at branch points and at the ends of branches.

Other Mix/Passes (i.e. in between stages) are shown in grey.

When a Mix/Pass is selected it will be given a black outline.

To select and load a Mix/Pass

➤ Click on the required Mix/Pass number.

The Mix/Pass will be given a black outline.

➤ Click the Load Revision button.

The selected Mix/Pass will become the current Play Pass and its number will be shown in the Play Pass boxes on the main screen.

The Load Revision dialogue box will close.

Navigating the Mix/Pass Tree

The Mix/Pass Tree display can be zoomed in and out, can jump to the top of the tree or the loaded revision and can be compressed. The display area can also be moved around to show different parts of the Mix/Pass Tree.

To zoom in and out

➤ Click the magnifying glass icons above the tree display. 

There are five zoom levels. The Mix/Pass numbers are not shown at the smallest size.

To compress the tree

➤ Click the Compress Tree icon. 

Continuous sequences of Mix/Passes (i.e. Mix/Passes coloured grey) will be replaced by dashed red lines to leave significant Mix/Passes on display.

To un-compress the tree

➤ Click the pressed in Compress icon.

To jump to the start of the tree

➤ Click the Goto Parent Tree icon. 

The display will jump to show the start of the tree in the top left hand corner.

To jump to the currently loaded revision

➤ Click the Goto Loaded Revision icon. 

The display will jump to show the loaded revision (Mix/Pass) in the top left hand corner.

To move the Mix/Pass tree around the display

➤ Click and hold the trackball button.

➤ Move the trackball pointer.

The display will follow the movement of the trackball pointer (even when the pointer is moved off the edge of the display).

➤ Release the trackball button when the desired part of the tree is shown.

Mix Notes

Notes in plain text can be applied to any Mix/Pass.

To add a note to a Mix/Pass

➤ Click on the required Mix/Pass number.

The Mix/Pass number will be given a black outline.

➤ Click in the Edit Notes button.

The Edit Notes dialogue box will be displayed.

➤ Type in the required text using the dockable keyboard.

➤ Click the Save button.

Milestones

A Mix/Pass can be marked as a 'milestone'. This is useful if a Mix/Pass in a long sequence is considered to be significant in some way (e.g. it marks a finished scene). Milestones are protected from editing operations when editing the Tree. Milestones are also shown when the tree display is compressed.

To mark a Mix/Pass as a Milestone

➤ Click on the required Mix/Pass number.

The Mix/Pass number will be given a black outline.

➤ Click the Milestone button.

The Mix/Pass will turn red, unless it is the currently loaded revision in which case it will stay green.

Mix/Pass 1.1 is a permanent Milestone.

To un-mark a Milestone

➤ Click on the required Mix/Pass number.

The Mix/Pass number will be given a black outline.

➤ Click the Undo Milestone button.

The Mix/Pass will turn from red to the colour it would normally be, unless it is the currently loaded revision in which case it will be green and stay green.

Editing the Mix/Pass Tree

When a Mix/Pass Tree becomes very large, due to multiple refinements during a session, it may be desirable to reduce the size of the Tree. This also reduces the amount of storage space used by the Tree on the Encore hard disk.

This is done using the Prune Tree dialogue box.

To display the Prune Tree dialogue box

➤ Click the Edit Tree button.

It is necessary to turn the automation system off to edit the Mix/Pass Tree so a confirmation dialogue box is displayed.

➤ Click the Yes button.

The Prune Tree dialogue box will be displayed. The Prune Tree dialogue box is also displayed if any of the display Mix/Pass Tree options is used when the automation system is off.

Delete Mix/Passes

To delete a selection of Mix/Passes

➤ Click on the required Mix/Pass number.

The Mix/Pass number will turn green and be given a black outline.

➤ Hold down the Shift key on the dockable keyboard and click on additional Mix/Passes as required.

✍ *When more than one Mix/Pass is selected the black outline disappears.*

The selected Mix/Passes will turn green.

➤ Click the Delete Selected button.

The selected Mix/Passes will be removed from the Tree. If any Milestones were selected then they will not be deleted.

If all but a few Mix/Passes are to be deleted:

➤ Click the Select All button.

All the Mix/Passes will be highlighted green.

➤ Hold down the Shift key on the dockable keyboard and click on the Mix/Passes to be kept.

➤ Click the Delete Selected button.

The selected Mix/Passes will be removed from the Tree. If any Milestones were selected then they will not be deleted.

To delete a Mix/Pass and all subsequent Mix/Passes

➤ Click on the required Mix/Pass number.

The Mix/Pass number will be given a black outline.

➤ Click the Prune Selected button.

The selected Mix/Pass and any dependant Mix/Passes that would be hidden when the Tree is compressed are deleted (i.e. grey coloured Mix/Passes). This can be thought of as 'pruning a branch'.

To delete all non-significant Mix/Passes

➤ Click the Delete Compressed button.

All the Mix/Passes that would be hidden when the Tree is compressed are deleted (i.e. grey coloured Mix/Passes).

To delete all Mix/Passes except the Milestones

➤ Click the Keep Milestones button.

All Mix/Passes except the Milestones are deleted.

Subtrees

Subtrees are added when a tree is inserted during a Load operation.

To remove a Subtree

➤ Click the subtree that is to be deleted.

The tree will turn bright green and the Remove Subtree button will become available.

➤ Click the Remove Subtree button.

A confirmation dialogue box will be displayed.

➤ Click Yes.

The subtree will be removed.

Undo

Undo is used to reverse the previous operation.

To undo operations

➤ Click the Undo button.

The most recent operation will be reversed.

The Undo button can be used to undo all changes. When there are no changes left to undo then the button is greyed-out (unavailable).

Save Edits

To save changes to the Mix/Pass Tree

➤ Click the Apply Changes button.

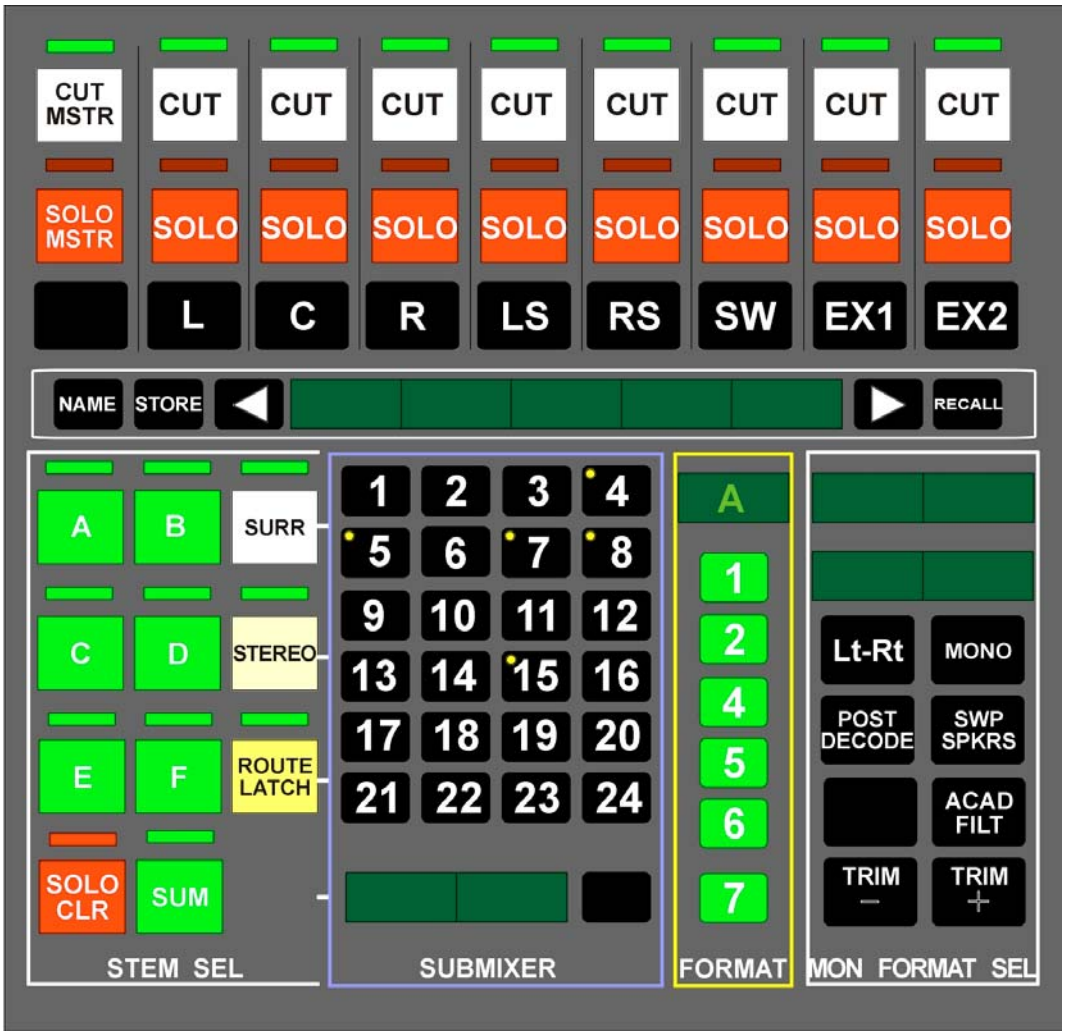
This action and any previous actions can not be undone.

