MODULAR MIXER v 2

USER GUIDE

In this manual:

1. Content of this Package

Modular Mixer v2 concentrates on mixers from 12 to 24 channels with 5 busses: it provides modules for 6 and 7 bus mixers as an option. We believe 5 bus is the most appropriate for Scope and Xite for mixers of more than 16 channels.

You do not need Modular Mixer v1 to use this collection.
You can mix modules from v1 and v2 to build a mixer.

1. In This Pack Only :

Channels v2 : advanced effect channels (6 different modules)

- M4.dev - 4 Mono Channels
- M8.dev – 8 Mono Channels
- M12.dev – 12 Mono Channels
- S4.dev – 4 Stereo Channels
- S8.dev – 8 Stereo Channels
- S12.dev – 12 Stereo Channels

Routers : 12, 16 and 20 channels, 5-6 and 7 busses (14 modules). The numbers in the device refer to the channels modules: for example a "*4-4-8*" means that the user will use 2 modules of 4 channels at the top, and one module of 8 at the bottom. *8-8* means that it is made for 2 modules of 8 channels. "Standard" means that there is no spacer on the input pads.

5 bus (16 modules)	6 busses (11 modules)	7 busses (10 modules)
• R205VII-4-8-8.dev • R205VII-8-4-8.dev • R205VII-8-8-4.dev • R205VII-12-4-4.dev • R205VII-12-8.dev • R205VII-Standard.dev	• R206VII-4-8-8.dev • R206VII-8-4-8.dev • R206VII-8-8-4.dev • R206VII-12-4-4 • R206VII-12-8 • R206VII-Standard.dev	We believe 20 channels and 7 busses are too large to build 20 channels mixers. However, 4 variations of R207 v2 are available as a hidden bonus.
• R165VII-4-4-8.dev • R165VII-4-8-4.dev • R165VII-8-4-4.dev • R165VII-8-8.dev • R165VII-12-4.dev • R165VII-Standard	• R166VII-4-8-4.dev • R166VII-8-4-4.dev • R166VII-8-8.dev • R166VII-12-4.dev • R166VII-Standard	• R167VII-4-4-8.dev • R167VII-4-8-4.dev • R167VII-8-4-4.dev • R167VII-8-8.dev • R167VII-12-4.dev • R167VII-Standard
• R125VII-4-4-4.dev • R125VII-8-4.dev • R125VII-4-8.dev • R125VII-Standard.dev		• R127VII-4-4-4.dev • R127VII-8-4.dev • R127VII-4-8.dev • R127VII-Standard.dev

Master Bus: (5 modules) 2 and 3 aux systems. The master bus v2 now include 2 wave and rec channels.

- MB 302 Fx (3 advanced fx channels, 2 aux) – Perfect for 5 bus Routers
- MB 303 Fx (3 advanced fx channels, 3 aux) – Perfect for 6 bus Routers
- MB 503 Fx (5 advanced fx channels, 3 aux) – fits all routers
- MB 502 Fx (5 advanced fx channels, 2 aux) – fits all routers
- Mix 502 (5 simple channels, 2 aux) – fits all routers

Modulators: Connect them to input A, B, C, and D of the Channels or Master Bus devices.

- ADSR.dev
- AHD.dev
- Modulators-v2.dev

A/B Switches : allow to save mixer channels by switching between audio sources (see page 14)

- Sw1M.dev
- Sw1S.dev

- Sw2M.dev
- Sw3M.dev
- Sw4M.dev

- Sw2S.dev
- Sw3S.dev
- Sw4S.dev

Corners: corners are surface-less modules for the project window. It allows achieving better looking routing by avoiding cables overlapping devices. Some of them are specialized, such as the "aux" routers, or the mono-to-stereo which allow doubling a source.   If your project routing begins to look ugly, check if there is something here that can help:

Aux Routing

- 1 Ext Aux.dev
- 2 Aux-Aux1 Int-Aux2Ext.dev
- 2 Aux-Aux1 Int-Aux2Ext-B.dev
- 2 Ext Aux-2 Aux Return Left.dev
- 3 Ext Aux.dev
- 3 Aux-Aux1 Int-Aux 2-3 Ext.dev

Mono Routers

- Mono to Stereo-x1LRB.dev
- Mono to Stereo-x1LRT.dev
- Mono to Stereo-x2LRB.dev
- Mono to Stereo-x2LRT.dev
- Mono to Stereo-x3LRB.dev
- Mono to Stereo-x3LRT.dev
- Mono to Stereo-x4LRB.dev
- Mono to Stereo-x4LRT.dev
- Mono-to-Dual.dev

Doublers

- Doubler 2 Inputs-2 L=R B.dev
- Doubler 2 Inputs-2 L=T L.dev

- Doubler 2 Inputs-L=R R.dev
- Doubler 2 Inputs-L=R T.dev
- Doubler 2 Inputs-L=T B.dev
- Doubler 4 Inputs-L-B R.dev
- Doubler 4 Inputs-L-B T.dev
- Doubler 4 Inputs-L-T R.dev

Quad Corners

- Quad Corner-Bottom-R.dev
- Quad-Corner-Left-Bottom.dev
- Quad-Corner-Left-Right.dev
- Quad-Corner-Left-T B.dev
- Quad-Corner-Left-Top.dev
- Quad-Corner-Top to Bottom.dev
- Quad-Corner-Top to L R.dev
- Quad-Corner-Top to left.dev
- Quad-Corner-Top to Right.dev
- Quad-Corner-Top to Top.dev

2. **Examples of Mixers you can build with a 5 bus system**

- A 14 Channel mixer: 12+2[1] stereo channels mixers dedicated to a DAW/Asio mixing of 12 stems/sub-groups, with 2 internal aux effects or bus, and two external effect racks or pedals + 2 wave sources (Modules in use: Channels S12 + R 125-Standard + MB 302 FX)
- A 18 Channel mixer: (Channel 8S + Channel 8M) + Router 165 II + MB 302 Fx
- A 22 Channel mixer (various channels + Router 205 + MB 302 Fx).
- For a 24 Channel mixers, do the same as above use the MB 502 Fx or Mix 502 as explained on page 11.

In comparison to Modular Mixer v 1 , v2 includes different channels, new routers with different color management (43 colors available for channels), and master busses with advanced routing effects and the management of two stereo hardware effects.

