



User Manual

OsiMIDI Stage 1.6.3

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1 Introduction

What's OsiMIDI Stage?

OsiMIDI Stage is a software that allows you to control digital mixers of Behringer XAIR and X32 series, and Midas MAIR and M32 series, using MIDI controllers (Behringer X-Touch, Behringer X-Touch Compact, Behringer BCF 2000, iCon Platform M, Korg nanoKontrol 2, etc...).

OsiMIDI Stage can control all XAIR and MAIR mixer models (XR12, XR16, X18, XR18, MR12 and MR18), as well as all X32 and M32 mixer models.

Communication between OsiMIDI Stage and the digital mixers is carried out using the standard OSC (Open Sound Control) protocol, over the local network, either via WIFI or through Ethernet cable.

The connection with Ethernet cable allows distances between the PC and the digital mixer up to 100 meters (distance can be greater using switches between the PC and the mixer), much higher than those achieved with MIDI cables.

Usually, MIDI controllers are USB devices so they must be plugged into a USB port of the PC, but also MIDI controllers with other kind of connection can be used, as Bluetooth for example.

How it works?

OsiMIDI Stage receives MIDI messages from your MIDI controller, interprets them, and consequently sends the corresponding OSC commands to the digital mixer through the local network.

The communication is bidirectional, that is, it also works in the opposite direction: OsiMIDI Stage receives messages from the digital mixer with the changes made to the parameters through other applications, such as X AIR Edit, M AIR Edit, X32 Edit or M32 Edit for PC, X AIR for Android or X AIR for iOS. The received values are transferred to the MIDI controller, synchronizing the position of the motorized faders, and updating the leds of the knobs and buttons. The motorized faders and knob leds are only updated in controllers compatible with Mackie Control. The leds of the buttons are updated in any type of MIDI controller.

OsiMIDI Stage scribble strips, meters and 7 segments displays, in controllers that are capable of emulating Mackie Control and that have these elements. In the scribble strips the names of the channels or the values of the parameters will be displayed, according to the function of the knobs selected at each moment.

Main functions

- Layered working mode for faders: The faders adjust the channel level to the main bus, send level to a monitor or effect bus, or DCA group level, depending on the currently selected layer.

The current layer is identified by the led of the corresponding button on the MIDI controller. It is also shown in the right side of the Timecode Display, if we use a MIDI controller that is able to emulate Mackie Control and that has that display.

The number of layers depends on the number of buses in the digital mixer model:

- XAIR and MAIR Series: Main LR, Bus 1 to 6, FX 1 to 4, DCAs, DCAs + FX and 2 custom layers.
- X32 and M32 Series: Main LR, Bus 1 to 12, FX 1 to 4, M/C, Matrix, DCAs and 2 custom layers.
- Control of the master of the current layer, using the fader at the right of the MIDI controller.
- Control of solo and mute of each channel, including masters and DCAs. Clear solo can be controlled, too.
- Selectable functions for knobs. Depending on the selected function, the knobs allow you to modify the gain or pan of the channels of the strip to which they belong, or the gate, equalizer, compressor or low-cut parameters of the selected channel.

The current function is identified by the corresponding led of the button on the MIDI controller. It is also shown in the left side of the Timecode Display, if we use a MIDI controller that is able to emulate Mackie Control and that has that display.

- Channel selection. It allows to select which channel we are editing with the knobs, when the function of knobs is: gate, compressor, equalizer or low-cut. The selected channel can be set using the “select” buttons on each strip of the controller, or through the left channel and right channel buttons.

The selected channel is identified by the corresponding led of the button on the MIDI controller. It is also shown in the Assignment Display, if we use a MIDI controller that is able to emulate Mackie Control and that has that display.

- Paging of channels by banks. Functions left bank and right bank.
- HOME function. Performs 2 functions simultaneously: Selects the fader layer Home LR and selects the Gain knobs function.
- Control of mute groups.
- Control of the Auto Mix X Y groups.
- Control of the FX taps (for effects of type delay and chorus).
- Control of scribble strips, meters and 7 segments displays, in controllers that are capable of emulating Mackie Control and that have these elements. In the scribble strips the names of the channels or the values of the parameters will be displayed, according to the function of the knobs selected at each moment. The 7-segment displays will show the selected channel, and the function of the knobs and the faders layer currently selected.
- Colors on LCDs of the scribble strips when using the Behringer X-Touch controller or Behringer X-Touch Extender.

- Compatible with AES50 I/O stage boxes.
- OsiMIDI Stage allows to use up to 3 MIDI controllers for the fader bank, simultaneously, forming a group of controllers that behave as if you had a single controller with greater number of faders, knobs and buttons, allowing to form a bank with greater number of strips.
- In addition to the MIDI controllers of the fader bank, buttons external to the bank strips (buttons zone) can also be controlled with up to 2 additional MIDI controllers, and with the PC keyboard.
- Function "FADERS TO KNOBS", assigns to the knobs the same function as the faders. This function is useful with controllers such as the X-Touch-Mini, which has 8 strips, each with 1 knob and 2 buttons, but only the master strip has a fader. This way we can supply the lack of faders with the knobs.
- Pickup mode. When using controllers not compatible with Mackie Control, or without motorized faders, the position of the faders will not correspond to the current values of the parameters when changing bank or fader layer. The same will happen when changing the function of the knobs, when the knobs are not encoders but potentiometers. The pickup mode allows to avoid sudden changes in the values of the parameters, since the controller must reach the current value of the parameter so that it starts to change.
- 6 SHIFT buttons. SHIFT buttons allow you to assign more than one function to the same MIDI controller button.
- 2 custom layers of faders. The user can define the channels that make up each of these two layers.
- Synchronization with X AIR Edit. It allows OsiMIDI Stage to make selections in X AIR Edit, so that whenever we change the layer of faders, the function of the knobs, or the selected channel in OsiMIDI Stage, the selections will be transferred to X AIR Edit, so always we will be displaying in X AIR Edit the parameters that we are modifying with the MIDI controller. This feature is optional, OsiMIDI Stage does not need X AIR Edit to control the digital mixers, but its use greatly enhances the user experience.

OsiMIDI Stage works with the X AIR Edit application and with M AIR Edit, X32 Edit and M32 edit applications. For simplicity, in the manual we will mention only X AIR Edit, but all the comments referred to X AIR Edit will be equally valid for these four applications.

- Easy configuration using capture mode available in the configuration editor. To map the MIDI controllers, it is not necessary to enter the values manually, simply select a control on the application, and then trigger the equivalent control on the MIDI controller, the configuration editor performs the assignment automatically.
- Auto detection of digital mixers in the network.
- Listen mode. This mode allows to use the synchronization with X AIR Edit of OsiMIDI Stage when we control the digital mixer with an X-TOUCH controller in XCTL mode through Ethernet.

In listen mode OsiMIDI Stage does not control the digital mixer, it only listens to changes made to the mixer by other means (X-TOUCH controller in XCTL mode) and makes selections in X AIR Edit.

OsiMIDI Stage will select the Mixer, EQ, Comp, Gate tabs, as well as the channels and layer buttons (Main LR, Bus1-12, FX1-4, etc...), depending on the parameters that are being modified at any time, facilitating visualization of changed parameters on X AIR Edit.

What USB MIDI controllers can I use?

You can use 2 types of MIDI controllers:

- MIDI controllers that emulate Mackie Control. Almost always have motorized faders and encoders, so this type of controllers are perfect for the fader bank zone. Behringer BCF 2000, X-Touch, X-Touch Extender, X-Touch Compact, iCon Platform M, among others, would be included in this group. The higher-end ones, such as the Behringer X-Touch, also include meters, scribble LCD strips, Assignment Display and Timecode display.
- Generic MIDI controllers. They are usually cheaper than the controllers compatible with Mackie Control, although they do not usually have motorized faders, and many do not have encoders, but potentiometers. For these controllers, the pickup mode will allow us to work in the fader bank zone without making sudden changes in the values of the parameters. This group would include controllers such as Korg nanoKontrol, APC 40 MKII, etc. ...

Localization

The application and the help can be configured from the application. The application and help are available in English and Spanish.

Note

OsiMIDI Stage does not supply the digital mixers nor the MIDI controllers, you must purchase them from a distributor of these products.

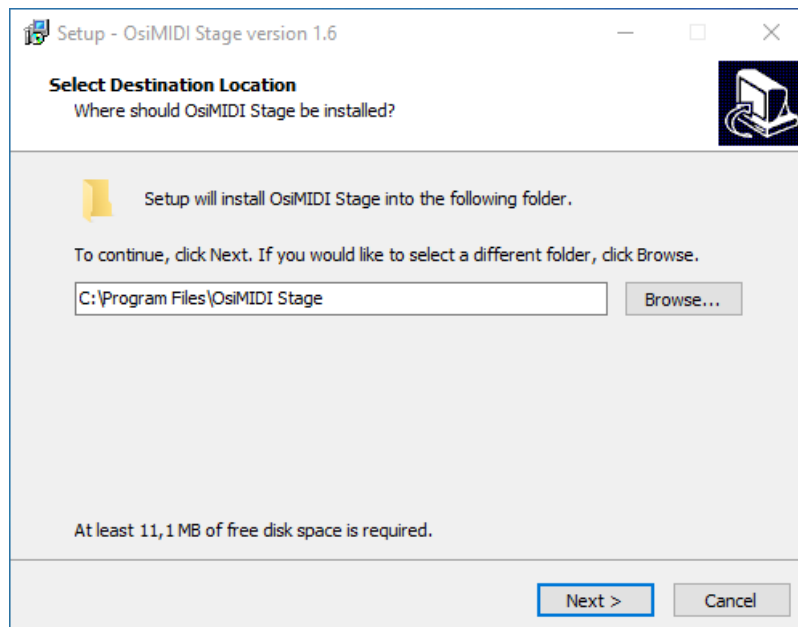
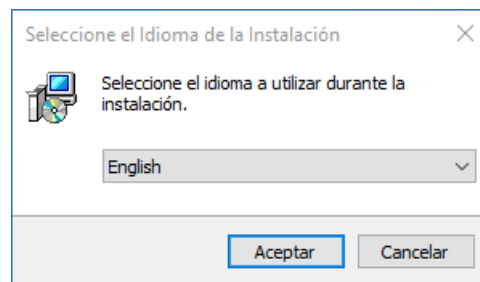
X AIR, X AIR Edit, X32 Edit, BCF 2000, X-Touch, X-Touch Extender and X-Touch Compact are trademarks of Behringer. Platform M is a registered trademark of Icon Digital International Ltd. APC 40 MKII is a trademark of Akai Professional.

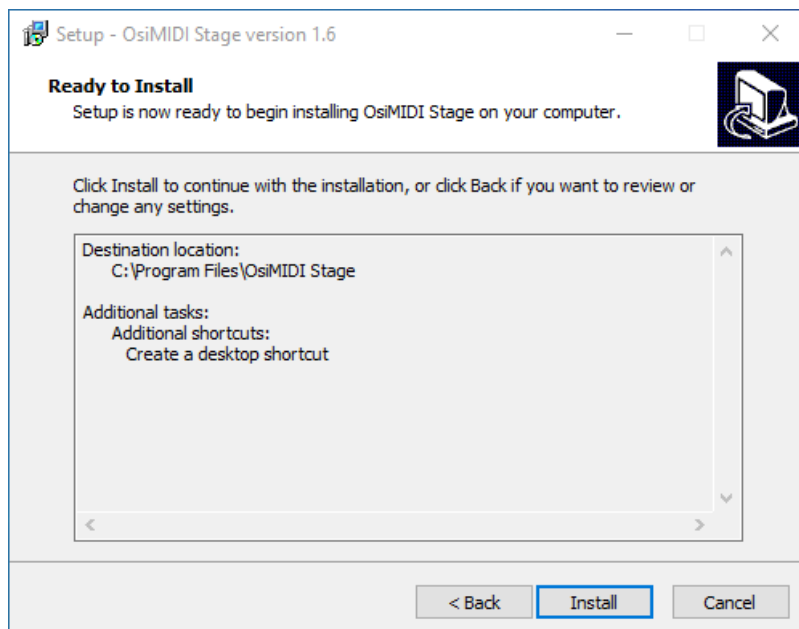
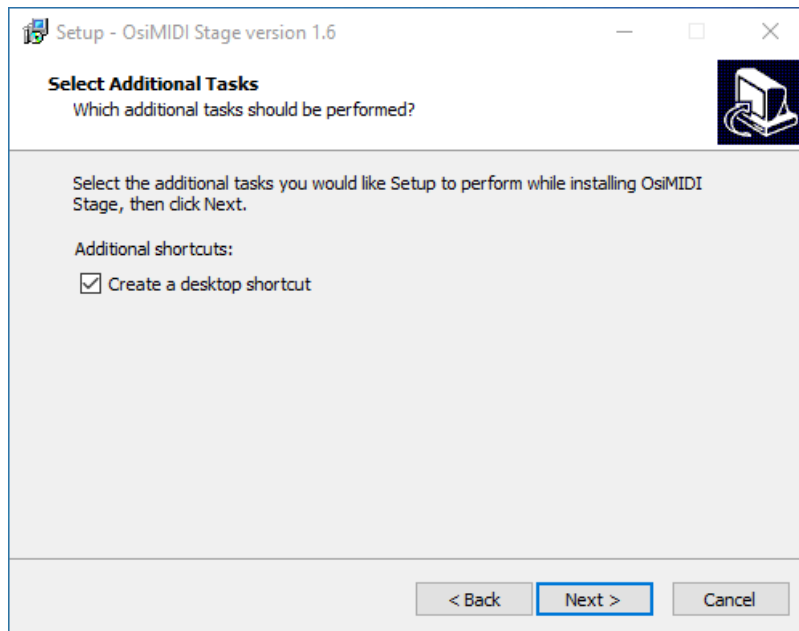
2 Setup

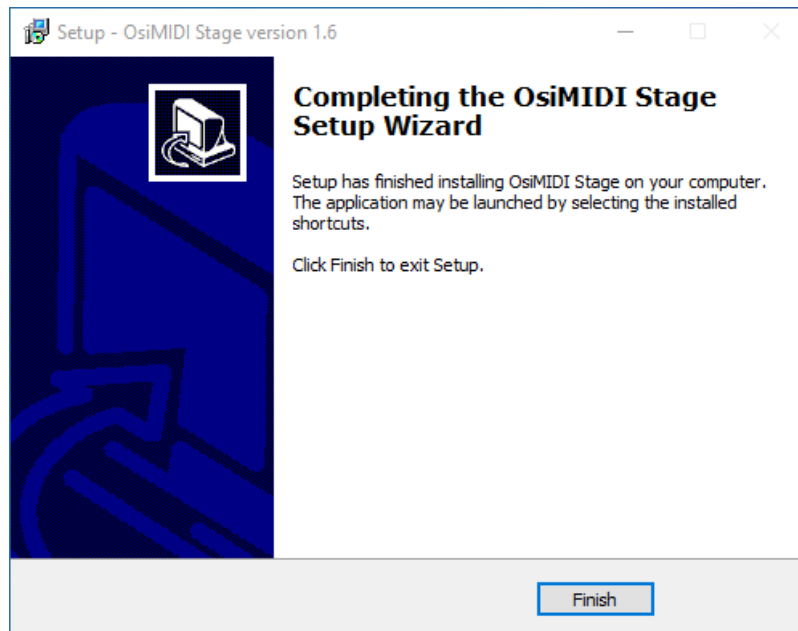
To install OsiMIDI Stage, first download the installable from the web <https://www.osimidi.com/stage>.

2.1 Setup on Windows

After running the installable, we select the language of the installation, and accept the different steps of the wizard until the installation finishes:







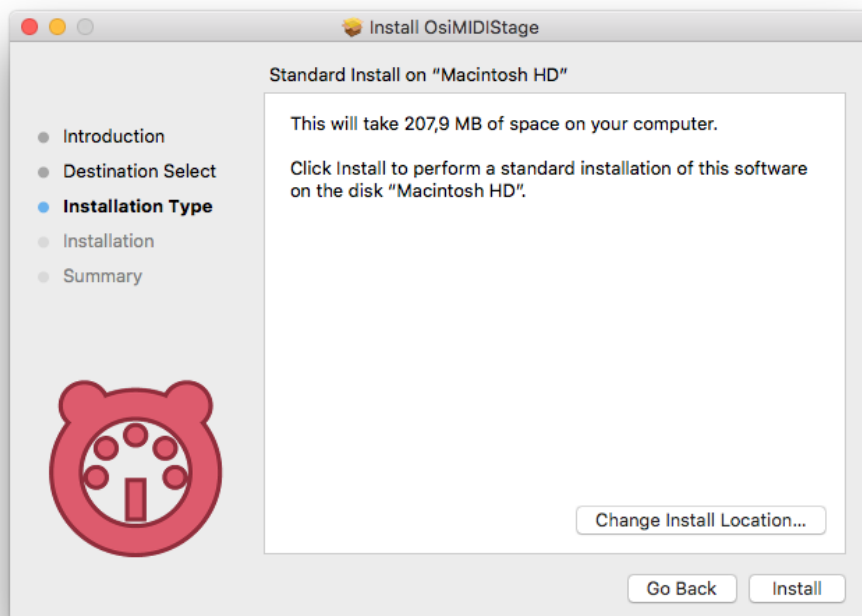
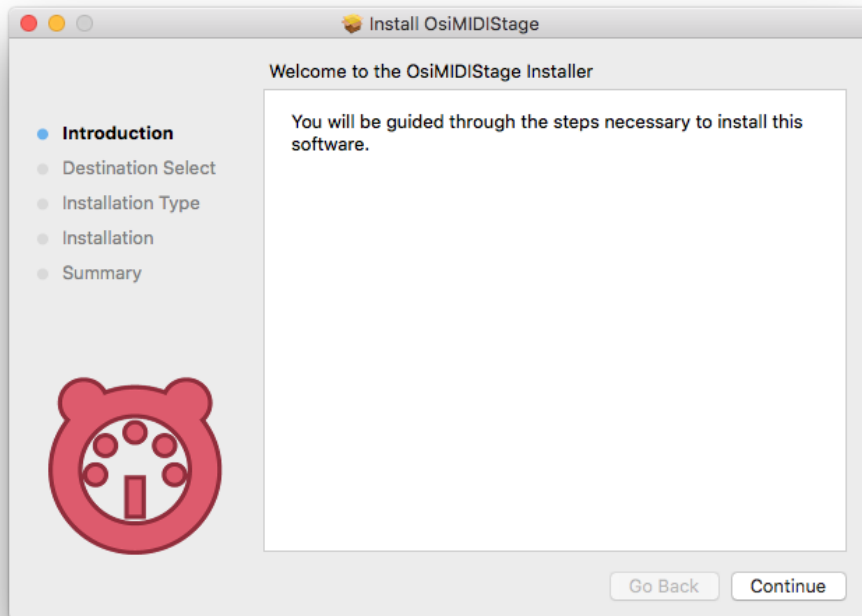
The installation creates one shortcut on the desktop:



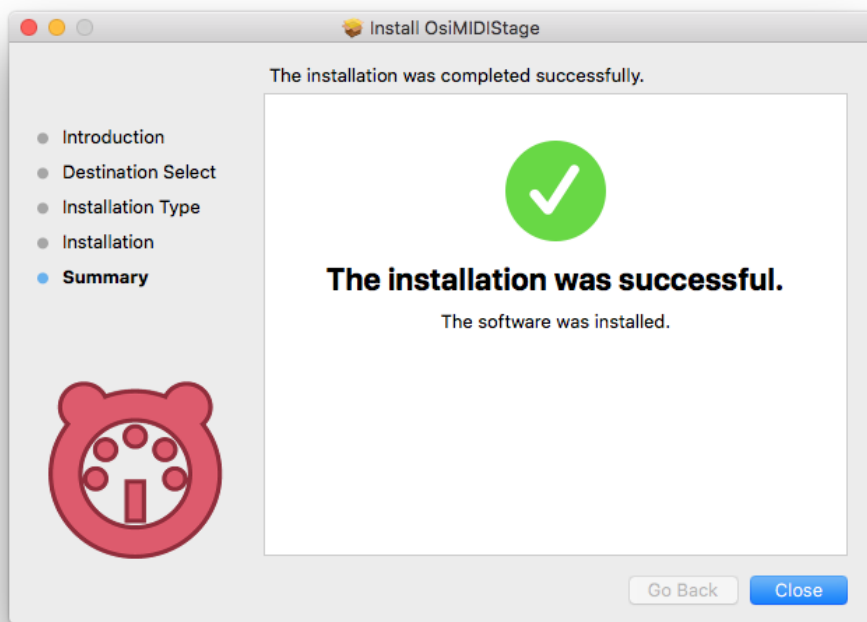
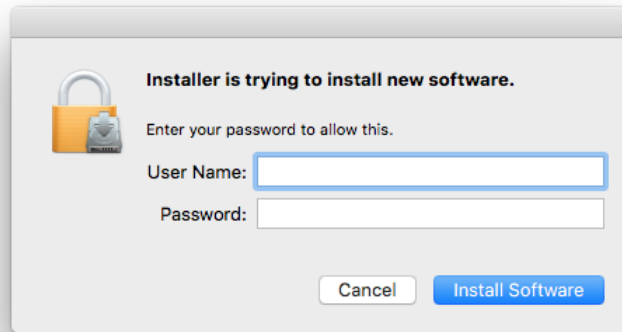
OsiMIDI Stage

2.2 Setup on Mac OS X

After running the installable, you must accept the different steps of the wizard until the installation finishes:



Enter your credentials when required.



T

The installation creates one shortcut for the OsiMIDI Stage application in Launchpad:



OsiMIDI Stage

2.2.1 Grant access to OsiMIDI Stage

Once the installation is complete, it is necessary to give access to OsiMIDI Stage in the "Security & Privacy" panel of System Preferences.

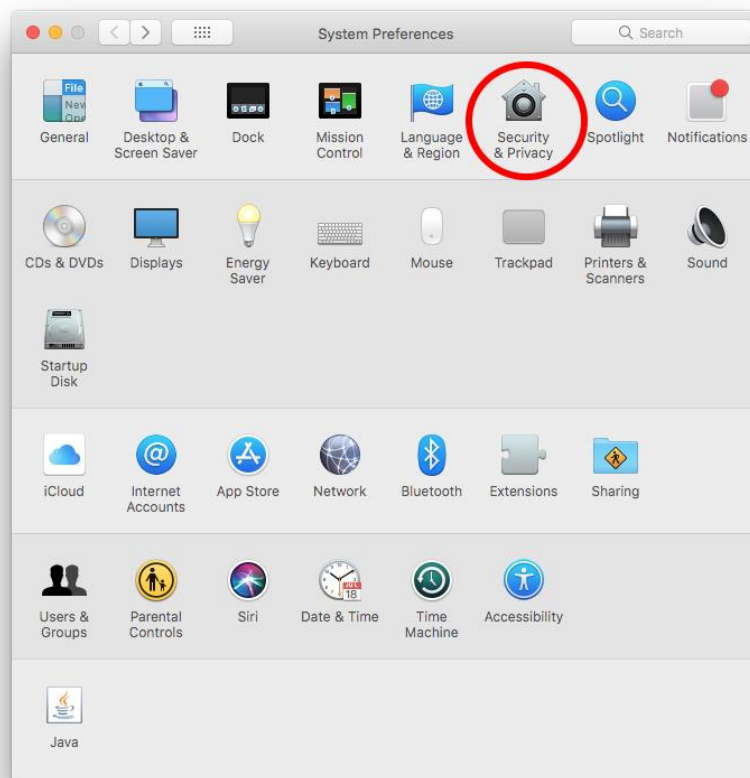
This is necessary for the synchronization with X AIR Edit to work, since it allows OsiMIDI Stage to send mouse clicks to this application, and thus be able to select channels, layers, etc...

It is also necessary so that OsiMIDI Stage can detect keystrokes, even when the application is minimized.