Surround Sound

Libra Live offers various levels of surround sound sophistication to suit the varying needs of productions. As standard, the console supports surround sound panning across mono track and group outputs, suitable for basic surround output mixing and monitoring. Additional options include:

- 8-way volume control
- Surround monitoring and routing panel
- Dual joystick Panners

The minimum recommended options for regular live surround sound production are the 8-way volume control and the surround monitoring and routing panel.



Signal Flow and Surround Paths

Stems

The surround system uses groups of “track outputs” (also known as monitor paths) as surround outputs. These groups of tracks are called “stems”, a term borrowed from the film industry. For example a group of 6 track outputs could constitute a 5.1 stem. Different stems can be different formats (e.g. LCRS stems, 5.1 stems etc), or be put to different uses (e.g. different language or separate music and effects stems). On Libra Live, a stem output is the surround equivalent of a stereo main output.

Libra Live supports up to 6 stems (A-F). Any stem can be any format from mono to 8-wide. These stems are most easily handled with the optional Surround Monitoring panel, but can also be set up and used on a console without the surround panel.

Once a stem has been set up it can be treated like a single entity and the internal tracks forgotten about. For example, it is possible to route a channel to stem A in one action and then pan the channel around the surround field of stem A in the same way that a channel can be routed to main output 1 and then panned left or right.

Stems can also be routed to other stems within the console. This makes it possible to create a music and effects stem and mix it into one or more dialogue stems to create composite surround outputs in different languages.

Libra Live Series II has the capability of having 96 track busses. These busses can be used for any combination of multitrack sends, mix-minus outputs or stems. The user can decide how the busses are used.

Films

Another term inherited from the film industry: Film paths provide a monitoring system for surround outputs. They are the surround equivalent of the stereo “SEL”s used to provide standard stereo monitoring. The Films format will match the monitoring system of the control room, e.g. 5.1, but this does not restrict the format of the stems.

Films are only supported on Libra Live consoles fitted with the surround monitoring panel.

Film Listens

Film listens are the surround equivalent of the stereo listen busses used to provide AFL and PFL facilities on the standard stereo monitoring system. Only AFL is available in surround. PFL remains a stereo bus.

Panning

Libra Live’s panning is destination sensitive. If a channel is routed to a mono output, a stereo output and a 5.1 surround stem, the pan control will (simultaneously) not affect the mono output, will pan L-R with a phantom centre on the stereo output and pan LCR (with a hard centre) on the surround output.

The individual track outputs within a stem are defined as to whether they are front left, rear right etc when the console is configured using Desk Editor. This is how the pan controls or the joysticks “know” which signal to send to which output.

The Pan controls on the AFU work in parallel with the optional joysticks that are described at the end of the chapter

Configuring Stems

Stems are configured within Libra Live's "Desk Editor" console configuration program.

To create track outputs to use as stem outputs

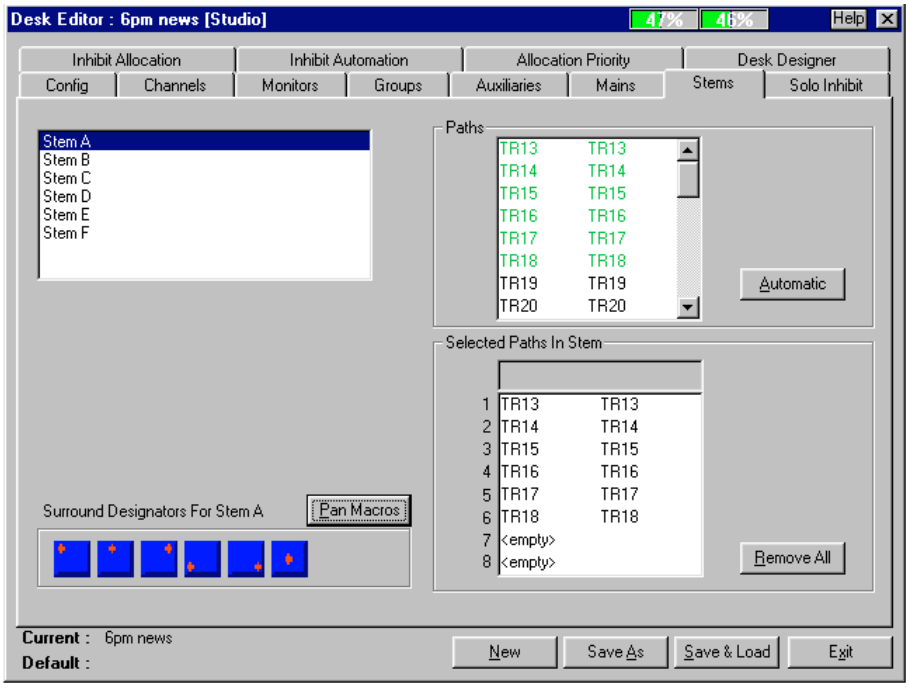
➤ Launch Desk Editor and select the CONFIG tab.

Add up the total number of mix-minus outputs, multitrack outputs and surround sound outputs (eg one 5.1 stem will require 6 tracks) and enter this number in the MONITOR box.

The number of mix-minus outputs specified (V2.7 in the User Preferences page of Encore) will be allocated from the monitor paths first, the remaining monitors will be available as stem and multitrack outputs.

To create stems from tracks

➤ Select the Stems tab in Desk Editor.



➤ Select a stem to configure from the list A-F.

➤ Select a group of tracks from the top right Paths list box to use for the stem. Do this by left clicking the first track in the group and then hold down the SHIFT key on the Encore keyboard while left-clicking the last track in the group. Click and drag the tracks to the "Selected Paths in Stem" box.

Up to 8 tracks can be assigned to any stem - the number of tracks will depend on the format of the stem, which need not be the same as the format of the monitoring system Films.

✍ *The Paths list on the Stems page does not include the monitor paths designated as mix-minus outputs.*

The Automatic button can be used to assign all the tracks to stems using the designated Films format as the format for all the stems.

✍ *Automatic does not work correctly if mix-minus outputs have been configured.*

To set the format of each stem

➤ Click on the PAN MACROs button and select the stem format from the list.

Below the PAN MACROS button a graphical display will show the result and stem format. The blue squares with a red dot give a graphic indication of which speaker each track feeds. This is used by the panning system to determine the appropriate panning law when channels are routed to the stem.

In the configuration shown in the preceding picture, Stem A is made up of tracks 13-18 (tracks 1-12 are being used for mix-minus) and the stem has been formatted for 5.1.

✍ *In addition to using the stem macro to select common surround formats, stems can be individually designed for any format in the Monitors page of Desk Editor.*

Stem Porting and Metering

It is not essential to route the track outputs to physical ports unless metering of the individual stems on the upstand or routing screen meters is required. Porting can be achieved through Encore's I/O Patch Editor, or by assigning the monitor paths to faders and using the AFU. These actions are described in the Encore, I/O Patch Editor and Libra Live Console Surface, AFU sections of this manual.

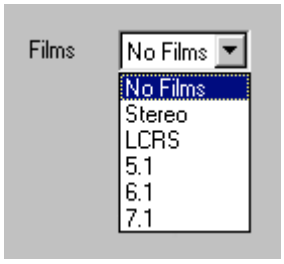
Surround Monitoring and Routing Panel

This optional panel provides facilities for quickly routing and monitoring the surround sound stems and for controlling an external Dolby DP570 audio tool.

Unlike the post-production versions of this panel, Libra Live allows direct routing of channels to stem outputs. The stem switches on the panel are used both as routing switches and as monitor selectors.

Switches with tri-colour LEDs in the surround panel follow the standard Libra Live convention - i.e. that a green LED indicates a function is available and a red LED indicates that it is active.