The new routers also include *variations* with spacers that create space between modules in order to achieve very clean routing windows (highly reduced number of overlapping and un-straight virtual cables).

The use of switches makes your setup much more dynamic and tailored to your needs. It also helps in reducing the Routers voices, which might become handy at 96 Khz. For example, you use 16 channels routers for 12 Asio and 4 Mono inputs for recording. Using a Switch, you can have permanently "8 Asio and 4 mono" for recording, and when

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[1] "+2" refers to the 2 stereo inputs available on all mix and master bus devices. You connect two wave Sources there and save 2 stereo inputs on the front-channels.

you mix, you switch the Mono off, and activate 4 stereo Asio channels, to reach 12 Asio (and zero mono for recording, but at this stage, you probably don't need them permanently and you can still use the switch).

3. Connections

The basic rules for all components of the Modular Mixer:

Channels are connected to Routers, and Routers are connected to the Master Bus

Inputs A, B, C, D are modulation inputs. It accepts all kind of audio signals, scope modulators and Modular Patches [2].

You can link the Solo functions of several Channel modules by connecting pads (**Slo/Do/Rs) to (Sli/Di/Rs)**

(RecL/RecR) of each Channel Module should be connected to the Rec Inputs of the Master Bus **(RcL/RcR)**

2 Wave Sources can be connected to the master bus for your everyday multimedia/mastering needs

Building and troubleshooting:

- You generally begin by loading the type of master bus you want, then the router, then the channels.

- A good organization of your inputs/hardware sources (synths, mics effects etc) is essential to get the best experience with Modular Mixer v2.

- XITE: If you run into messages *like "no more connections between DSP x and y",* you should do the following to "flush" any potential "ghost connections" in the hardware memory ("ghost connections" may survive the deletion of a module).
  - Remove one of the module that can't be connected
  - Save the project as a *Default Project*, then exit scope
  - Re-launch Scope
  - Import the module that you have deleted previously, and re-connect it.
  - It should now work but if you run again into this type of error, apply the same procedure after deleting another module. Don't forget to totally exit scope before re-launching Scope.

  - If the un-connectable module is an i/o (asio/adat/z-link) It sometimes helps to disconnect a few ASIO i/os (or other hardware i/os) that are not in use.

  - If you are an advanced user, you can also try dispatching modules over several DSP of Xite, then save and reload.

  - Of course, there is always the possibility that the mixer or the project is too big: the Routers include DSP activation options. Use them to save a little bit of resources.

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[2] The modulation sent to insert slots. Using external modulators allows using the same modulator on several insert effects of different channels. The inserted effect must be compatible to receive this modulation.

The master bus

The Master Bus is where all inputs and outputs are finally connected together.

- It is advised to use the two additional stereo channels (W1 L/R and W2 L/R) for 2 wave drivers. It frees 2 stereo from the channel modules.

- Two **Rec Channels** allow to quickly recording any signal in you mixer, including from Channels, without ever connecting any cable in the project window. Connect the Rec Outputs of each channel module to one of the Rec 1 / 2 / 3 of the Master Bus.

- Auxiliary effects can be used internally or externally. On the 5 busses of MB302Fx and Mix502, Two of them can directly manage external stereo effects. On the 303 Fx and 503 Fx, 3 external effects can be managed.
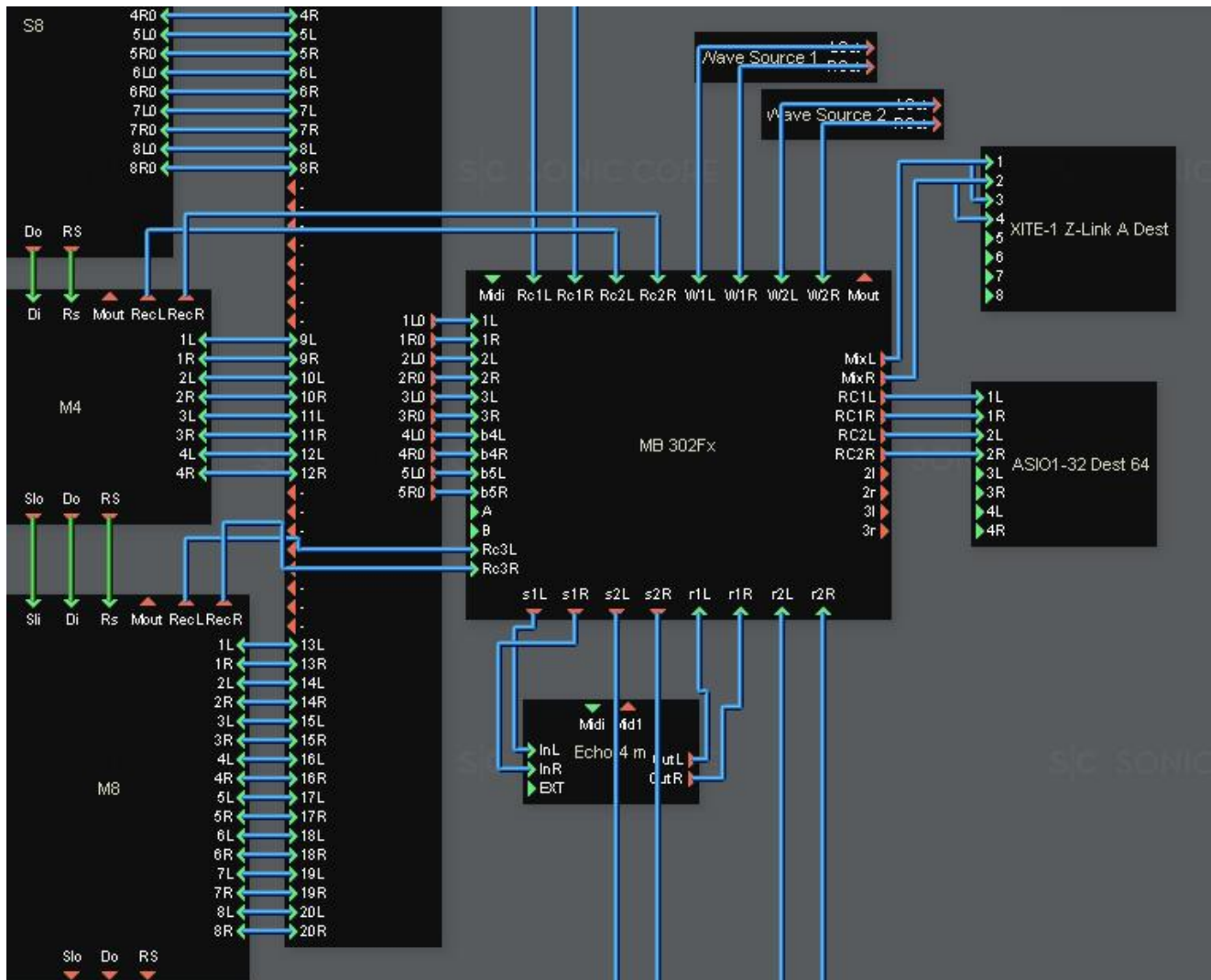
Connect the **(MixL/MixR)** to your speakers and headphones.

