



QUARTZ

Manual

Version 1.0.2

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INSTALLATION

Start the *QUARTZ* installer and follow the on-screen instructions.

Mac:



Windows:



WHAT IS INSTALLED ?



Mac:

The QUARTZ Audio Unit Plug-In is installed in:

/Library/Audio/Plug-Ins/Components

The QUARTZ VST Plug-In is installed in:

/Library/Audio/Plug-Ins/VST

The QUARTZ presets are installed in:

/Library/Audio/Presets/Artificial Audio/Quartz



Windows:

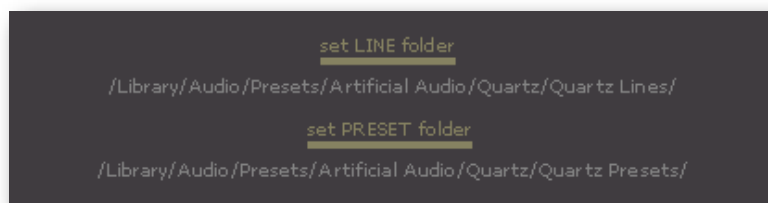
By default all files are installed in:

C:\Program Files\Artificial Audio\Quartz

You have to copy the QUARTZ VST Plug-In to your desired VST folder. The respective VST folder depends on the host application you use. Alternatively, you can add the QUARTZ installation folder to the VST Plug-In paths of your host application.

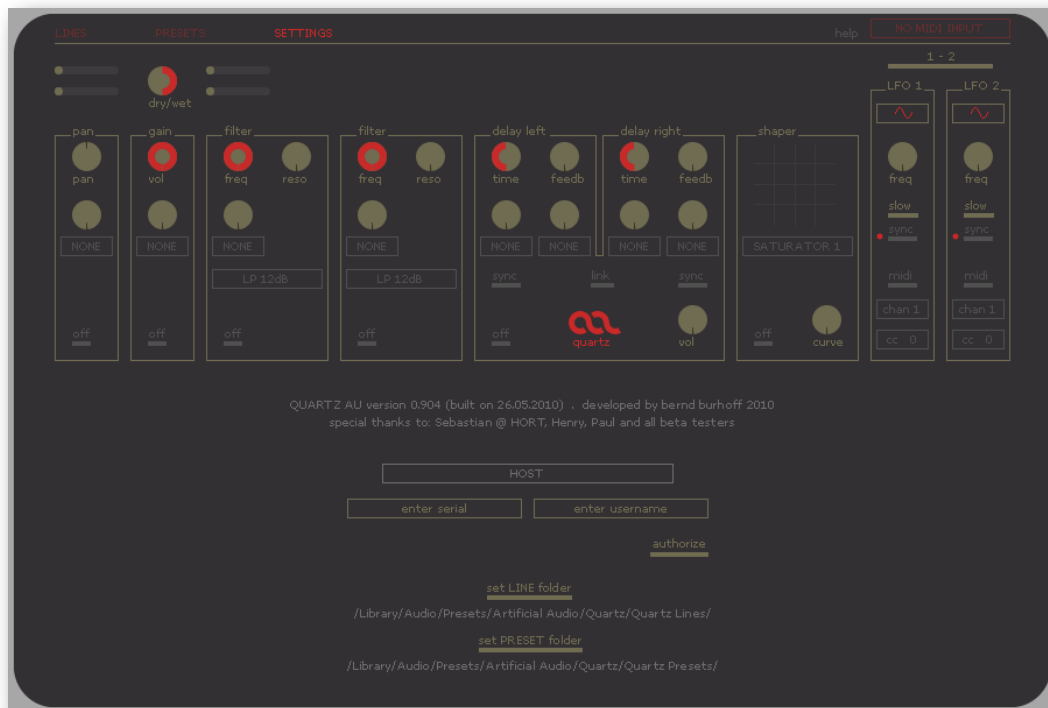
(In Cubase e.g. use : „*Devices->Plug-In Information->VST 2.x Plug-in Paths*“)

QUARTZ utilizes an own data format for its presets und lines. The preset and line data can be found in two special folders. For Windows computers after installation you have to set the path to these folders in the QUARTZ - settings (Mac computers already have the paths set after installation). For this click on *set PRESET folder* and *set LINE folder* and choose the directories in which the data is stored on your system:

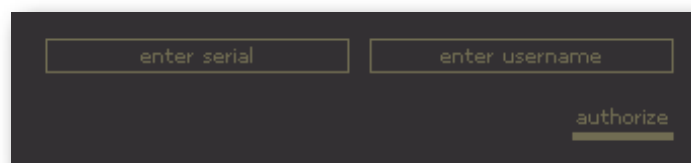


AUTHORIZATION

After installation you have to authorize QUARTZ. To authorize QUARTZ, your computer has to be connected to the internet. Please open QUARTZ in your host application and select „SETTINGS“ in the top left-hand corner. The following window will appear:



After purchasing QUARTZ you receive a serial number in your confirmation mail. This number has got two times five digits separated with a hyphen: 12345-12345.



