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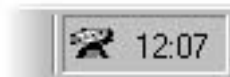


The Live Bar

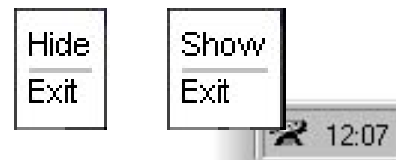
The Live Bar

This chapter describes the Live Bar—the “Command Central” of your system. Many of the Live Bar’s functions are also available in other windows and dialogs. These and other dialogs associated with the Live Bar commands are described in the next chapter, as are several configuration options.

When your computer has started a small SCOPE Fusion Platform icon (**SFP**) appears in the Windows tray (lower right, next to the clock) or in the top right in the Finder (Mac version).



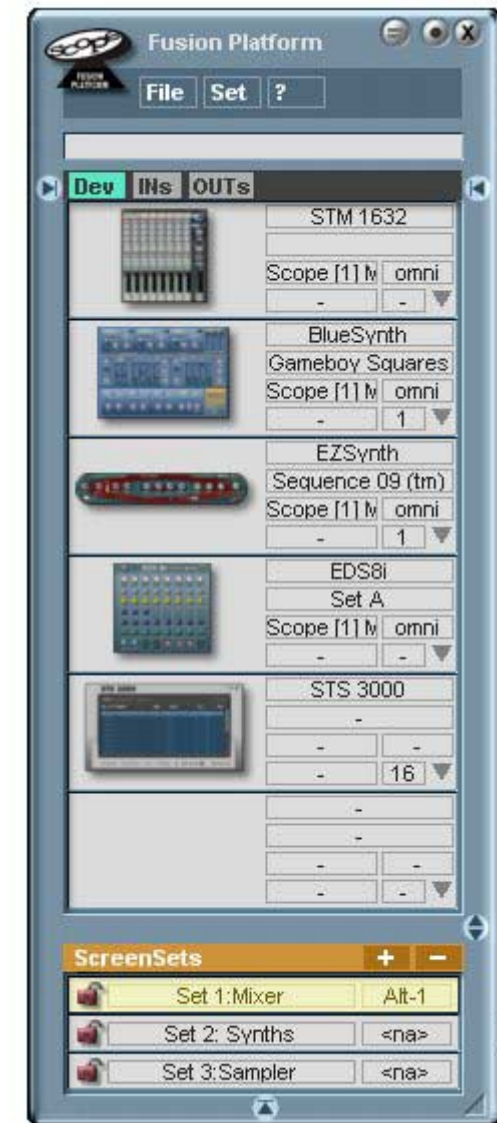
Right-click (<Ctrl> + click, Mac) on this icon to open a menu containing the Show command. Select Show to open the Live Bar and, if this is the first time, also the Routing window which lets you view the SFP software.



Open the Live Bar by selecting the **Show** command from the SFP icon’s menu.

From the Live Bar you can control most of the important functions, options and settings in your project including loading devices (synths, mixers, samplers and so on) and specifying their most important settings (for example, the number of voices and the MIDI channel). You can also open all other configuration dialogs and device surfaces from the Live Bar.


The Live Bar, because it is very compact, gives you access to the Scope Fusion Platform while letting you maintain an optimal view of your sequencer or other MIDI/audio program.