Wave sources are connected to **(W1L/W1R), (W2L/W2R).** One of them can also be used as a direct channel from the DAW, to test masters or other mixdowns.

(Rc1L/Rc1R), (Rc2L/Rc2R), (Rc3L/Rc3R) are input to connect to the Rec outputs of the channel modules. The RC1L and RC1R are connected to the main asio inputs of your DAW.

- How to record through Rec Channels?
  - Rec channels allow saving the need to connect/disconnect sound sources from the Asio modules (or any other module to which you send signals to be recorded as audio). You connect them once, and then use the menus of the device to select which channel to record.

- Do the connections of the rec out/ins of the channel and Master Bus, (for example, connect RecL+RecR of a channel module to Rc 1 L and Rc1R of the master bus (or any of the 3 rec inputs).
- Select the desired channel you want to record in the Rec Out menu of the channel module.
- On the Master Bus, select the rec input where the channel module is connected (Rec 1, 2 or 3). Now your source is available on the RC1 / RC2 outputs of the device.

- Rec channels can also record a high number of internal channels of the Master Bus, such as the channels themselves, the wave inputs, the aux signals, the master output, and more.

Aux Inputs (2 last busses of all routers)

- **Inputs b4 / b 5 (MB302Fx):** these inputs go directly to the Aux section, and not the main channels.
- **Inputs b6/b7 (Mix 502):** same as above. If you use a 5 bus Router, then you might want to connect it beginning at channel 3 of Mix502: the two first channels of the master bus will be free as extra channels.

Direct Outputs

- **MB 302 Fx: (2l/2r) , (3l/3r)** are direct outputs of channel 2 and 3. If you choose to use MB302Fx, it is likely that you will use the 2 advanced channels often and need quick recording ability while freeing 2 Rec Channels to record the dry source at the same time.

- **Mix 502 (1l/1r) to (5l/5r):** are direct outputs for all channels.

Stereo Aux Sends and Aux Returns

- **(s1L/s1R), (r1L/R1R):** connect the "S" pads to the inputs of an external effect, and the "r" pads to its outputs.

- The Corners are better used with external hardware effects racks or pedals. Here, a good router to use when using 1 midi device (here, Echo 4m) and 1 external hardware such as a Reverb rack :
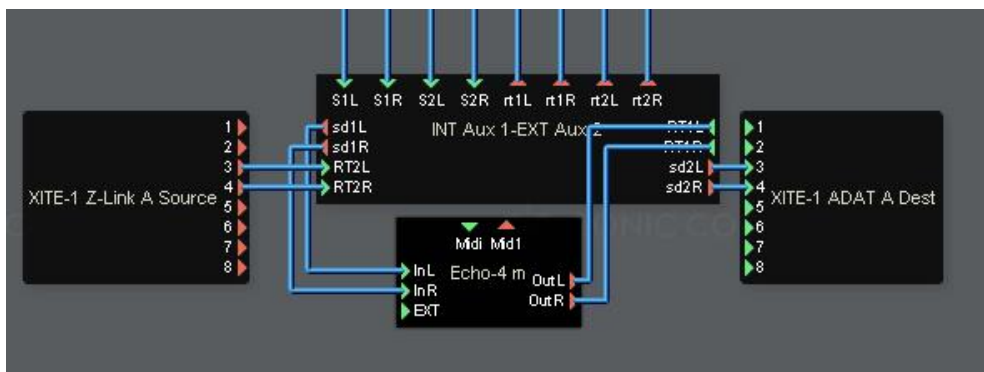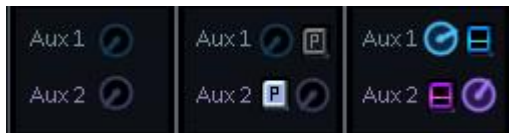

On the above picture, "**INT Aux 1 – EXT Aux 2**" : means that Aux 1 is an internal device and Aux 2 is an external hardware".

The **"1Ext Aux.dev"**   is also a good choice to use with 1 external hardware effect.
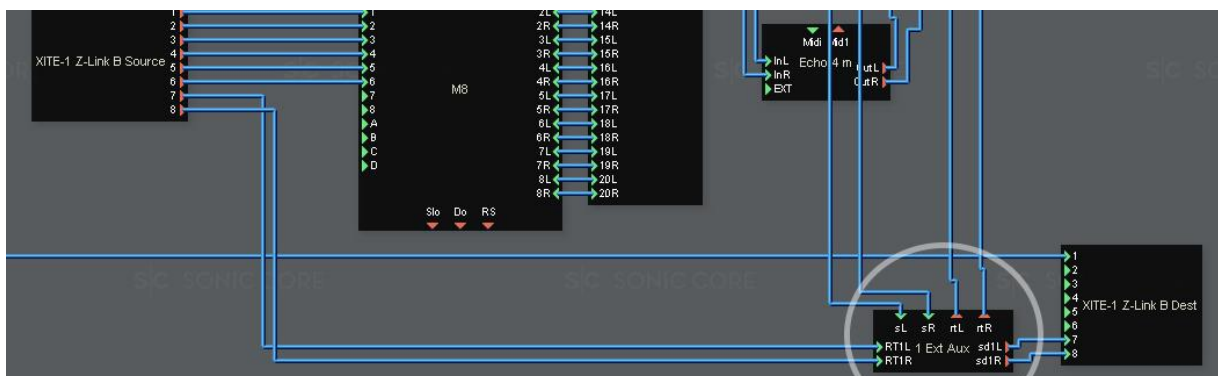
Master Bus Aux Sends

The channels of the Master Bus can be sent to the Aux effects in various ways.