Please enter this number in the „enter serial“ field. In the second field input your name or a name of someone you want to authorize for the Plug-In. This name will later be displayed in the Plug-In window.

With the button „authorize“ you start the authorisation procedure. After a few moments your Plug-In is authorised and „ready to use“. If you receive an error message, please check that your computer is connected to the internet and that you have input the serial number correctly. Then restart the authorisation by pressing the button „authorize“.

WHAT IS QUARTZ ?

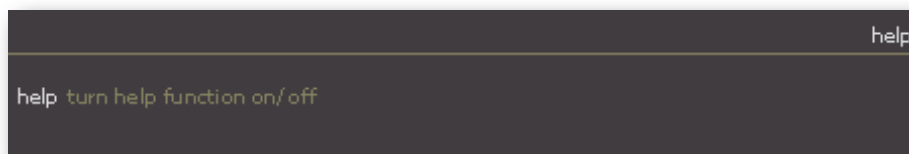
QUARTZ is a unique multi-effect plug-in that turns the simplest sounds into ever evolving rhythmic soundscapes. But that's not everything. It is also a source of creative modulation which can be used to control parameters outside of QUARTZ such as software instruments, plug-ins or even external MIDI equipment. QUARTZ offers a clear and easy to use interface for intuitive workflow.

QUARTZ has a simple but clever collection of switchable EFFECT MODULES. You have AUTO-PANNING, AUTO-GAIN, two independent MULTIMODE FILTERS, a tempo-synced STEREO DELAY and a WAVE SHAPER module.

QUARTZ gets its name from the fact that all LINE and LFO modulations work to the audio sample rate, ensuring sample accurate parameter modulation. With its variety of effect modules and its powerful modulation capabilities, QUARTZ gives your sounds the right shape and groove.

QUICK START

If you want to start using QUARTZ immediately, simply activate the help function which displays useful information regarding the respective parameter shown by the mouse pointer.



To familiarize yourself with QUARTZ, you can also watch the QUARTZ video tour on the artificial audio website:

www.artificialaudio.com/quartz

THE PRESET BROWSER

To be able to start with QUARTZ immediately, it is best to make a short tour through the preset library. To do so you have to activate the preset browser on the top left-hand of the screen:



The preset browser now appears in the bottom part of the window. On the left-hand side of the browser you will see the preset folders. Click on a folder and you will see the preset files on the right hand side of the browser that are contained in the chosen folder. A click on the preset file loads the preset.



save to save a preset, activate the preset browser, and select the preset folder in which you want to save your preset and click save

prev load the previous preset

next load the next preset

OPERATION WITH MOUSE AND KEYBOARD



CONTROLLERS

Set the default value of a controller	Alt - Click on the respective controller
Fine adjustment of the controllers	Shift - Click

LINE EDITOR

Inserting a point	Command-Click or Right-Click
Deleting a point	Command-Click or Right-Click
Selecting individual points	Click
Selecting additional points	Shift-Click
Selecting several points simultaneously	make a frame around them
Open the ToolBox	Ctrl-Click on a point
Copy selected points	Alt-Click and Drag



CONTROLLERS

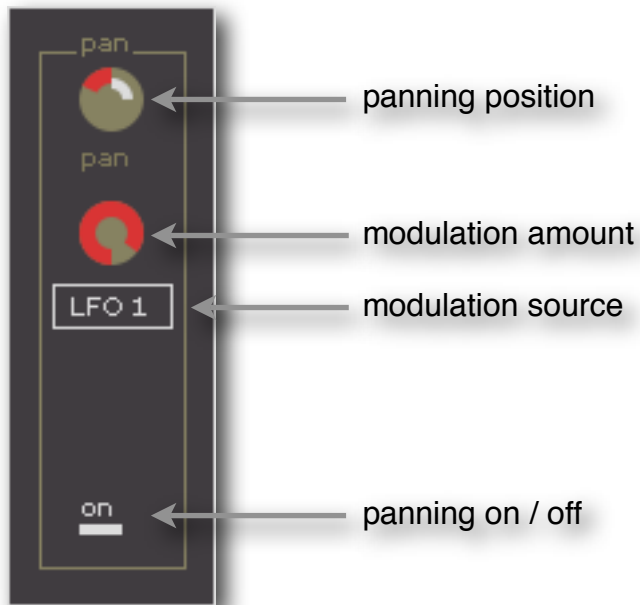
Set the default value of a controller	Alt - Click on the respective controller
Fine adjustment of the controllers	Shift - Click

LINE EDITOR

Inserting a point	Right-Click
Deleting a point	Right-Click
Selecting individual points	Click
Selecting additional points	Shift-Click
Selecting several points simultaneously	make a frame around them
Open the ToolBox	Strg-Click on a point
Copy selected points	Alt-Click and Drag