Configuring the Surround Panel



The Surround panel is enabled by configuring Film paths in the Desk Editor application of Encore. Selecting "No Films" disables the surround panel. Choose the format that matches the speaker configuration of the room, which may not be the format you wish to mix in.

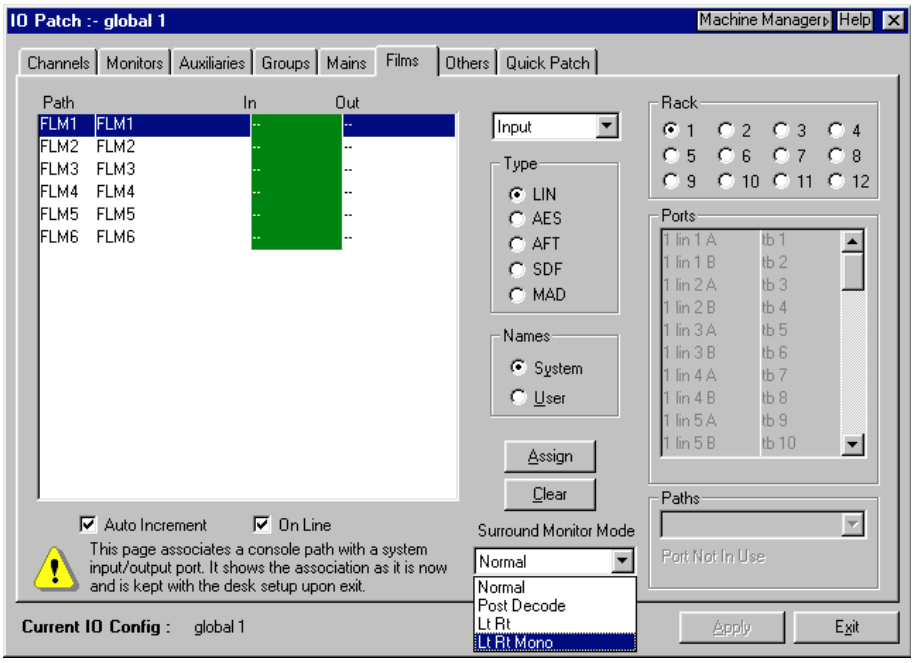
Configuring Films automatically configures Film listens for surround sound AFL and monitoring inserts at the same time.

Refer to the description of Desk Editor in the Encore section of this manual for full details on how to use Desk Editor.

The film outputs are ported to physical connections (e.g. D to A converters) using the I/O Patch Editor (I/O Manager) application within Encore. (Refer to the description of I/O Patch Editor in Encore for full details of this application).

Film Porting

To port the Film outputs, select the Films page within I/O Patch Editor.



FLM 1 corresponds to the switch engraved L, the Front Left output

FLM 2 corresponds to the Front Centre output

FLM 3 corresponds to the Front Right output

FLM 4 corresponds to the Left Surround output

FLM 5 corresponds to the Right Surround output

FLM 6 corresponds to the LFE or mono surround output

FLM 7 corresponds to the Left “Extra” output

FLM 8 corresponds to the Right “Extra” output

FLM 1 & 3 must be a stereo pair, e.g. 2LIN1A and 2LIN1B for compatibility with stereo monitoring

To allow the a common pair of front left and right speakers to be used for both stereo and surround, it is also necessary to select the “Others” page of I/O Patch Editor and port SEL 1 to a pair of “dummy” ports, e.g. a pair of unused MADI outputs. This is because switching between between Surround and Stereo monitoring modes swaps the ports assigned to SEL 1 and FILMs 1 and 3.

✍ *Ensure that the STEREO button on the surround panel is on when porting the stereo SEL.*

To port the Surround monitor inserts,

➤ Select the Films page within I/O Patch Editor.

At the bottom of the page select Post Decode from the Surround Monitor Mode selector.

➤ Select ‘Insert 1out’ from the port type selection box at the top of the page.

✍ *Some versions of software require that the insert outputs are set before the insert inputs.*

➤ Set the insert send ports for the monitoring insert, then set the insert returns.

This sets the send and return insert ports for an external encode/decode processor. Next, set the insert return ports for the LtRt output of the encode/decode:

➤ At the bottom of the page select LtRt Mono from the Surround Monitor Mode selector.

➤ Select 'Insert 2in' from the port type selection box at the top of the page.

➤ Select the stereo port for the LtRt input and assign this to FLM2.

To port the Film Listen outputs

➤ Select the Others page within I/O Patch Editor.

The Film Listens (FLS1 - FLS6) are the AFL busses corresponding to the monitor busses FLM1 - FLM6. As with stereo listen busses, they can be assigned to dummy outputs to allow metering. They are automatically switched through the Films monitoring system when the monitoring is in Surround mode and an AFL button is pressed on the console.

Monitoring Stems

Libra Live can be switched between Stereo and Surround operation using the buttons on the Surround panel. The selection is indicated on the lower alphanumeric display. The left and right outputs of the console go to the same speakers in both stereo and surround modes.

✍ *If the Stereo/Surround switching does not work, check the porting for SEL1 and the films.*

The surround mode allows the operator to monitor any stem or combination of stems by holding down the surround button and selecting the stem(s) required.

To monitor stem A

➤ Press and hold the SURR switch while pressing the stem A switch.

To change which stem is monitored

➤ Hold down the SURR switch and select an alternative stem.

The selection is confirmed in the alphanumeric display. The stem switches A-F are used both as routing switches and as monitoring selectors. When there are no switches being pressed on the control surface, the illuminated switch shows the monitored stem.

✍ *When using the 8-way volume box it is not normally possible to use the Small LS1 output. To use the small LS1 output it is necessary to configure a separate set of DACs*

Surround Routing

Surround routing within Libra Live uses the same principles as stereo routing, with both forward and reverse routing being possible.

To forward route a channel to a stem:

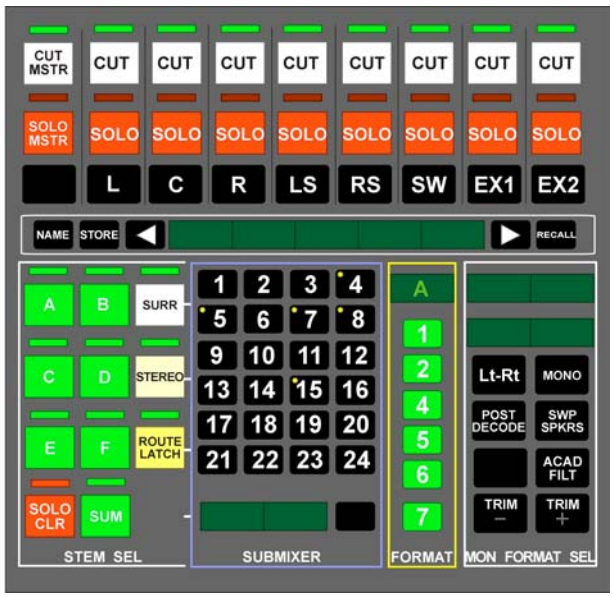
➤ Hold down the source ACCESS switch and select the surround stem (A-F) on the surround panel.

This action routes the source to all the tracks in the stem. The stem switch illuminates solidly, indicating that it is now the active routing stem. If the channel is also routed to other stems, the stem switch indicators will flash.

To reverse route channels to a stem:

➤ Hold down the stem switch and select the sources' ACCESS switches.

All the sources selected are routed to all the tracks in the stem.



To forward route a channel to individual tracks of a stem:

➤ Select the stem.

➤ Hold down the ACCESS switch of the channel and press the speaker select buttons above the alphanumeric.

This will route or de-route the channel to the speaker outputs within the selected stem (whose stem switch is illuminated solidly) only).

The process may also be done in reverse, i.e. hold down the speaker select switch and press the ACCESS switches of the desired sources.

Route Lock

To make routing on large consoles easier, a ROUTE LOCK button allows you to select a source or a destination and make it behave as if it were being held down.

To route channel 48 to stems A&B

➤ Press the access button on channel 48, press ROUTE LOCK and then press A and B on the surround panel.

This may also be done in reverse.

To route a number of channels to the Left and Right outputs of stem B

➤ Press the stem B switch, then press the L and R speaker select switches so that these illuminate red. Press other speaker select switches if necessary to de-select them (illuminated green, or off). Turn on the ROUTE LATCH switch. Select sources to be routed to stem B left and right outputs by pressing the sources' ACCESS switches.