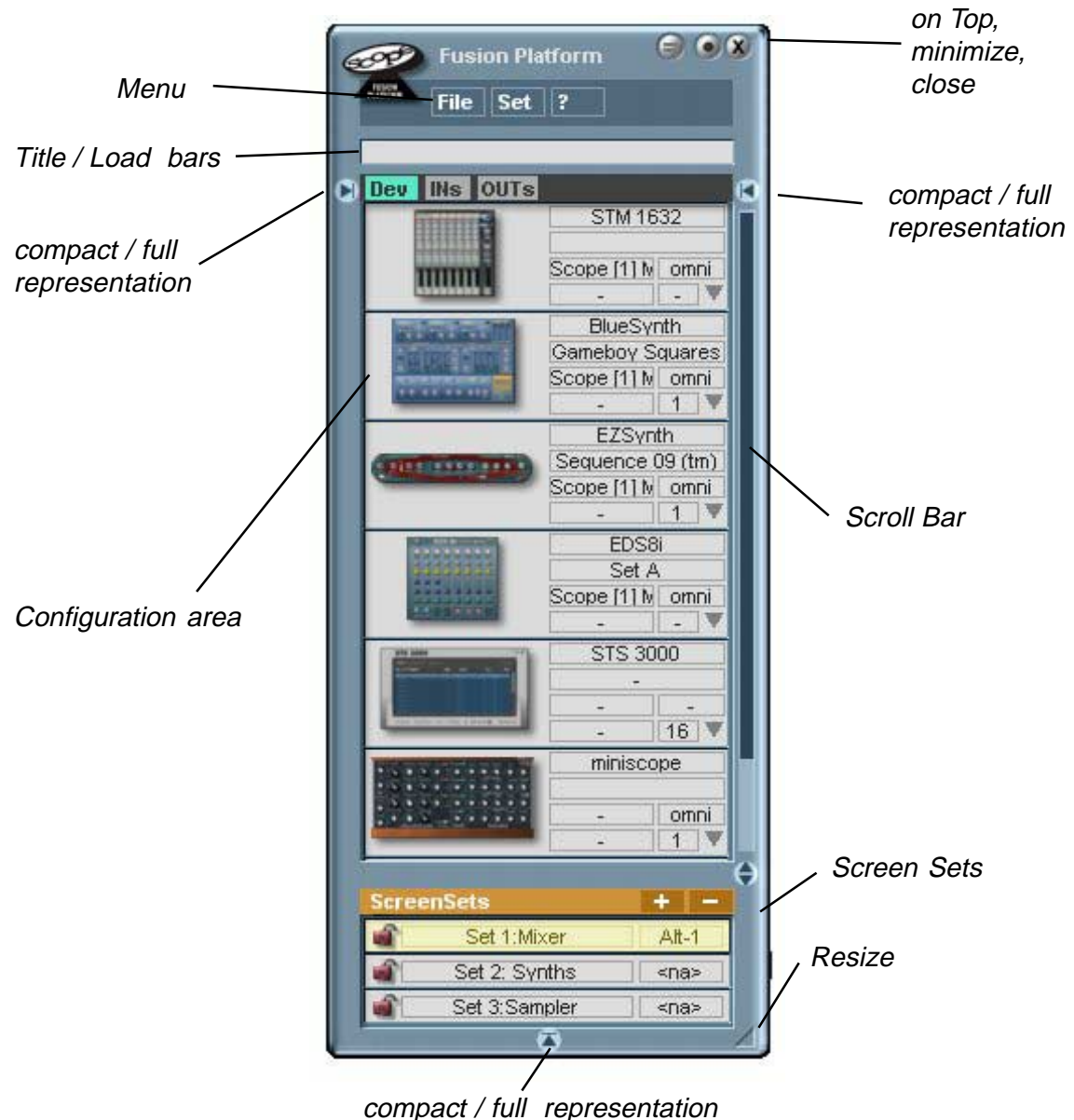
Structure of the Live Bar

After first presenting an overview of the various components of the Live Bar we will proceed with more detailed descriptions.

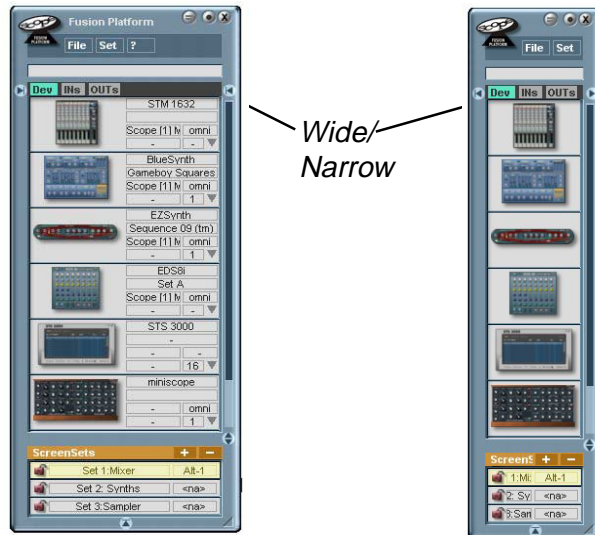
To change the height of the Live Bar, drag the lower edge with the mouse.

You can also adjust the width of the Live Bar using the small arrow symbol  on the right or left. This switches between a compact view that still allows easy access to your Scope Fusion Platform devices while maximizing the view of your sequencer environment, and a full view in which the device info lines are also visible.

The menus in the upper border of the Live Bar contain file management and configuration options for the SFP software. The buttons in the upper right corner control the Live Bar window functions "On Top", minimize, and close (see below).



The title bar shows the current project name, and also serves as a progress bar during loading procedures.



Minimized vertically



You can save screen space by reducing the size of the Live Bar.

The heart of the Live Bar is the configuration area for device and I/O (input and output) modules. Here you can control the most important parameters for a device or module directly, or open their control surfaces. You can switch between device (dev), Ins and OUTs views. By "devices" we mean software devices such as synths and samplers.

Note that the terms INs and OUTs refer to the signal flow from the point of view of the SFP software. Therefore, the MIDI output of your sequencer (which sends MIDI data *to* the SFP synthesizers, for example) is considered in this sense to be an input (INs).

At the bottom of the Live Bar is the Screen Set area. Here you can store various window arrangements as a convenience to make your work more efficient.