Some channels may include Pre/Post buttons, some other channel sends are always "post". The reason why it is not implemented on all devices is for 2 reasons: to save DSP resources, and the fact that PFL is always available by using the routers levels.

- **Pre (button is lit):** Signal taken before the effects
- **Post: button is dark:** signal taken after the effects and levels
- **In Between (two rectangles on vivid colors):** signal is taken **just after insert effect 1.**

- Please note that the Aux **PFL** features are **always available for any channel and bus by using the Router's**. The inclusion of PFL on the 302Fx is mainly to give access to the "in Between" send.

The Aux send the signal to the aux section, where it can be mixed with the signal from the direct aux busses (the 2 last busses of any router).

4. The Channels

Advanced effects channel routings

 Modular mixer v2 Channel Modules offer an original way to use insert racks

The system used by Modular Mixer v2

- Allows to use mono and stereo modulated effects inside mono or stereo channels (or regular mono/stereo effects)
- Contain all relevant setup routing, such as parallel, dual mono, summed and so on.
- Typical use of the Fx channels are plenty, such as "in-line" parallel compression, parallel effects for guitars, or routing the source to a modulation that feeds a delay, while the delay is also fed by the dry sound, also mono merging (sums) and so on.
- The modulation source can be used as a modulation or sidechain source.
- Generally speaking, it also allows the user to try various setups without the need to reload the effects or to route sources to additional mixer channels.
- The possibilities are endless depending on the effects in use and what the developer(s) has included.

Stereo Channels – 16 configurations [3]

The diagram graphics below are "vertical knobs" that you click and slowly drag up or down. You can also use "page up/ Page down" for more precision.

The outputs of the setup go to a stereo insert slot. Outputs can be "stereo" (1 left and 1 right channel) or "quad" (2 stereo channels mixed together).

When the icon shows an "m" , it means that this insert has Audio input on the Left channel and Modulation input on the Right Channel: you can use any type of effect: mono, stereo or mono-to-stereo.

When using Stereo effects, make sure the input is in mono mode (L) otherwise you may hear modulation signals on your speakers, which is not desirable.

When using Mono effects, they generally output on the Left channel only. . If you use two mono effects in a quad position, they will both sound on the left channel only. It is not a bug. Therefore, make sure you use a position with single output (setup # 12 and #15). Some mono effects output on both L/R channels: in such case, you can use any of the configuration available.

When using Mono-to-Stereo effects they load by default in a "mono to stereo mode" and output on both channels. They can be put in stereo input mode if needed if they are to be used in un-modulated setups (setups # 1 and #6)
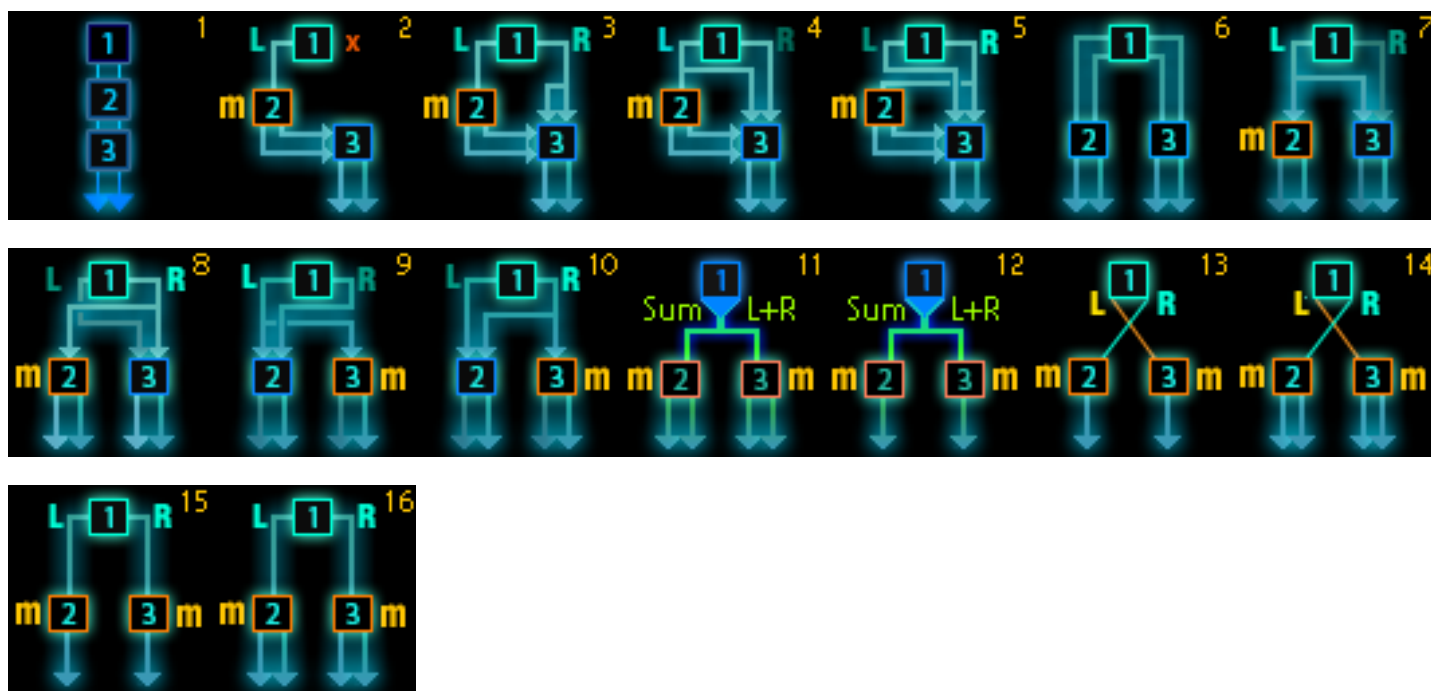
Mono Channels – 4 configurations

On Mono channels, modulation is always available on the Right Input of inserts 2 and 3, even if you don't use it. No "m" is shown; because it would always appear on insert 2 and 3.