✍ *Libra Live has complete flexibility with it's I/O routing. This means that although the switches on the panel are set out in the order FL, C, FR, SL, SR, LFE, LE and RE, the outputs and any inserts can be in fact be in any order that suits the external equipment.*

Cut and Solo

To monitor individual speakers or cut individual speakers within the stem selection

➤ Use the SOLO and CUT switches at the top of the panel.

To program the CUT MSTR and SOLO MSTR switches

➤ Hold the MSTR switch while pressing individual cut or solo switches.

Pressing the CUT MSTR or SOLO MSTR switches on their own will cut or solo the programmed group.

Monitor Inserts

To configure the monitor inserts

➤ Use the I/O Patch Editor application in Encore as described in the Configuring the Surround Panel section of this chapter.

The Post Decode switch is used to monitor the output of either a Dolby (R) DS4 matrix encoder or a Dolby (R) DP570 Digital Multichannel Audio Tool.

The LtRt switch is used to monitor the encoded LtRt signal from a Dolby matrix encoder.

The Mono switch is used to check mono compatibility, typically of the LtRt signal.

All three of the above switches may be independently selected with MONO taking precedence and LtRt over-riding the Post-decode selection.

The FORMAT switches may be used to control a DP570 that is in the monitor insert. The numbered switches control the DP570 folddown:

1 signifies mono

2 signifies stereo

4 signifies LCRS

5 signifies 5.1

6 & 7 are user configurable

The Format switches are configured using the GPI function as described in the I/O Config section of the Encore part of this manual.

Calibrated monitoring levels

The CAL switch is next to the volume control in the stereo motoring section of the console. A hidden-till-lit indicator shows the level as it is cycled through -3, -6 and User.

The trim switches are used to trim the overall level of the monitoring output when the monitoring has been set to CAL.

External surround sound inputs

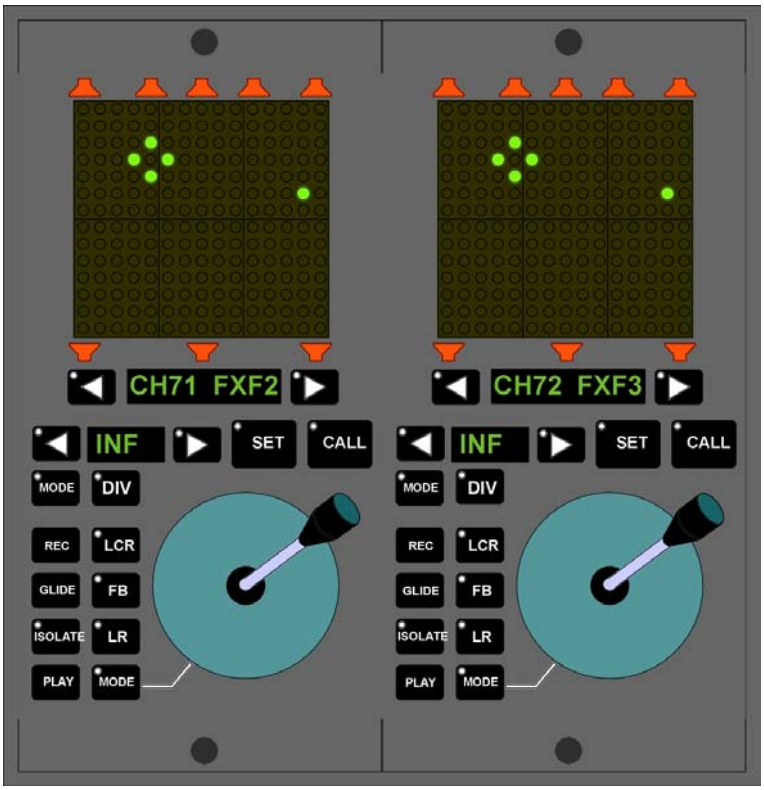
Stems have the ability to switch their inputs between “bus”, i.e. console output and “tape”, i.e. an external input. Any of the 6 stems can be switched to tape allowing them to be used as direct inputs to the surround monitoring without going to any other surround output, e.g. for “in context” monitoring.

To configure a stem as an external surround sound input

- ➤ Assign input ports to the appropriate track inputs using the Monitors page of the I/O Patch Editor utility in Encore.
- ➤ Bring the monitor paths to faders on the control surface.
- ➤ Switch the track inputs for the stem input to TAPE, locking the switches in this position if necessary.

Joystick Module

The optional twin Joystick module is used to pan up to two signals across surround destinations.



Channels and Track Monitors can be assigned to a joystick. The regular panning control on the fader strips is locked out while a path is being controlled by the joysticks, but if the AFU is assigned to a path on which panning is controlled by a joystick then the Pan Logicators will display changes as the joystick is moved.

The joystick provides full automation for recording panning information. This makes it possible to pan as many paths as required with repeated passes.

PanPos Display

The LED matrix above each joystick is called the PanPos display.

The position of the joystick is indicated by a single dot. The notional panned position of the signal (i.e. where the signal seems to be when listening to it) is indicated by an open diamond of four dots.

When the joystick is in control of the panning, the dot and diamond join together to form a cross.

Using the Joystick Module

To select the path to be controlled by a joystick

➤ Press the nudge keys on either side of the alpha display below the PanPos and speaker display.

The alpha will cycle through the available paths and shows both the system and user names.

The speaker symbols will illuminate to show the speakers the path is routed to.

If a nudge key is held down then the paths names will scroll rapidly.

or

➤ Press and hold the SET key.

➤ Press the ACCESS key for the required path.

➤ Release the SET key.

In both cases, the alpha will flash the selected system path name and user path name.

To control the panning with a joystick

➤ Press the CALL key.

The integral LED will illuminate red.

The diamond on the PanPos display will jump to the dot to form a cross.

The path name will stop flashing.

➤ Move the joystick as required.

To prevent the sound jumping when the CALL key is pressed

➤ First move the spot to the diamond.

To freeze a panning axis or divergence

➤ Press the DIV, LCR, FB and LR keys as required.

The integral LED will cease to be illuminated.

If LCR, FB or LR is frozen then the diamond will separate from the dot as it moves according to the remaining panning axes.

If a control is un-frozen then the diamond will jump to the dot.

To adjust divergence

➤ Press the nudge keys on either side of the divergence alpha display.

Joystick Automation

The Joystick Module has two MODE keys.

The upper MODE causes the REC, GLIDE, ISOLATE and PLAY keys to show and set the automation mode of the Divergence controls.

The lower MODE key, with a line leading to the joystick, causes the REC, GLIDE, ISOLATE and PLAY keys to show and set the automation mode of the three panning axes as a group.

The path to be assigned to a joystick is selected with the nudge keys or by using the SET key in conjunction with the fader strip ACCESS keys. The path can then be called to the Joystick by the CALL key. The Joystick Automation Controls will override the automation controls on the AFU

fader strip, allowing separate automation modes to be set for the panners, divergence and the rest of the AFU.

This allows the full functionality of the panning controls to be controlled and automated from one location.

For instance, a Channel is assigned to the AFU and a joystick. The automation controls on the AFU fader strip are set to Lock Record. This will not affect the panners or divergence as they are now out of the scope of control from the AFU automation controls.

The selection of automation modes is identical to that for a channel strip.

Note that there is no TRIM key because trim is for faders only.

Automation is recorded against the panning controls for the path called to a Joystick, and the Joystick module is treated as an extension of the channel strip for Scope.

For full details of automation modes and using automation, see the Automation chapter.

Maintenance

This section of the manual covers functions and features of the console that are not normally required in daily operation. This consists of:

- An overview of the Flash RAM system (Libra Live Series II and later)
- An overview of the User Administration system and how it is used by Encore
- A description of the Ghost utility for backing up the Encore Hard Drive
- A brief description of the Encore utilities that are not part of the operational suite.