The Live Bar Menus

The **File**, **Set** and **?** menus are located in the upper border of the Live Bar.



File

The File menu contains all the file management functions. A Scope Fusion Platform file is called a **Project** file. A project file contains all the information pertaining to:

- which devices and modules are loaded, and their settings
- how the devices and modules are connected to each other
- screensets (user-definable selective views) global software settings (sample rate, word clock, etc.)



New: Closes the current Project and loads the default Project.

Open: Closes the current Project and loads the specified Project.

Save: Saves the current Project to disk.

Save as...: Saves the current Project to disk under the specified name.

Recent: Brings up a list of the most recently worked-on Projects which you can open directly from the list on the right.

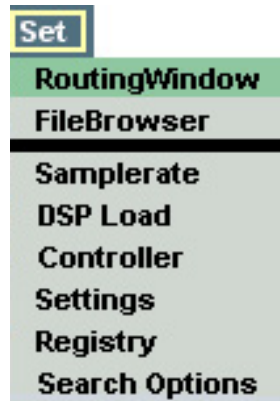
Startup: Loads the Startup Project and minimizes the application.

Exit: Terminates the current SFP session.

Set

The Set (settings) menu contains commands to open configuration dialogs or windows to adjust global settings and other options.

The dialogs and windows themselves are described in the following chapter, *Configuration Dialogs and Operating Techniques*.



Routing Window: Opens or closes the Routing Window.

FileBrowser: Opens or closes the File Browser.

Samplerate: Opens or closes the **Sample Rate Settings** dialog used to adjust the Sample Rate and Word Clock settings.

DSP Load: Opens or closes the DSP utilization display which monitors current DSP usage.

Controller: Opens or closes the **Controller Settings** dialog where you can adjust the MIDI controller assignments.

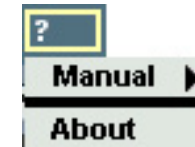
Settings: Opens or closes the **SCOPE Settings** dialog in which you can set various program options.

Registry: Opens a list of optional modules and all keys.

Search Options: Calls a dialog in which you can specify the search paths for the different file types.

? Menu

This menu is available only when the Live Bar is extended to its full width.



Manual: Provides direct access to this program manual.

You can include the manuals for plug-ins you download from the Internet in this menu. All you have to do is copy the manual into the directory *../SFP/Manual/English/Chapters*.

About: Opens or closes the dialog containing the program version number and other information.

Global Window Functions

The Live Bar (and many other panels or surfaces) have one, two, or three buttons in the upper right corner with functions similar to those in standard windows.

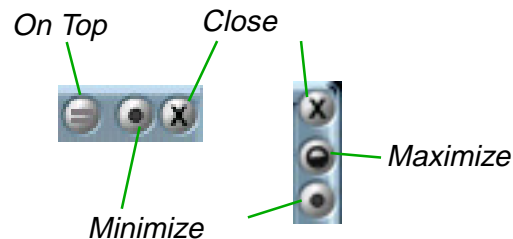
If the desktop background is open (*Launch Desktop* in the Windows tray or **Mac Finder SFP icon menu**) the Live Bar does not have these buttons.

On Top

When you activate this button (red dash visible), this window appears ***On Top*** – it is always on top of the other windows.

Minimize

Clicking on this button minimizes the window.



Maximize (Desktop background only)

Click this button to enlarge the window to its maximum size. A subsequent click reduces the window to its original size.

Close

Clicking on this button closes the window.

If the Live Bar closes, you can open it again with the SFP icon.

The Configuration Area

This area displays an overview of all loaded devices and modules. With the DEV, INs and OUTs switches you can view the loaded devices (synths, samplers, etc.), input modules, or output modules respectively.

Note that the terms INs and OUTs refer to the signal flow from the point of view of the SFP software. Therefore, the MIDI output of your sequencer (which sends MIDI data to the SFP synthesizers, for example) is considered in this context to be an input (found in the INs view).

Default Modules

When it first starts, the SFP software loads a Startup Project containing some basic modules, described below. Detailed information for each module is located in the Module section of the manual.

You can choose which modules load by default by creating a project containing the desired modules and saving it as the *Startup Project* in the SFP Settings dialog. The procedure is described in detail in the next chapter, *Configuration Dialogs and Operating Techniques*.

Devices

Mixer STM 1632: The default mixer.

If you choose a more complex mixer to load by default be aware that it will take longer to for the software to load when you start it.



INs

Hardware inputs include the name of the respective card to which they are connected in their designation. Here we use the generic [...] to represent the card name.

Sequencer Midi 1: The software interface to a sequencer that sends MIDI data to the SCOPE Fusion Platform.

You can load this interface multiple times, in which case each instance is differentiated by the suffix number. Select the appropriately numbered port in the audio application.