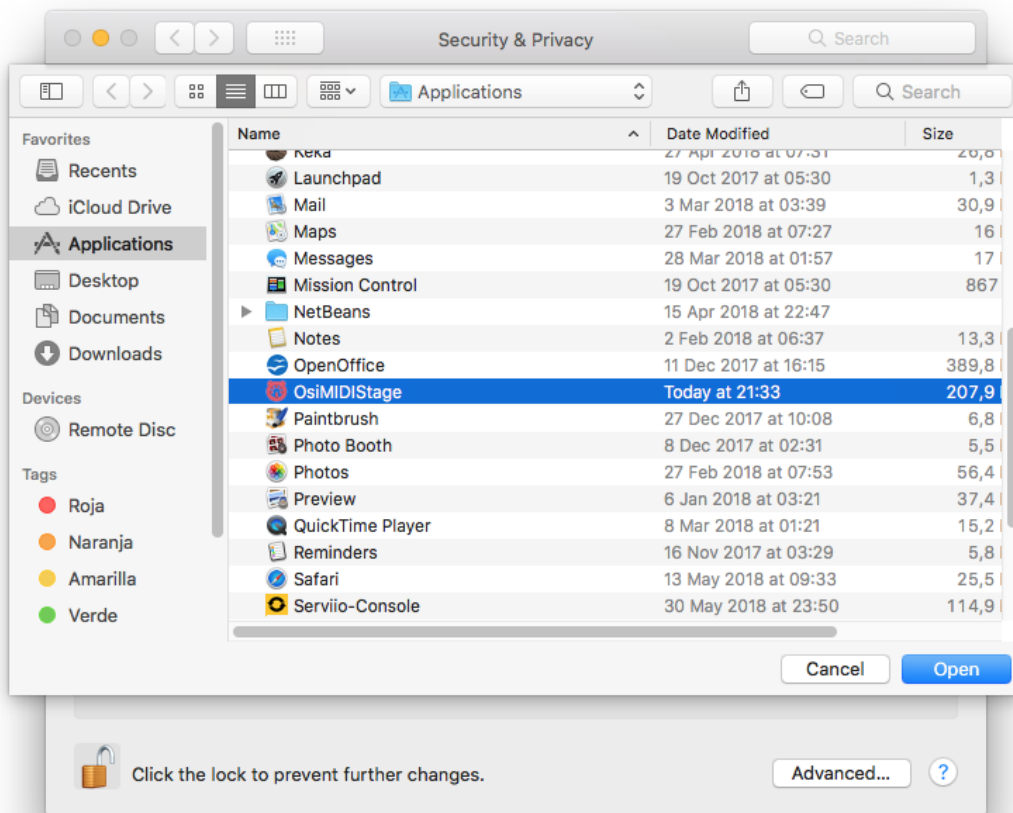
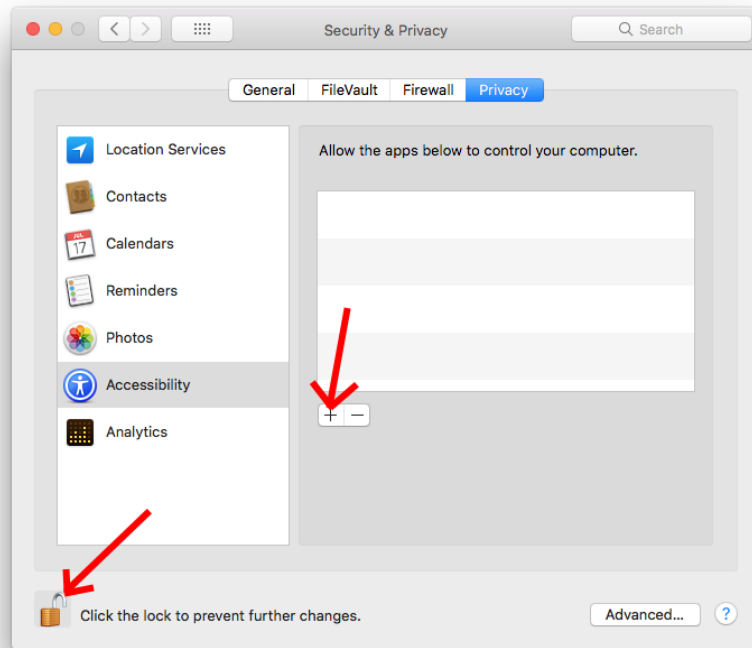
We can give access to the application by 2 methods:

- **Method 1:**

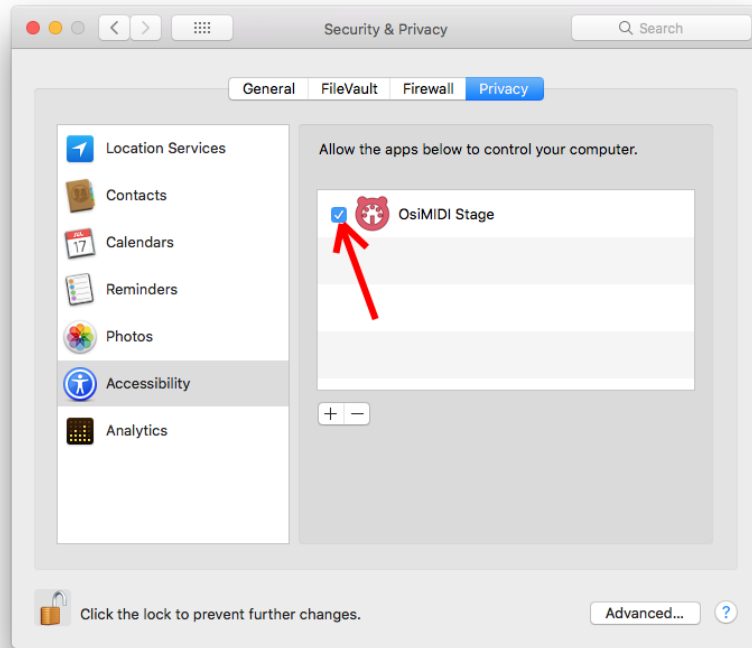
Open System Preferences , and select "Security & Privacy":



Click on the lock to make changes, and click on the + to add OsimiMIDI Stage to the list of applications with permissions to control the computer:



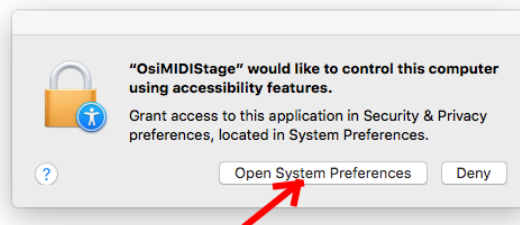
Once OsimiMIDI Stage is added to the list, we make sure that the checkbox is selected.



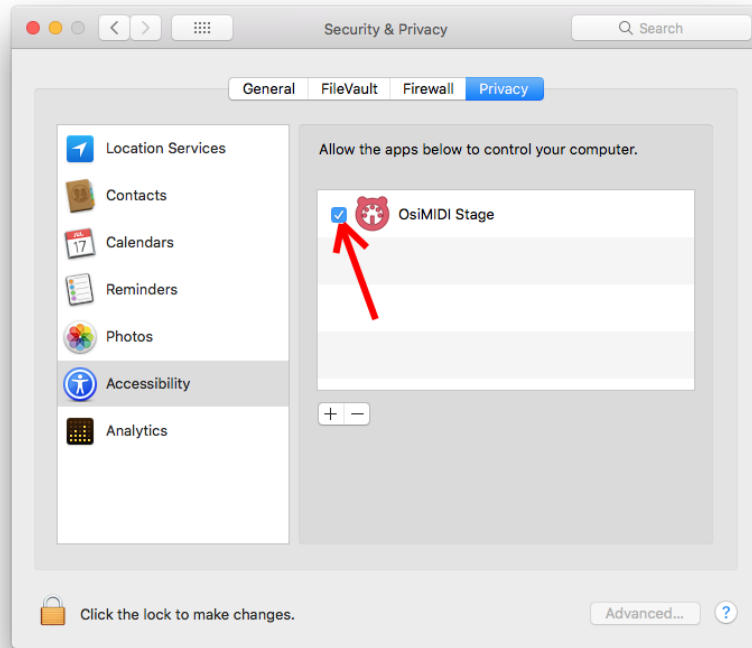
With this, OsiMIDI Stage already has permissions to control X AIR Edit and to listen to the keyboard in a global way.

- **Method 2:**

After opening OsiMIDI Stage, the following window will be displayed indicating that OsiMIDI Stage wants to control the computer, then click on the "Open System Preferences" button.



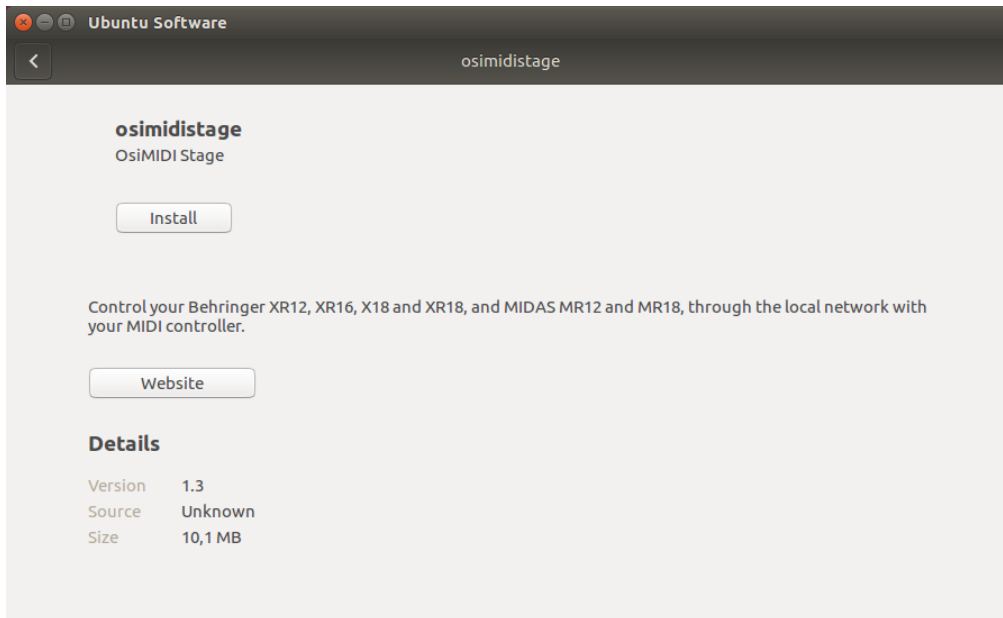
Once the preferences screen is open, proceed in the same way as with method 1, opening the lock and checking the corresponding checkbox for OsiMIDI Stage:



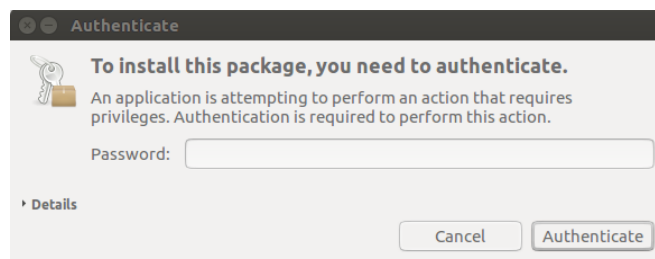
Finally, restart OsiMIDI Stage.

2.3 Setup on Linux (Ubuntu / Raspberry Pi)

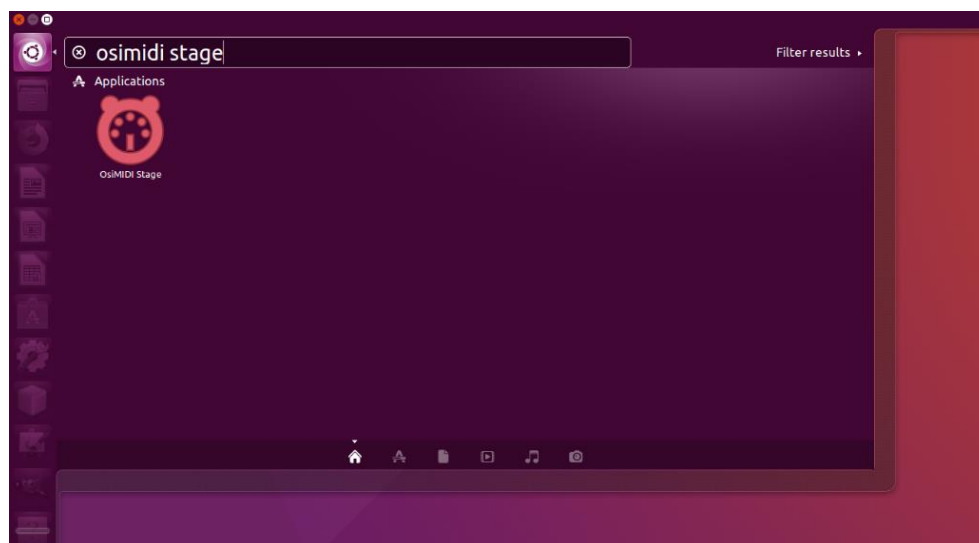
After running the installable, you must accept the different steps of the wizard until the installation finishes:



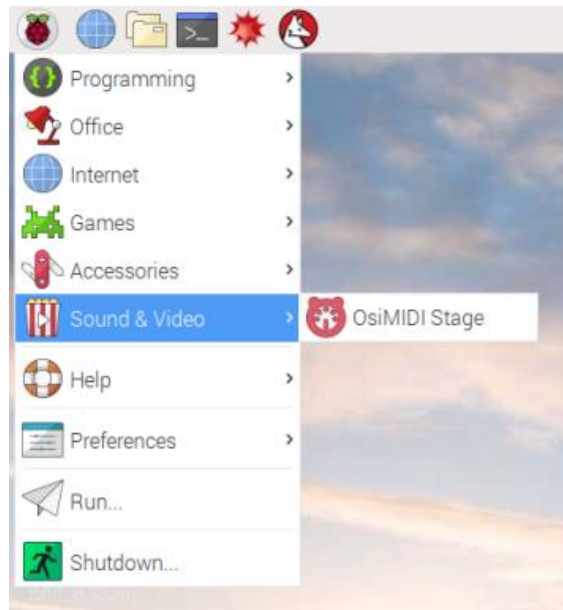
Enter your credentials when required.



On Ubuntu, an OsiMIDI Stage shortcut will be available in the Ubuntu Dash:



On Raspberry Pi, a shortcut for OsiMIDI Stage will be available under “Sound & Video” menu:

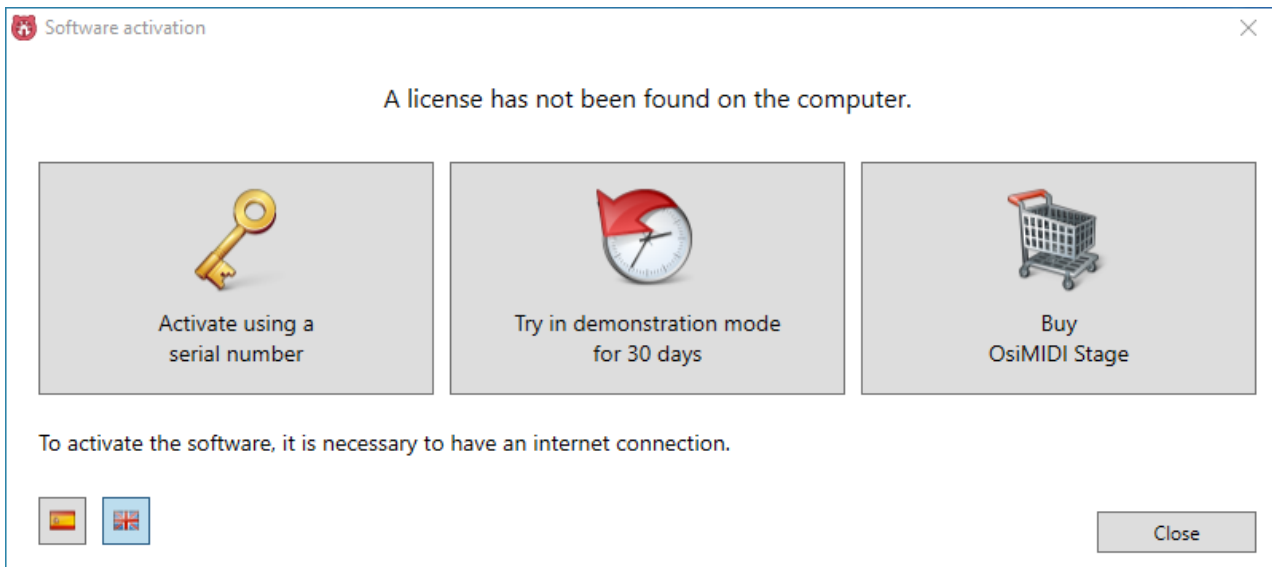




To uninstall OsiMIDI Stage on Ubuntu or Raspberry Pi, run this command in the terminal:

```
sudo dpkg --purge osimidistage
```

3 Software activation

When you start the software for the first time, the software activation window is displayed:



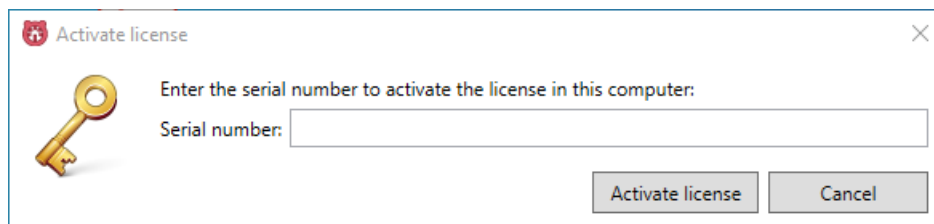
The buttons  and  in the lower left corner allow you to change the language of the window to English or Spanish.

3.1 Activate using a serial number

If you have a serial number, you can activate the application by clicking on the "Activate using a serial number" button:



The license activation dialog will be displayed, in which you must enter the serial number, and then click on the "Activate license" button:



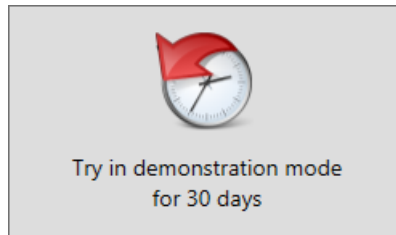
To activate the software, it is necessary to have an internet connection.

3.2 Test in demonstration mode

If you want to test the application before purchasing a license, you can activate it in demo mode. Demo mode allows you to test the application for free for 30 days.

The only limitation of the demonstration mode is that the application disconnects from the X AIR mixer after 5 minutes of use, being necessary to wait 1 minute to reconnect again.

To activate the demo mode, you must click on the button "Try in demonstration mode for 30 days":



To activate the demonstration mode, it is necessary to have an internet connection.

Once the 30 days of the demonstration period have expired, it is necessary to acquire a license to continue using the product.

3.3 Buy OsiMIDI Stage

To acquire a license, you must navigate to the product website <https://www.osimidi.com/stage>. You can navigate to the product website by entering the URL in the browser, or by clicking on the "Buy OsiMIDI Stage" button:



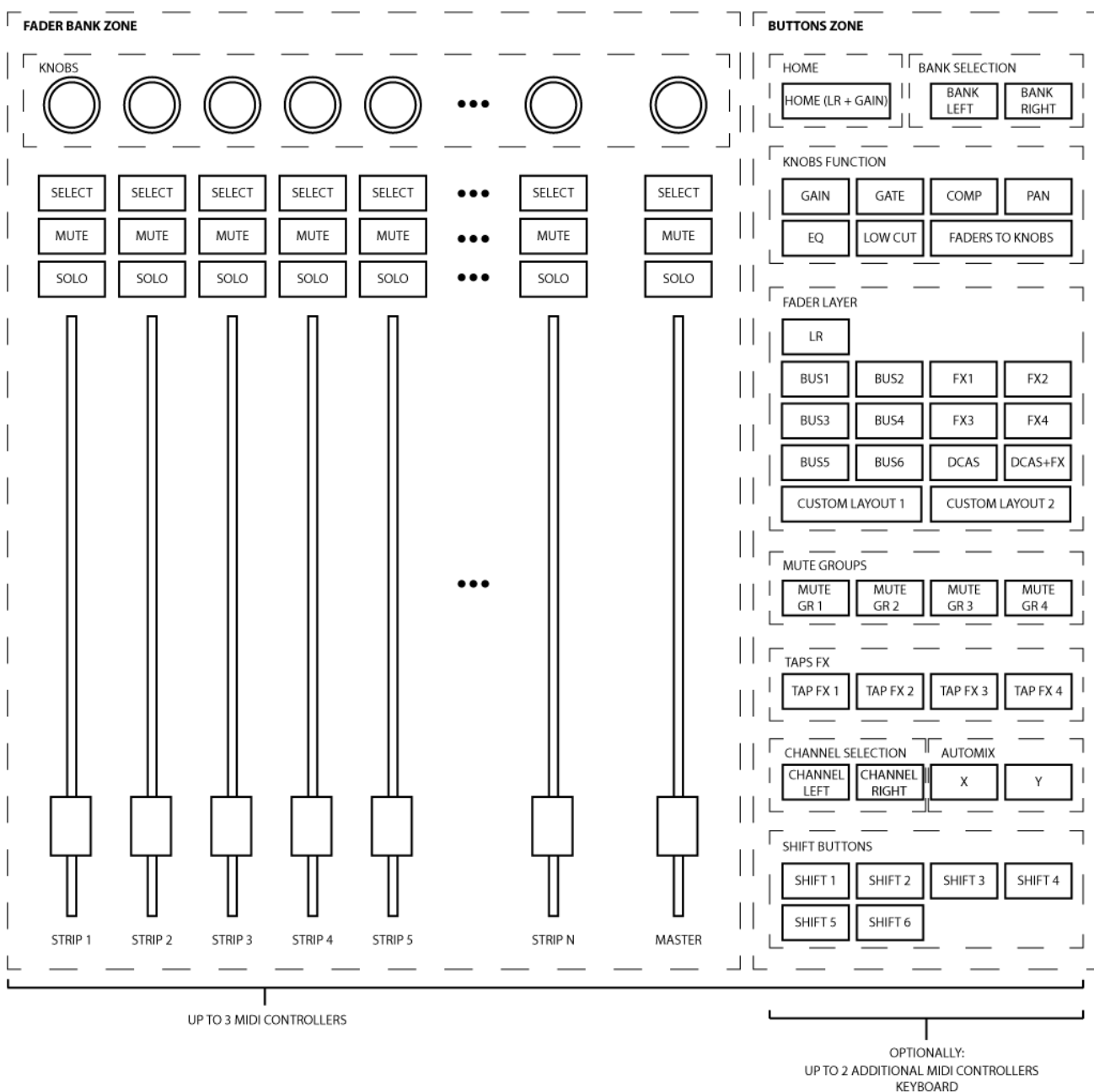
Once you are on the product website, you can use the "Prices" menu, available in the top bar, to move to that section, where you can start the purchase process, both individual licenses and license packs.

4 Operation of OsiMIDI Stage

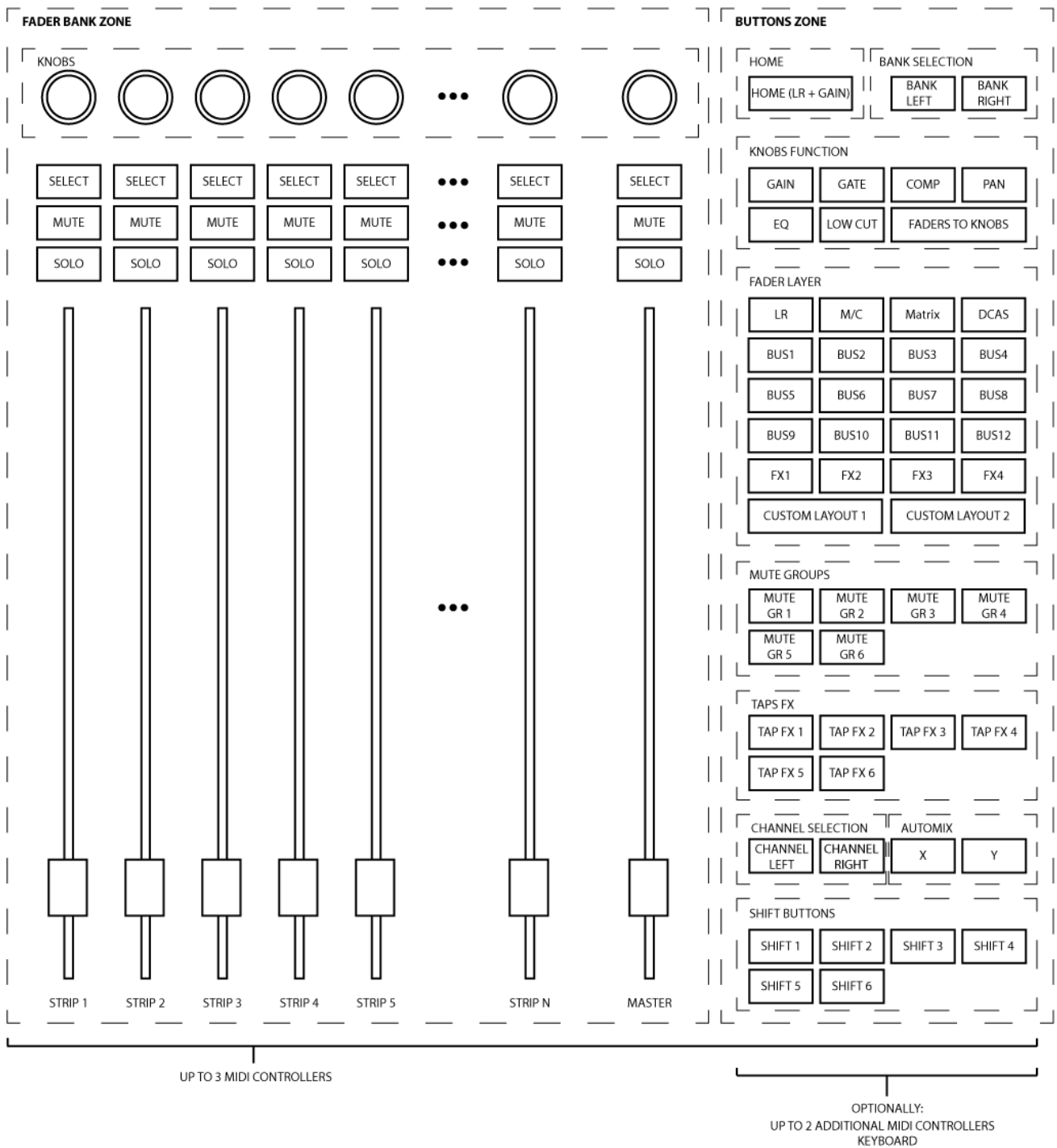
In this section, we will describe all the functions offered by OsiMIDI Stage.