Flash RAM System

✍ *The Flash RAM system applies to LIBRA LIVE SERIES II consoles fitted with the SUN820A200 SPS Control Card only.*

The Flash RAM system adds the following benefits to the system:

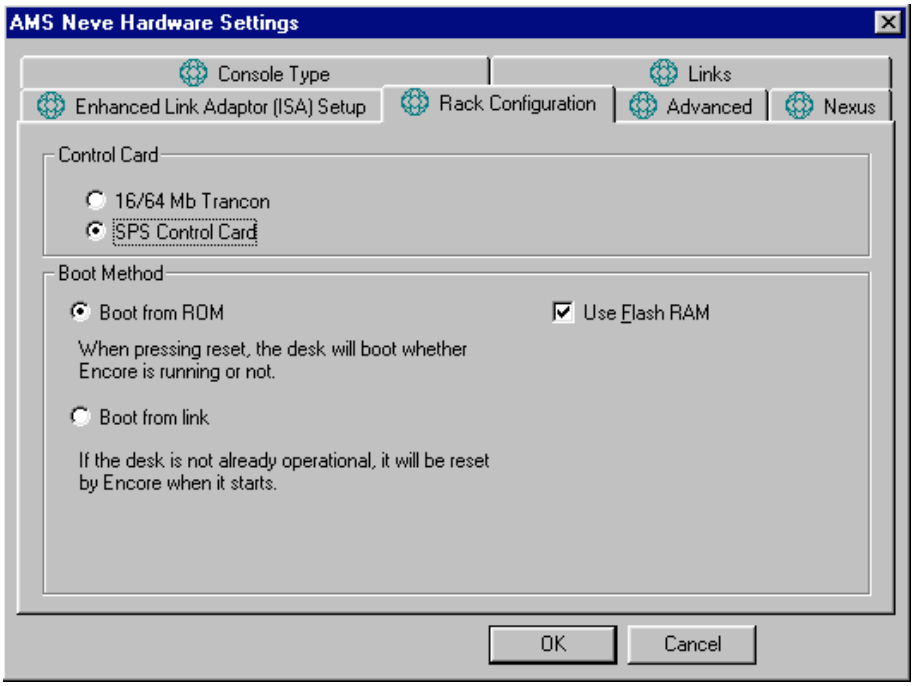
➤ It stores the current state of the console, so that in the event of a power loss the system is restored to the same state when power is re-applied.

➤ It allows the console to be fully booted from Solid State Memory without recourse to a hard disk prone to mechanical failure.

➤ Booting from Solid State Memory is also faster than booting from Hard Disk.

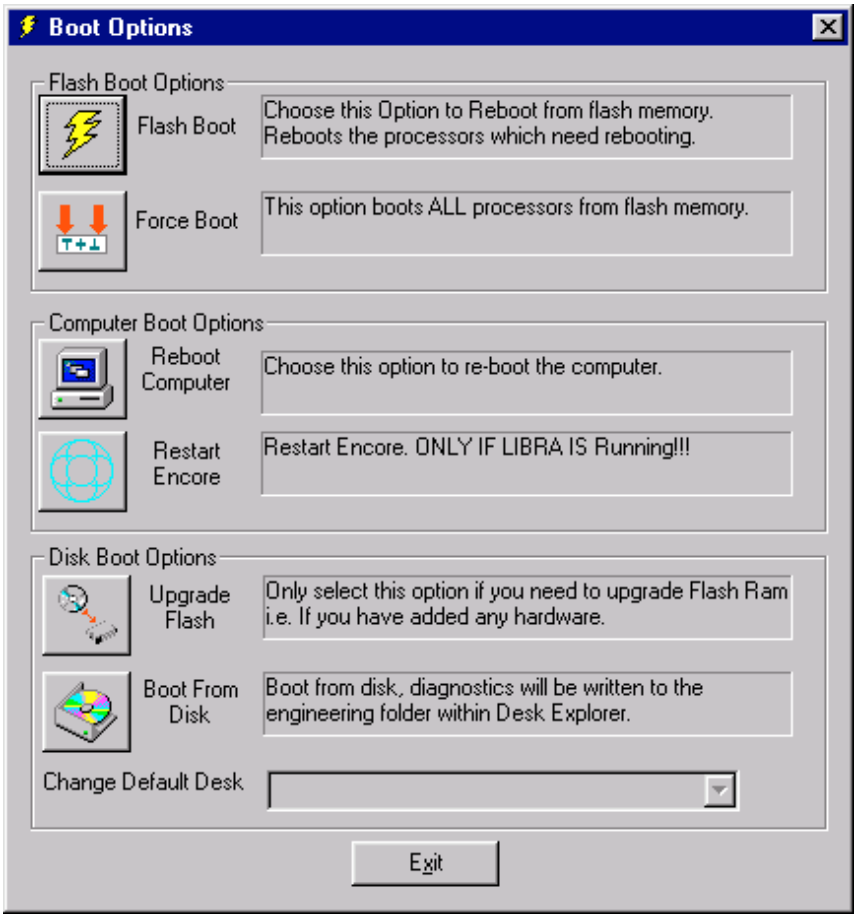
➤ It allows system sub-sections such as the Encore computer, I/O racks and even the control surface to be independently powered up/down without affecting the audio. (This is particularly useful in systems where there are remote I/O systems that liable to be disconnected/reconnected).

The Flash RAM system is enabled using the AMS Neve Hardware settings in the Windows NT Control Panel in the Rack Configuration page.



Re-Boot Options for Flash RAM

The Reboot options for Libra Live Series II are accessed via the T1-LOC icon on the Encore Desktop, or via other Windows Menu systems according to the way the software has been set up on the Encore PC.



Flash Boot

'Flash Boot' is used to boot only the parts of the Libra Live system that need resetting, as opposed to forcing a complete re-boot. Flash Boot boots from Flash RAM and is the normal method for re-booting the console.

The console will also normally boot from Flash RAM on power up, unless boot from ROM has been selected in the Rack Configuration page of AMS Hardware Settings (this can be found in Windows NT control panel).

There are also two reset switches on the front panel of the 200 card in the SPS rack:

HRST - Hard Reset - when pressed will reset the TranSCSI and Fileserver and Reboot ALL the processors from the Flash Memory.

SRST - Soft Reset - when pressed will reset the TranSCSI and Fileserver and reboot ONLY the required processors from the Flash Memory.

(In addition there is an ANYL switch (Analyse) - used for diagnostics by authorised service personnel only.)

The level and speed of a flash boot depends on how much of the console needs to be booted. During a flash boot, the system checks which of these sub-systems is down and only restarts the sub-systems that are down with the exception of the Assignments and Automation which are always restarted. This is to minimise the impact on audio throughput.

Flash Boot always restores preferences, I/O Config (including SRC and GPI settings). It does not write a diagnostics report as is seen with the Forced Boot and Boot from Disk options.

Assignments and Automation

Assignments is the interface between the Control Surface and Allocation, and keeps track of which processes are currently assigned to which controls. For instance, when the function of the Assignable Logicators is changed by the operator, Assignments executes this.

Automation is the console automation engine, and is closely dependent on Assignments. For instance, when a fader move is played back by Automation, then Assignments will execute the instructions to the Console Surface to move the control, and indicate to Allocation that a control value has changed.

The Control Surface will be frozen until Assignments has rebooted and restored the connection between the Control Surface and Allocation. The control positions will be restored from the last point at which Assignments was working.

Control Surface

The Control Surface can be restarted without losing audio. Assignments will also be restarted if the Control Surface is restarted.

The control positions will be restored from the last point at which the Control Surface was working.

Allocation and I/O

Allocation keeps track of which processes are assigned to which paths (e.g. the number of EQs on Channel 3), and has overall control of signal processing.

I/O controls the Input and Output resources of the console.

If the Allocation and I/O are restarted then the whole system is rebooted. Audio will be lost for between 30 and 90 seconds.

Force Boot

When this icon is clicked, there will be a full restart of all sub-systems as described in the previous section. Preferences, I/O Config, SRC and GPI are NOT loaded giving the operator the option to select alternative configurations. Extra diagnostics are written to the engineering folders.

Reboot Computer

This will restart the Encore PC. This will not affect the audio processor and will only interrupt control of the desk for a few seconds while Encore re-synchronises with the control surface.

Restart Encore

Encore is automatically closed when the Service Manager is being used. Restarting Encore will launch the Encore suite, this will not affect the audio processor and will only interrupt control of the desk for a few seconds while Encore re-synchronises with the control surface.

Upgrade Flash

The console will boot from hard disk. As part of the boot process, the console software will be copied to FLASH RAM and the configurations will be copied to SRAM.

This should only be used when upgrading the software or when additional hardware not previously "seen" by the system is added to the console. The system will boot slowly because of the extra time to copy the software and configurations.

When the console has completed a Flash Upgrade, it is necessary to do a Flash Boot to re-initialise the system.

Boot From Disk

The console will boot from hard disk.

This is the equivalent to the original, pre Flash RAM system boot and is used if the Flash RAM is suspected of being faulty.

After a boot from disk it will be necessary to upgrade the Flash RAM, followed by a flash boot to ensure that files in the Flash RAM are consistent with those loaded on the console.

User Administration

Introduction

Libra Live uses Microsoft Windows NT as an operating platform for the Encore software. This provides a stable working environment with a range of user supportive features such as security and the logging of diagnostic information.