[...] MIDI: The card's hardware MIDI input.

[...] Analog: The card's analog audio input (not with the 24ADAT C-Plate version).

[...] SP-DIF: The card's digital audio input in S/P-DIF format (or AES/EBU in the Plus I/O plate) (not with the 24ADAT C-Plate version).

[...] Wave 1 (2): Interface to audio programs that use the standard operating system multimedia managers (PC: wave audio, Mac: SoundManager) to send audio to the SCOPE Fusion Platform.

You can load this interface multiple times, in which case each instance is differentiated by the suffix number. Select the appropriately numbered port in the audio application.

ASIO: Interface to audio programs that support the use of ASIO to send audio data to the SCOPE Fusion Platform.



OUTs

Hardware outputs include the name of the respective card to which they are connected in their designation. Here we use the generic [...] to represent the card name. Additional numbers in the name differentiate the cards when more than one card of the same type is present in a system.

Sequencer Midi: The software interface to a sequencer that receives MIDI data from the SCOPE Fusion Platform.

You can load this interface multiple times, in which case each instance is differentiated by the suffix number. Select the appropriately numbered port in the audio application.

[...] MIDI: The card's hardware MIDI output.

[...] Analog: The card's analog audio outputs (not with the 24ADAT C-Plate version).

[...] SP-DIF: The card's digital audio output in S/P-DIF format (or AES/EBU in the Plus I/O plate) (not with the 24ADAT C-Plate version).

[...] Wave 1 (2): Interface to audio programs that use the standard operating system multimedia managers (PC: wave audio, Mac: SoundManager) to receive audio from the SCOPE Fusion Platform.

You can load this interface multiple times, in which case each instance is differentiated by the suffix number. Select the appropriately numbered port in the audio application.


ASIO: Interface to audio programs that support the use of ASIO to receive audio data from the SCOPE Fusion Platform.



Slots


Each device and each IN/OUT module occupies a **slot** in the configuration area of the Live Bar. A device or module icon appears on the left side of a slot, and text fields on the right. The text fields display the configuration of the respective device or module, and let you change it.



The text fields are available only when the Live Bar is extended to its full width with the  switch.

You can change the order of occupied slots by dragging them up or down with the mouse.

Icon Menus

Each device and module has an associated Icon. Even if the Live Bar is set to its compact display mode  you can access most functions through the icon's pop-up menu.

Clicking on a device icon opens its main control panel.

Right-click (or <Ctrl> + click on the Mac) on a device icon to open its menu. Depending on the device, different menu options are available. The same options and functions can also be accessed through the following text fields.



Dev Column

Device

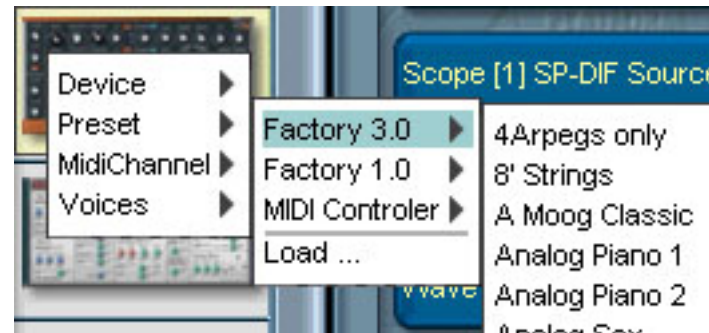
If a slot is empty, the menu contains a single entry, Device, which in turn contains another sub-menu, Load. The Load sub-menu contains a Device entry which corresponds to the Device directory. Additional sub-menus correspond to the various sub-directories in the Device directory. Select a device by clicking on it. The device loads, and the progress is displayed in the Live Bar. When loading is complete, the device icon appears.

If a device is already loaded, the menu contains Show and Hide commands, which open or close the device's control panel. The menu also contains a Remove command to remove the device from the project.

If you load a device when another device was previously loaded, the routing and other settings (MIDI channel, number of voices) of the original device are transferred to the new one.

Preset

If a device is already loaded, the menu contains the entry, **Preset**. Presets are organized according to the lists in the device's preset files, where each preset file corresponds to a bank in the Preset dialog. Move the mouse cursor over a file to open the appropriate preset list on the right. To load a preset, click on its menu entry.



The **MIDI Controller** file contains special presets that store the assignments of the various parameters to external MIDI controller events so you can change the control assignments separately from the parameters themselves.

With *Load* you can select other preset files to open.

MidiChannel

For devices that can be controlled by MIDI the menu contains the entry *MidiChannels*. Select the desired channel (1-16) or OMNI (for the device to receive MIDI data on all channels).

Voices

Here you control the polyphony (number of voices) for all sound producing devices. For synthesizers the range is from 0 to 16.

Note that each voice consumes DSP resources. Adjust the polyphony to use only the number of voices needed.