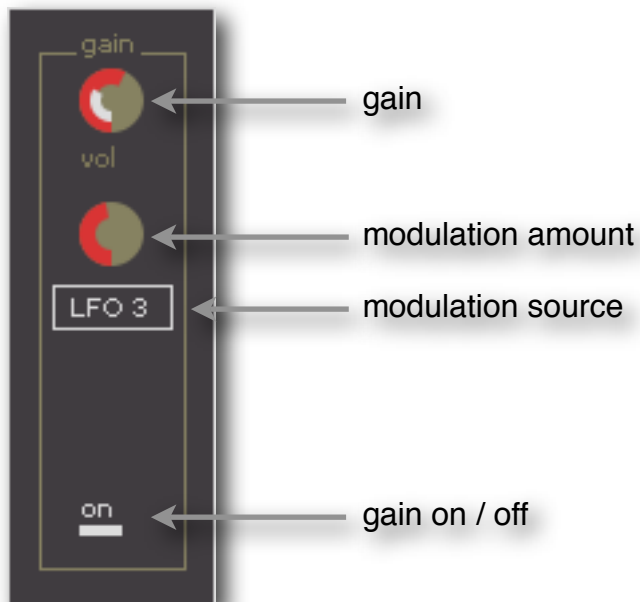
THE EFFECT MODULES

AUTO PANNING



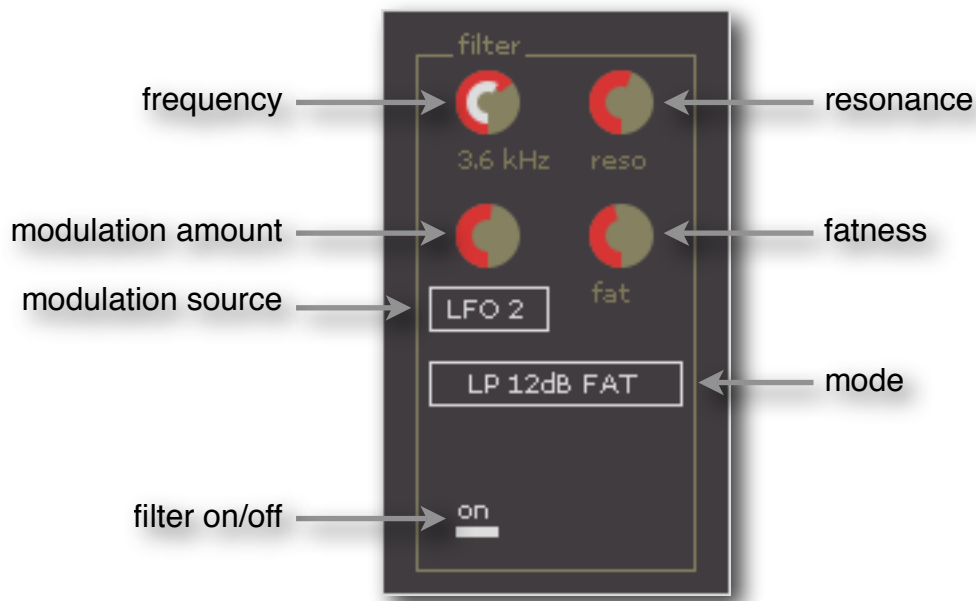
The *pan* controller adjusts the stereo position of the signal (red ring). If the panning parameter is modulated a white ring appears to show you the the modulated parameter value.

AUTO GAIN



The *gain* controller adjusts the volume of the signal (red ring). If the gain parameter is modulated a white ring appears to show you the modulated parameter value.