Mono Inserts: are better used with positions #1 and #4. If the mono insert can output on L/R channels, then it can be used in all positions.

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[3] The first stereo channel of MB302Fx only contains 2 positions, corresponding to number 1 and 6 of the pics on this page.

Stereo Inserts: can be used, with input set-up as mono, in position #2 (insert 3) and #4 (inserts 2 and 3).

Mono-to Stereo Inserts: they can be used in all positions in Mono Channels but true stereo will only be available in position #2 (insert 3 outputs stereo) and position #4 "quad" (inserts 2 and 3 have stereo output). In all positions, modulation is sent to R input of the insert ([4]).

Channel Modulation

Inserts of Channel Modules and some Master Busses can receive modulation. You can use the included modulators, or make a modular patch, or use audio-modulation from software and vstis, or hardware that is able to send audio as a modulation. If you are familiar with BlackBox II and SpaceF plug-ins in general, this works exactly the same.

- All channels have 4 inserts: the 3 first are either mono or stereo and the routing between them can be configured as explained in the previous parts. The last insert (n°4) is always stereo, even on mono channels.

- Between insert 2 and 3, there is modulation source and modulation gain. A Frequency Offset is shared between both inserts (allows to control the offset of two inserts at once, useful with filters in parallel mode.

    o Connect a modulation source to the A,B, C or D, pads of the module
    o Select the modulation source in the display near the insert that you want to modulate
    o On the pic on the left, SpaceF Echo 2i is in insert 3 and receives a modulation connected on input A.
    o Make sure the effect is in "Mono Input" mode ; it will receive audio on the left, and the modulation on the right channel.
    o Now, select one of the routing with modulation on insert 3 (for stereo channels, it is position #9 and #10 and if you want to modulate both inserts, use #11 to #14).
    o Add some modulation gain and change the frequency offset, and hear your effect being modulated.

Master Bus Channel Crossfader

Some Master Busses include channels with a Crossfader after insert 4 . One side of the Crossfader is the output of Fx 4, and the other side can be selected: Input, Fx 1, Fx 2, Fx 3

You can use it to A/B compare the signal at different stage of the channel. You can put the channel in Parallel Quad mode (position #6) and try, for example two different compressors and settings, and A/B the two of them.

When using a position with Fx 2 and Fx 3 in parallel, you can crossfade between 2 effects , such as different delays , or a rack of effect with totally different settings.

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[4] This modulation comes from the A B C D pads of the device.

Channel templates and presets

Each "advanced fx channel", include two preset list per channel found near the level fader.

The **presets (top);** are particular to a channel, and are not exchangeable between channels. They will re-store the effect parameters of fx 1, 2, 3 and 4 and the whole channel setup.

The **" Templates" (bottom)** concern insert fx 1, 2 and 3 only. They are exchangeable between channels: they recall the inserted effects as well as the chosen routing. However, they do not restore the parameters of the insert effects. They should be used for fast recall of typical/favorite effect setups where you customize the inserts parameters each time.

Channel labels

In comparison to Modular Mixer v 1, v 2 brings a higher number of colors and an additional text field to note down connection. A completely new color management allows a much better exchange of label presets between Channel modules and Routers.

- You can re-label; the channel numbers (top of the channels) , the channel name (middle), and the channel connections (bottom).
- To rename a channel, click on the label, and write something down with you alpha numerical keyboard.
- Copy/Paste is possible with all text fields.
- Master Busses also allows renaming the 2 wave channels.
- At the very top of each device, you have access to the ink color with the (W/B) button (black or white), as well as to color selection.
- Check the section about Color Management to send your labels to the Routers v2.

As before, stereo Channel Modules are on a Blue Background, and Mono Channel Modules are greenish.
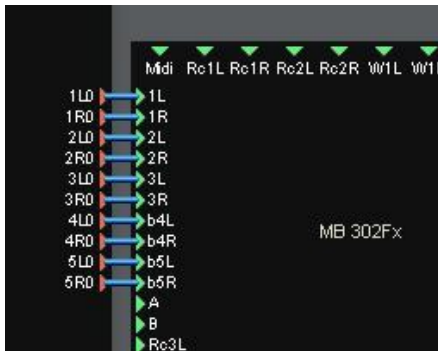
5. The Routers

Routers allow to mix down the Channel Modules and to group them in busses before sending everything to the master bus. They come in various variations for different kind of channels: the use of spacers between connections pads allow for much cleaner routing windows.

Routers are your main "Mix + Bus/ Aux Send" Section. Bus 1 (1st line of knobs) is reserved for your main mix. As "Mix" (bus 1) and Aux levels are always independent, you can generate "PFL" Aux send routings simply by putting the mix level to zero.
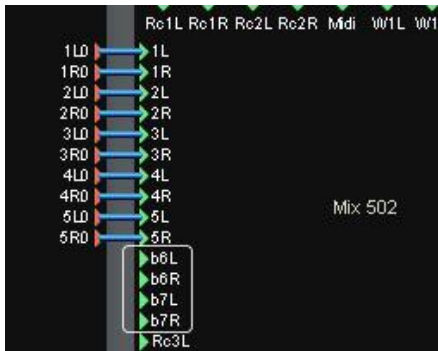

5 bus systems: connections

Connecting the routers to the MB302Fx is pretty straightforward: begin with the 1st input and press N until it has automatically connected all the routers outputs.

MB 302 Fx is seen as 2 busses, 2 aux , where Aux are specialized in external effects, while busses are more sophisticated and use insert effects.

Connecting the Mix 502/502 Fx is a little bit different as it gives you choices:

You could connect the Router to the channels only, and not the direct aux inputs (b6 and b7).

It means the effects are delays or reverb that you will use only internally, and sometime by connecting a source directly to the b6 / b7 inputs.
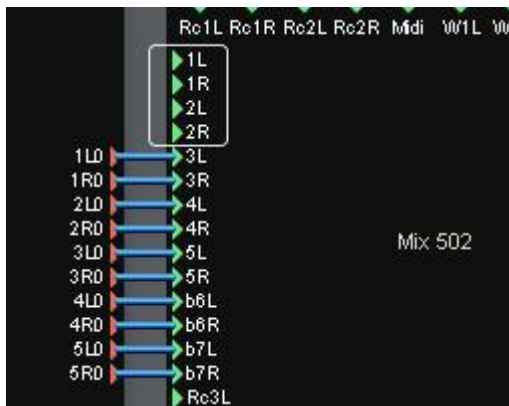
The way pictured on the left shows that the routers 1st channel is in fact the Channel 3 of the mixer.