With the voices set to 0 you can retain a device in a project without its using any DSP overhead.

For samplers the value refers to the number of *stereo* voices.

INs/OUTs Column



The context menu contains an entry for all installed DSP boards as well as one for *Software IOs*. Modules representing the physical inputs and outputs of the installed DSP cards

can be loaded by selecting them under *Boards*. IO interfaces to other software programs are found under *Software IOs*. Detailed information on the modules themselves is contained in the chapter, *Hardware IOs and Drivers*.

If a module is loaded, its menu will contain a Remove command to remove it from the project.

Menus for hardware IOs contain additional information about the hardware.

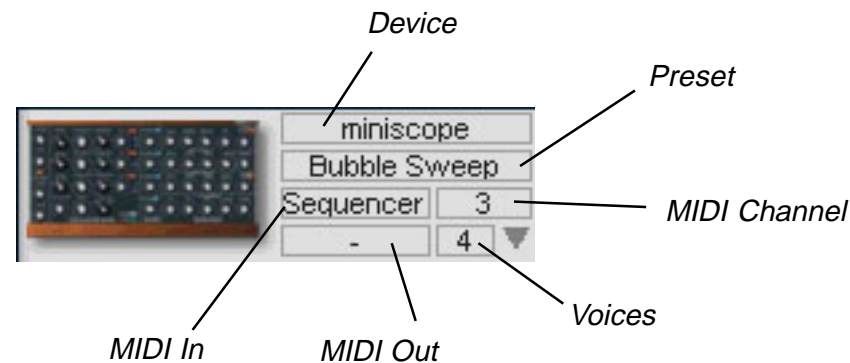
If a module is loaded into a slot already occupied by another module, the routing of the replaced module is applied to the new one (so far as possible).

Slot Text Fields

Next to the device icons text fields display the current values of the device parameters, and allow you to edit them.

These fields are visible only when the Live Bar is extended to its full width.

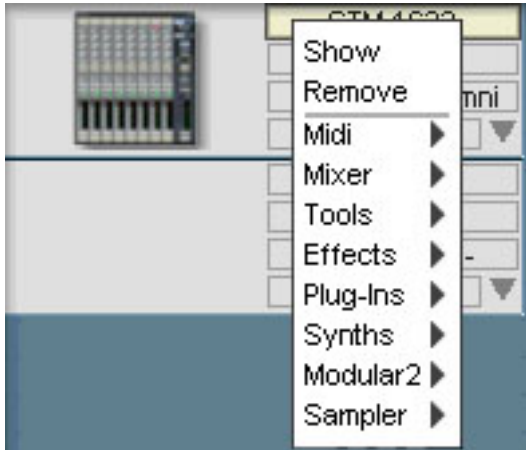
For most slots a Tool Tip appears when you let the mouse cursor rest over it for a moment.



Dev Column

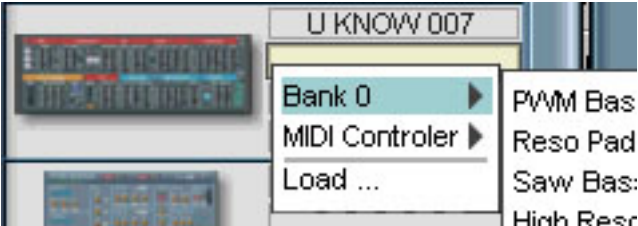
Device

A right-click (or <Ctrl> + click on the Mac) in this field opens a menu containing the same options as the device icon menu described previously. If a device is loaded in this slot, its name is indicated.



Preset

A right-click (or <Ctrl> + click on the Mac) in this field opens a menu containing the same options as the icon preset menu described previously. If a preset is loaded in this slot, its name is indicated.



MIDI In

The name of the MIDI module connected to the device input is indicated here. Using this slot you can also specify the MIDI routing of the device through the menu which lists the MIDI outputs of all available devices and modules. Select the desired connection to set the routing (see also the section *Routing - Establishing the Signal Flow*).

MIDI Out

The name of the MIDI module connected to the device output is indicated here. Using this slot you can also specify the MIDI routing of the device through the menu which lists the MIDI outputs of all available devices and modules. Select the desired connection to set the routing (see also the section *Routing - Establishing the Signal Flow*).

MIDI Channel

There are three ways to specify the MIDI channel for a device:

- Through the menu you can open by right-clicking (or <Ctrl> + click on the Mac) on this field.
- With the text edit box enabled by clicking on this field and pressing F2. Enter the value directly, and then press <Enter>.
- Using the textfader function: click on the field and, while holding down the mouse button, move the mouse up or down to increase or decrease the value.

The allowable range of MIDI channels is 1-16, or *Omni* (receives all channels).