FILTER

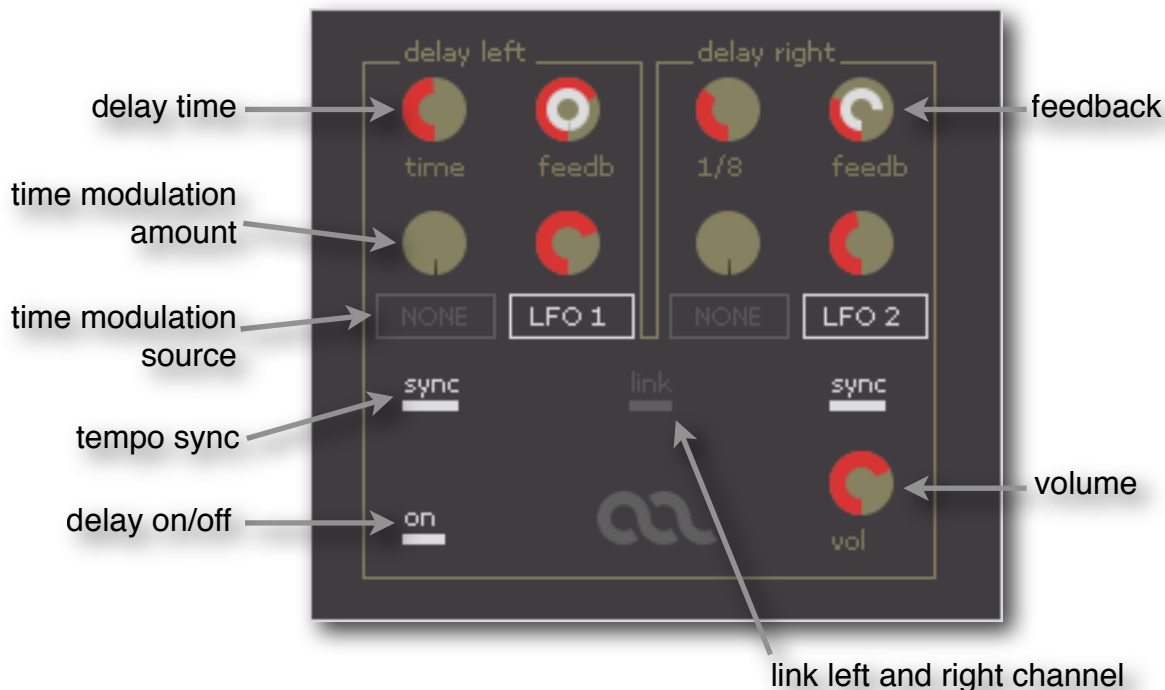


QUARTZ has two multimode filters connected in series. There are different types of filters: Lowpass, Highpass and Bandpass which all work as classic resonance filters or as resonance filters with additional saturation/distortion („FAT“). If you select a filter type with saturation/distortion, an additional controller appears (*fat*) to adjust the saturation/distortion amount. All filter types can be run at high quality 4-times oversampling mode indicated by a „x4“ in the filter type name.

The filter frequency can be modulated either by an LFO or by a MODULATION LINE. The red ring in the filter frequency controller indicates the position of the controller itself. If the filter frequency is modulated a white ring will appear indicating the modulated frequency value.

<i>freq</i>	filter frequency (20 Hz - 20 kHz)
<i>modulation amount</i>	0.00 - 1.00
<i>modulation source</i>	LINE / LFO
<i>reso</i>	filter resonance (0 - 100%)
<i>fat</i>	filter saturation / distortion (0 - 100%)
<i>mode</i>	filtertyp (lowpass / highpass / bandpass)
<i>on/off</i>	filter on/off

STEREO DELAY



QUARTZ is equipped with a stereo delay which is really quite spectacular. The delay works internally like a stereo tape delay which means that the delay reacts when changes are made to the delay time with a certain response time just like old tape recorders. This leads to the popular pitch effect well known in tape delays. QUARTZ enables the modulation of both the delay time and the delay feedback and as a result you can create the wildest dub delay effects. The delay provides a delay time of up to 4 seconds per channel.

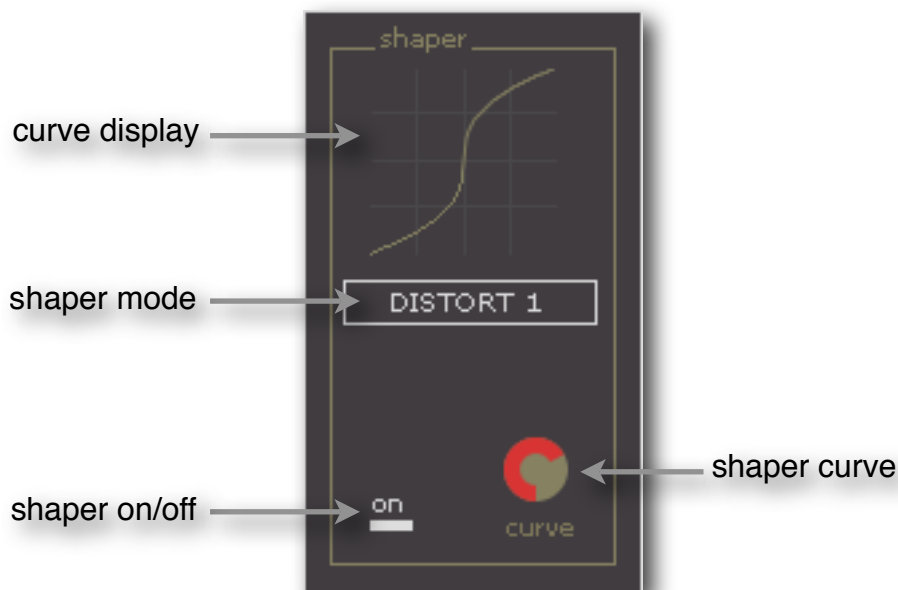
The left and right channels of the stereo delay can operate independently from each other or can be coupled with the *link* switch. In the *link* – mode the left channel is the „master“ and the switches of the right channel no longer have any influence.

The delay time can be synchronized to the tempo of the sequencer with the *sync* switch. The delay time can then be set in note values (beats) instead of milliseconds. Note values between 1/32 beat und 2 bars can be set. Triplets and dotted notes can be selected.