Channels 1 and 2 are now free as additional sources.

The interest is that those 2 channels can be Fx channels (MB 502Fx), more sophisticated than the Aux channels which are made for external effects.

You can do the same kind of connection with other master busses.

<u>**Router DSP Configuration**</u>

You can:

- **Disconnect internal connections by groups of 4:** when a group of 4 connection is "off" the corresponding knobs on the main panel will disappear
- **De-activate some voices from the dsp:** you can reduce the number of voices of each bus

<u>**Routers Color Managment**</u>

Principle: You can import labels (colors and texts) from the channels and copy them in various location of the mixer. You can also copy portion of the Router's label to other portions. The aim is to avoid having to re-label everything.

> *Notes: On all Channel Modules, it is in fact 12 channels labels that are recorded. Even if you use a 4 channel mixer. The unnecessary channels are then filtered inside the Routers, by choosing to copy the labels of only 4 channels. Also, in the Routers, it is in fact 24 channels that exist internally, even if you use a smaller router. This ensures compatibility between all routers and channels.*

Please note: *Always begin with the " Import/Copy – What=<u>Off</u>" . Generally speaking color management is a destructive process that helps a lot but should be used with caution: save presets often in the "24 All" preset list [5].*

Let's take an example with a Channel Module of 8, that you want to copy to the routers channels 13 to 20

1. At the top of each Channel Modules, you will find the color management section. You can choose to save all labels (colors, texts, numbers) or parts of them (only text, only colors…). Choose "All" and save a preset, then save the preset list to disk
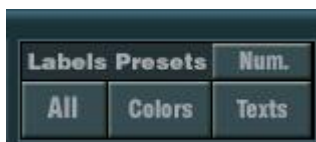
2. On the routers, first select the destination where you want to copy the labels. Then import the preset list and load the preset. The labels will be copied immediately on channel 13 to 20.


NB: when you select the destination, you may have noticed that channels 1 to 8 of the router are immediately copied to channel 13-20. It doesn't matter because by loading a preset there, we overwrite whatever label/color is there (destructive process).

3. Do not forget to save a preset for the Router when you are done. This will save the need to export/import channels, and will give you several label setups at the click of a few presets: Save a "24 all" preset to save everything (texts, colors, numbers) . You can also choose to save only colors, or only numbers. You can also save in the main preset list but this will also save the level values of each bus-send-knob.

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[5] The Router 125 does not have the « 24 xx » presets format because as it only contains 12 channels, it is directly compatible with the "12 labels" presets of Channel modules, and can be imported in bigger routers if needed.

Using the Aux
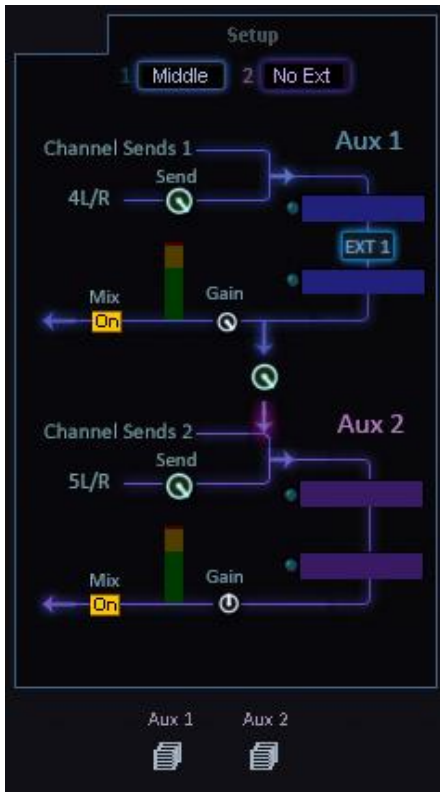
The aux section is made to be used with external effects such as hardware racks and pedals, or with scope midi devices.

The aux section is stereo.

The **Setup** allows to choose various routing for the external effect. By default, you should start with "Middle" to put your external rack between 2 scope insert slots. The position of the extrenal effect is shown on the device (pre/middle/post). When "No Ext" is selected, you can use the aux with only inserted effects.

The knob between Aux 1 and Aux 2 is the level of aux1 that is sent to Aux 2. It is like a send from Aux 1 to Aux 2 or "bleedover" function. It is a level knob (-inf to 0dB) placed *"post-Aux1-Gain"* meaning that it will also reflect the gain added to Aux 1 output Gain. This is so due to the fact that some external hardware may require a +12dB gain boost to match the levels of scope.

You can save presets for each Aux independantly. This is useful mainly to restore insert fx setups. You can also save a preset for the whole Aux section in some devices.

6. Global Parameters

All Channel Modules contain a Rec Channel output as well as the menus below :
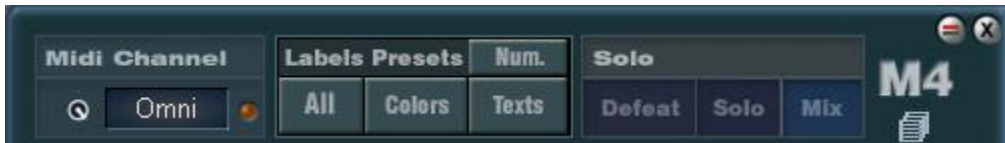
Midi channel: drag the display or use the knob to change the channel upon which the devices receives Midi controllers.
Color Management: see the part about it in the section about Routers
Solo-Defeat: when in solo mode, pressing Defeat allows to switch between "solo/not-solo" mix. Equivalent to "Kill Solo".
Solo- Mix: the Solo/Mix button is a switch between « solo and not-solo » mixes. It allows to hear the mix without killing solo.

➔ You can link all these solo functions between several Channel modules by connecting their (**Slo/Do/Rs) to (Sli/Di/Rs) pads**.