This is a 'secure operating system' and allows individual users to be setup before using the system to prevent unauthorised access to other user's files, system-wide parameters and settings. This involves giving the user a Username, a Password and membership of a Group.

The Modem

A modem is provided so that technical staff at AMS Neve can perform remote diagnostic activities by accessing logging data recorded by Encore and Microsoft Windows NT.

Please ensure that an external telephone line is provided for connection to the modem.

The procedures described are for Windows NT version 4. The Windows NT 4 User Manager can be found in Start -> Programs -> Administrative Tools (Common).

Administration Terminology

This section explains some basic terminology used in secure operating systems. It is intended for users who have no prior experience of such systems.

Users

Users are the actual operators who use the system. It is possible for a single user to log in with different Usernames, and conversely it is possible to have a single Username which is used by several users.

The User name is used by Encore to filter files belonging to each user in lists such as the list of desk setups. It is also used to restore the User preferences for individual operators.

Logging In and Logging Out

'Logging in' is the procedure whereby access to the system is granted by entering a correct combination of Username and Password. The term login is generally used to describe the action of logging in.

Logging out (or logoff) causes the system to terminate the current session of Microsoft Windows NT usage, and the system will not allow any further activity to take place other than shutting down the system completely or logging in again with a valid Username and Password.

Username and Password

The Username is a means of identifying a particular operator to the Microsoft Windows NT system. Each Username has a Password associated with it and the correct Password for a particular Username must be provided by the operator to gain access to the system.

Groups

A Group is a means of identifying what class of operator a user belongs to (e.g. Engineer, Technician, etc.). Within Microsoft Windows NT, each Group has various Rights which allow or restrict the functions which may be performed by members of that Group.

Two User Groups are supplied as part of the Libra Live installation. Additional Groups can be added as required.

Rights

Rights are the restrictions and permissions which are assigned to a Group of users on a Microsoft Windows NT system. They apply on a general system-wide basis, as opposed to Permissions which apply to individual directories and files in the system.

Each Username inherits the rights which apply to the Groups that the Username belongs to (a Username can belong to more than one Group). A common practice is to set up a base Group which has Rights which apply to all users (by default this Group is called Everyone) and then additional Rights are applied to special Groups which are defined by the system administrator.

Permissions

Permissions specify the access that particular Groups or Usernames have to files and directories. This allows Groups or Usernames to be given access to, or locked out of, parts of the system which are applicable to the work they need to perform.

User Groups

Two Groups are defined automatically when Microsoft Windows NT is installed. Permissions for these Groups have also been set, and can be changed via File Manager (see Microsoft Windows NT documentation or File Manager Help for more details).

The Groups are Everyone and Power Users:

Everyone

Basic system Rights for all users. All users belong to this Group. This is a special default group which is part of Microsoft

Windows NT. It does not appear in the User Manager. The Everyone Group cannot be deleted and users cannot be removed from this Group.

Power Users

The Administrator user is assigned to this Group. The Power User Group allows Administrator to perform user administration, primarily for adding and deleting User Names and changing Permissions on files and directories.

Some additional group names that would be useful are:

Engineers

In-house engineers would be assigned to this Group.

Visiting Engineer

Other engineers who need to use the system would be assigned to this Group. Members of this Group can only access their own files.

Technician

In-house technicians would be assigned to this Group.

User Administration

This section explains the steps required to set up and manage Usernames. The special Username ‘Administrator’ is supplied with Rights to manage user information.

The steps covered in this section are:

- Logging in with the special Username of Administrator.
- How to run the User Manager program.
- How to add a new user which will be recognised by the system.
- How to delete an existing user.

Encore requires persons using the system to be set up with Usernames. This is because Encore stores information against the Username.

Logging in as user Administrator

This can be done when starting up the system, or by first logging out of the system.

➤ In the Welcome dialogue box, enter the Username as Administrator.

➤ Ignore the From entry.

➤ Enter the Password for Administrator.

The password for Administrator is included in the delivery pack for Libra Live.

The password for Administrator must be kept in a secure place to prevent unauthorised access to your system at this level.

➤ Click on OK.

Microsoft Windows NT will now launch its own desktop and the Program Manager will be displayed.

Running User Manager

➤ From Program Manager, double click on the Administrative Tools group icon.

➤ Double click the User Manager icon.

The User Manager window will appear.

To Add a New Group

➤ Click on User to display the User drop down menu.

➤ Click on New Local Group.

The New Local Group dialogue box will be displayed with the cursor will be in the Group Name box.

➤ Type a name for the new Group.

➤ Press the TAB key.

The cursor will jump to the Group Description box.

➤ Enter some text that describes the intended type of users that will belong to the group.

The Members box shows the currently selected member of the group (this will depend on the user name that was highlighted when New Local Group was started).

To add existing Users to the Group

➤ Click the Add button.

The Add Users and Groups dialogue box will be displayed.

➤ Click on a required user name in the Names list.

➤ Click the Add button.

The name will be shown in the Add Names list.

➤ Continue to select the required users.

➤ Click OK.

The selected user names will be displayed in the Members list in the New Local Group dialogue box.

To save the new Group

➤ Click OK.

The Group will be listed in the Groups list in the bottom half of the User Manager screen.

To Add a New User

➤ Click on User to display the User drop down menu.

➤ Click on New User.

The New User dialogue box will appear.

➤ Enter the Username for the user to log in with.

➤ Enter the user's full name.

If required, enter a description to remind you of who the user is, what company he belongs to, etc. (useful for Visiting Engineers).

➤ Enter a Password.

This must be entered twice, the second time in the Confirm Password box. This is because a * is displayed for each character of the Password to hide it, so entering it a second time will ensure it is correct. If any mistakes are made, delete both password entries and start again.

➤ If required, click the User Cannot Change Password check box.

It is advised that the other check boxes are left unchecked.

To assign a user to a Group

➤ Click the Groups button.

The Group Memberships dialogue box will appear.

➤ In the Member of: box, click on the default 'Users' Group.

➤ Click on Remove.

The group name Users will be moved to the Not member of: box.

➤ In the Not member of: box, select one of either House Engineers, Technician or Visiting Engineer.

The House Engineers, Technician and Visiting Engineer Groups have been provided for use with Encore. Please ignore the other Groups, as they form part of Microsoft Windows NT and are not relevant to Encore.

➤ Click on Add.

The selected group will be transferred from the Not member of: box to the Member of: box.

➤ Click on OK to return the New User dialogue box.

➤ Click on OK to confirm creation of the new user and return to the main User Manager window.

To Delete a User

➤ Click on the required user in the list of Users in the top half of the User Manager window.

➤ Click User in the menu bar to display the User drop down menu.

➤ Click on Delete.

The User Manager will display a warning message about deleting the user.

➤ Click on OK to confirm deletion, or Cancel to abort.

✍ *If it is necessary to change information on a particular user, click the required Username in User Manager and then click Properties in the User drop down menu. This will display the same screen as for a new user, but with all the information already filled in. This is especially useful for changing the Password associated with a particular Username if it has been forgotten.*

Ghost

This Section describes how to recover software and custom configurations.

WARNING
The installation of the Ghost Recovery Software will overwrite all data on the hard drive therefore any Events Lists (AudioFile SC, Media ToolBox) or Automation Data (DFC, Libra) that was saved on the hard drive will be lost.

It will take approximately 5 mins (using the Ghost Disk supplied) to install the software and configure the system as it was when it left the factory.

Before Starting

You will need the following items to complete this procedure:

➤ Floppy Disk SFT,ENC,009, Disk 1 - Windows Boot Disk.

➤ Ghost Recovery Zip Disk.

Recovery Procedure

The procedure for recovering software and configurations is as follows:

➤ Insert the floppy disk labelled SFT, ENC, 009 Windows Boot Disk into the floppy disk drive.

➤ Insert the Ghost Recovery Zip Disk (supplied with the system) into the Zip drive.

Restart the computer.

➤ Select Shutdown from the Start Menu, Select Shutdown & Restart, then click OK.

or

➤ Press Ctrl-Alt-Del, Select Shutdown & Restart, then click OK.

The System will boot up from the floppy disk. You will be asked to confirm the type of Zip drive fitted. On all systems the Zip drive is IDE.

➤ Press I [Enter] to confirm.

You will be asked to confirm or cancel the Lock command.

➤ Press N [Enter] to cancel the Lock command.

The Lock command will have no effect at present, because either the hard disk is new (and therefore blank) or the hard disk is still formatted with NTFS (the Lock command works with DOS FAT16 partitions).

The A: prompt will appear.

➤ At the A: prompt type ghost [Enter].

The Norton Ghost initial screen appears.