Delay Parameter:

<i>time</i>	delay time (0.0 msec - 4.0 sec)
<i>feedb</i>	delay feedback (0 - 100%)
<i>modulation amount</i>	0.00 - 1.00
<i>modulation source</i>	LINE / LFO
<i>sync</i>	activates the tempo-sync mode (delay times will be adjusted in beats)
<i>link</i>	activates the link-mode (the left channel is master)
<i>vol</i>	adjusts the volume of the delay effect
<i>on/off</i>	delay on/off

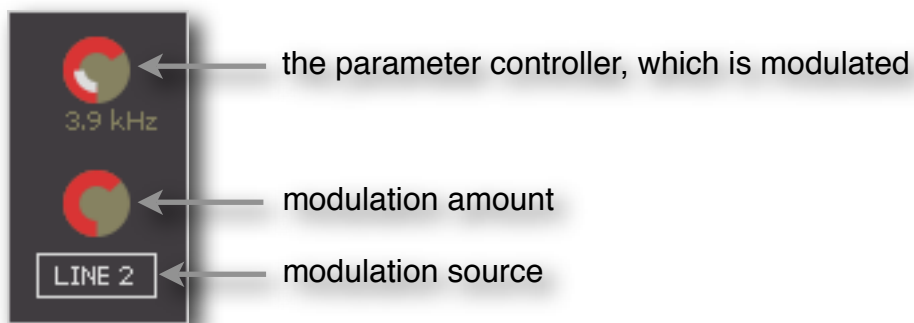
WAVE SHAPER



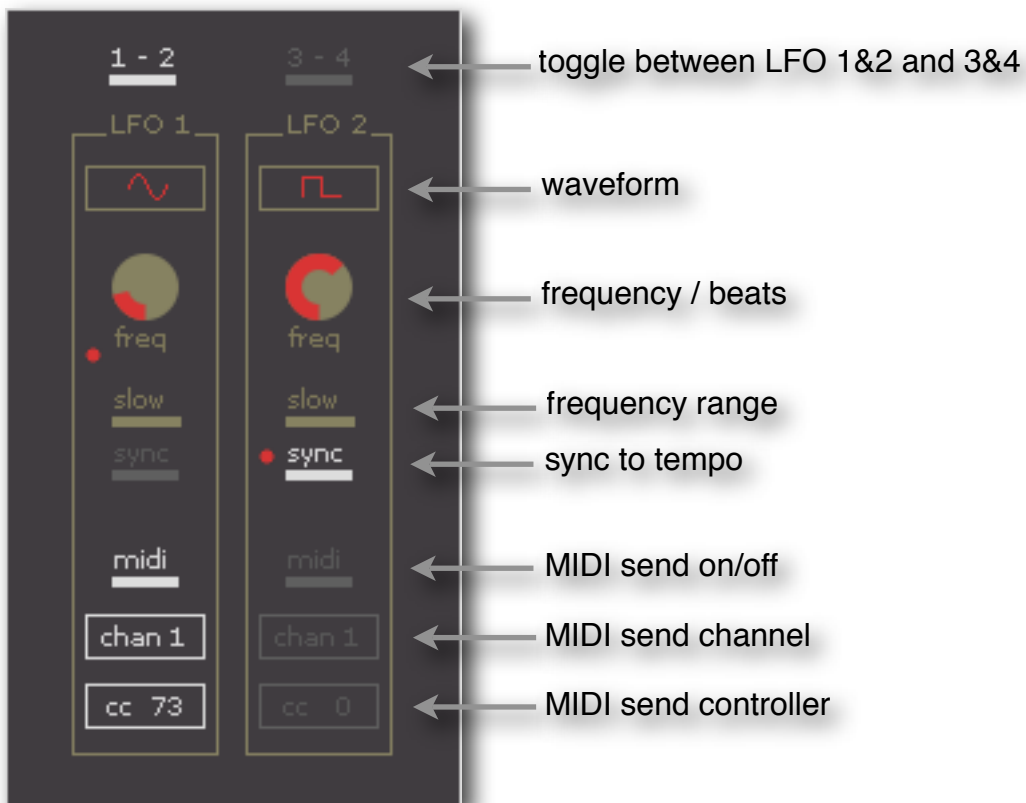
The QUARTZ SHAPER is a classic wave shaper module. It can be used to add extra distortion and saturation effects to your sounds. The module comes with 3 shaper modes: SATURATOR 1, PARABOLIC, DISTORTION 1 and DISTORTION 2. Use the curve controller to adjust the intensity of the wave shaping.

MODULATION

All important parameters in QUARTZ can be directly modulated by one of the 4 LFOs or by one of the 4 MODULATION LINES. The modulation source and strength can each be adjusted with a controller underneath the parameter controller. The red ring of the parameter controller always gives the position of the (unmodulated) parameter controller. The parameter values that result from the combination of the parameter controller and the modulation is displayed in the inside white ring of the parameter controller.



THE LFOS



QUARTZ has 4 independent, tempo-syncable LFOs to generate modulation-frequencies from 0.01Hz up to 2 kHz. You can see two LFOs at a time and can toggle between LFOs 1&2 and LFO 3&4 by using the switch on top of the LFOs. Each LFO provides the following waveforms: sine, triangle, square, saw tooth up, saw tooth down and a random generator. Use the *range* switch to select one of the following frequency ranges:

slow 0.01 Hz - 2.0 Hz

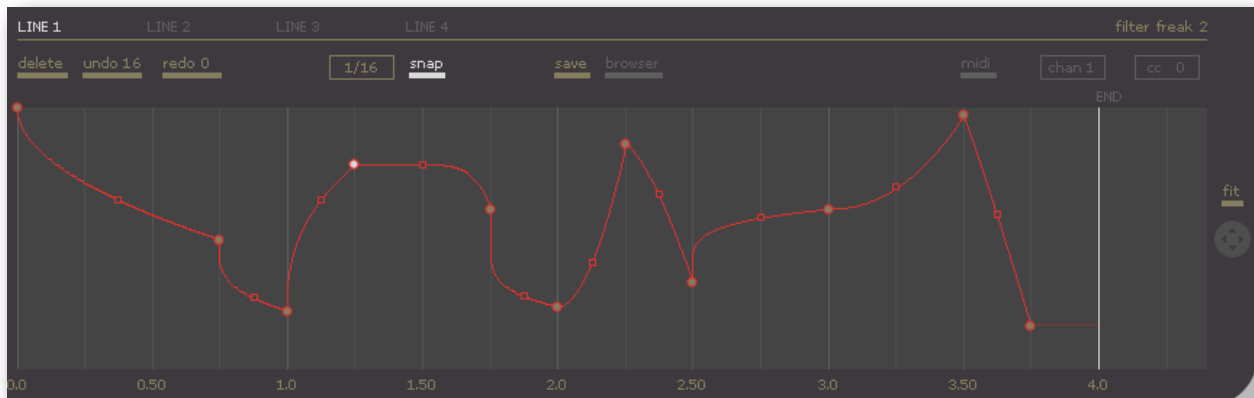
mid 1.0 Hz - 200 Hz

fast 100 Hz - 2 kHz

By activating the *sync* switch you can synchronize the LFO frequency to the beat of your song. If the LFO works in sync-mode you can choose note values from 1/32 beats up to 2 bars. You can even choose dotted notes and triplets.

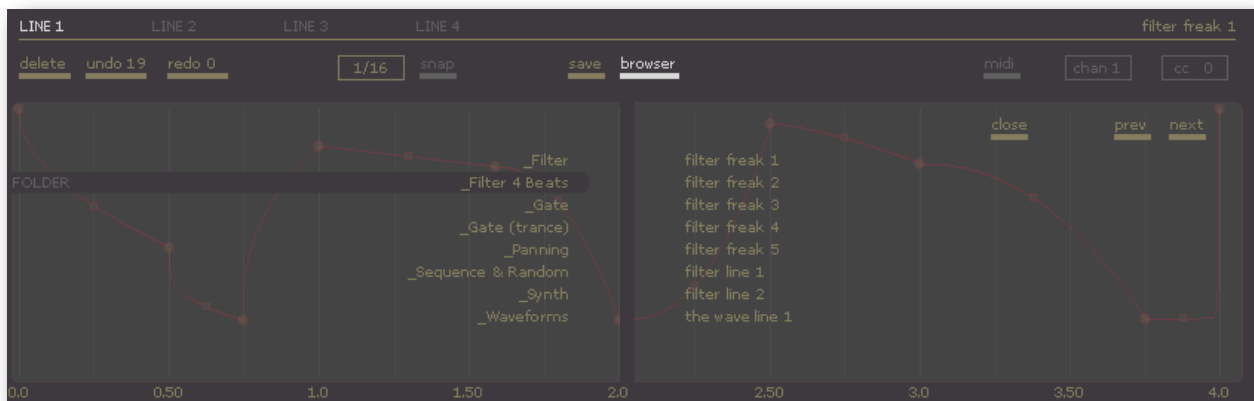
If you activate the *midi* switch the LFO data will be sent to your host application as MIDI controller messages. You can specify the MIDI channel and the corresponding MIDI controller number for each LFO separately.

THE MODULATION LINES



With its 4 unique MODULATION LINES, QUARTZ has some powerful tools for parameter modulation. The MODULATION LINES can modulate every important parameter in QUARTZ. But they can also do a lot more: you can send these modulations via MIDI to your host application and have them modulate any other plug-in parameter or even any external MIDI equipment. Each MODULATION LINE can have up to 200 points. By using the snap function you can easily synchronize the LINE points to your beat. Each LINE has it's own *End-Mark* that determines the loop length of the LINE.