OsiMIDI Stage is a virtual controller for digital mixers of Behringer XAIR and X32 series, and Midas MAIR and M32 series, which is controlled by one or more MIDI controllers. Some functions can be handled also with PC keyboard.

In the following diagram, we show all the functions of OsiMIDI Stage for XAIR and MAIR models (XR12, XR16, X18, XR18, MR12 and MR18):



In the following diagram, we show all the functions of OsiMIDI Stage for X32 and M32 models:



In these diagrams, we have grouped the different functions in 2 zones, which we will explain in the following sections: fader bank zone and buttons zone.

4.1 Fader bank zone

We can use up to 3 MIDI controllers in this zone. When we use more than one MIDI controller, the controllers form a bigger control surface, that behaves as if we had a single controller with a greater number of faders, knobs and buttons.

The fader bank consists of several channel strips, the amount of which depends on the number of faders in the configured controller or group of controllers.

The size of the fader bank will be equal to the number of faders of the controller or group of controllers, minus 1. The fader to the right of the controller or group of controllers will never be part of the bank, since its function will be always master fader.

For the fader bank zone, the controllers that emulate Mackie Control provide a better user experience, since they usually have motorized faders and encoders. Although of course it is also possible to use cheaper generic MIDI controllers, being useful in this case the pickup mode.

It is not possible to map buttons from the fader bank zone to the PC keyboard, only the buttons in the button area can be controlled with the keyboard.

Example 1:

We have 1 single MIDI controller with 8 faders. In this case the 7 faders on the left of the controller will be part of the fader bank, while the fader on the right will be the master fader. The size of the fader bank is 7 strips.



Example 2:

We have a configuration of 2 MIDI controllers, each of 8 faders. In this case the 8 faders of the first controller, and the 7 faders to the left of the second controller will form part of the fader bank, while the fader to the right of the second controller will be the master fader. The size of the fader bank is $8 + 7 = 15$ strips.



4.2 Buttons zone

OsiMIDI Stage has 4 global variables: selected bank, faders layer, selected channel and function of the knobs. The command sent to the digital mixer when acting on a control of a MIDI controller belonging to the fader bank will depend on the current values of these global variables. These global variables are controlled by the buttons available in the buttons zone, except for the selected channel controlled by buttons in the fader bank.

The buttons in the buttons zone also allow you to control mute groups, and taps.

The buttons in the button area can be mapped to the MIDI controllers of the fader bank zone, and to the keyboard. You can also define 2 additional controllers specific to the buttons zone.

4.3 Bank selection

The X AIR digital mixers have 21 channels (16 input channels + auxiliary input + 4 send levels to FX), the number of channels of the X32 mixers is even higher (32 input channels + 8 auxiliary inputs + 4 stereo send levels to FX). Usually, the fader bank will have a lower number of strips, for example, it will be 7 in the most common case of working with a single 8 fader controller. To handle all the channels of the digital mixer, we will group the channels into banks. Each bank will have as many channels as strips have our fader bank, so that the MIDI controller can handle the channels of a single bank at any time, being possible to switch from a bank to the adjacent banks.

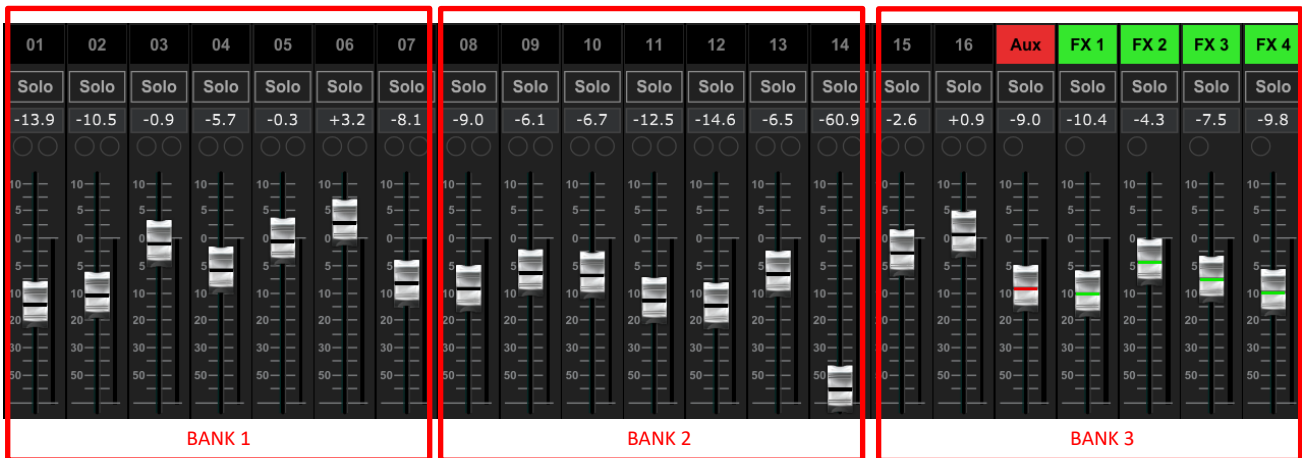
OsiMIDI Stage provides two functions, BANK LEFT and BANK RIGHT, available in the buttons zone, that allows you to switch from the current bank to the previous bank, or to the next bank, respectively.

Example 1:

Suppose we are working with a XR18 mixer and a single MIDI controller with 8 faders. As the fader on the right is the master fader, we will have a bank size of 7 faders, which will have the following banks:

- 1st bank: Channels 1 to 7.
- 2nd bank: Channels 8 to 14.

- 3rd bank: Channels 15 to 16, AUX, and FX1 to FX4.



The operation would be as follows. When starting OsiMIDI Stage the current bank is bank 1. If we press BANK RIGHT, we move to bank 2. If we now press BANK LEFT, we change to bank 1. If we press BANK RIGHT twice, we change to bank 3.

If we press BANK LEFT when we are in bank 1, or BANK RIGHT when we are in bank 3, the current bank will not change.

Example 2:

Suppose we are working with a XR32 mixer and two MIDI controller with 8 faders each one. The fader to the right of the second controller (rightmost controller) will be the master fader, so we will have a bank size of 8 + 7 = 15 faders, which will have the following banks:

- 1st bank: Channels 1 to 15.
- 2nd bank: Channels 16 to 30.
- 3th bank: Channels 31 to 32, Aux1 to Aux8, and FX1L to FX3L.
- 4th bank: Channels FX3R to FX4R. We will only use the first 3 strips of this bank, the rest will have no use.



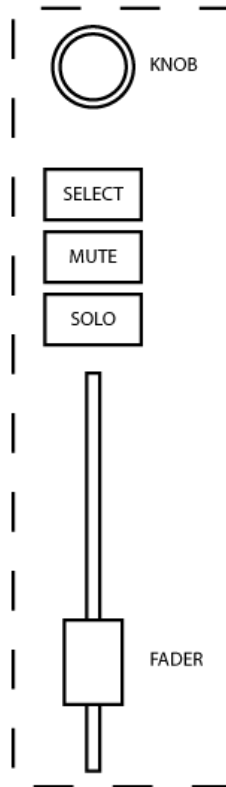
With XAIR mixers, the current bank is always the same for the following fader layers: Main LR, Bus1 to Bus6, and FX1 to FX4. DCAs, DCAs + FX layers, and custom layers, have independent paging.

With X32 mixers, the current bank is always the same for the following fader layers: Main LR, M/C, Bus1 to Bus12, and FX1 to FX4. DCAs, Matrix, and custom layers, have independent paging.

4.4 Channel strips

The fader bank is composed of channel strips. We also have a master strip to control the masters of each bus.

Each bank strip allows you to control one channel of the digital mixer. The channel controlled by a strip at any given time will depend on which is the current bank.



The channel strip in OsiMIDI Stage consists of the following controls:

- Fader. It allows you to modify the strip channel level or adjust the AUX / FX send level depending on the bus selected by the current fader layer. When it is the master fader, it adjusts the main output level of the bus that is currently selected by the current fader layer.

In the case of MIDI controllers compatible with Mackie Control that have motorized faders, when you modify the level of the channel associated with the strip, from another application such as X AIR Edit, OsiMIDI Stage will move the motorized fader to the new channel level.

- Knob. Depending on the selected knobs function, the knob allows you to modify a parameter on the channel of the strip to which it belongs (gain or pan) or a parameter of the selected knobs function on the selected channel (for example, threshold parameter of compressor of the selected channel).

When we use controllers compatible with Mackie Control that have knobs with leds ring (BCF2000 for example), the leds of each knob will always reflect the current value of the parameter associated with that knob.

Different modes of representation of the parameters will be used through the leds, one or the other will be used depending on the parameter:



OsiMIDI Stage works both with encoder type knobs (relative mode) and potentiometer type (absolute mode). Virtually all controllers that emulate Mackie Control have encoders, which is the type of knob that provides the best user experience.

- SELECT button. Sets as the channel selected in OsiMIDI Stage, the channel of the strip to which the button belongs.
- SOLO button. Solo of the channel of the strip.
- MUTE button. Mute of the channel of the strip.
- Meter. In Mackie Control controllers with meters, OsiMIDI Stage will show in them the input level of channels in each moment.

4.5 Selected channel

The SELECT buttons on the channel strips, allow you to select a channel. Selecting a channel does not send any command to the digital mixer, it is a state that stores OsiMIDI Stage, and defines on which channel the parameter changes made with the knobs will be applied.

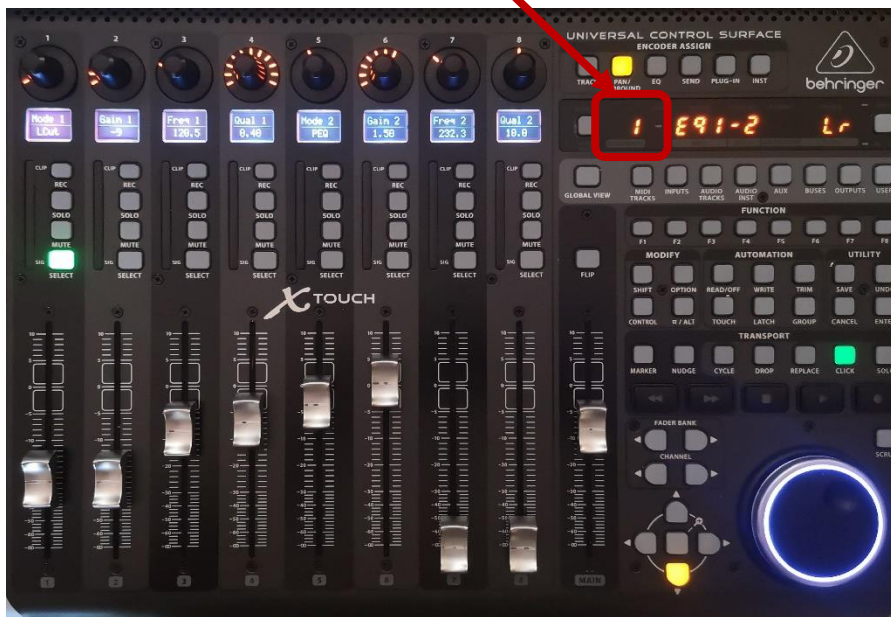
The selected channel can be changed using CHANNEL RIGHT and CHANNEL LEFT buttons, too. CHANNEL RIGHT button moves the selection to the next channel, and CHANNEL LEFT button moves the select to the previous channel.

The gain and pan settings are not made on the selected channel, but on the channel of the strip containing the knob, when the function of the knobs is GAIN or PAN.

The selected channel will be shown on the MIDI controller by illuminating the led of the SELECT button of the corresponding strip. There will be a led lit, only if the selected channel is on the current bank.

The selected channel It is also shown in the Assignment Display, if we use a MIDI controller that is able to emulate Mackie Control and that has that display.

Assignment display - Selected channel



When the "Synchronization with X AIR Edit" function is active, the channel selections will be transferred to X AIR Edit always, that is, we will always have the selected channel in OsimIDI Stage selected in X AIR Edit, too.

4.6 Fader layer

The buttons in the FADER LAYER zone allow you to set the active layer for the faders. The layers available in OsimIDI Stage depend of the model of the digital mixer:

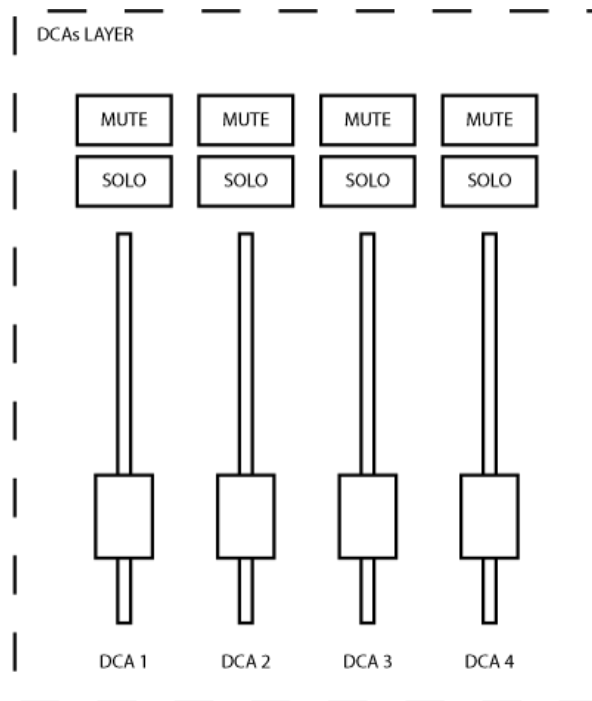
- XAIR: Main LR, Bus 1 to Bus 6, FX 1 to FX 4, DCAs and DCAs + FX, custom layer 1 and custom layer 2. Changing the layer maintains the selected channel. The current bank is also maintained between the Main LR, Bus 1 to Bus 6 and FX 1 to FX 4 layers. The rest of the layers have independent paging for each layer.
- X32: Main LR, M/C, Bus 1 to Bus 12, FX 1 to FX 4, DCAs, Matrix, custom layer 1 and custom layer 2. Changing the layer maintains the selected channel. The current bank is also maintained between the Main LR, M/C, Bus 1 to Bus 12 and FX 1 to FX 4 layers. The rest of the layers have independent paging for each layer.

If we press the button of a layer repeatedly, we will alternate between the layer corresponding to the button and the Main LR layer. For example, we are in Main LR and we press Bus 1, we will change to the layer Bus 1. If we press again Bus 1 we will change to Main LR

- Main LR. The faders adjust the volume level of the channels sent to the main bus. The main output is set with the master fader, the fader to the right of the controller or set of controllers. This layer is selected with HOME button (which also selects GAIN simultaneously), and with the Main LR button.
- M/C (X32). The faders adjust the level of the channels within the mono (center) bus.

- Bus 1 - 6 (XAIR) / Bus 1 - 12 (X32). The faders adjust the send level of each channel to the bus corresponding to the selected fader layer.
- FX 1 - 4. The faders adjust the send level of each channel to the bus corresponding to the selected fader layer.
- DCAs. In this layer, the first 4 faders correspond to DCA groups 1 to 4. The rest of faders, including the master fader, have no use.

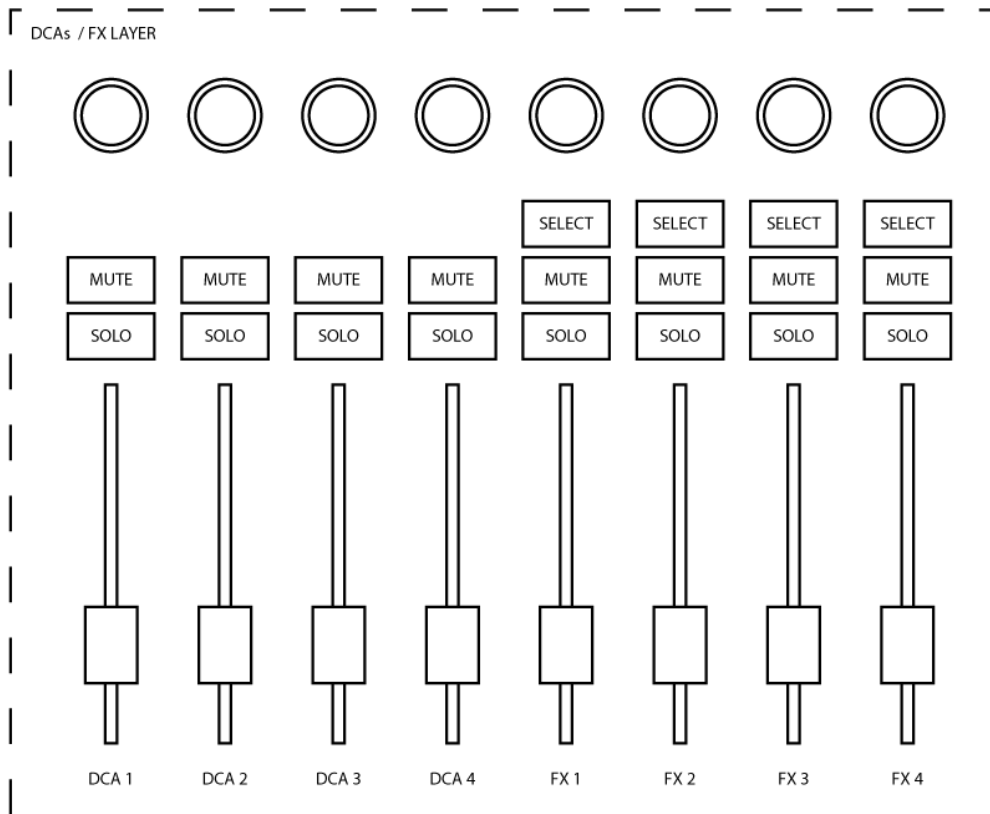
In this layer only work the fader, solo, and mute controls of the channel strips.



- DCAs / FX. The first 4 faders correspond to the DCA groups 1 to 4. The next 4 faders correspond to the send levels FX1 to FX4.

In the channels corresponding to the DCAs the selection button is not functional, but it can be used in channels FX1 to FX4. Likewise, knobs can only be used on channels FX1 to FX4. On an 8-fader controller, FX4 would be controlled with the fader to the right of the controller (master strip fader).

In this layer we do not have a master strip, so in an 8-fader controller, FX4 would be controlled with the fader at the right of the controller



- Matrix. Allows to adjust the levels of Matrix outputs.
- Custom layer 1 and custom layer2. These are layers defined by the user, in the configuration editor the user defines which channels are part of these 2 layers and in what order. In these layers there is no master strip, all the faders available in the fader zone are used for the fader bank.

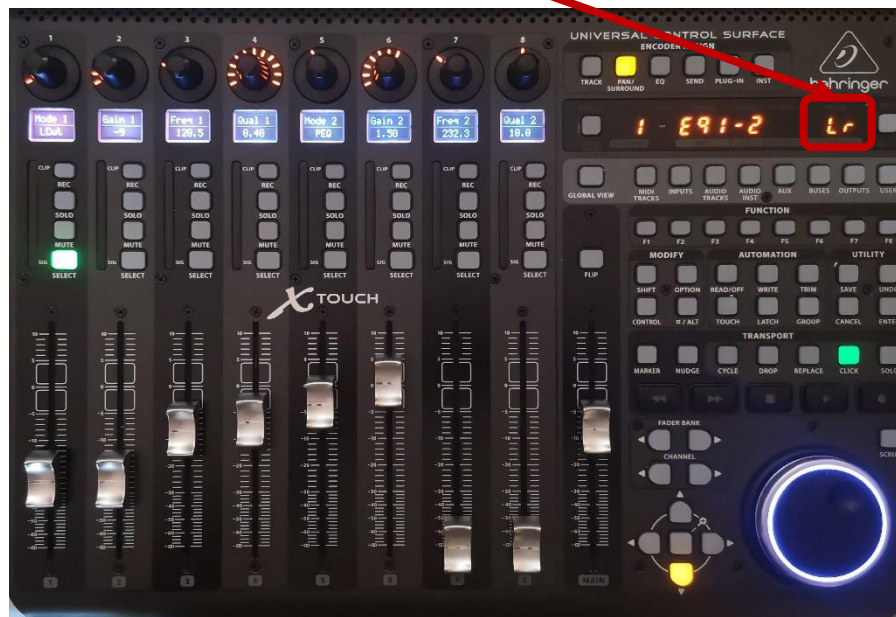
If we work with custom layers it is useful to map the GAIN button, in this way we can select gain without leaving the custom layer (HOME would change to Main LR).

The currently active fader layer will be shown on the MIDI controller by illuminating the corresponding button led.

The currently active fader layer it is also shown in the right side of the Timecode Display, if we use a MIDI controller that is able to emulate Mackie Control and that has that display.

When the "Synchronization with X AIR Edit" function is active, selecting a layer on the MIDI controller will also select it in X AIR Edit. Synchronization will take place in the case of layers available in X AIR Edit: LR, M/C (X32), Bus 1 to 6 (Bus 1 to 12 in X32) and FX 1 to 4.

Timecode display - Fader layer



4.7 Functions of the knobs

The knobs of the MIDI controller allow to modify different parameters of the channels of the digital mixer.

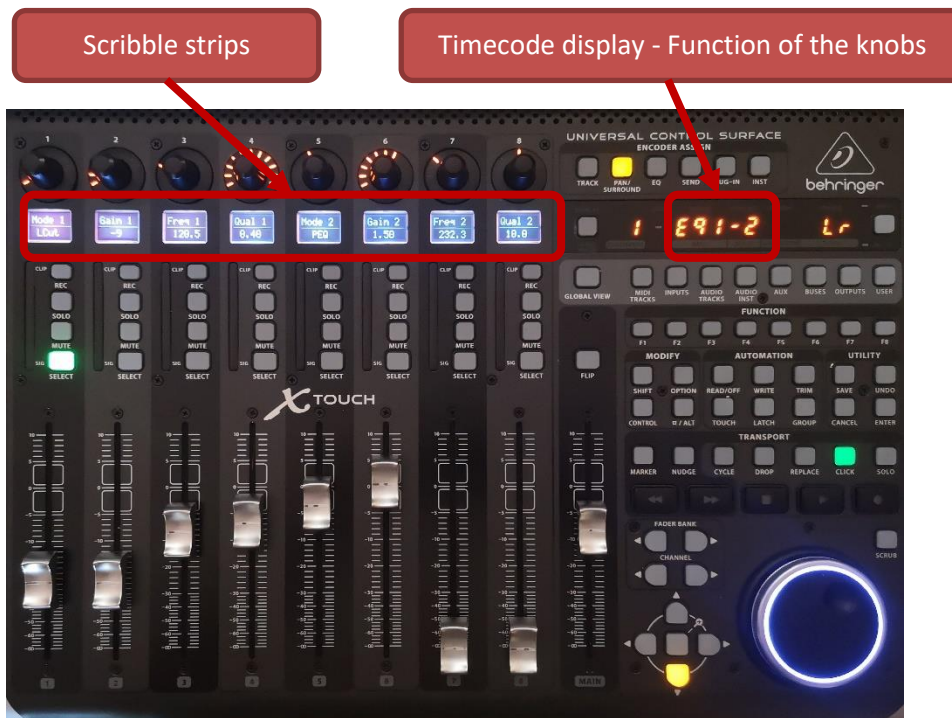
The functions that the knobs can perform in OsiMIDI Stage depend on the selected knobs function, from the following: gain, pan, noise gate, compressor, equalizer, low cut and level (FADERS TO KNOBS).