➤ Click on the OK box.

In the drop down menu

➤ Go to Local, move across to Disk and click on From Image.

Select Drive C: Backup.GHO from the drop down menu drive listing.

➤ Click Open.

The files on the disk will now copy onto the Boot drive.

➤ Remove the disks and reboot.

Recovery procedure is now complete and the system is ready for use again.

Maintenance Procedure

This procedure is recommended if any software updates or any custom configurations have been put on the system in order to maintain your ghost copy. The procedure for copying software and custom configurations is as follows:

➤ Insert the floppy disk labelled SFT,ENC,009 Windows Boot Disk into the floppy disk drive.

➤ Insert the blank formatted Zip Disk into the Zip drive.

➤ Restart the computer.

➤ Select Shutdown from the Start Menu, select Shutdown & Restart, then click OK. Otherwise, press Ctrl-Alt-Del.

The System will boot up from the floppy disk.

You will be asked to confirm the type of Zip drive fitted. On systems the Zip drive is IDE.

➤ Press I [Enter] to confirm.

You will be asked to confirm or cancel the Lock command.

➤ Press N [Enter] to cancel the Lock command.

The Lock command will have no effect at present, because either the hard disk is new (and therefore blank) or the hard disk is still formatted with NTFS (the Lock command works with DOS FAT16 partitions).

The A: prompt will appear.

➤ At the A: prompt type ghost [Enter].

The Norton Ghost initial screen appears.

➤ Click on the OK box.

In the drop down menu

➤ Go to Local, move across to Disk and click on To Image.

A box will appear.

➤ Make sure that Drive 1 is highlighted.

➤ Click OK.

➤ Select Drive C: (Zip Drive 100) from the drop down box.

➤ Type in the filename Backup.GHO.

➤ Click Save or press [Enter].

You will be asked if you want to Compress Image File.

➤ Select High.

You will be prompted to Proceed with Image File.

➤ Click Yes.

The Process Indicator screen will appear.

If the Boot hard disk contains additional data added by the user, more than one Zip disk may be needed to complete the procedure.

You will be prompted to insert another disk if required.

➤ Click Yes followed by OK.

This will now continue until complete.

Desk Explorer

Desk Explorer is normally a diagnostics tool for experienced Service Engineers. It should be used with caution, with guidance from an AMS Neve Service Engineer.

Desk Explorer allows you to interrogate the Libra hard drive and make changes to software, system files and desk settings without opening Encore. It uses Windows conventions such as opening multiple screens, pulldown menus, drag 'n' drop etc.

An example use of Desk Explorer is if the default Mix Setup is suspected of having been corrupted, preventing the desk from booting (and thereby preventing Encore opening successfully), Explorer can be used to change the default Mix Setup.

Desk Explorer can also be used to examine the diagnostics logs generated when the console boots from disk. Information is written to an Engineering directory (for example how many panels on the console have been detected; how many of each card type is seen in the I/O racks; which racks have been detected). These reports can be viewed, saved to disc and emailed back to AMS Neve if needed.

Launching Desk Explorer

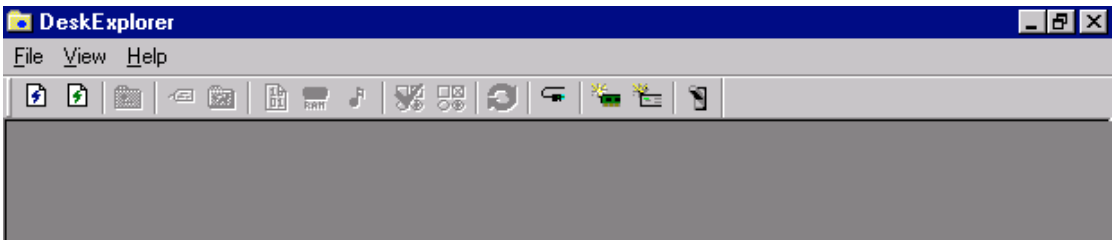
Desk Explorer can be launched from the Desktop Icon, or from the Windows Start Menu (Programs\AMS Neve\System\Desk Explorer).

Once connected, the screen is divided into three parts. The left hand side shows the upper level of the drive hierarchy. The right hand side shows which files/folders and contained in this level. The bottom half of the screen shows the data contained in this file. The divisor lines are scaleable.

✍ *Desk Explorer has limited functionality in offline versions of Encore!*

✍ *Many functions within Desk Explorer are for R & D purposes only.*

When Desk Explorer is first opened, most of the functions on the taskbar are greyed out until you connect to the drive. The only options available are Connect and Reset and the ability to update the fileserver.



Dropdown Menus

File Menu

Connect / Safe Connect: checks that the filer is responding before trying to connect.

Connect / Quick Connect: tries to connect without checking to see if the filer is responding first.

Connect / Connect with Filer: used when booting from link.

Connect / Connect to WNC file: opens a .WNC file so it can be seen like a console hard disk.

Connect / Connect to WNB file: Opens a .WNB file.

Connect / Connect to Remote Computer: allows connection to a remote computer using Windows Remote Access protocol.

Reset / Safe Reset: resets and opens the reboot screen.

Reset / Quick Reset: Sends a reset down the link.

Exit: Exits Desk Explorer.

View Menu

Toolbar:

The toolbar contains many of the functions also accessible from the menus. Briefly hold the mouse over an icon to show it's function.

Status Bar: shows the status bar at the bottom of the screen.

Help Menu

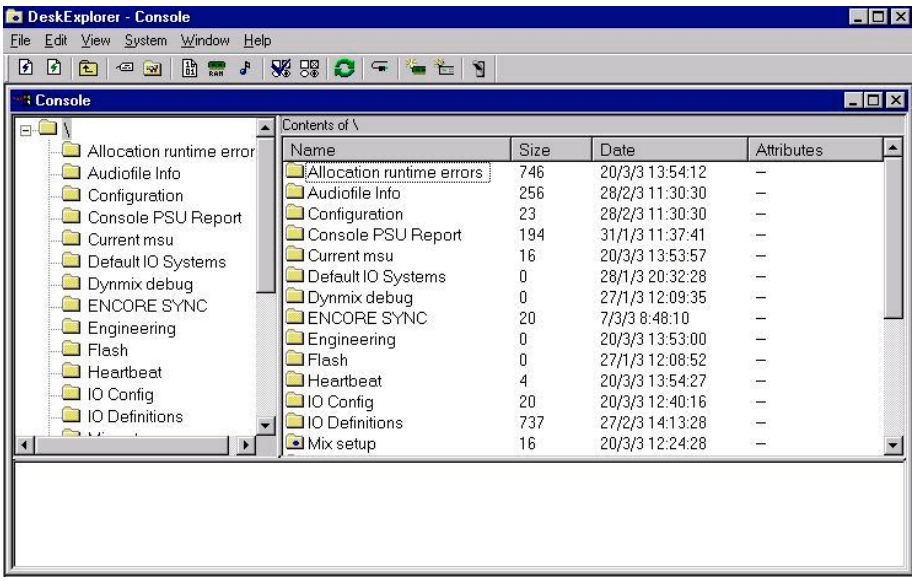
About Desk Explorer: displays the current version of Desk Explorer.

Connecting To the Libra Drive

The method of connecting to the drive depends on which operation the user is trying to perform.

If the desk is responding, then the usual method of connecting is Ctrl/C.

Once the user has connected to the drive, more menu functions and icons become available, and the screen will display current folders.



The left side of the screen displays folders, while clicking on that folder will show that folders files in the right hand side.

By clicking on subsequent folders, you are able to explore down the drive hierarchy in a similar way to Windows Explorer.

It is possible to connect more than once and open other screens, enabling the user to drag 'n' drop files between the two windows.

Connecting With A Filer

If the desk is not alive or fails to boot and you need to access the Libra drive, you will need to connect with a Filer. This is a temporary file that allows you access to view the disc.

➤ Select the Connect With Filer option from the File/Connect menu or hit Ctrl/F on the keyboard.

The Console Detection screen will open.

➤ Click NEXT.

(If the desk is responding, a message will appear informing you of this, and asking if you wish to load a filer.

➤ Click Yes, No (recommended) or Cancel. Clicking No will connect to the drive).

The Boot Settings dialog box will appear with the Boot From ROM box ticked by default.

➤ Change this to Boot From Link.

➤ Set the hardware to also boot from link.

On a 200 Card system, this is done by flipping the small Rom/Link switch to down.

On a Trancon system this is done by flipping dip-switch 4 to down (SW4 is nearest the front of the card).

The Rack Type dialog will open.