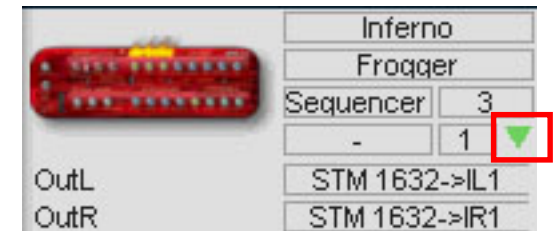
Voices

There are three ways to specify the MIDI channel for a device:

- Through the menu you can open by right-clicking (or <Ctrl> + click on the Mac) on this field.
 - With the text edit box enabled by clicking on this field and pressing F2. Enter the value directly, and then press <Enter>.
- Using the textfader function: click on the field and, while holding down the mouse button, move the mouse up or down to increase or decrease the value.

Triangle Symbol (Audio connection)

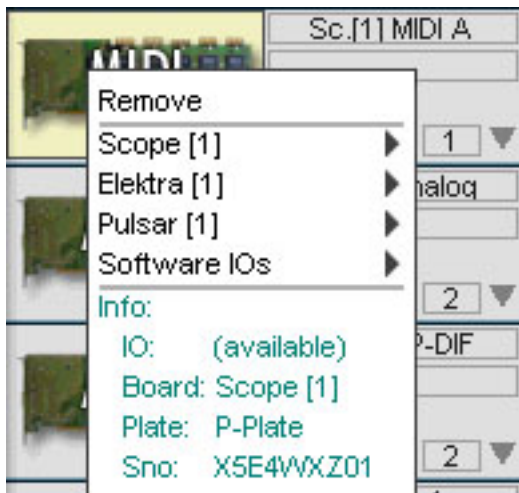
Clicking on the small triangle in the lower right corner of the slot opens a list of audio connections for the device. Here you can specify the signal routing as described in the section, *Routing: Establishing the Signal Flow*.



INs/OUTs Column

Modules

A right-click (or <Ctrl> + click on the Mac) in this field opens a menu containing the same options as the icon menu described previously. If a module is loaded in this slot, its name is indicated, and various information related to the hardware is displayed.



Category

This field (under module field) is not yet implemented.

Channel number



You can use any of three methods to adjust the channel number (such as an ASIO channel):

- a) Through the menu you can open by right-clicking (or <Ctrl> + click on the Mac) on this field.
- b) With the text edit box enabled by clicking on this field and pressing F2. Enter the value directly, and then press <Enter>.

Using the textfader function: click on the field and, while holding down the mouse button, move the mouse up or down to increase or decrease the value.

Triangle Symbol (Audio connection)

Clicking on the small triangle in the lower right corner of the slot opens a list of audio connections for the device. Here you can specify the signal routing as described in the section, *Routing - Establishing the Signal Flow*.



Screen Sets

At any time you can store the current arrangement of device panels and surfaces in a screen set. Screen sets provide a very convenient way to recall different views. Screen sets are found in the lower part of the Live Bar when you drag the separation bar up somewhat.

Creating Screen Sets

Create a screen set by pressing one of the number keys (0..9). Do not use the keypad to do this. Use the number keys in combination with the Shift and Ctrl keys to create up to 30 screen sets.

If a number and/or key combination is not assigned the screen set is nonetheless entered in the screen set list. There you'll find the associated key combination.

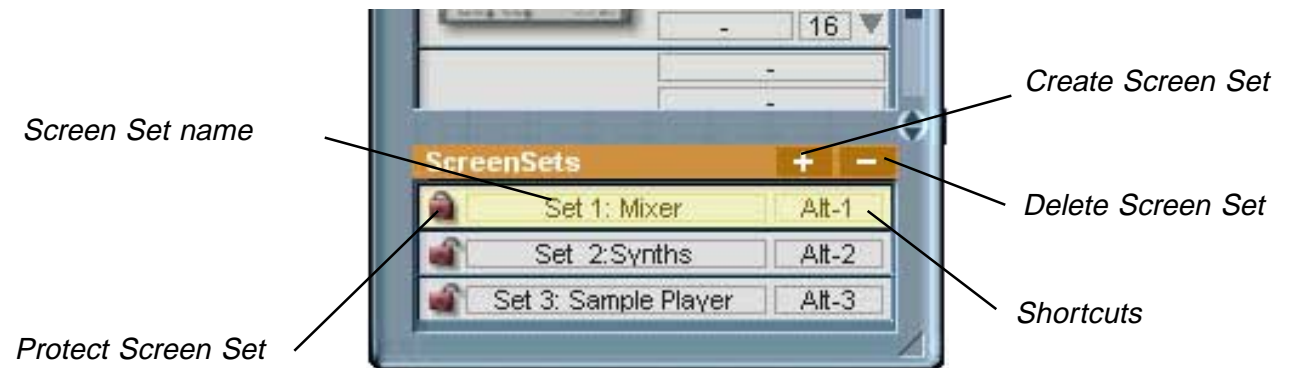
You can also create a screen set with the "+" button in the Live Bar and assign a key combination in the respective screen set's context menu.