The knobs function currently active will be shown on the MIDI controller by illuminating the led of the corresponding button.

The knob function currently active it is also shown in the left side of the Timecode Display, if we use a MIDI controller that is able to emulate Mackie Control and that has that display.

When the selected function of the knobs is gain, pan, or level (FADERS TO KNOBS), the knob will modify that parameter in the channel of the strip to which it belongs. For all other functions, the knobs will modify parameters of the selected function on the currently selected channel.

In the case our controller has LCD scribble strips, these will show at all times the name of the parameter to which each of the knobs corresponds, in the first line of the display, and the current value of the parameter in the second line. As an exception, when the function of the knobs is gain, pan, or level (FADERS TO KNOBS), the name of the channel will be shown in the first line of the display, and the value of the parameter in the second line.



4.7.1 Gain

This function is selected with the HOME button, or with the GAIN button.

Each knob modifies the gain of the channel corresponding to the strip containing the knob.



When the "Synchronization with X AIR Edit" function is active, pressing HOME or GAIN on the MIDI controller will select the MIXER tab in X AIR Edit.

4.7.2 Pan

This function is selected with the PAN button of the KNOBS FUNCTION zone.

Each knob modifies the pan of the channel corresponding to the strip containing the knob.



When the "Synchronization with X AIR Edit" function is active, pressing the PAN button on the MIDI controller will select the MIXER tab in X AIR Edit.

4.7.3 Levels (FADERS TO KNOBS)

This function is selected with the FADERS TO KNOBS button of the KNOBS FUNCTION zone.

Each knob performs the function of the fader of the strip to which it belongs, that is, modifies the level of the corresponding channel.



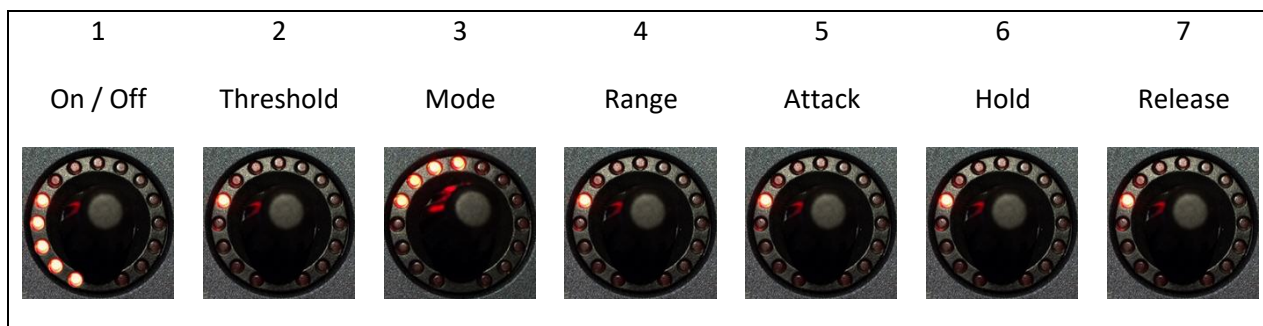
When the "Synchronization with X AIR Edit" function is active, pressing FADERS TO KNOBS on the MIDI controller will make no selection in X AIR Edit.

When using the FADERS TO KNOBS function it is useful to map the Main LR button too. in this way we can change to Main LR without leaving the FADERS TO KNOBS function (the HOME button would change to GAIN).

4.7.4 Gate

This function is selected with the GATE button of the KNOBS FUNCTION zone.

The knobs will modify the following gate parameters on the selected channel:

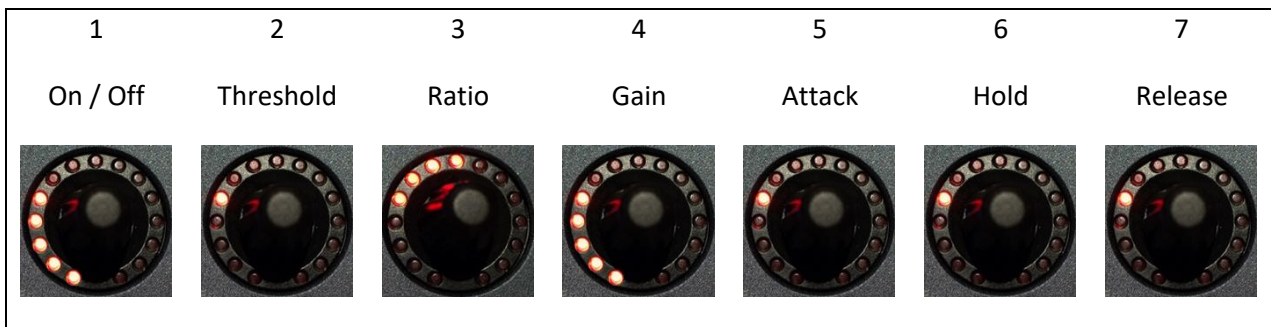


When the "Synchronization with X AIR Edit" function is active, pressing the GATE button on the MIDI controller will select the GATE tab in X AIR Edit.

4.7.5 Compressor

This function is selected with the COMP button of the KNOBS FUNCTION zone.

The knobs will modify the following compressor parameters on the selected channel:



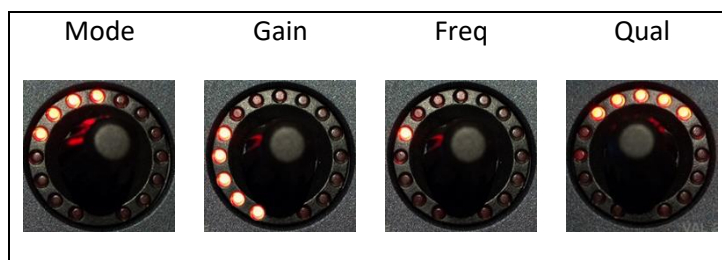
When the "Synchronization with X AIR Edit" function is active, pressing the COMP button on the MIDI controller will select the COMP tab in X AIR Edit.

4.7.6 Equalizer

This function is selected with the EQ button of the KNOBS FUNCTION zone.

OsiMIDI Stage allows you to modify the parameters of each of the equalizer bands of the digital mixer according to the selected channel: 6 bands for master channels, 4 bands for the other channels.

For each band, OsiMIDI Stage allows to modify 4 parameters:



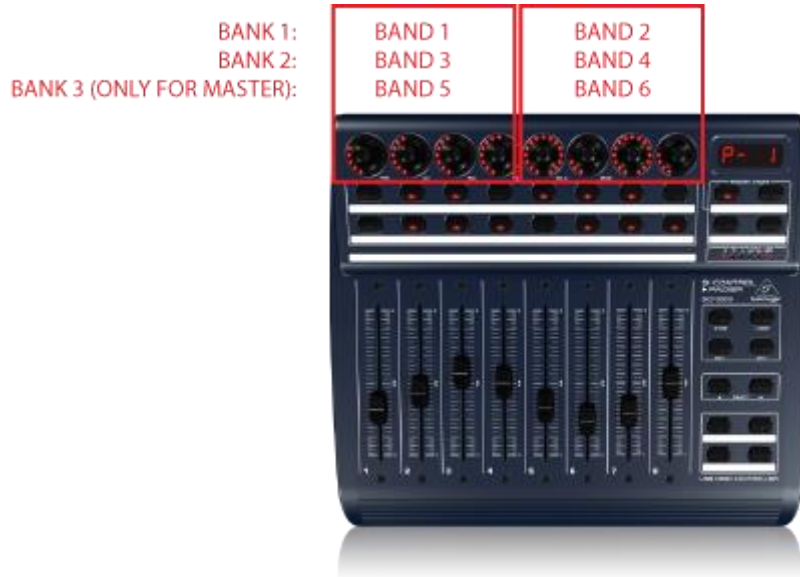
Since the number of knobs we need to change the parameters of all the bands is high, we will work with banks of knobs, in a similar way as we do with the faders.

The number of bands that we can modify in a bank of knobs depends on the number of knobs in the zone of knobs of the controller or group of controllers. A bank of knobs will allow you to modify the parameters of as many bands as complete groups of 4 knobs contain. If we have 8 knobs, each bank will allow to modify the parameters of 2 bands. If we have 7 knobs, each bank can modify the parameters of 1 band, so that the last 3 knobs will not have any function assigned. If we have a set of 2 controllers of 8 knobs, each bank will allow to modify 4 bands, 2 bands in each controller.

To switch to the next bank of knobs, press the EQ button in the function area of the knobs again. If we are in the last bank and press the button again, we will change to the first bank.

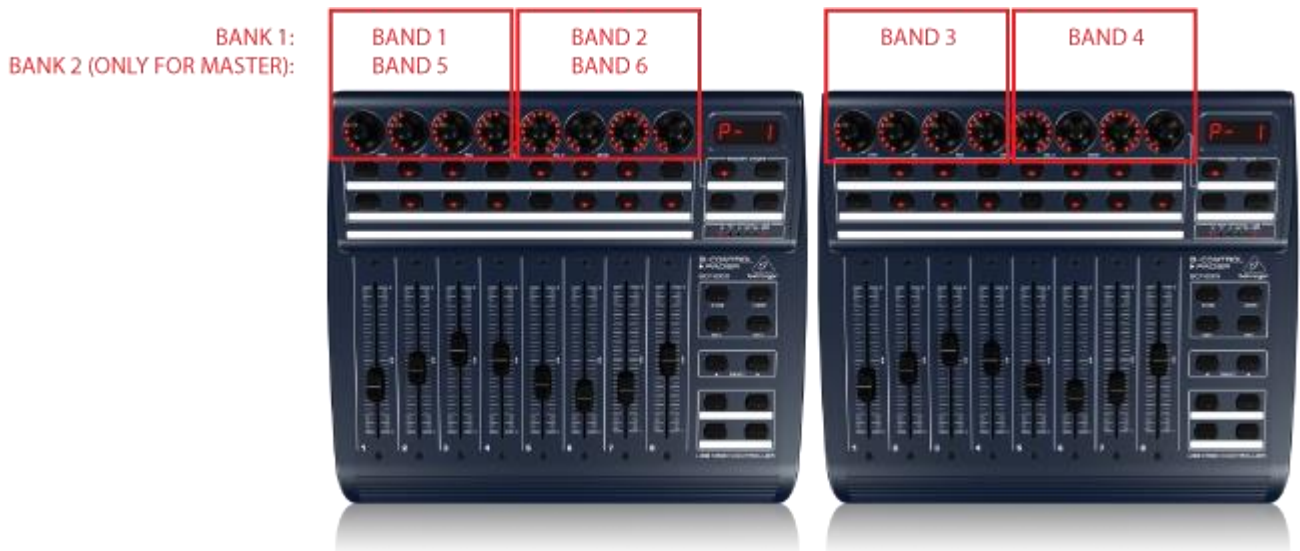
Example 1:

8 strips controller. As the controller has 8 knobs, we can modify 2 bands of the equalizer per bank of knobs. In this case we will have 3 banks of knobs for the master channels, 2 banks for the other channels.



Example 2:

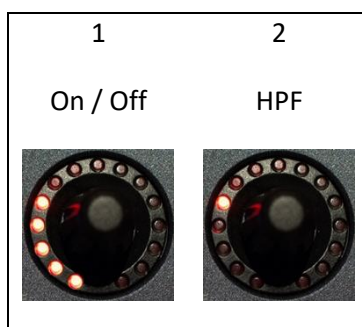
Group of two controller with 8 strips each one. Since the total knobs of the controller group is 16, we can modify 4 bands of the equalizer per bank of knobs. In this case we will have 2 banks of knobs for the master channels, 1 bank for the other channels.



When the "Synchronization with X AIR Edit" function is active, pressing the EQ button on the MIDI controller will select the EQ tab in X AIR Edit.

4.7.7 Low cut

The knobs will change the following low cut parameters:



When the "Synchronization with X AIR Edit" function is active, pressing the LOW CUT button on the MIDI controller will select the EQ tab in X AIR Edit.

4.8 Mute groups

The MUTE GROUPS zone buttons allow you to control the mute groups. The number of mute groups depends on the series of the digital mixer, being 4 in the XAIR mixers and 6 in the X32 mixers.

4.9 Auto Mix Groups

The AUTO MIX X and Y buttons allows you to control the Auto Mix groups.

4.10 Taps

The buttons in the TAPS FX zone allow you to set the delay time of delay or chorus type effects.

The leds of the buttons light intermittently, so that the period of the flashing is equal to the delay time of the effect.

5 Application user interface

In this section we will describe the user interface of OsiMIDI Stage, the images will be shown for the Windows operating system. The interface is practically identical for the Mac OS X and Linux versions, the only difference being that the Windows version uses a ribbon, while the Mac OS X and Linux versions use menus and toolbars. But the available commands are the same on all operating systems.

5.1 Starting the application

To open the main application of OsiMIDI Stage we will use the shortcut created during the installation process:

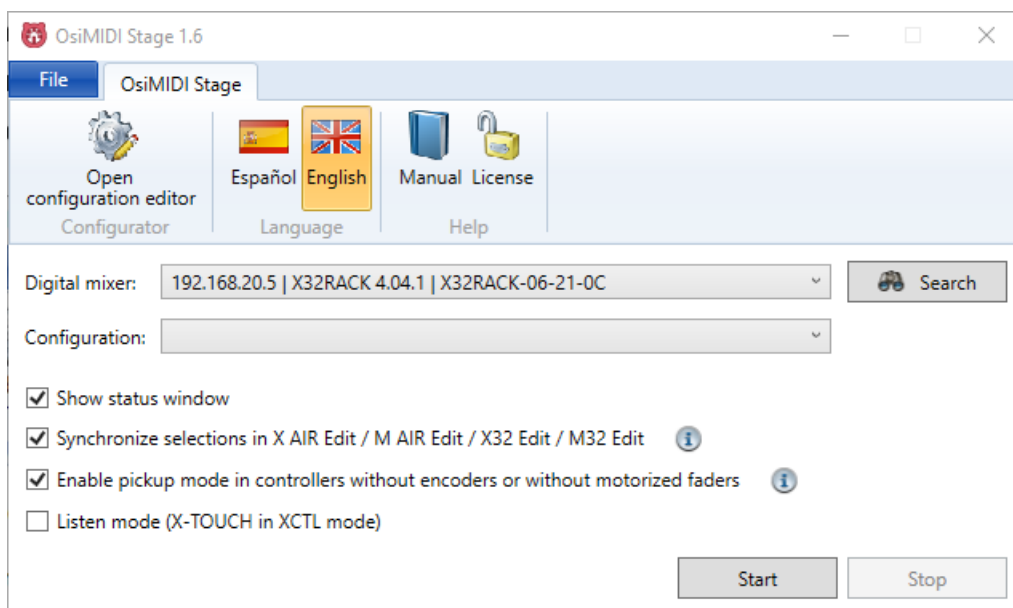


OsiMIDI Stage

OsiMIDI Stage detects the MIDI controllers during the startup process, so it is necessary to have them connected to the PC before opening the application.

5.2 Main window

Once the application is started the main window is displayed:



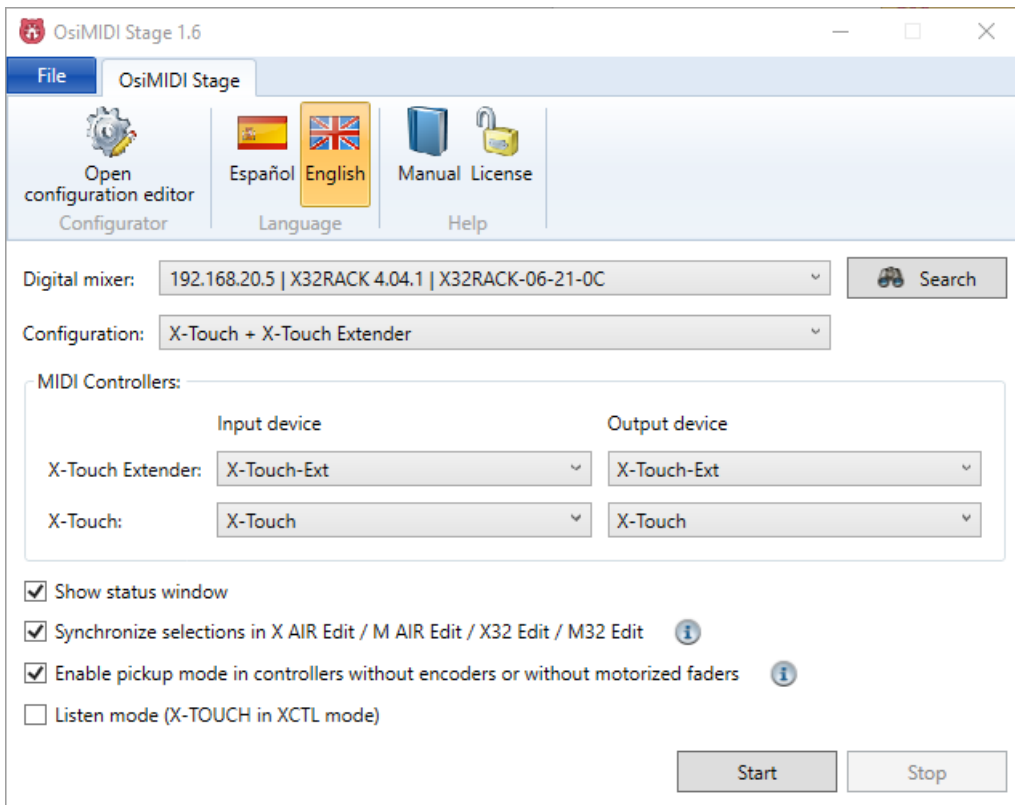
You must select the digital mixer you're going to work in the dropdown "Digital mixer", among those detected in the network.

OsiMIDI Stage looks for digital mixers at startup, but in case our device does not appear in the dropdown, we can perform a new search of the digital mixers in the network using the "Search" button".

You must select the configuration you're going to use from the "Configuration" dropdown. This dropdown lists all the configuration we have created with the configuration editor.

This dropdown list the configurations that you created with the configuration editor for the selected digital mixer, depending on whether it is a XAIR or X32 series mixer.

Once the working configuration is selected, a group of controls "MIDI Controllers" will be shown. It will display a row for each MIDI controller defined in the configuration. In each row, a label will show us the name that we assigned to the MIDI controller when created the configuration, and in the dropdown you must select the corresponding MIDI device. In case the MIDI device has the same name as when the configuration was created, it will be selected automatically (sometimes the Windows operating system renames USB MIDI devices if you connect them to a different USB port). The following image shows the main window in which a configuration with two MIDI controllers was selected:



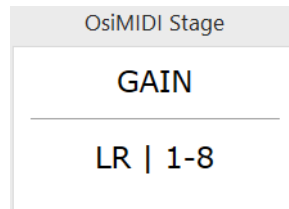
Finally the checkboxes "Show status window", "Synchronize selections with X AIR Edit", "Enable pickup mode", and "Enable listen mode" allow us to enable these functions, which we will explain on in the following sections.

Once all the options have been selected, we can click on the "Start" button, and start listening for messages from the devices. OsiMIDI will start listening to the messages from the MIDI controllers, allowing them to control the digital mixer. Likewise, OsiMIDI will listen to the OSC messages sent by the digital mixer, and will update the position of the motor faders and the leds of the knobs and buttons of the MIDI controllers at all times.

The "Stop" button allows you to stop controlling the digital mixer with the MIDI controllers. All communications will stop, both the MIDI controllers and the digital mixer communications.

5.3 Show status window

If the "Show status window" option is selected, a small window will be displayed in the lower right corner of the desktop when OsiMIDI is started.



The purpose of this small window is to show at all times what the current layers are, and the position of the bank.

This small window will always show two lines of text:

- The currently selected knobs function is displayed in the first line. In the case that the layer is the equalizer, it will be also shown the bands of the equalizer that can be edited in the current page of the bank of knobs.

For example, suppose you have selected channel 1, and the equalizer knobs function, the text "EQ 1-2" will be displayed. The numbers indicate that with the first 4 knobs we can control the first band of the equalizer, and with the following 4 knobs we can control the second band of the equalizer. If you press the EQ button again, the text will change to "EQ 3-4", indicating that the knobs now allow you to adjust bands 3 and 4 of the equalizer.

- The second line will display the currently selected fader layer, and the range of channels we can control with the current fader bank.

For example, if we have the Main LR layer selected, we have a bank of 8 faders and we are in the first position of the bank, we will see the text: "LR | 1-8". "1-8" is the range of channels that we control at this time with the bank faders. If we switch to the second bank, the text will change to "LR | 9-16". If we change to the BUS layer 1, the text will change to "BUS 1 | 9-16".

5.4 Synchronize selections in X AIR Edit

OsiMIDI Stage works with the X AIR Edit application and with M AIR Edit, X32 Edit and M32 edit applications. For simplicity, in the manual we will mention only X AIR Edit, but all the comments referred to X AIR Edit will be equally valid for these four applications.

If we select this option, OsiMIDI Stage will perform on X AIR Edit the same selections we do on the MIDI controller, so we will always have the faders layer, function of the knobs and channel that we select in

OsiMIDI Stage, also selected in X AIR Edit. In this way we will always be visualizing in X AIR Edit the parameters that we are modifying with the MIDI controller.

The following items will be selected on X AIR Edit:

- Channels. When you select a channel on the MIDI controller, it will also be selected in X AIR Edit.
- Fader layers, which depend on the digital mixer:
 - o XAIR / MAIR mixer (X AIR Edit / M AIR Edit): LR, BUS1 to BUS6, FX1 to FX4.
 - o X32 / M32 mixer (X32 Edit / M32 Edit): LR, M/C, BUS1 to BUS12, FX1 to FX4.
- Knobs functions: When selecting a knobs function in the MIDI controller, the corresponding tab in X AIR Edit will be selected, with the following equivalence:
 - o Gain and pan => Mixer
 - o Gate => Gate
 - o Compressor => Comp
 - o Equalizer and low cut => EQ
- Other tabs:
 - o X AIR Edit / M AIR Edit: Channel, Input, Sends, Main, FX y Meter.
 - o X32 Edit / M32 Edit: Channel, Config, Sends, Main, FX1-4, FX5-8.

In order to use this option, we must follow these steps:

- First you need to start X AIR Edit (or M AIR Edit / X32 Edit / M32 Edit) before starting OsiMIDI Stage. In addition you must select in X AIR Edit a Resize Mode that allows you to see the complete interface of X AIR Edit in the window (all faders), without the horizontal scroll bar. In the case of X32 Edit / M32 Edit, 22 channels must be visible.
- Once OsiMIDI Stage is started, you should not modify the size of the X Window Edit window or the Resize Mode option. In addition, the X AIR Edit window should never be hidden by other windows, it must be visible at all times, since OsiMIDI is not able to click the X AIR Edit buttons hidden by other windows.
- In Mac OS X and Linux (Ubuntu / Raspberry Pi) versions, you should not move the window after OsiMIDI has started. If you move the X AIR Edit window, OsiMIDI Stage will send mouse clicks on incorrect coordinates, maybe even on another application other than X AIR Edit.
- In Mac OS X you must grant access to OsiMIDI Stage in the "Security & Privacy" panel of System Preferences, allowing OsiMIDI Stage to control the computer.

This feature is optional, OsiMIDI Stage does not need X AIR Edit to control the digital mixers, but its use greatly enhances the user experience.

5.5 Pickup mode

This option enables pickup mode for controllers that do not have encoders or motorized faders. Normally the controllers that emulate Mackie Control have both encoders and motorized faders, so this option is usually useful for standard MIDI controllers, like Korg nanoKontrol or similar.