You can switch Vu-meters as "pre" (at the inputs of the mixer) or "post" (after the effects and levels of the channels). The Hide function ti hide the vus from the surface panel, is not always implemented in Modular Mixer v2.

Margin Reset allows resetting the maximum level displays (peak).

Margin Reset is linked between several channel modules through the "Rs" i/o pad at the top and bottom of each channel module.

Rec Out Selector: Rec.Source selector menu; Clic on the source name to display the various sources available.

Gain: adjust the gain to send at the rec channel.

7. Using Switches

The main use of switches is to save mixer channels by switching between sources that are not used at the same time. This can be an old synth or sampler that you switch only every 3 years, or a laptop that you need to hear often but that is not used in your productions, so you could load a nice scope synth instead. It could a switch between external synths used at the beginning of a project, and extra asio channels used at the end of the mixing phase, when the external synths are recorded for good.

Switches are an elegant way to add more sources to your mixer setup without adding more channel modules/routers. Switches come in mono or stereo, with 1, 2, 3 and 4 i/os.

Channels are switchable individually. A preset list recalls the labels and colors.

8. Mono to Stereo Effects

What's the point ? They allow to use the right channel of an insert slot to receive 1 modulation signal. Depending of the effect inserted, which must be compatible, the modulation can control various things such as the Frequency of a filter, the volume of signal, or the sidechain of a compressor, or a trigger.

Modulated inserts are generally insert slot 2 and 3 of a channel module.

You can also use regular mono or stereo effects just like you always did in Scope, but some functions are not available with strict mono or stereo effects because they generally don't include a modulation input or output on 1 channel only.

Modular Mixer Mono-to Stereo effects generally:

- They load with the Mono Input as default in order to avoid hearing modulation signals on your speakers !
- They are true stereo effects that can be used with stereo sources : in such case, the modulation input on the Right channel is replaced by the normal audio signal of the right channel.
- They always have an external modulation input useable in "mono input mode" . They may have their own modulations included inside the device when it is necessary.
- They should always include a wet/dry section. They may also include extra features for mixing in Quad mode but this is dependant on the effect itself and generally, the wet/dry is enough.

Most stock stereo effects can be used as mono-to-stereo effects

- **WARNING:** If the modulation is activated, then loading a classic stereo effect will let modulation pass on your speaker: either put modulation level at zero before loading, or immediately switch to "mono input" after loading the classic stereo effect.

- **Make sure** you are in a routing position that allows stereo output from the insert where this stereo effect is loaded.

> **Remember:** *if you hear sound on the Left channel only,* it is not a bug but a mismatch between the effect type and the chosen routing position.

9. Screenshots and last tips

Router example; Variations of the router 205 (20 channels, 5 busses).

From Left to Right: *12-4-4, 12-8, 4-8-8 , 8-4-4 , 8-8-4 , Standard*.   The choice between one or another reflects the organization of your studio or the needs of a particular session, and generally speaking how you want your sources to be organized.


In terms of connections between DSPs, the larger channel module (such as M12/S12) the more connections it requires. If you run into the limits of your DSP, you could try removing the bigger channel module and reload it after a project reload, or consider using a smaller channel module such as 8 and 4 instead of 12 at once.

Routers of 5 busses allow 1 main mix and 4 Aux effects (or 2 bus / 2 aux) .

Project Example: Mixer 12 Stereo ASIO – 2 external racks

This setup is made to use 12 sub-groups from the DAW in a S12 channel module. 2 external effect units are used. A switch could be used on a few asio channels to allow last minute recording of instruments, but here it forces concentration on the stems/sub-groups mixing. Wave source 1 is the general multimedia source (windows main wave) whereas the Wave 2 is a wave software where a mastering is recorded, treated and auditionned without loosing availability of the Asio DAW and of other wave channels. The Rec L/R outputs of the S12 should be connected to the Rec 1 inputs of the MB 302Fx.
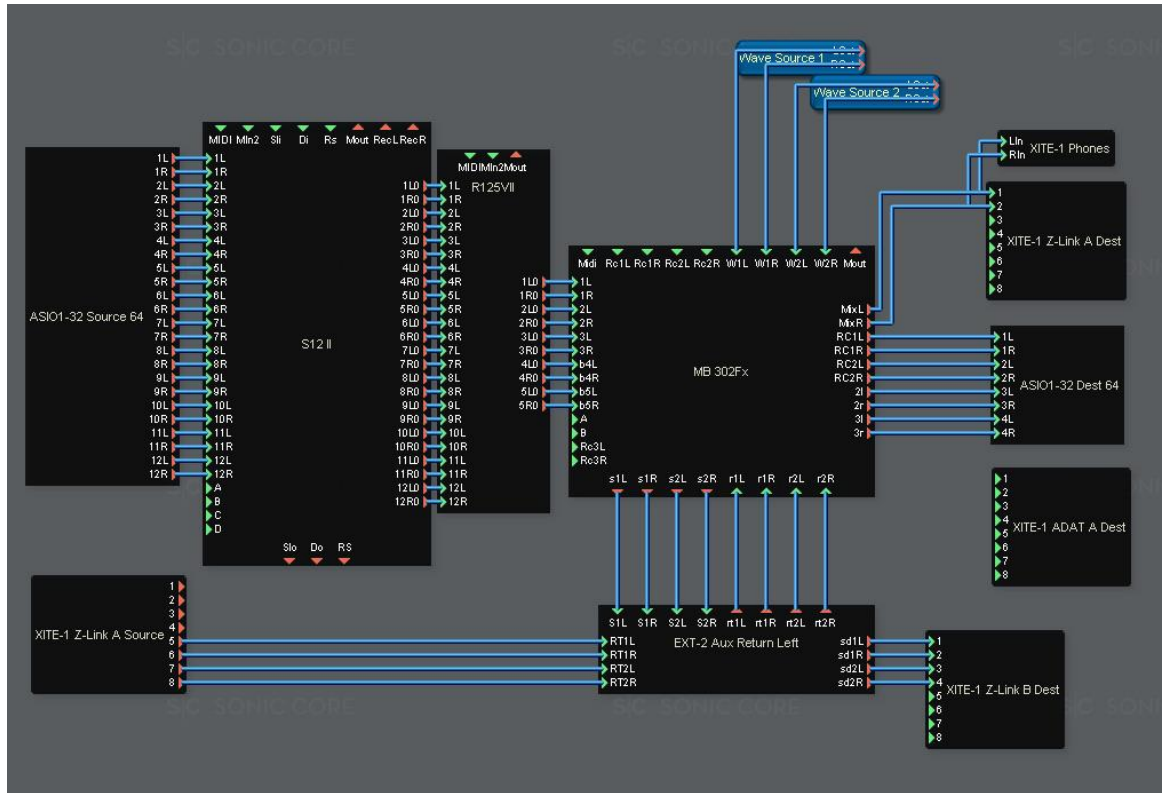
S12 - 12 Stereo Channel mIxer with advanced Fx Channel. It could be 8 and 4 channels.