Naming Screen Sets

You can change the default name (for example, Set 1) to something more meaningful. Right click (Ctrl+click on the Mac) on a screen-set box and select the *Rename* command from the popup menu. Enter the new name and confirm with the Enter key. You can also call the input field by a subsequent click on the screen set in the list.

Deleting Screen Sets

In the same shortcut menu you'll find a *Delete* command to remove a screen set from the list. You can also delete a screen set by first selecting it, then pressing <Delete> (PC) or <NumLock> (Mac) or with the "-" button in the Live Bar.



Assigning Shortcut Keys

You can change the shortcut key assigned to a screen set at any time with the *Shortcut* command in the popup menu. Select the desired key or key combination from the Shortcut sub-menu. The key enclosed in square brackets indicates the current assignment.

Saving Screen Sets

It is not necessary to store a screen set after you make changes to the arrangement of the surfaces and panels. A screen set, including all current surfaces and their positions, is stored automatically when you switch to another screen set.

All open module and device surfaces and panels, as well as the routing window, the file browser, and the preset list are stored in a screen set. Various program dialogs, such as the Sample Rate Settings dialog, are *not* stored in a screen set.

Protecting Screen Sets

You can protect a screen set from unintentional overwriting. Choose the *Lock* command from the screen set's menu. A closed lock symbol is indicated at the beginning of the line. With the *Unlock* menu command you can unprotect the screen set at any time.

Routing: Establishing the Signal Flow

The SCOPE Fusion Platform offers unique possibilities for signal routing and signal flow definition. Because of its entirely modular software design, each project— or complete configuration—is made up of a specific selection of modules (including modules for physical I/Os, interfaces to other programs, mixers, synths, effects, and more) that are all equipped with the inputs and outputs they require to handle the various signal types (audio, MIDI, control). To define the signal flow you connect the inputs and outputs of these modules together as you wish. There are various ways to do this.

Automatic Wiring

To save some work steps, several modules create certain routine connections automatically when they load. Automatic connections can be independently switched on or off for the MIDI inputs, and audio connections in the SCOPE Settings configuration you can with the *Settings* command in the Set menu.

For example, the audio outputs of a synthesizer are automatically connected to the next free mixer channel, and its MIDI input to the MIDI port of a sequencer. To change the default signal flow, use the methods described in the following section to configure the wiring.

The following rules guide the automatic wiring:

MIDI connections: If the device has a MIDI input you can connect either a **Hardware Midi Source** module or a **Sequencer Midi Source** module depending on whether you want to play the device directly using an attached keyboard, or have it receive data from a sequencer (if Auto Routing / To MIDI Source is enabled).

Audio connections: Audio outputs are connected to the next available mixer channel (if Auto Routing / Others is enabled).

Substituting a device: If you load a device into a slot in which another device is already present, the new device will assume, as much as possible, the existing connections as well as settings such as the MIDI channel and the number of voices.



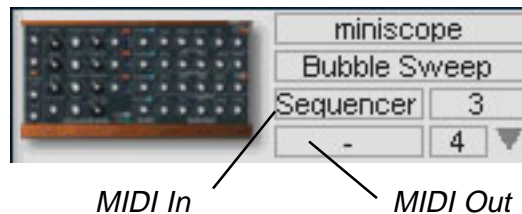
Changing the Routing

Routing with the Live Bar

With the Live Bar you can not only view all the audio and MIDI connections to and from the INs and OUTs of the individual devices, you can also change them.

MIDI connections

Next to the device icon is a MIDI In and/or Out slot.



Right-click (<Ctrl> + click on the Mac) to open a selection list containing all the loaded devices and modules that contain MIDI outputs. When you click one of the list entries, the MIDI output of the device or module appears to the right. You can select this by a subsequent click. The MIDI In slot then displays the name of the selected connection. Similarly you can select the MIDI input of an appropriate device or module with the MIDI Out slot.



Note that in the SCOPE Fusion Platform multiple MIDI devices are not connected serially as hardware devices are (that is, a MIDI chain from the output of one device to the input of the next). Instead, they are connected in parallel. For example, you can connect the *Sequencer MIDI Source* module directly to the inputs of several synthesizers. The MIDI output of a device is used only to transmit MIDI messages generated by the device itself, such as MIDI controller events created by the movements of onscreen controls.

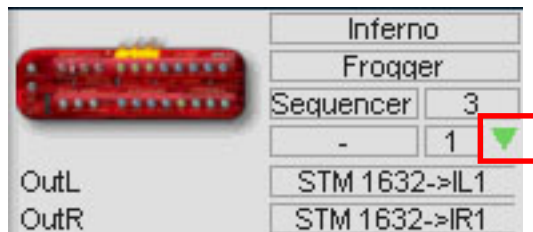
If the respective connection is already in use, a small square appears in the selection list behind the connection (or partially *Occupied*).