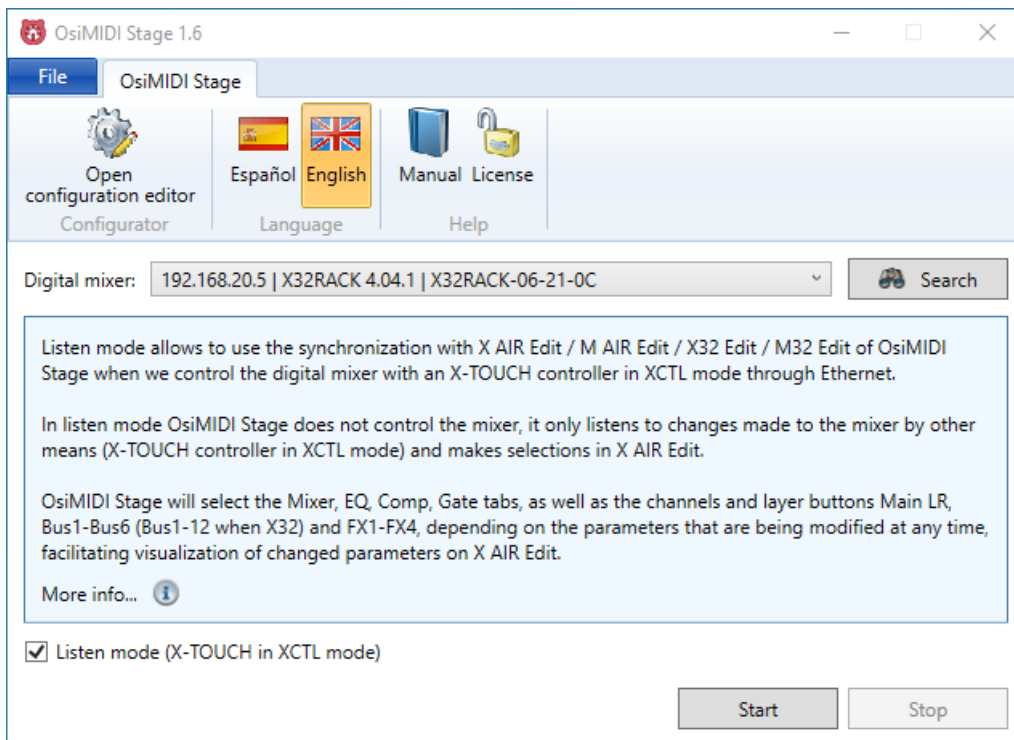
In pickup mode, when moving a non-motorized fader, or an absolute knob (potentiometer), the controller must reach the current value before the value starts to change. This avoids sudden jumps in the values of the parameters.

5.6 Listen mode (X-Touch in XCTL mode)

This option enables listen mode, that allows to use the synchronization with X AIR Edit of OsiMIDI Stage when we control the mixer with an X-TOUCH controller in XCTL mode through Ethernet.

In listen mode OsiMIDI Stage does not control the digital mixer, it only listens to changes made to the mixer by other means (X-TOUCH controller in XCTL mode) and makes selections in X AIR Edit.

OsiMIDI Stage will select the Mixer, EQ, Comp, Gate tabs, as well as the channels and layer buttons Main LR, M/C (X32), Bus1-Bus6 (with XAIR, Bus1-12 with X32), and FX1-FX4, depending on the parameters that are being modified at any time, facilitating visualization of changed parameters on X AIR Edit.



5.7 Configuration editor

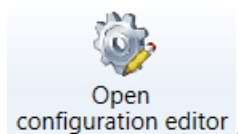
Before using OsiMIDI Stage, it is necessary to configure the application to map the faders, knobs and buttons of the MIDI controllers to OsiMIDI Stage functions.

To do this we will use the OsiMIDI Stage configuration editor. The easiest way to make the configuration is to use the capture mode. In capture mode, we select controls on the configuration editor and then act on the corresponding control of the MIDI controller. The configuration editor detects the MIDI message data, and assigns it to the selected control on the application. In the case of buttons outside the strips, it is also possible to map the button to a key on the PC keyboard. In capture mode press the key, and the configurator will link it automatically.

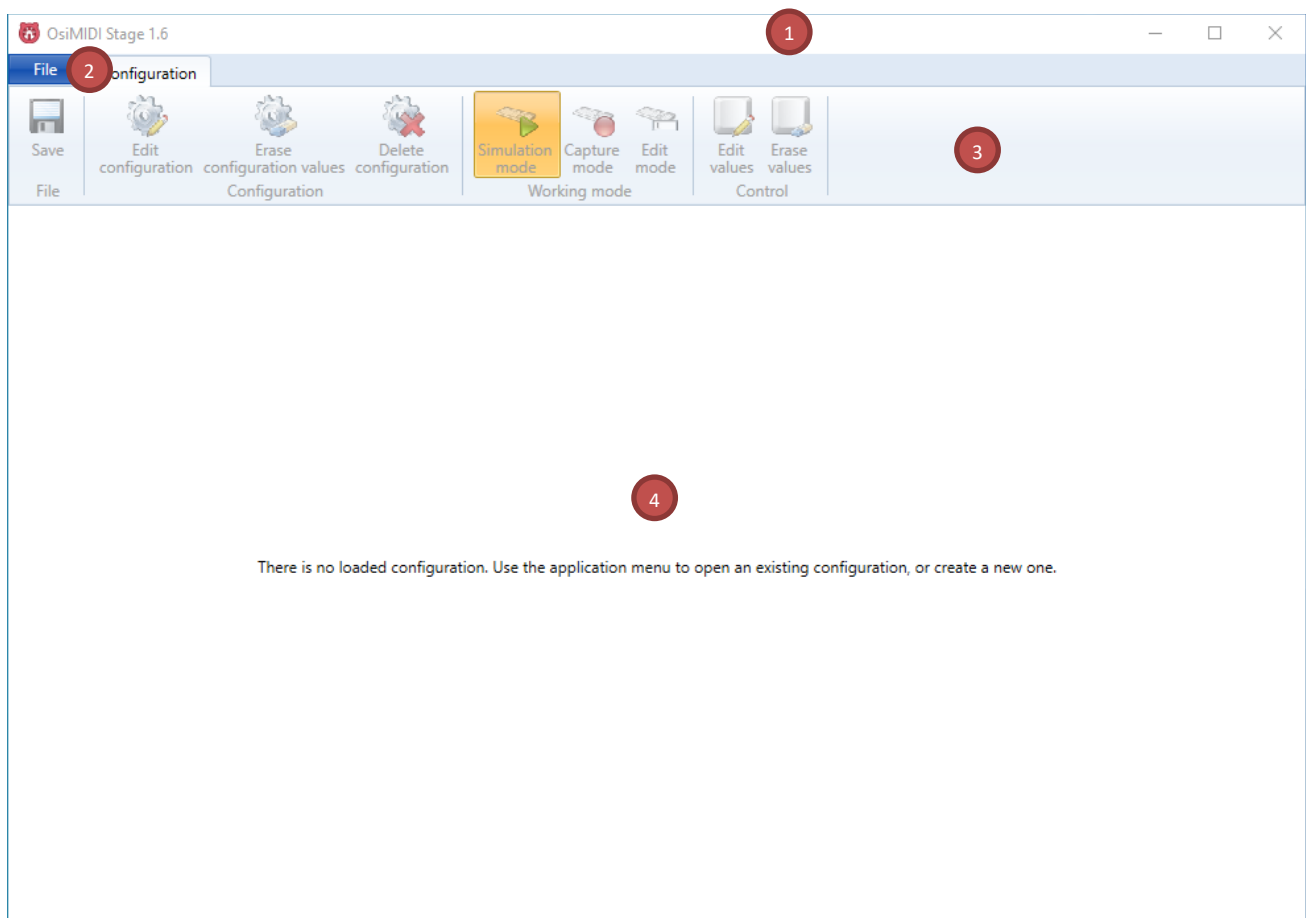
In the following sections we will describe the configuration editor in detail.

5.7.1 Opening the configuration editor

To open the configuration editor, we will use the command “Open configuration editor”



The following image shows the main window of the configuration editor:



The main window of the configuration editor consists of 4 main zones:

1. Window title.
2. "File" menu.
3. Ribbon, with commands to edit the configuration.
4. Main area. It displays the configuration in edition, with the MIDI values corresponding to each one of the faders, knobs and buttons.

When opening the configuration editor, a text in the main area informs you that you do not have a configuration in edition.

Using the "File" menu, we can open an existing configuration to edit it, or create a new one. It also allows us to import and export configurations.

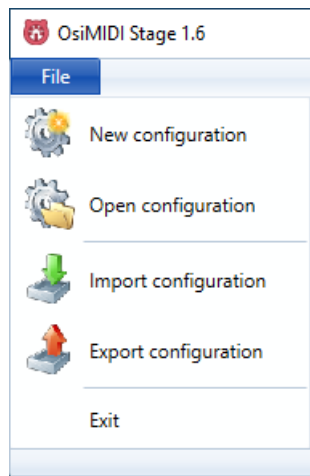
5.7.2 Window title

The title of the configuration editor window shows the following information:

- Product name: OsiMIDI Stage.
- Application version.
- Name of the configuration currently in edition, in square brackets.
- If any changes have been made to the configuration currently in edition, and have not been saved, an asterisk (*) will be displayed to the right of the title. Asterisk will disappear after saving the configuration.


5.7.3 "File" menu

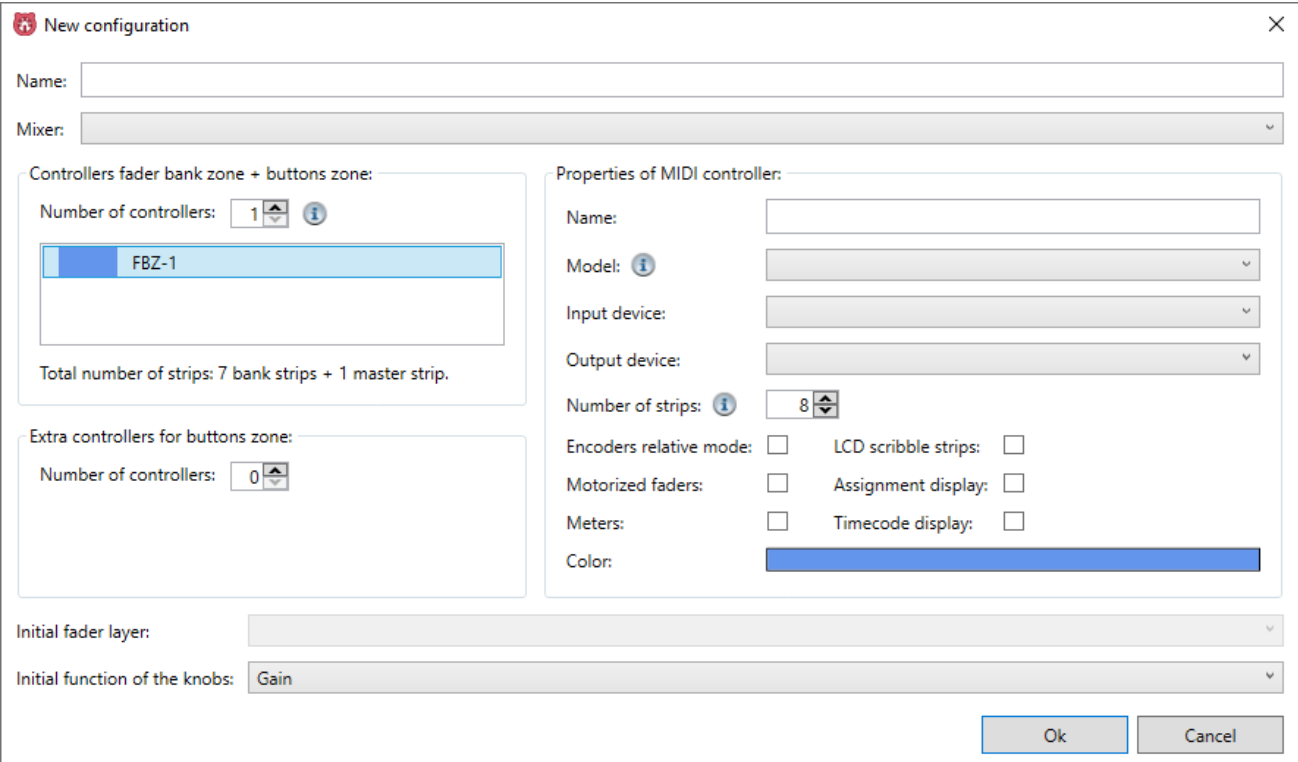
The following image shows the "File" menu of the configuration editor:



5.7.4 New configuration

We can create as many configurations as we want. If we have several models of MIDI controllers, we can create a configuration for each of them, or for groups of controllers, combinations of them.

To create a new configuration, click on the  **New configuration** button available in the "File" menu. The following dialog will be displayed:



In the field "name" you must enter the name that you want to give to the configuration.

In the "mixer" drop-down you must select the series of the digital mixer for which you are going to create the configuration, XAIR or X32.

Below the mixer drop-down, in the left column, there are two groups of controls:

- Controllers for fader and buttons zone.

Here you will define the controllers that will be part of the fader bank. These controllers also can control the buttons in the buttons zone.

In the field "Number of controllers" you will enter the number of controllers that will be part of the fader bank, can be a value between 1 and 3.

Next you will have to introduce the data of each one of the controllers:

- Name. We will enter a name for the controller.

- Input device and output device. Select the MIDI device in the dropdowns.
- Model. You must select the model of your MIDI controller. In case of not finding the model of your controller in the list, you must select "Generic Mackie Control", if our controller is able to emulate Mackie Control, or "generic MIDI" otherwise.
- Number of strips. It is the number of strips of the controller, usually coincides with the number of faders.
- Encoders relative mode. Indicates whether the knobs of the controller are encoders (relative mode), or potentiometers (absolute mode).
- Motorized faders. Indicates whether the MIDI controller has motorized faders. This option can only be selected with Mackie Control controllers.
- Meters, LCD scribble strips, assignment display and timecode display. Indicate if the MIDI controller has these elements. These options can only be selected with Mackie Control controllers.
- Color. Automatically defined, is the color that will identify the controller in the main area of the configuration editor.

The fields number of strips, encoders relative mode, motorized faders, meters, LCD scribble strips, assignment display and timecode display, are automatically filled in according to the selected controller in the "Model" drop-down, except for the "Generic Mackie Control" and "Generic MIDI" options, which are generic options that do not correspond to a specific controller, and that we will use when our controller does not appear in the list.

To enter the data of a controller you select it in the list (FBZ-1 to FBZ-3), after which you can modify its properties in the panel of the right column "Properties of the MIDI controller"

When entering the data, the label with the total number of faders of the bank is updated. This label is located at the bottom of the group of controls.

- Extra controllers for buttons zone.

Here we will define, optionally, additional MIDI controllers, to control exclusively buttons outside the fader bank strips.

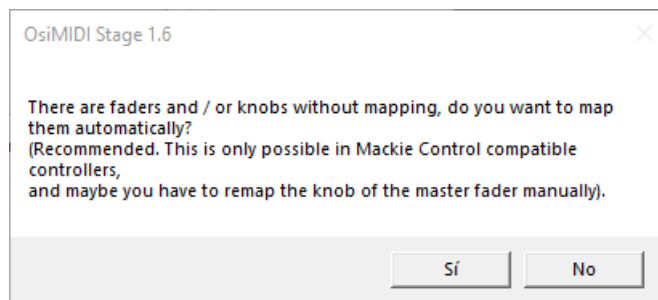
In the field "Number of controllers" you must enter the number of controllers that you are going to configure, it can be a value between 0 and 2. The default is 0, since the typical configuration will consist of 1 single controller for the fader bank.

In case of entering a value greater than 0, we must enter the data of each controller: name, mode, and input and output device. For this we will use the panel "Properties of the MIDI controller", in the same way that we did with the controllers of the fader bank zone.

The “Initial fader layer” dropdown allows you to establish the selected layer at the moment of starting OsiMIDI Stage. By default, the initial layer is “Main LR”.

The “Initial function of the knobs” dropdown allows you to establish the function of the knobs when starting OsiMIDI Stage. By default, the initial function of the knobs is “Gain”.

Once we have entered all the data of the form, we will click on the "OK" button. If you have configured any Mackie Control controller, the following message will be displayed, asking if you want OsiMIDI Stage to map the knobs and faders automatically:



It is advisable to select yes, when using Mackie Control controllers, the MIDI values for faders and knobs are known, so it is preferable to let OsiMIDI Stage configure the values for us.

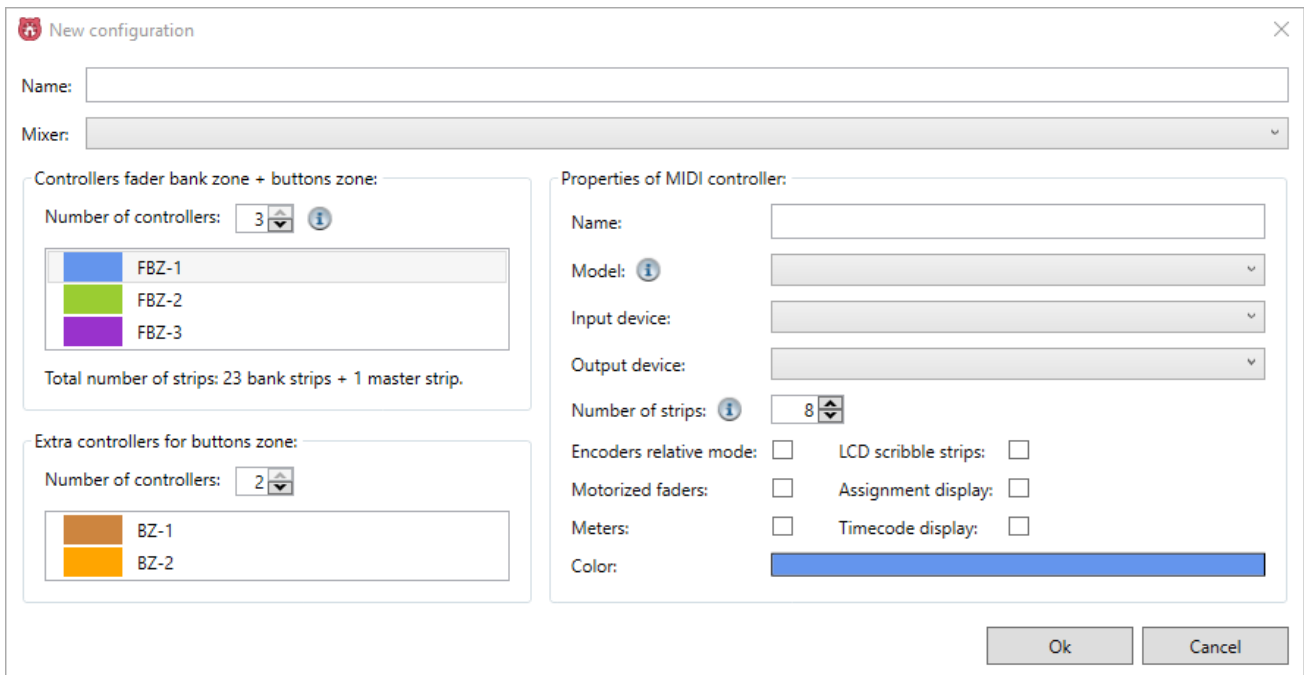
Once the dialog is accepted, the new configuration will be displayed in the main area of the application to continue editing. The name of the configuration will be displayed in the title of the application.

5.7.4.1 *Controllers colors*

A color is assigned to each controller in the configuration. In the new configuration window, the color of each of the configured controllers is displayed. These colors will be used to identify which device has been mapped to each of the functions of the configuration in edition, in the main area of the application.

The color for the keyboard is black (if desired, it is possible to map buttons of the buttons zone with the keyboard).

Next, the new configuration dialog is displayed, with the maximum number of controllers set, to show the color palette that will be assigned to the controllers:



5.7.4.2 Considerations about Yamaha 01X controller

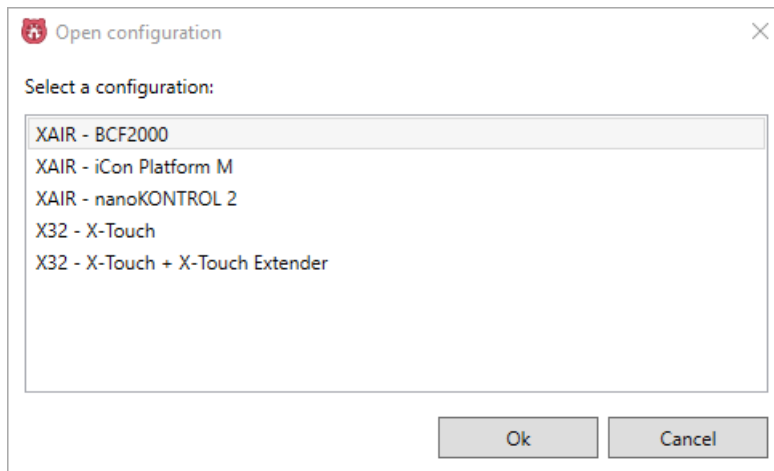
For the correct operation of this controller:

- Select the GENERAL REMOTE work mode in the controller (Shift + Remote). This mode is the one that allows you to map the largest number of functions in the controller.
- Select input device mLAN MIDI In (5), and output device mLAN MIDI Out (5).
- Set the FADER TOUCH TIMEOUT parameter to 100 milliseconds in the controller. This is necessary for the correct positioning of the faders.

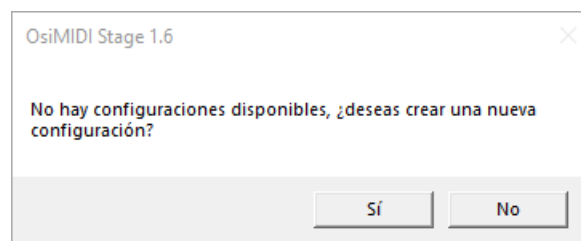
5.7.5 Open configuration

To open an existing configuration, click on the  **Open configuration** button, available in the “File” menu.


The following dialog will appear, which allows you to select one of the existing configurations. When you accept the dialog, the selected configuration is displayed in the main area of the application, on which we can edit it. The name of the open configuration will be displayed in the application title.



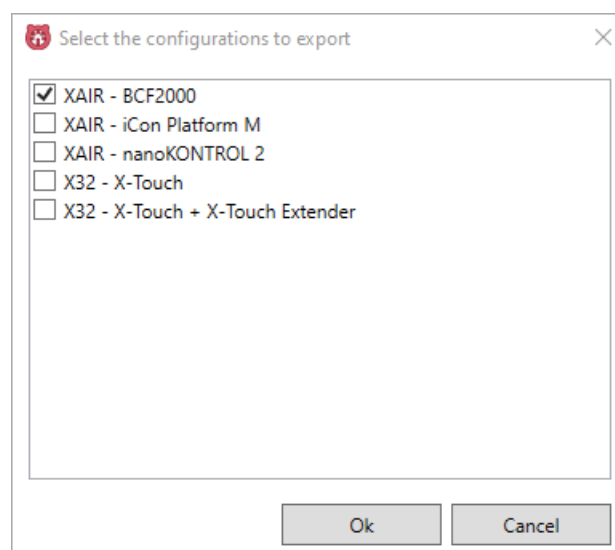
In case we have not yet created any configuration, the following message will be displayed, which gives us the possibility to create a new configuration:



5.7.6 Export configuration


The  Export configuration button in the “File” menu allows us to export one or more configurations to a file, which can be imported later on the same computer or on a different computer, with the import configuration function.

After clicking the button, the following dialog is displayed, in which we can select which configurations we want to export, from the existing ones:

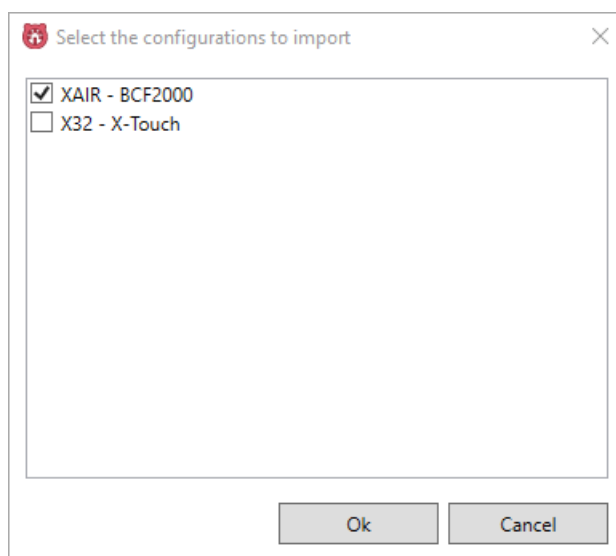


Once the dialog is accepted, a second dialog will be displayed, in which we will define the location and name of our export file. Then the file with the exported configurations (.export) will be generated.

5.7.7 Import configuration

The button  Import configuration in the “File” menu allows you to import configurations previously exported to a file.