THE LINE BROWSER

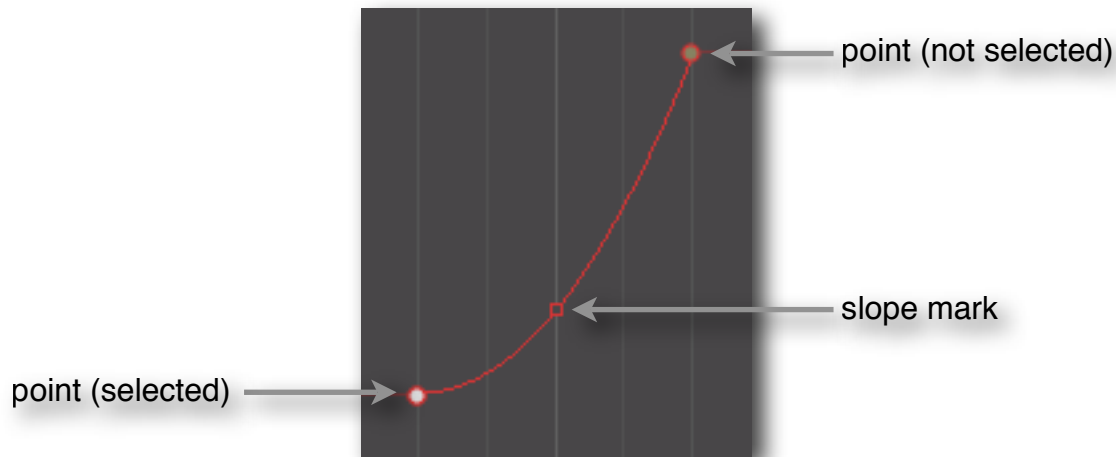



An extensive library of prepared MODULATION LINES that you can load via the LINE BROWSER is at your disposal. The LINES are sorted according to types and style for quick access. Click on the left side of the browser on a folder and you will see on the right side the LINES (FILES) contained. Click on a LINE on right half to load it.

Attention: when loading, the existing LINE is replaced by the new LINE and cannot be restored even with UNDO!

THE LINE EDITOR

Working with the LINE EDITOR is quite simple and intuitive. As you wish, you can insert points, delete points, move points, adjust the curve of the LINE segments or copy whole areas of the LINE. With the aid of the TOOLBOX, the height of the points and/or the curve of the LINE can be changed at random or by choice. Each MODULATION LINE consists of up to 200 points. The curve of a line segment between two points is determined by the position of the „slope mark“.



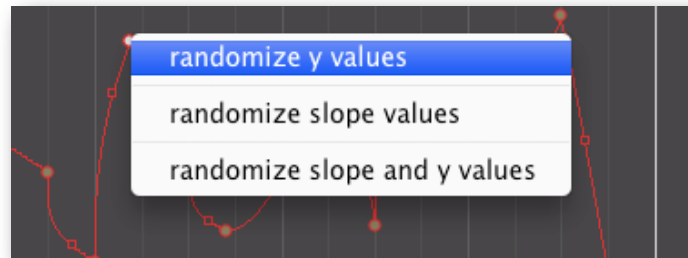
<i>delete</i>	delete all selected points
<i>undo / redo</i>	100 step undo / redo function for all LINE changes
<i>snap</i>	edited points will be quantized according to the selected beat grid
<i>save</i>	save a LINE to disk
<i>browser</i>	open the LINE browser
<i>midi</i>	activate MIDI SEND and all modulations will be sent via MIDI
<i>chan</i>	the MIDI channel
<i>cc</i>	the MIDI controller
<i>FIT</i>	auto-scales the display so that the whole LINE can be seen
	NAVIGATOR : scales the display of the LINE
	move mouse up / down the view scales (zoom in/out)
	move mouse left / right the display is scrolled
<i>END</i>	the END MARK defines the loop end of the LINE

Each LINE has its own 100 steps UNDO/REDO functions.

ATTENTION: if you close QUARTZ's window, the UNDO buffer will be emptied!

THE LINE EDITOR TOOLBOX

You can activate the TOOLBOX with a ctrl-click on a LINE point. A menu appears from which you can choose various editing tools :



randomize y values

The y-positions of all selected points are changed at random, i.e. the points are moved up or down at random.

randomize slope values

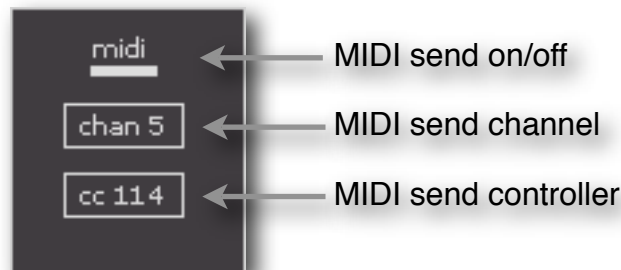
The slope marks of all selected points are moved up or down at random and this leads to a random curve of the LINE segments.

randomize slope and y values

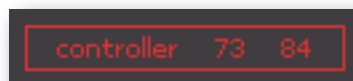
With this option you can simultaneously move the y-positions and the slope marks of the selected points at random.

MIDI SEND

The modulation data of the LFOs and the MODULATION LINEs can be sent to the sequencer per MIDI (if the sequencer can receive MIDI data from the audio plug-ins).

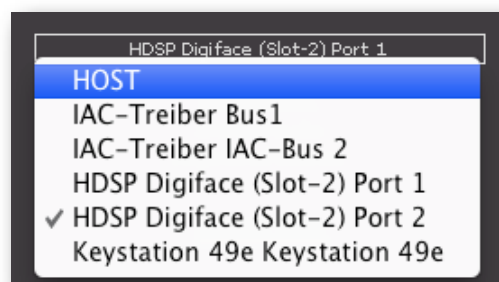


For this you have to activate the *midi* switch in the LFO or in the MODULATION LINE. QUARTZ then sends MIDI controller messages with the adjusted controller number to the adjusted MIDI channel. The modulations data are also still available for internal modulation in QUARTZ. You can see outgoing MIDI messages in the MIDI OUTPUT MONITOR:



If you use QUARTZ as an audio unit on a Mac with Logic :*

the reception of MIDI data that is sent from an audio unit are unfortunately not (yet) supported by all sequencers and also not by Logic. However, you can install an IAC-bus on your Mac via which you can transfer the MIDI Data from QUARTZ to Logic . You will find instructions for the installation of a IAC-bus for Logic* in the addendum. You can send the MIDI modulations data from QUARTZ directly to a connected MIDI interface. To do so select the respective MIDI interface on the SETTINGS page:*



* Logic is a registered trade mark of Apple Inc.