The MB 302 Fx

The switch above the Master fader allows to change the source of what you are listening through your main outputs. You can audition the effects of the master chain, and most channels which do not have a Solo button. The options available on that switch is different from a Master Bus mixer to another and they are sometimes very limited to save resources.

The switch of the Rec Channel contains more options because it focus on what you would actually need to record "solo" for further editing in your DAW.

In the Rec Out, some channels can be recorded "Pre". It allows not to record the effects on this particular channel. You would do this when you want to sample to source and then send it again to this channel, to keep the Scope effects "live" or editable (eg. you are not yet sure of the effect or want to record something live with it but could not do it at the same time as the source).

On the 302Fx, Channel 1 is not modulated and includes only 2 routing positions (series and parallel-quad).

Channel 2 and 3 have their own output for recording directly to Asio. Eventhough they exist as sources on the Rec Channels, it is sometimes easier to record the effects on those channels at the same time as the dry source but on a different audio channel. This is the case when a delay or reverb is used as an aux effect (without the dry).

Project Example: Compact Home Studio - R165 + Switched M4 + 2 External Racks

This project is nice for someone with a number of external sources such as microphones, guitars, synths. The use of modules of 4 or 8 matches the hardware inputs of Scope/Xite, allowing a better organization of things. A switch is used to swicth between the Xite Mic/Di input and free Zlink inputs to alternate recording of Mics with additional synths that you never use at the same time as the microphones. Another switch could have been be used on the last 4 Asio channels to switch with an ADAT or Zlink input with stereo external gear (laptop, stereo synths etc). When composing and recording, a limited amount of asio channels are required, and as you advance in your project, you don't need external synths and switch to asio extra Asio channels.
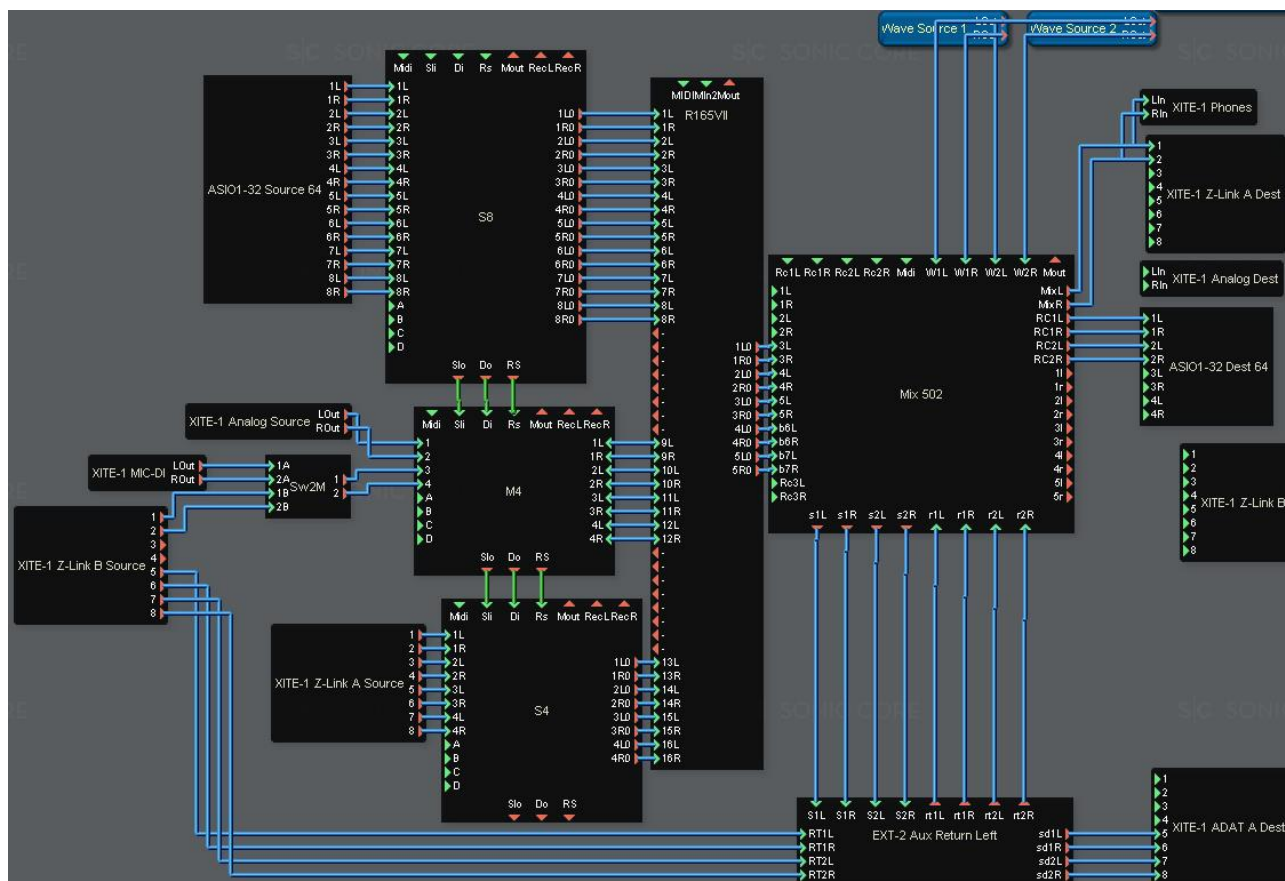
END OF USER'S GUIDE

Modular Mixer v2 Pack 1.

Credits: devices and graphics: © Mehdi Touzani / SpaceF 2017