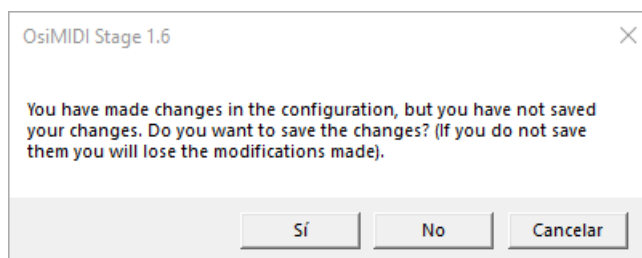
When you click the button, a dialog will appear in which we will select the file with the configurations. Subsequently a second dialog will allow us to select which configurations of the file we want to import:



5.7.8 Exit

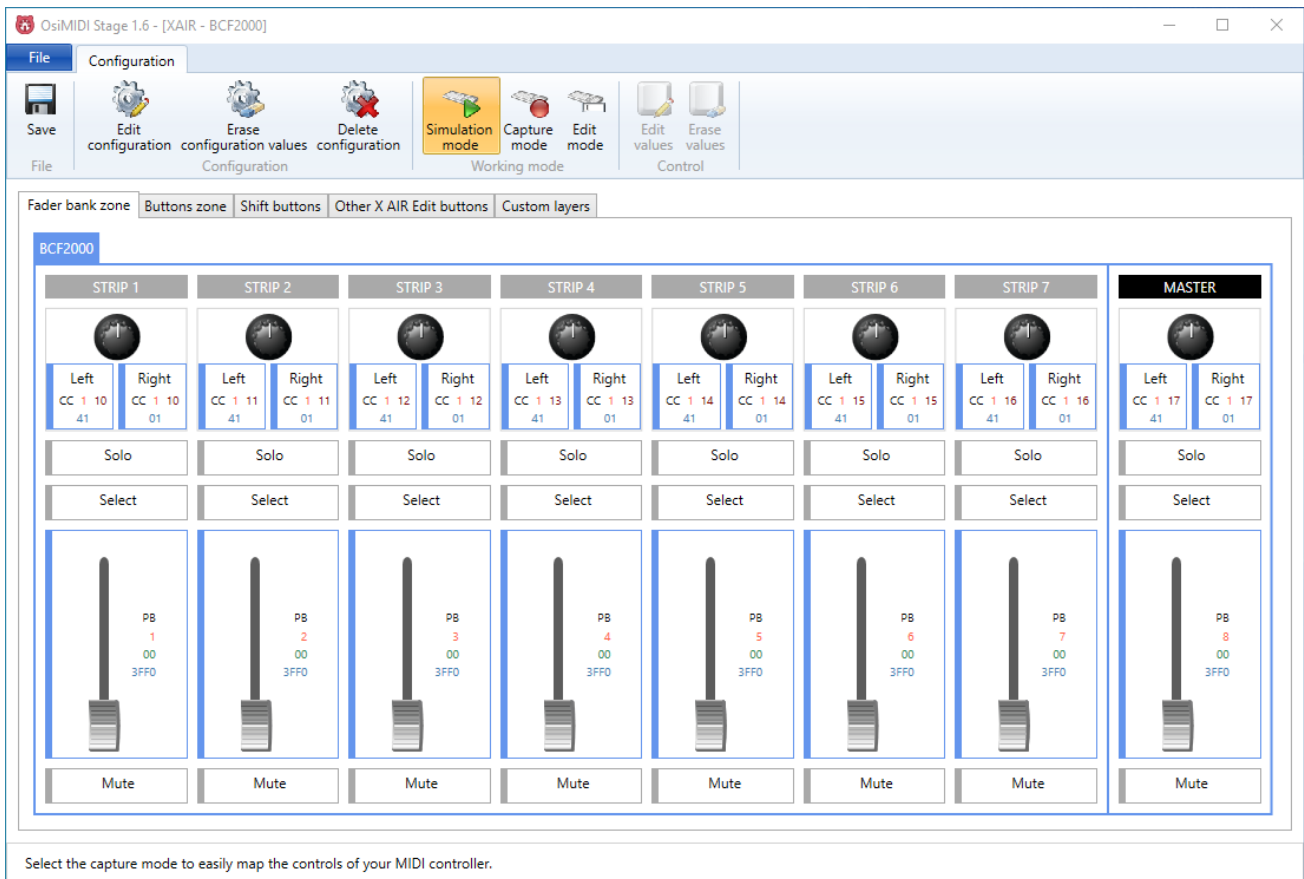
It is the last button in the “File” menu, it allows us to close the configuration editor.

In case you have a configuration in edition, and you have not saved the changes, a message will be displayed, indicating that if we continue to leave the configuration editor the changes made will be lost, and offering us the possibility to save the configuration or cancel the operation:



5.7.9 Configuration edition

Once a configuration is loaded, it is displayed in the main area of the configuration editor:



The buttons on the ribbon allow you to edit the loaded configuration.

The configuration in edition is shown distributed in four tabs: "Fader bank zone", "Button's zone", "Shift buttons", "Other X AIR Edit / X32 Edit buttons" and "Custom layers". The tabs contain different controls, which represent the controls of MIDI controllers: buttons, faders, and knobs. Each control also represents a function of OsimIDI Stage.

5.7.9.1 Fader bank zone

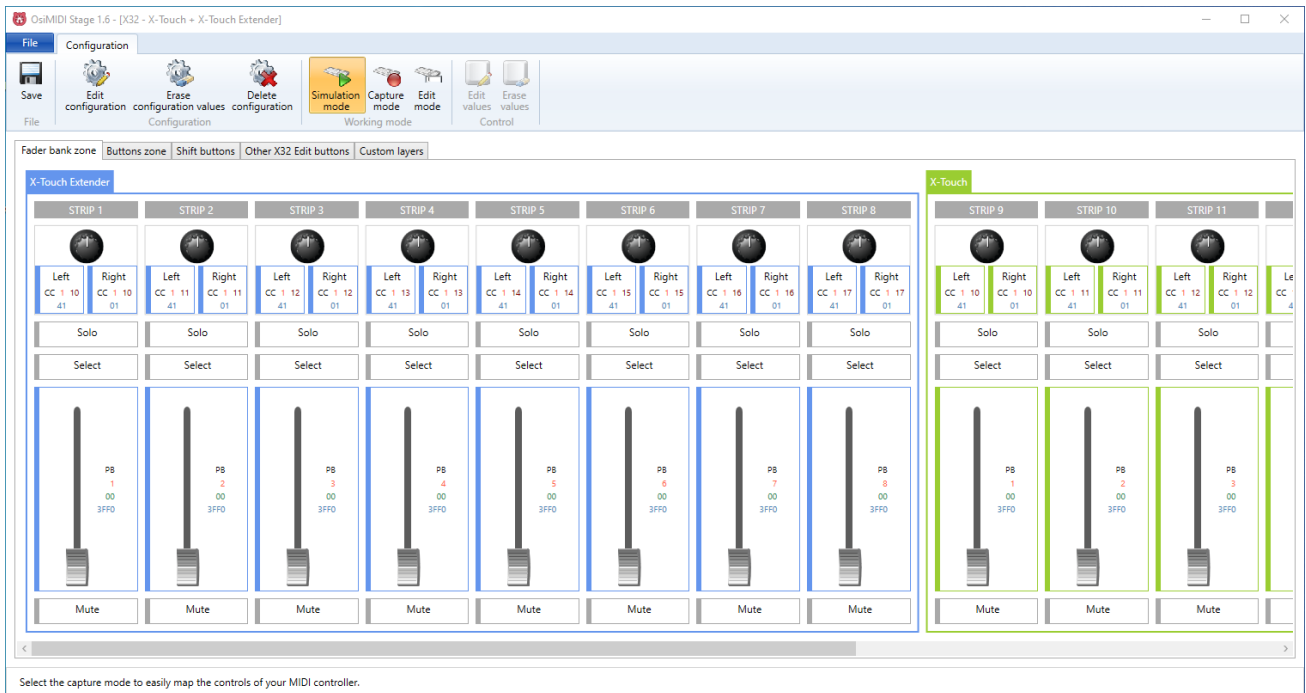
This tab allows you to map all the controls on the fader bank strips, and on the master fader strip. The strips are numbered from left to right, with the actual position they occupy in the MIDI controller. The master fader is always the fader to the right of the configuration (the last fader of the last controller).

Each strip consists of a knob, a fader, and select, solo, and mute buttons.

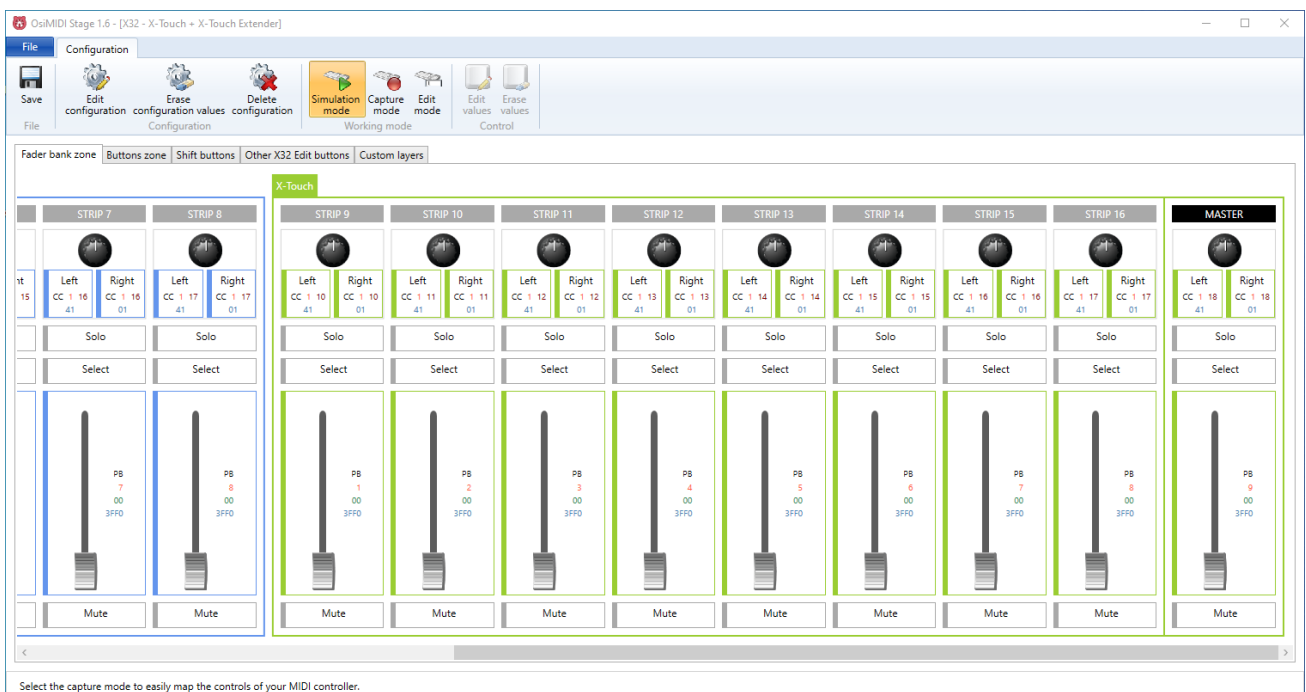
The strips are contained in blocks, which correspond to each of the controllers of the fader bank. The blocks are shown from left to right in the order in which the controllers were defined when creating the configuration and represent the actual position in which we must place the controllers when we work in production, of course provided that we have more than one controller.

Each controller block has the color border that was assigned to the controller when creating the configuration. In addition, it has a title with the name given to the controller.

Next, we show the configuration editor window, with a configuration loaded composed of two controllers for the fader bank. The first controller has assigned the blue color, the second the green color:



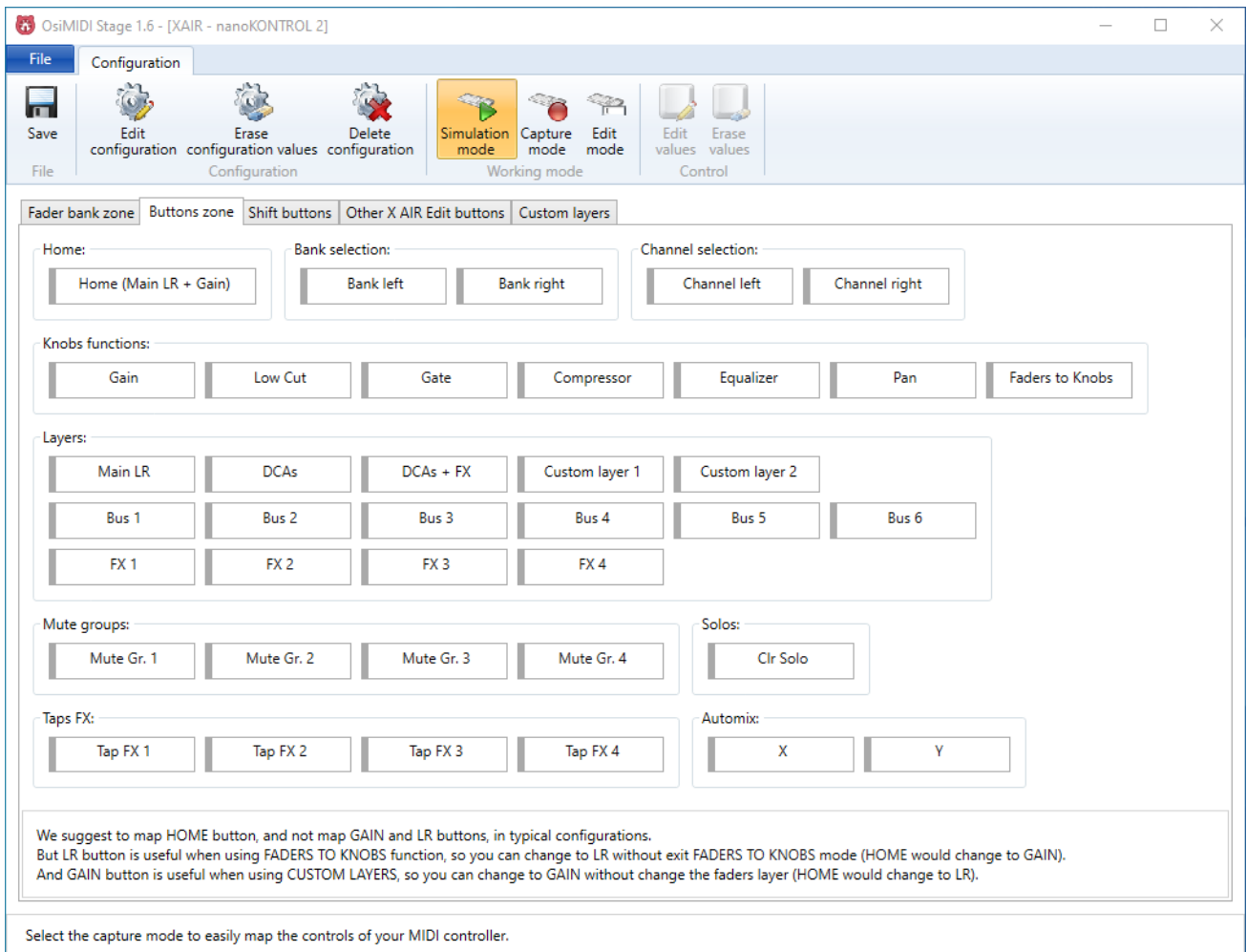
Since the configuration does not fit fully on the screen, it is necessary to use the horizontal scroll to move left and right.



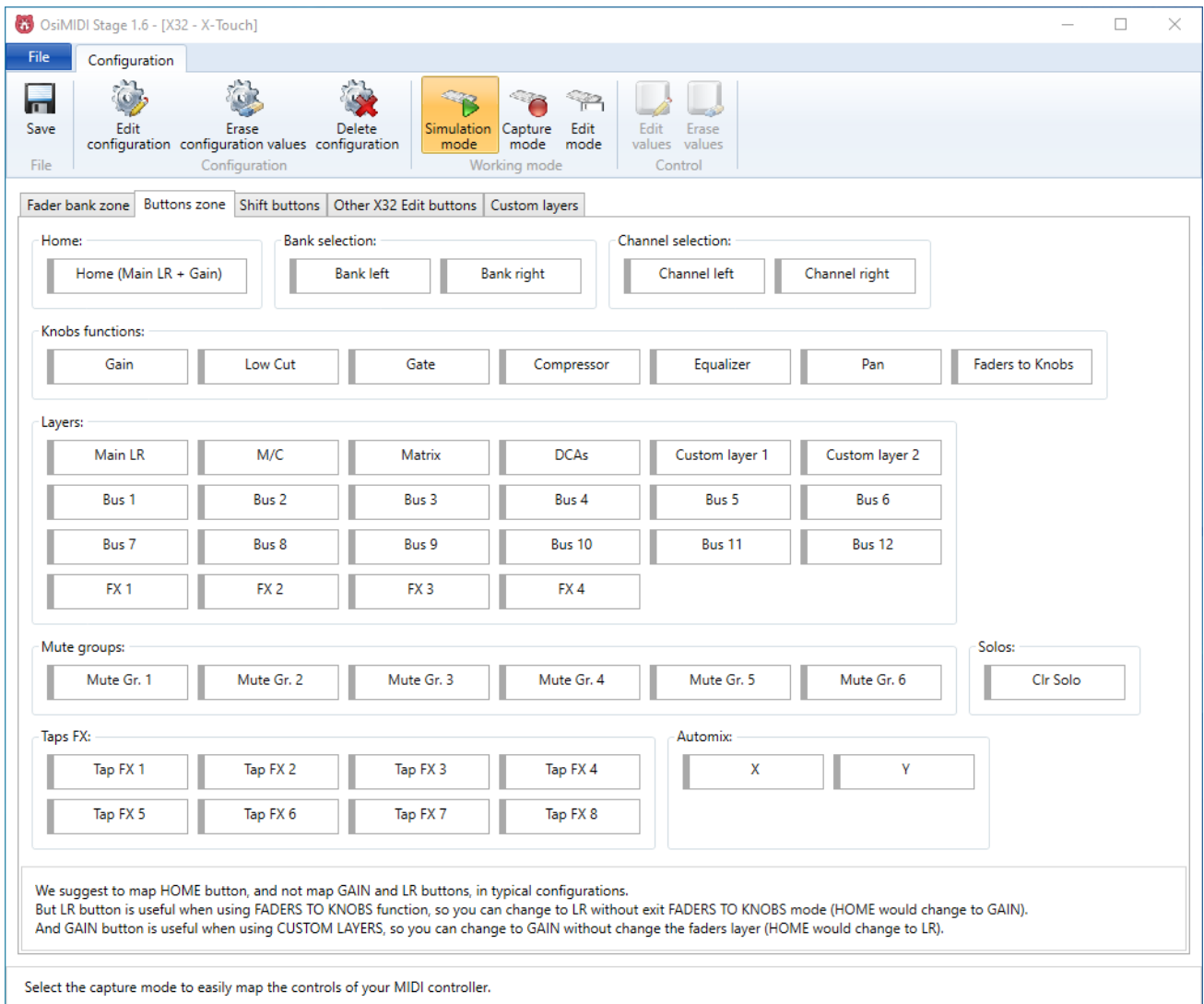
The configuration application only allows mapping the controls of the strips with the controller to which the strip belongs .

5.7.9.2 Button's zone

This tab allows you to map all buttons outside the fader bank. The number of available functions depends on the mixer series, XAIR or X32:



Button's zone functions available for XAIR mixers



Button's zone functions available for X32 mixers

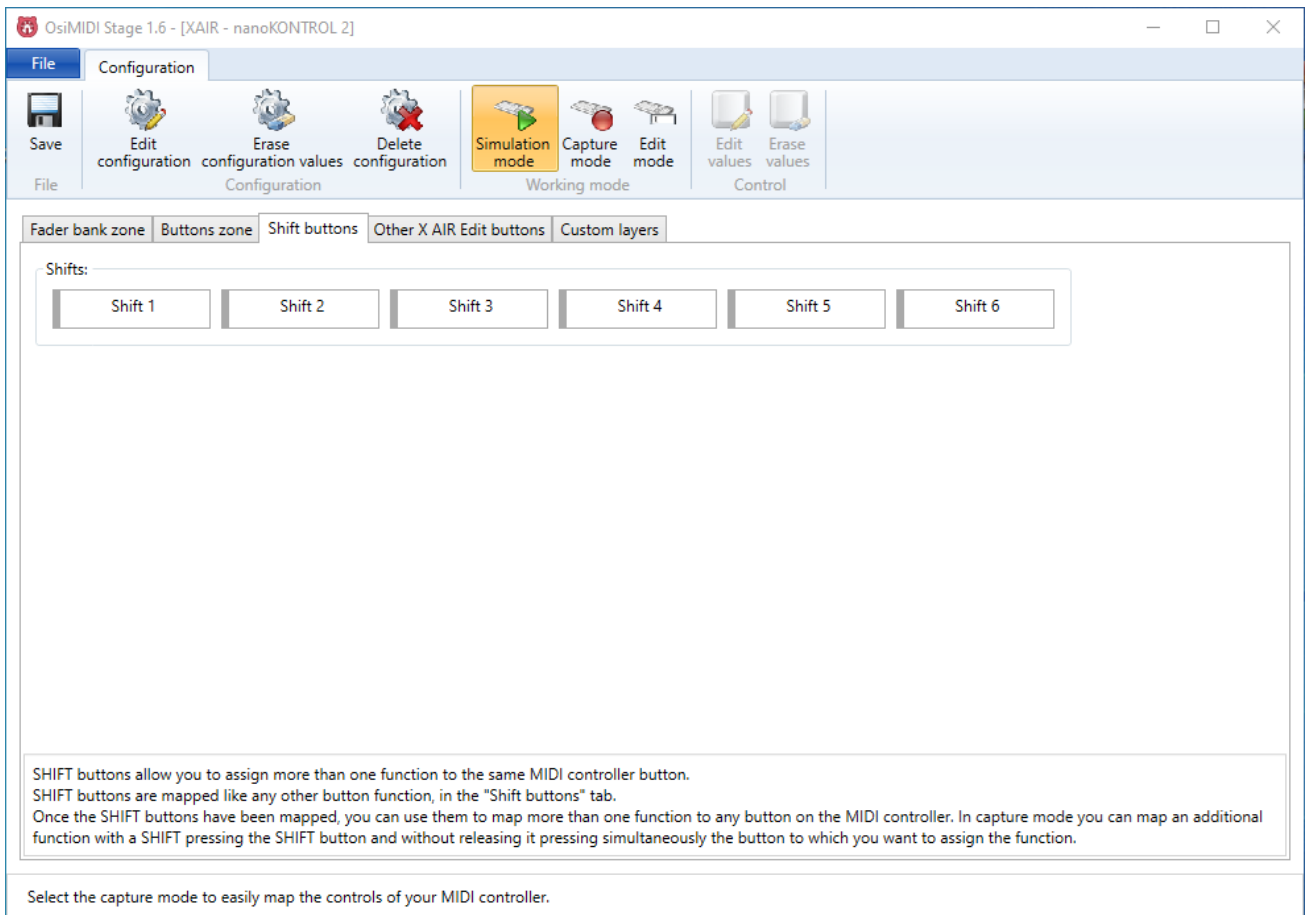
5.7.9.3 Shift buttons

SHIFT buttons allow you to assign more than one function to the same MIDI controller button. SHIFT buttons are mapped like any other button function, in the "Shift buttons" tab.

Once the SHIFT buttons have been mapped, you can use them to map more than one function to any button on the MIDI controller. In capture mode you can map an additional function with a SHIFT pressing the SHIFT button and without releasing it pressing simultaneously the button to which you want to assign the function.

Later, when controlling the digital mixer, the functions mapped with SHIFT will be accessible in the same way, by simultaneously pressing the corresponding SHIFT and the button on which the function has been programmed.

It's possible to define up to 6 SHIFTS, so it would be possible to map up to 7 functions on the same button.