You can also establish y-cabling (one output to several inputs simultaneously) with the Live Bar by pressing the Shift key when making the connection. The original connection is not deleted.

To remove a connection, choose *Disconnect*.

Audio connections

Click on the small triangle next to the device icon to open the routing slots for audio input and output connections. The routing slot list shows all available inputs and, below, outputs of the loaded devices.



Right-click (or <Ctrl> + click on the Mac) on one of the routing slots to open a selection list containing all the devices and modules with suitable connections. By "suitable" we mean that routing slots for inputs will show all available audio outputs, and routing slots for outputs show all available audio inputs.

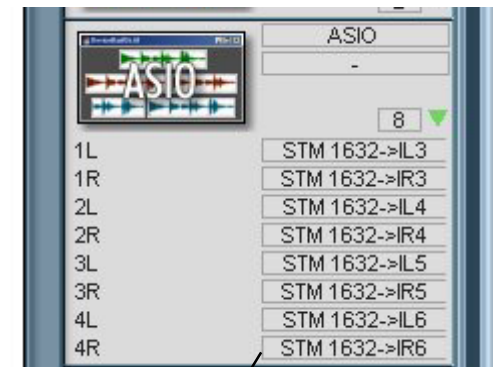
When you click on an entry in the list, the device or module appears to the right of the respective input or output. Select the device or module by clicking on it. Thereafter the routing slot displays the name of the selected connection.

If the respective connection is already in use, a small square appears in the selection list behind the connection (or partially *Occupied*).

To remove a connection, choose *Disconnect*.

Connecting the INs and OUTs

The INs and OUTs also have routing slots for audio or MIDI data. However, these appear only when you click the small triangle next to the respective IN or OUT. The routing procedure is exactly as described for devices.



Outputs of an ASIO module indicating the devices they are connected to.

Connecting to the Mixer

Because most of the audio data streams end up at the mixer, many of the connections to and from the mixer are most easily configured directly on the mixer panels. As described in various places, some mixers contain routing fields you can use to connect individual mixer channels with other modules. For descriptions of the individual routing fields, see the documentation for the mixer. Here we'll describe a general procedure using the STM 1632 as an example:



The Routing Fields also permit you to load and automatically connect devices.

Open the mixer surface by double-clicking on the associated mixer icon in the Live Bar. The 1632 mixer contains routing fields for the inputs as well as the direct outs and the master outs.

The Upper Routing Field

The routing fields are three-sectioned. The upper, large field shows the name of the connected device. Right-clicking (<Ctrl> + click on the Mac) on this field opens a menu containing the following options:



Disconnect: Removes the connection to the device.

This option is available only if a device is already loaded.

Connect Device: When the mouse cursor is over this entry a list of all devices with suitable connections appears to the right. By "suitable", we mean that for input routing fields, only the modules with outputs are shown, and the reverse.

If you now move the mouse cursor over one of the devices, the available connections appear to the right. Click to select the desired connection.

Available only if devices with suitable connections are loaded in the project.

Load Device: With this option you can load another device into the project. When it loads, the device will automatically connect to the next available mixer channel. If the device has stereo outputs, the mixer channel automatically switches to stereo mode.

Surfaces: Opens or closes one of the device's control surfaces.

As an alternative to this method, you can also double-click on the field.

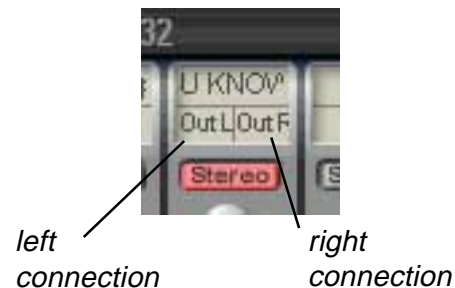
Available only if the device is provided with a control surface.

Hide: Closes the mixer's control surface.

The Lower Routing Fields

The lower two of the three routing fields indicate the names of the connections of the respective device. With mono channels, only the left field is active. For stereo channels, the two fields correspond to the left and right channels.

The menus for these fields let you select a device and its connections, or remove an existing connection (by selecting *None*).



The Routing Window

The Routing window gives you absolute control of all the connections to and from all loaded modules. To open the Routing Window, select *Routing Window* from the *Set* menu in the Live Bar.

In the Routing window you can freely connect modules and devices together using virtual cables. You can also employ some tricks, like using Y connectors (one output to several inputs) or connecting several inputs together in parallel.

The use of the Routing window is described in detail in the next chapter, *Configuration Dialogs and Operational Techniques*.

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