MIDI CONTROLLER MAPPING

You can map any MIDI controller to a QUARTZ control. Click the right mouse button (or left-click while holding down the ctrl key) to open a context menu in which you can select "Midi Learn". To complete the mapping, move the respective control on the MIDI controller that you want to link the QUARTZ control to. Moving the MIDI controller will move the corresponding QUARTZ control.

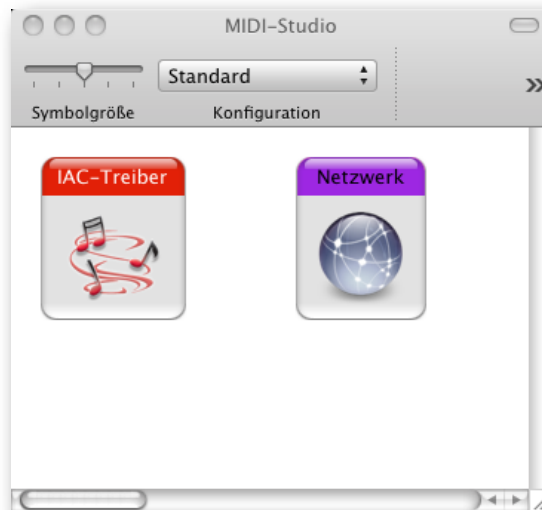


To remove the link, select "Midi Unlearn" from the context menu.

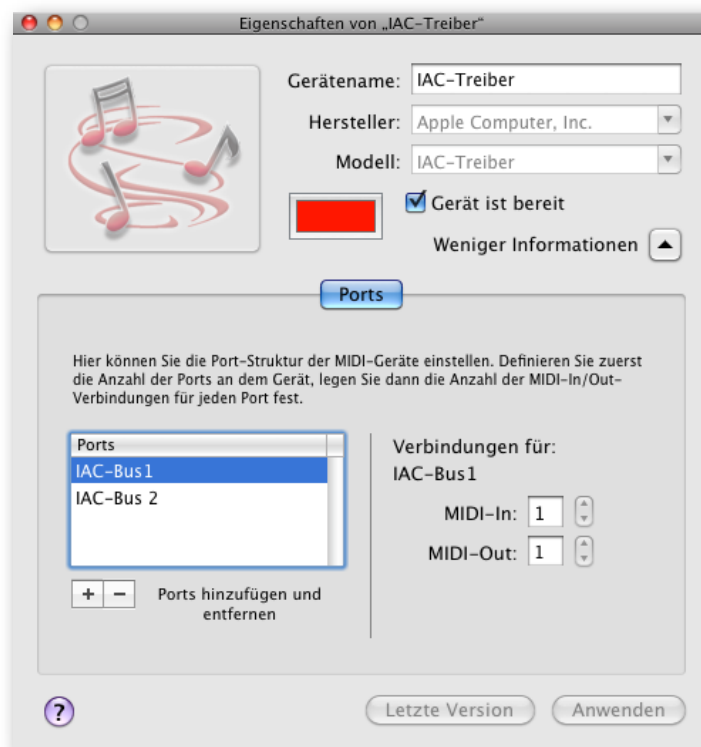
ADDENDUM

SETTING UP AN IAC BUS IN LOGIC

First open the *Audio Midi Setup* (by default in the applications folder on your hard disk). Activate and install the IAC-bus. Open the *audio midi setup*:

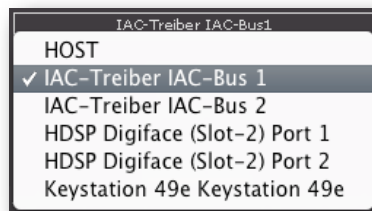


Double-click the „IAC-Driver“ and you will see this window:

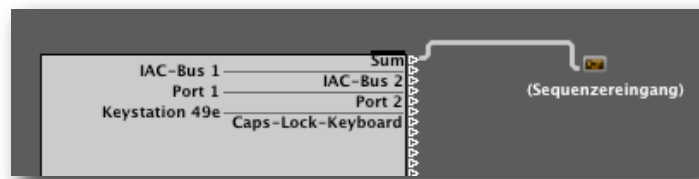


Please make sure „*Device is online*“ is checked.

In the QUARTZ SETTINGS window, please select an IAC-Bus as MIDI SEND DESTINATION. QUARTZ will now send all MIDI data to this IAC-Bus.



Open the environment window in *Logic**. The IAC Bus will be shown as part of the physical input:



You can now connect the IAC Bus to any channel of your environment or simply connect the sum to the sequencer input.

* *Logic* is a registered trade mark of Apple Inc.