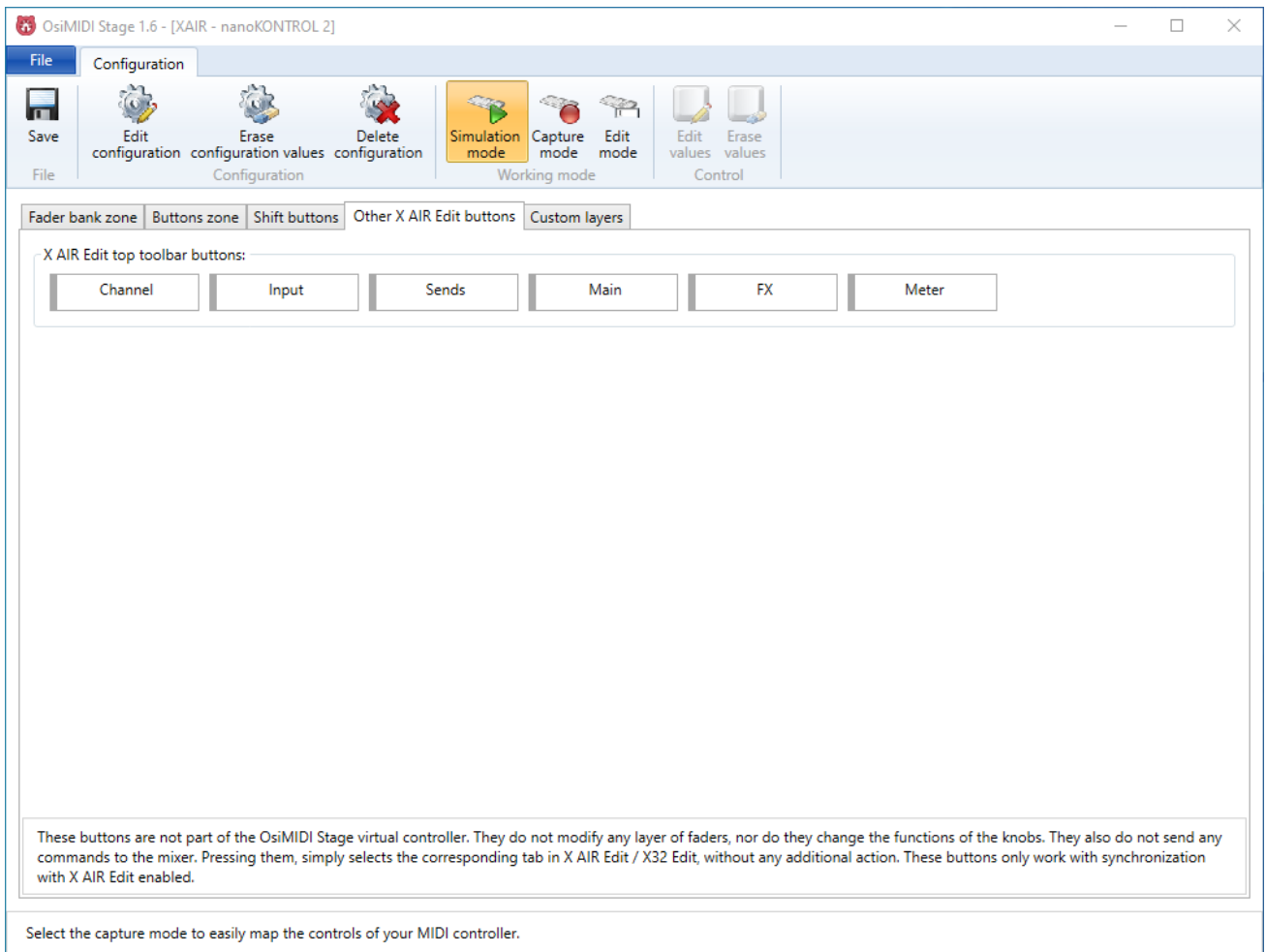


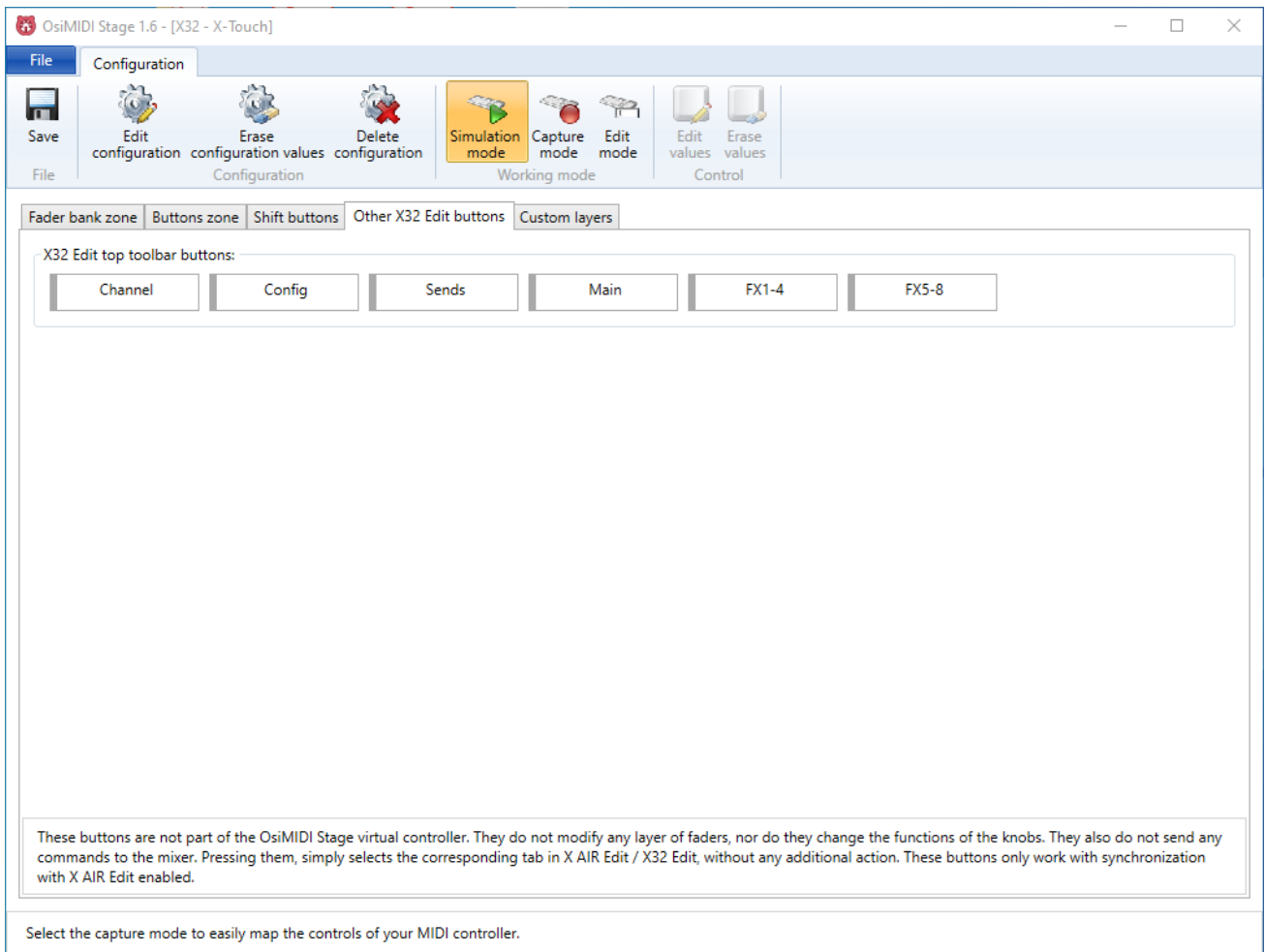
When a function is mapped using a SHIFT, the SHIFT used is shown in a yellow box. The following image shows a case where the Bus 7 to Bus 12 buttons have been mapped using SHIFT 1.

Bus 1 NOO 1 4A 00 7F	Bus 2 NOO 1 4B 00 7F	Bus 3 NOO 1 4C 00 7F	Bus 4 NOO 1 4D 00 7F	Bus 5 NOO 1 4E 00 7F	Bus 6 NOO 1 4F 00 7F
S1 NOO 1 4A 00 7F	S1 NOO 1 4B 00 7F	S1 NOO 1 4C 00 7F	S1 NOO 1 4D 00 7F	S1 NOO 1 4E 00 7F	S1 NOO 1 4F 00 7F

5.7.9.4 Other X AIR Edit / X32 Edit buttons

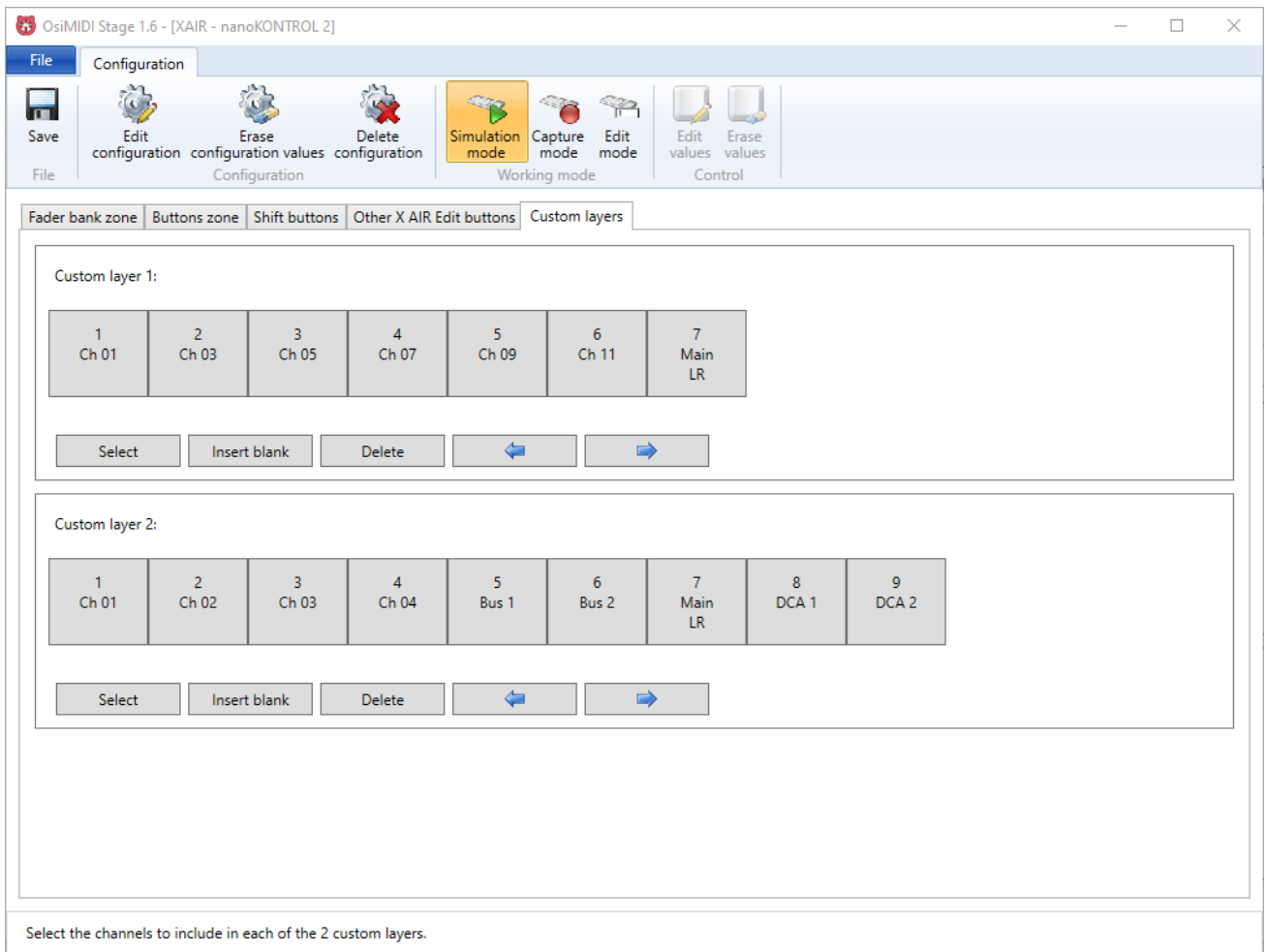
The buttons in this tab are not part of the OsiMIDI Stage virtual controller. They do not modify any layer of faders, nor do they change the functions of the knobs. They also do not send any commands to the mixer. Pressing them simply selects the corresponding tab in X AIR Edit / X32 Edit, without any additional action. These buttons only work with synchronization with X AIR Edit enabled.



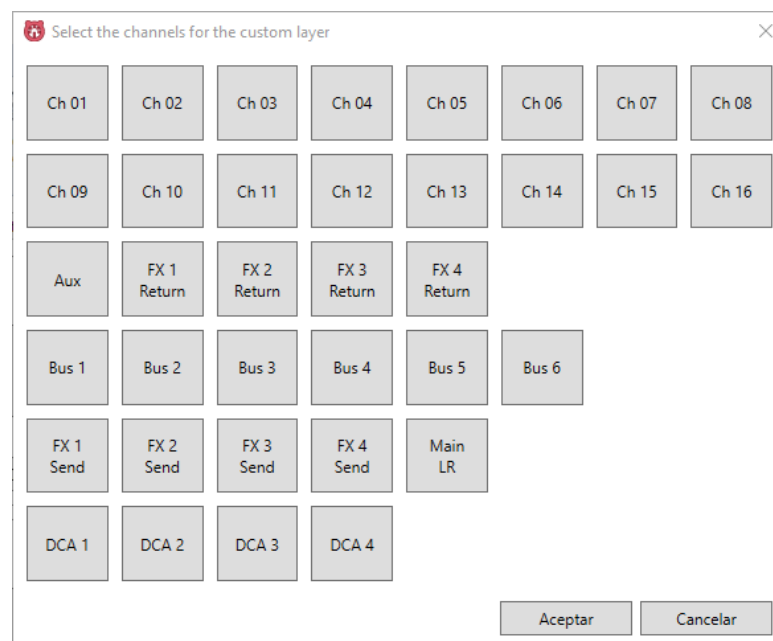


5.7.9.5 Custom layers

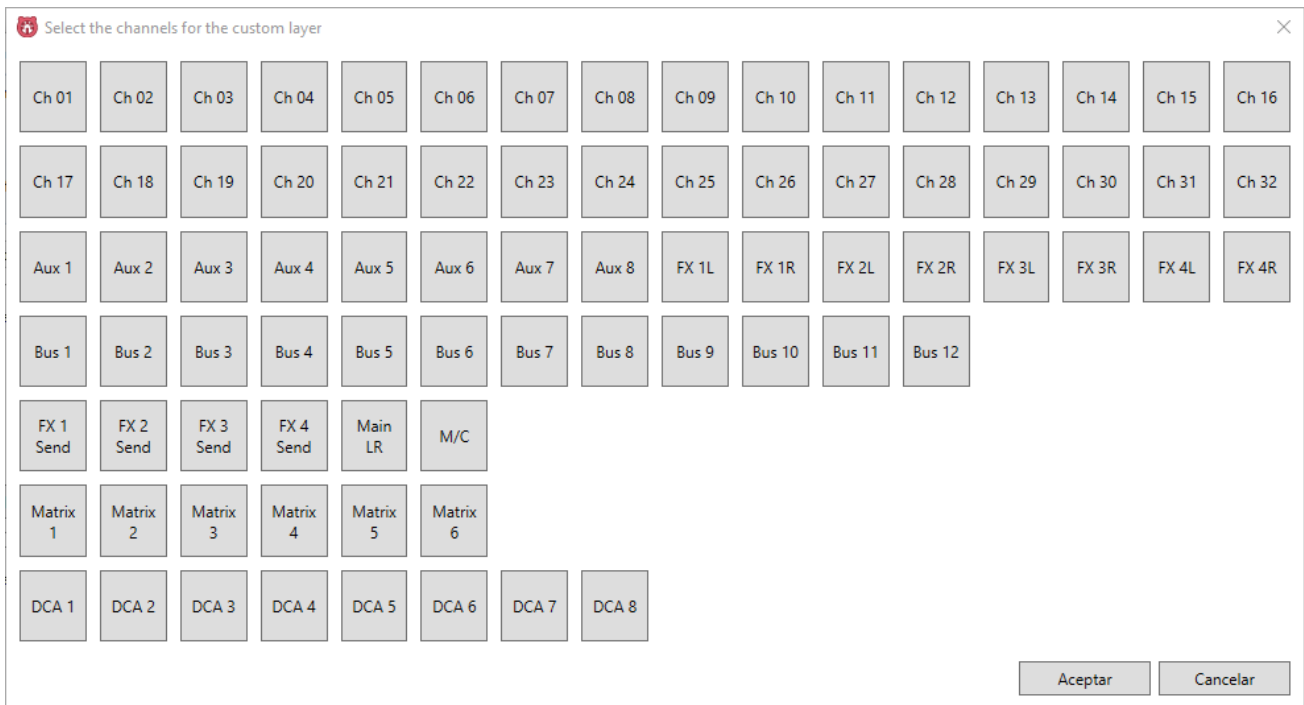
OsimIDI Stage allows you to configure two custom layers of faders. In this tab we can configure which channels are part of each of the custom layers. The custom layers are activated with the corresponding layer change buttons: "Custom layer 1" and "Custom layer 2".



The "Select" button shows the following dialog, on which we will select the channels that we want to be part of the custom layer. The number of channels available depends on the mixer series:





Custom layer channels selection in XAIR mixer



Custom layer channels selection in X32 mixer

The "Insert blank" button allows us to insert blank spaces in the custom layer, that is, faders without functionality.

When clicking with the mouse on a channel, it is selected, showing a blue fill and a thicker border.

Once selected, we can change the position of a channel in the custom layer. The button  will move the selected channel to the left, while the button  will move the selected channel to the right.

It is also possible to delete the selected channel or "blank", using the "Delete" button.

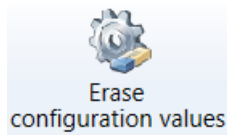
5.7.10 Edit name and controllers of the configuration



The button **Edit configuration** allows to edit the general aspects of the configuration: The configuration name and the controllers that are part of the configuration.

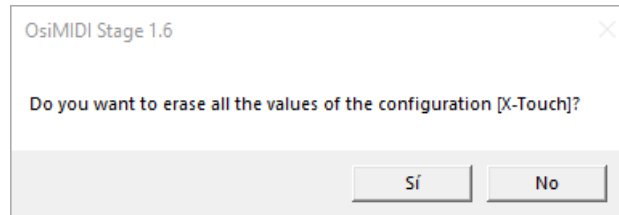
Clicking on this button displays the configuration edit dialog, identical to the one used when creating a new configuration.

5.7.11 Erase configuration values



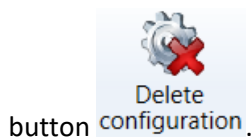
The button **Erase configuration values** allows us to delete all the data of a configuration, leaving it blank, as if we finished creating it. This action eliminates even the mapping of faders and knobs.

We will be asked to confirm the operation:



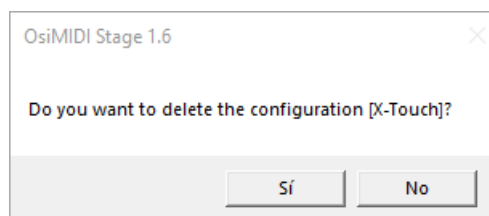
5.7.12 Delete configuration

To delete a configuration, first we must open it, and once opened we can delete it by clicking on the



button

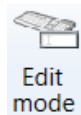
A confirmation message will be displayed before the operation:



5.7.13 Configurator working modes

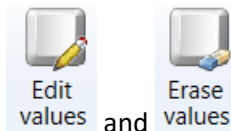
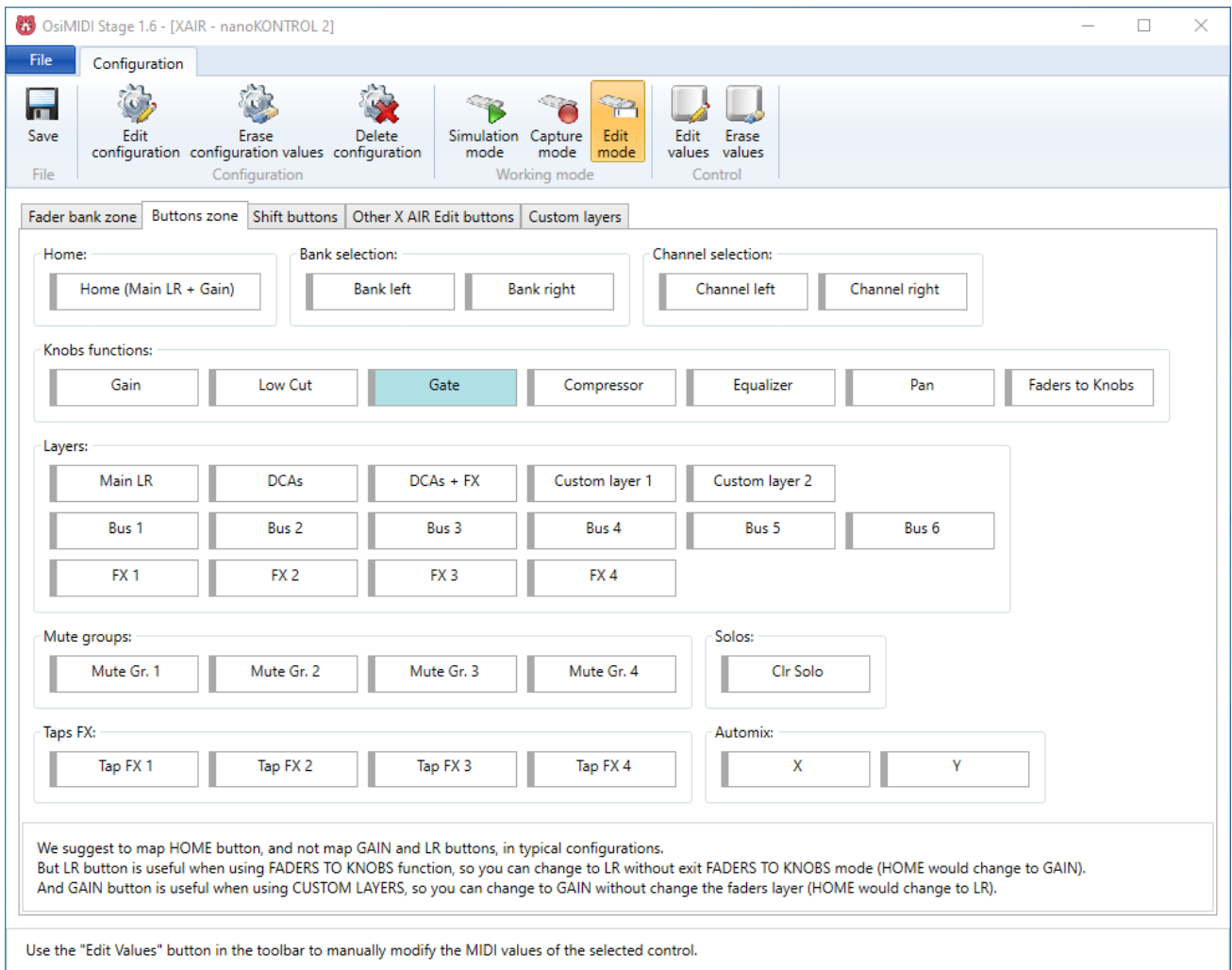
The configurator has 3 working modes: Simulation mode, capture mode and edit mode. We can switch to a specific working mode by clicking on the corresponding button:

5.7.13.1 Edit mode



To enter into edit mode, press the **Edit mode** button. It is a manual editing mode.

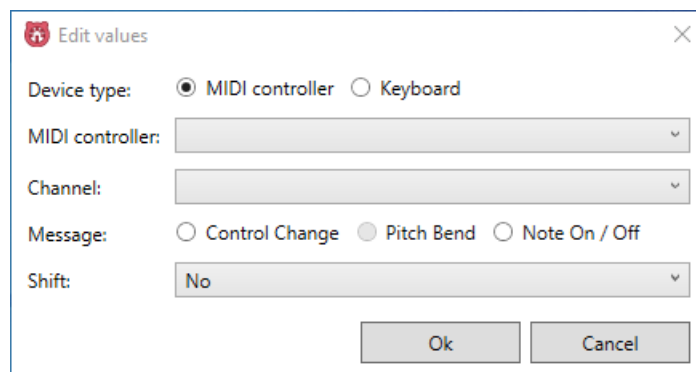
In edit mode we can select the controls of the main area by clicking on them. Once we have selected a control, we will see it highlighted in blue, as it is observed in the following image, in which the control "Gate" has been selected:

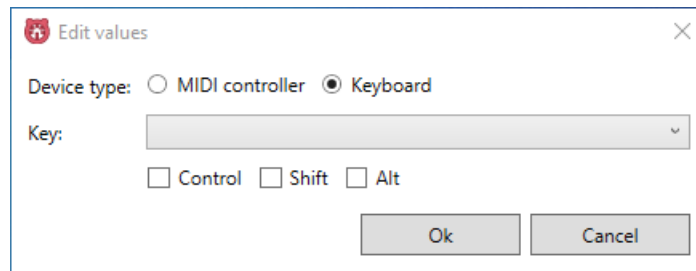


Once we have a control selected, the **Edit values** and **Erase values** buttons are enabled, which allow us to edit and delete the mapping values of the selected control respectively.