➤ Click the option for the type of system (the SPS option is checked by default).

➤ Click Next.

The Filer dialog will open with the correct filer for that system.

For 200 card systems - C:/Logic/Source/FileServerUpdate/new/updates.btl

For Trancon systems - C:/Logic/Source/FileServerUpdate/old/updates.btl

There is a Browse button available if you need to change the file.

➤ Click Next.

The Filer will load and the desk will connect to the drive.

✍ *Once you are connected you will need to set the ROM/Link switch back to ROM before attempting any further reboots.*

Diagnosing Hardware Problems

Once connected to the console, Desk Explorer will display a list of folders on the left hand side. The most useful folder in terms of diagnosing hardware problems is the Engineering folder.

As the system boots, information on the boot progress is written to the various sub-folders within this folder, which can be viewed as either hex or ASCII text. Similar messages are shown on the Boot Progress screen as the system runs through its boot cycle.

The messages and information displayed will change depending on the type of system control card used (200 or Trancon) and the hardware present (remote IOS, Fader Start boxes etc).

To view the information contained within a folder

➤ Click on the folder itself, then click on ‘data’ in the right hand window.

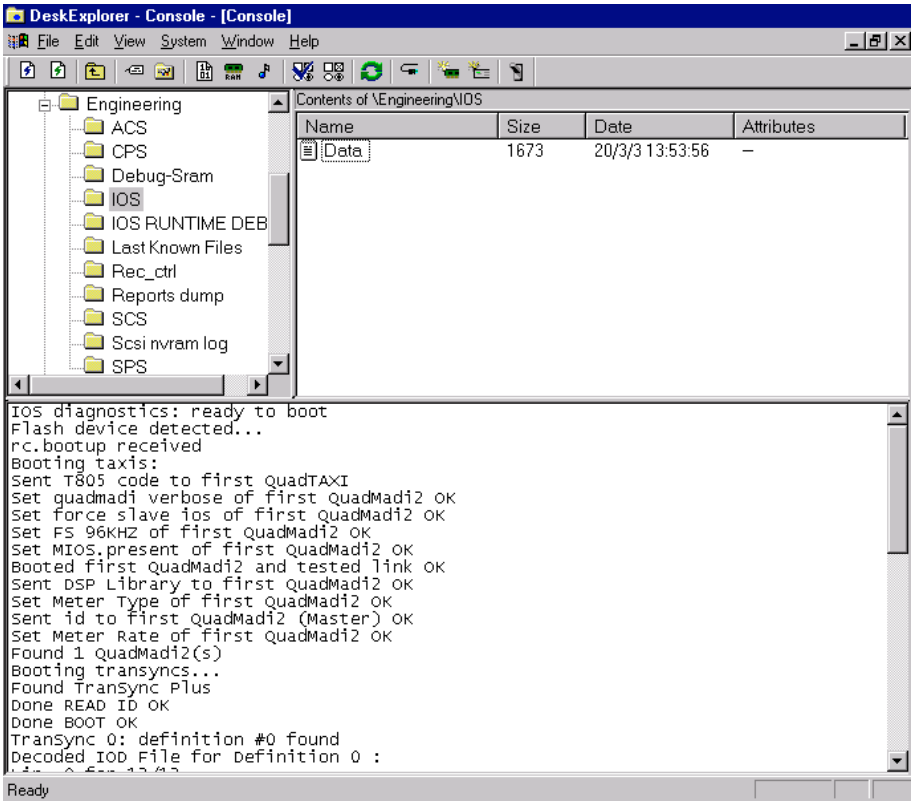
To save this data to disc

➤ Right click on the text in the bottom part of the screen.

The Save dialog will open.

➤ Select the location of the file to be saved to, and give the file a name.

The information will be saved in .txt format.



✍ *The interpretation of the reports requires detailed knowledge of the system engineering, typically only available from the factory.*

Engineering Folders

(each of these folds can have one or more sub-directories).

ACS: shows the progress of the Automation engine on bootup.

CPS: Reports on how many panels are found in the system at bootup and the progress of the code being sent to them (this includes fader panels, meter panels, AFUs, joysticks etc).

Debug-SRAM: Reports the state of the Flash hardware (Libra Live sites only).

Flash-SCS: Automation debug, R&D only.

IOS: Reports on the state of the I/O hardware, for example how many cards of each type are found, the number of Quad MADI cards etc. Also reports on the presence of TranSyncs fader start boxes and the progress of initialising other I/O cards.

The IOS fold is shown above.

IOS Runtime Debug: Reports on the Remote IOS racks, their card count and any MADI errors that may have occurred during bootup.

MCS Report: Reports on which machines (if any) are plugged into the rack via the RS 422 ports.

Rec_Ctrl: Reports on the state of the Recorder Interface box (if present).

Reports Dump: The general boot progress including how many ESP / SSP / XSP cards have been found.

SCS: The overall progress of the desk boot including sending the mix setup, downloading code to the MCS card, sending user prefs and establishing communication between Encore and the desk.

SCSI NVRam Log: R & D only.

SPS: The current state of the DSP engine. In here, it is possible to view where each path lives on each processing card (including any dynamics) and on which 96k processor that each path lives on. In this way, if there is a problem with the system not handling audio correctly (be it one path or several), then each 96k processor can be eliminated. Each processing card contains 5 x 96k Path processors and 1 x Mix processor regardless of whether the card is SSP / ESP / XSP. The SPS fold contains information on inserts, dynamics processing, timeslots and dynamic linking.

Menu Functions

Once Desk Explorer is connected to the console, these additional items become available in the File Menu:

File Menu

New Folder: allows the user to create a new folder.

Reset / safe Reset: sends a reset down the link to reboot the console. The default Mix Setup will be loaded.

Attributes: allows the user to see the selected attributes for each folder (date, size etc).

Upload: allows the user to upload data and files into the selected folders / directories.

Download: allows the user to copy data from the Libra drive to a specified location.

Import Logic Software: R&D only.

Edit Menu

Cut, Copy & Paste (Ctrl/X, C & V): allows the user to cut, copy and paste folders.

Find: allows the user to search for specific text or files.

View Menu

Large Icons: will show the contents of directories and folders as large icons.

Small Icons: will show the contents of directories and folders as small icons.

List: will show contents of directories and folders as list entries.

Details: will show all attributes for directories and folders (e.g. date, size etc).

Notes: allows the user to view any notes that have been added.

Refresh (f5): refreshes the folders on screen.

Refresh Data (f7): refreshes the data on screen.

Status Bar: if ticked, then the Status Bar will be shown at the bottom of the screen.

System Menu

Control Panel: allows the user to change the current software version, the currently loaded mix setup and the default mix setup. It also shows the amount of free space on the Libra drive.

NVRam Log: R & D only.

Sample Rate: allows the sample rate to be changed (44.1 / 48 / 44.045 / 47.952 kHz). If you attempt to sync to a source other than Internal and that source is not detected, then the system will default to Internal. When you change the sample rate and click OK, you are given 2 options: Send Reload Tag (which resends the current Mix Setup back to the console with the new sample rate) and Reset Console (which reboots the console and reloads the default Mix Setup with the new sample rate).

Prefs: There are two options: Automated Prefs (where the user is allowed to set which pref is sent first as well as a timed interval from between 1 and 10 seconds) and Single Pref (where the user can send individual prefs and alter their value before sending).

Test Links: tests whether the Automation and File Server Links are still responding.

For each press of the button, if the File Server Link is responding correctly you will see the following text:

sent “xlff_ok”

FSS protocol 4

Start of Xlff 4 fast OK

Xlff complete

For each press of the button, if the Automation Link is responding correctly you will see the following text:

sent “Check booted”

FSS protocol 16

Start of Check booted response

➤ Check booted response complete

If either of these links fail, you will get the message:

Sent “check booted”

Link Timed Out

Clicking on the Clear List Box button removes all the previous test information from the window.

Update Flash: updates the Flash RAM chips on the 200 card with the system software (Live sites with 200 cards only)

Update Fileserver: if required, this allows the fileserver to be changed when swapping between different versions of Libra code.

Swap Mix Bus: swaps the mix bus to either C or D. R & D only.

Registration: equivalent to accessing the CFGEdit program. Informs the system of how the hardware is configured.

Windows Menu

Cascade: allows the user to cascade all the open windows.

Tile: allows the user to tile all the open windows.

Arrange icons: arranges the icons by snapping them to the grid.

Close: closes the current window.

Show tree: as the user explores the drive, the directory structure is shown on the left hand side of the screen.

Font: allows the user to set the font for folders and directories.