Clicking on the button **Edit values** will display the following dialog, which will allow us to enter the mapping data of the selected control:





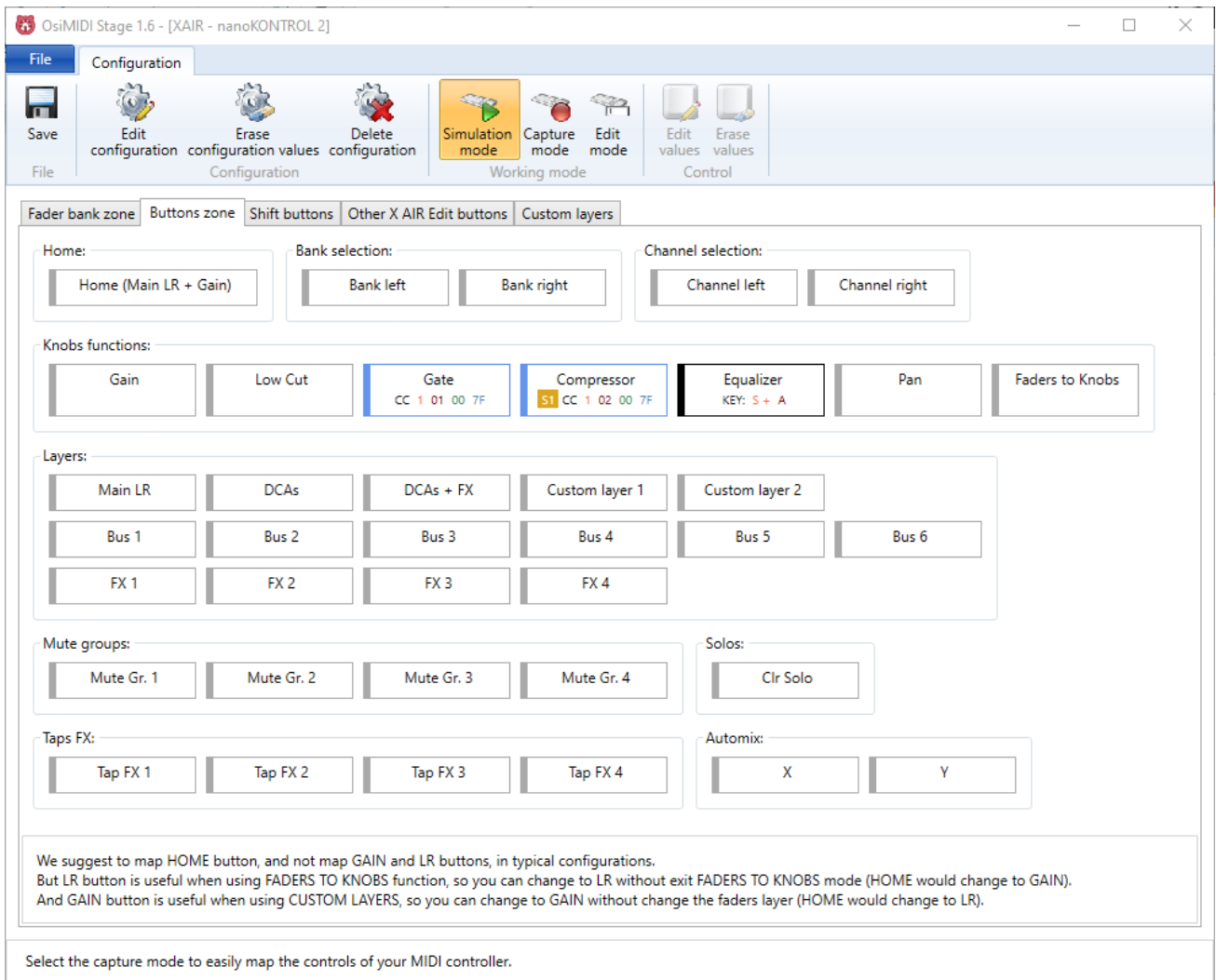
First select the type of device: MIDI controller or keyboard. Subsequently fill in the data of the MIDI message if we have selected MIDI controller, or the key if we have selected keyboard.

The values of address, value off, value on and note will always be entered in hexadecimal.

Once the control values are entered, they will be displayed inside the control. In addition, once a control has been mapped with a MIDI controller, the edge of the controller is marked with the color assigned to that controller. The left edge has made thicker so that the color of the controller is more visible. In the case of mapping a control with the keyboard, the control is highlighted in black.

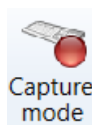
If a control is mapped to a MIDI controller using a SHIFT, the shift number will be displayed in a yellow box.

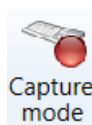
The next image shows the "Gate" button mapped with a MIDI message, and inside it the channel data, address, off value and on value. "Compressor" button has been mapped with MIDI message too, using SHIFT 1. On the other hand the button "Equalizer" has been mapped with the key "Shift + A":



The keyboard modifiers are shown on the left with the letters C, S and A, corresponding to Control, Shift, and Alt, respectively.

5.7.13.2 Capture mode



It is activated by pressing the  button. This is the preferred mode for mapping the various configuration controls

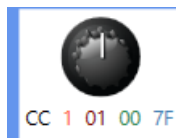
In capture mode it is not necessary to enter values manually. Simply select a control on the working area, and activate the corresponding control on the MIDI controller. The configuration editor will capture all MIDI message values automatically. If we want to map the control with the keyboard, we simply press the desired key (only buttons in the button area):

- In the case of a button we press the button on the MIDI controller.

- In the case of a fader we move it completely to the minimum position and to the maximum position. It is important to perform this movement several times, to ensure that OsimIDI captures the MIDI values of the minimum and maximum positions.
- In the case of knobs, the mapping is done differently depending on whether it is an encoder (relative) or a potentiometer (absolute):
 - o Encoder (relative). It is displayed on the configurator as 2 buttons. To map an encoder, select the button on the left, and move the encoder slowly to the left. Then select the button on the right, and move the encoder slowly to the right. It is important to move it slowly, since there are MIDI controllers that reflect the speed we turn the encoder in the MIDI values.



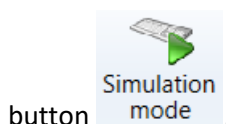
- o Potentiometer (absolute). In the case of a potentiometer, we will turn it completely to the left and then completely to the right. It is important to perform this movement several times, to ensure that OsimIDI captures the MIDI values of the minimum and maximum positions.



5.7.13.3 Simulation mode

The simulation mode is the default mode when you create or open a configuration.

When we are in another working mode, we can return to the simulation mode by clicking on the



In simulation mode, it is not possible to edit the configurations. It is used to verify that the entered values are correct. In simulation mode if you press a button on the MIDI controller or on the keyboard, the mapped button in the configuration will be highlighted. Similarly, if you move a fader on the MIDI controller, the corresponding fader will move in the configurator application. If you rotate a knob in the controller, it will rotate in the configuration application.

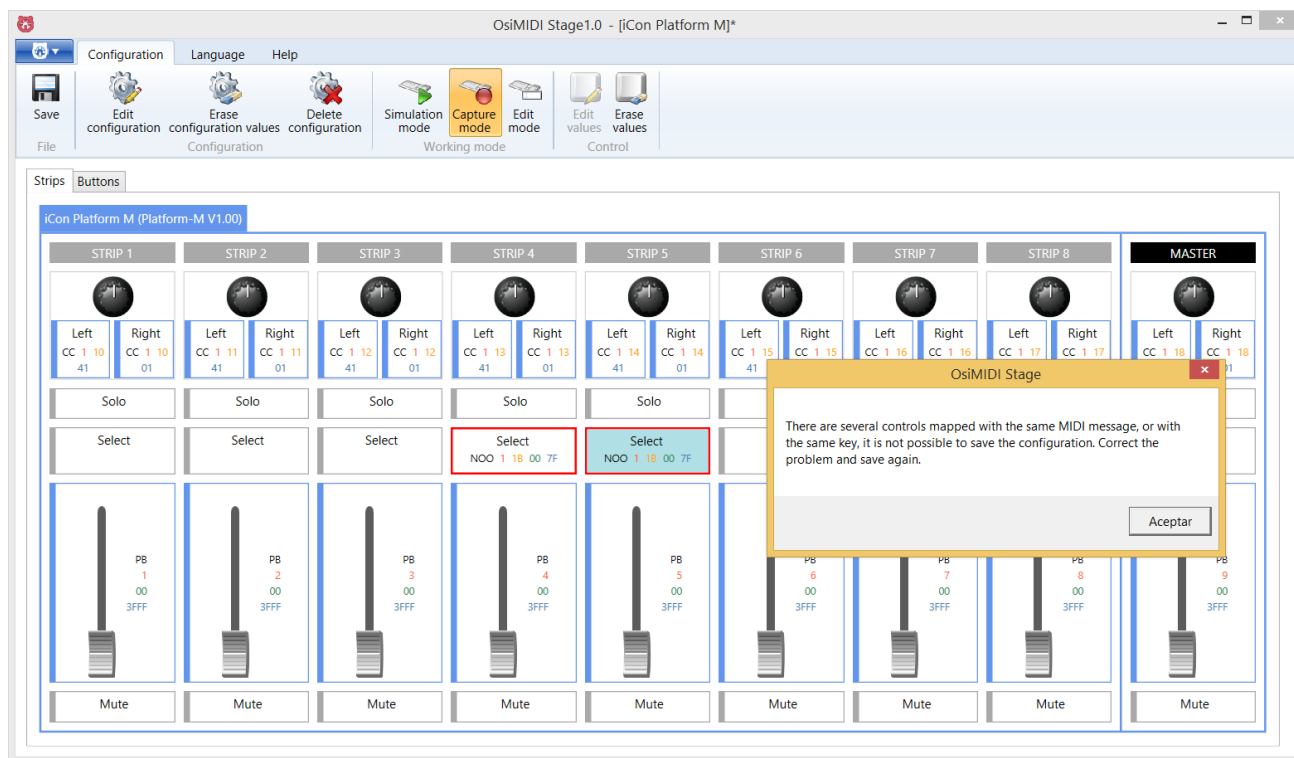
When you action a control of the MIDI controller or keyboard, the tab of the configuration containing the button or the fader will be automatically selected.

5.7.14 Save



At any time we can store the modifications using the **Save** button. When we have made changes and these have not been saved, a * to the right of the text in the title of the window will be displayed.

At the time of saving it will be verified that there are not several controls with the same MIDI address or keyboard key. If there are several controls with the same mapping, a message will be displayed indicating that the configuration can not be saved. The user must correct the configuration so that the configured controls have unique mappings. Controls with equal mappings will be highlighted in red.



5.8 Language selection

We can modify the language of the application from the tab "Language" of the ribbon, pressing the button corresponding to the desired language:




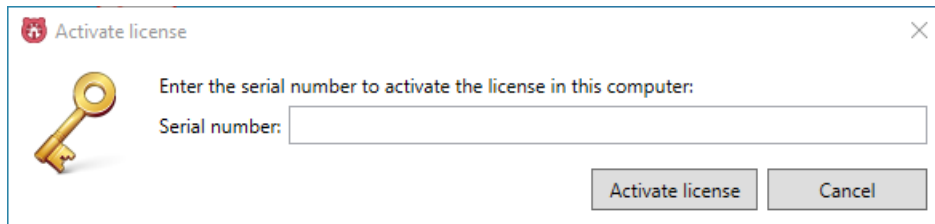
Available languages are: Spanish and English.

Selecting a language modifies both the language of the main OsiMIDI Stage application and the configuration application.

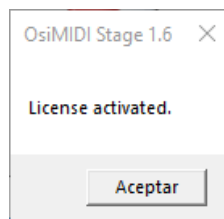
5.9 Activating the application

In case you were using the application in demonstration mode, and you have acquired a license, you

can activate the license using the  button available the "Help" tab:



To activate OsiMIDI Stage, you must enter the serial number in the text box and click on the "Activate license" button.



To activate the license is necessary to have internet connection.

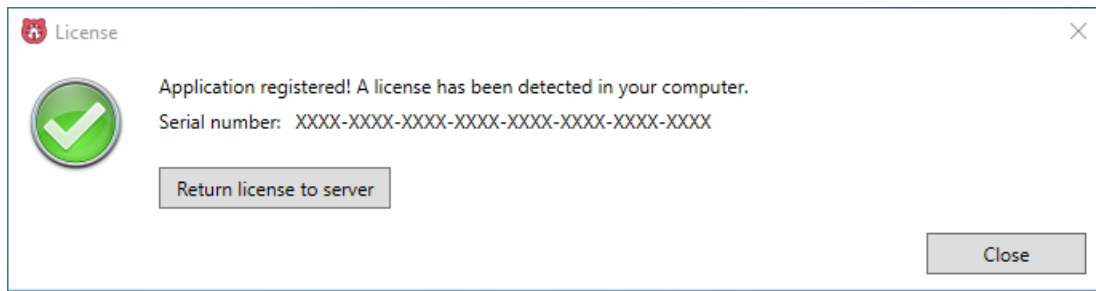
5.9.1 Return license to server

One serial number allows to activate OsiMIDI Stage on a single computer at a given time. Once OsiMIDI Stage has been activated on a computer with a serial number, it is not possible to activate OsiMIDI Stage on another computer using the same serial number at the same time.

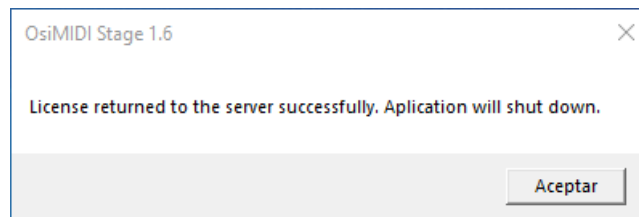
If we need to use OsiMIDI Stage on more than one computer at the same time, it is necessary to acquire more than one license.

However, it is possible to move the license from one computer to another, that is, remove the license on one computer by returning it to the server, in order to activate OsiMIDI Stage later on another computer.

For this you must open the license dialog. You are informed that the application is registered, and the serial number is displayed:



To return the license click on the button "Return license to the server".



Once the license is returned to the server, it is possible to activate OsiMIDI Stage on another computer.

To return the license to the server, it is necessary to have an internet connection.

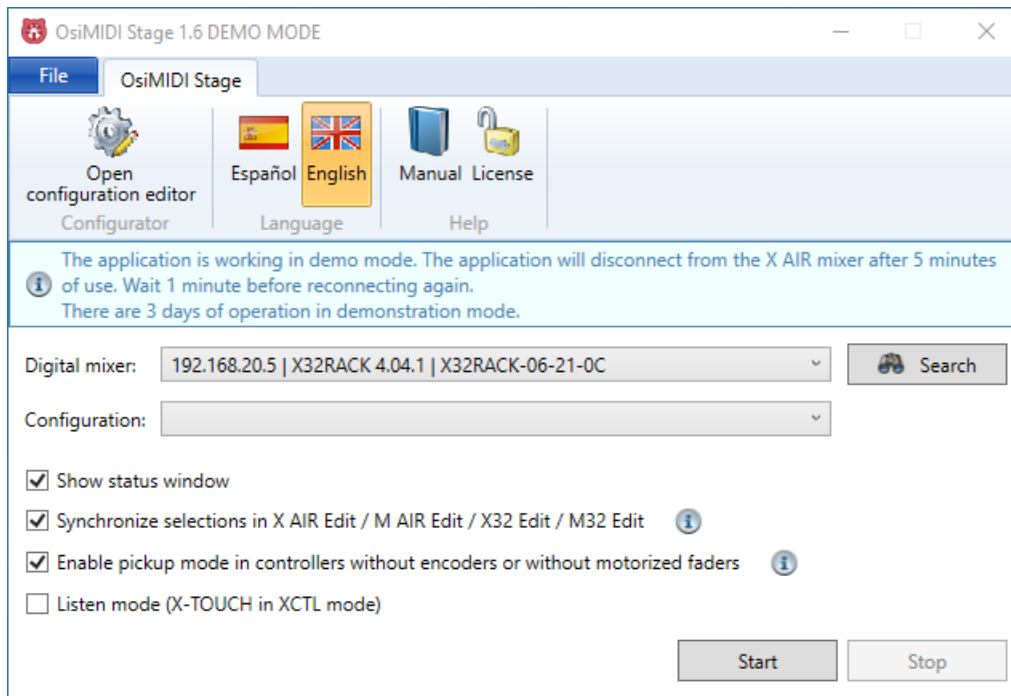
5.10 Manual



The **Manual** button on the "Help" tab opens the user manual.

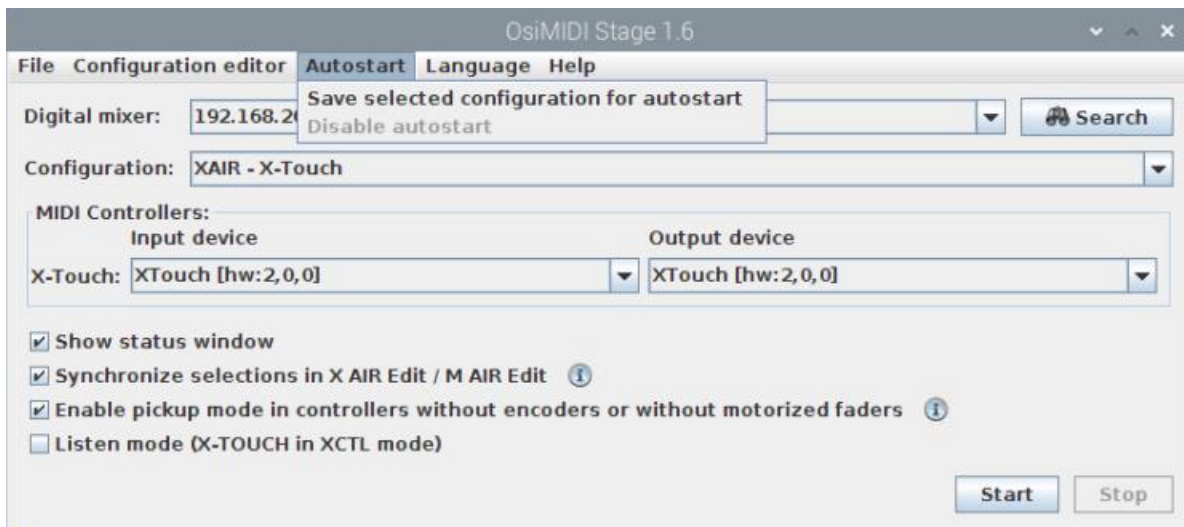
5.11 DEMO mode

When we are using the application in demonstration mode, we have until 30 days to try the product. In the main window an information message will be shown indicating the days that are left of use in demonstration mode.



5.12 Autostart (Raspberry Pi)

The autostart function allows OsiMIDI Stage to start automatically if we work with a Raspberry Pi without a monitor. However, the installation of the Raspberry Pi must be with user interface, OsiMIDI Stage cannot be executed in a "headless" installation.



The process to configure OsiMIDI Stage with auto start is the following:

1. First, we start the Raspberry Pi with a monitor, select the configuration and MIDI controllers that we want to use with the autostart, and use the menu "Save selected configuration for autostart" to save the selection and activate the autostart function. After that, the next time OsiMIDI Stage is executed, the saved configuration and MIDI controllers will be selected, and the operation of OsiMIDI Stage will start, automatically.

For autostart to work correctly, MIDI controllers must have the same name whenever we start the Raspberry Pi, so they must be connected to the same USB ports they were connected to when saving the configuration for autostart.

2. Configure the Raspberry Pi so that OsiMIDI Stage is executed when the system is started. For this it is necessary to edit the autostart file using the following command from a terminal window:

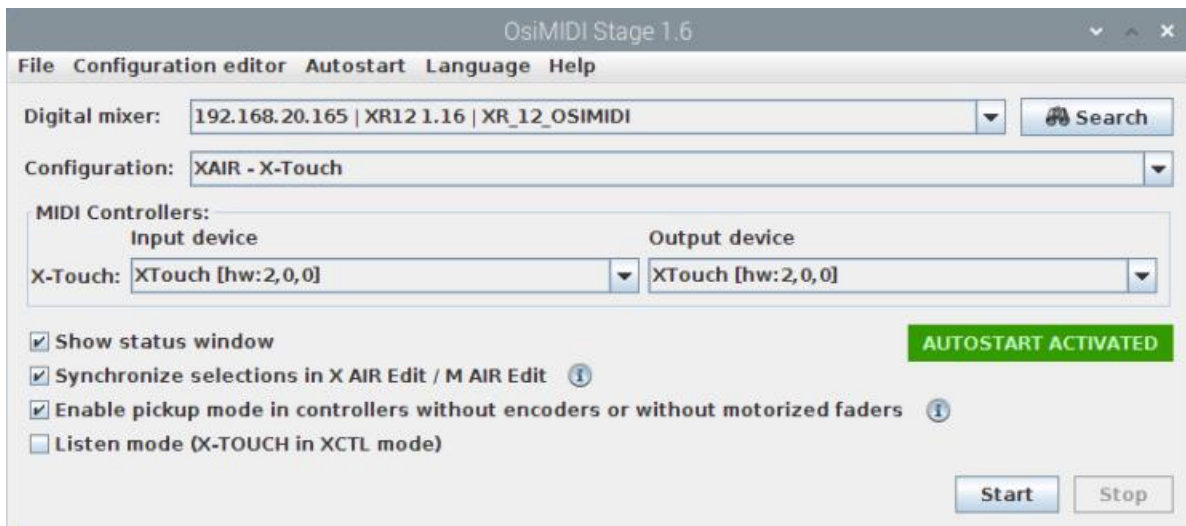
```
nano ~/.config/lxsession/LXDE-pi/autostart
```

Then add to the end of the file a new line with the command to start OsiMIDI Stage, and save:

```
osimidi-stage
```

Once these two steps have been carried out, when starting the Raspberry PI, the OsiMIDI Stage application will run, the configuration and the MIDI controllers will be selected, and the operation of OsiMIDI Stage will start, automatically without user intervention, which will allow to use the Raspberry PI with OsiMIDI Stage, without the need of a monitor.

When the autostart function is active, a green label with the text "AUTOSTART ACTIVATED" is displayed.



The "Disable autostart" menu deactivates the previously programmed autostart.

6 Requirements

OsiMIDI Stage supports the following mixers: Behringer X AIR XR12, XR16, X18, XR18 and X32, and Midas MR12, MR18 and M32.

OsiMIDI Stage supports the following Windows operating system versions: 7, 8.x, 10 and 11.

OsiMIDI Stage supports the following X AIR Edit versions: 1.3, 1.5 and 1.6.

OsiMIDI Stage supports the following M AIR Edit versions: 1.5 and 1.6.

OsiMIDI Stage supports the following X32Edit versions: 3.1, 4.0, 4.1 and 4.2.

OsiMIDI Stage supports the following M32 Edit versions: 3.2, 4.1 and 4.2.

7 Third-party software credits

OsiMIDI Stage for Mac OS X and Linux (Ubuntu / Raspberry Pi) uses Open Source components. You can find the source code of their open source projects along with license information below. We acknowledge and grateful to these developers for their contributions to open source.

- **Simple Logging Facade for Java (SLF4J)**

Project: <https://www.slf4j.org/>

Copyright © 2004-2017 [QOS.ch](http://www.qos.ch)

License (MIT): <https://www.slf4j.org/license.html>

- **Java Native Access (JNA)**

Project: <https://github.com/java-native-access/jna>

License (APACHE 2.0): <https://github.com/java-native-access/jna/blob/master/LICENSE.AL>

- **OSHI - Operating System & Hardware Information**

Project: <https://github.com/oshi/oshi>

Copyright (c) 2010 - 2018 The Oshi Project Team

License (EPL 1.0): https://github.com/oshi/oshi/blob/master/LICENSE_HEADER

- **ThreeTen backport project**

Project: <https://github.com/ThreeTen/threetenbp>

Copyright (c) 2007-present, Stephen Colebourne & Michael Nascimento Santos

License: <https://github.com/ThreeTen/threetenbp/blob/master/LICENSE.txt>

- **JNativeHook**

Project: <https://github.com/kwhat/jnativehook>

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

License (GNU LGPL-3): <https://github.com/kwhat/jnativehook/blob/2.1/COPYING.LESSER.md>

- **CoreMIDI4J**

Project: <https://github.com/DerekCook/CoreMidi4J>

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Eclipse Public License 1.0: <https://github.com/DerekCook/CoreMidi4J/blob/master/LICENSE.md>