SequencAir
Step Sequencer/Synthesizer

Version 1.2

© 2019-2026 by Ben Martin and Björn Arlt @ Full Bucket Music
https://www.fullbucket.de/music

Table of Contents

Introduction

SequencAir is a software step sequencer/synthesizer standalone application and plug-in for Microsoft Windows and Apple macOS. It is written in native C++ code for high performance and low CPU consumption. The main features are:

- 16 chainable banks
- 16 sequencer steps per bank
- Individual controls for Note, Octave, Velocity, Gate, Skip, Mute plus two MIDI CCs or synth parameters per step
- Sync-to-host and Swing functions
- Optional Start/Stop/Transpose by MIDI Note command
- Additional built-in monophonic synthesizer
- Straightforward user interface
- Supports MTS-ESP by ODDSound dynamic micro-tuning
- MIDI Learn – all parameters can be controlled by MIDI CC
- Plug-in supports Windows and macOS

SequencAir is based on the **iPlug2** framework maintained by **Oli Larkin and the iPlug2 team**. Big thanks, guys!!! Without your work it would not have been possible to create a resizable *SequencAir* user interface.

To resize the plug-in you just grab the yellow triangle at the bottom right of the window and drag it. You can save the current window size using the menu entry "Save Window Size" in the *Context Menu* or by right-clicking somewhere into an empty space of *SequencAir*'s panel.

If you have trouble with the standard version of *SequencAir*, please grab the (functional and sound-wise identical) "N" version of the plug-in which is based on the original **iPlug** framework.

Background

One day before Christmas Eve 2018, I (Björn) got a mail from Ben Martin from Portugal. Ben proposed the idea of an enhanced step sequencer VST plugin, much in the style of classic analog gear but with more knobs ☺. What Ben did not know was that some years ago I already had created a prototype of such a machine but somehow dropped the idea. While my approach added a very simple synthesizer to it, Ben's sequencer part was more elaborated than my original idea.

After some mails back and forth, the basic concept was settled and I started development. Ben suggested a "matrix-style" sequencer, and it took just a few iterations until *SequencAir* was literally ready for production. During this process, Ben tested the plugin and proposed some great ideas that directly went into the design. He also created the preset programs 16 to 27.

Now *SequencAir* surely is not a plugin for the masses, and I think you should be a fan of old-school analog sequencers to fully appreciate its concept. The full power becomes apparent when you start playing with it in real time and replace the crappy built-in synth with the software or hardware instrument of your choice.

Enjoy and have fun!

What's New With Version 1.1?

Besides the new *AUTO SELECT BANK* mode (see section *Bank Selection Mode*) I fixed maaaaany bugs. Furthermore, it is now possible to MIDI-learn *every* control of *SequencAir* – including the *PLAY/STOP*, *RESET* and *RECORDING* buttons.

Last not least I removed the *SYNC* and *SCALE* controls from the standalone application (since it is not possible to synchronize *SequencAir* to an external MIDI clock; please do me a favor and use the VST plug-in).

What's New With Version 1.2?

SequencAir now has a resizable user interface and is available as stand-alone app or as VST2, VST3, CLAP and AAX plug-in for Windows and macOS (Intel and ARM). Besides that I overhauled the code base.

Sequencer

Per program, *SequencAir* features 16 banks of 16 steps where each step provides individual controls for Pitch, Octave, Velocity, Gate Time, Mute and two MIDI CC and/or synthesizer parameter controls. Furthermore, each step can be skipped which allows the programming of non-standard signatures.

Using the *BANK* switches, the current sequencer bank will be selected for editing. When clicking the *CHAIN* buttons, the checked banks (yellow-lit *CHAIN* button) themselves will be played in sequence.

Sequencer Playback

Apart from *Tempo* (which can by synchronized to the host's tempo), *DIV* (clock division i.e. note length per sequencer step) and *Swing* (amount of "shifting" even-numbered steps with respect to odd-numbered steps), *SequencAir* offers various play modes and options.

| Mode	Symbol	Description
Forward	▶	Plays forward from step 1 to step 16
Reverse	◀	Plays backwards from step 16 to 1
Forward-Reverse	▶◀	Plays forward and then again backwards
Reverse-Forward	◀▶	Plays backwards and then again forward
Random	RND	Plays random steps

Option	Symbol	Description
Reset/Play	RESET /PLAY	Resets to first step before starting to play
Loop	↩	Loops the playback
Start on Note On	♪▶	Starts playback on MIDI Note On
Stop on Note Off	♪■	Stops playback on MIDI Note Off
Transpose Note	♪⬍	Transposes the current note on MIDI Note On
Pivot Key	–	Base key for the sequencer steps
MIDI Channel	–	MIDI channel for sending MIDI events

Sequencer Steps

As stated above, each step has a control for Pitch, Octave, Velocity, Gate time, Mute and two assignable controls for MIDI CC or synthesizer parameters.

- You can entirely skip a step by clicking on its number display at the top (the display the shows two bars instead of the step number).

- A gate time value of 1.00 will be interpreted as a tie and allows for legato playback.

- A red LED right underneath the step number display indicates the currently active note. A blue LED indicates that the active step belongs to a *different bank* than the selected bank.

Sequencer Recording

After pressing the red *Record* button you can "record" the 16 steps of the currently selected bank. Note that only the note pitch and velocity of the MIDI data sent to *SequencAir* will be recorded.

Helpers

Clicking on a button to the left of the step rows (*Pitch*, *Octave*, etc.) will open a context menu that provides some helper functions to set the values of the corresponding step controller rows. Note that in case of the two assignable controllers you have to do a right-click to open the context menu.

Bank Selection Mode

In the standard *MANUAL SELECT BANK* mode, the *currently visible* sequencer bank has to be selected manually. When you change to *AUTO SELECT BANK* mode (just click on the text to do so), the *currently playing* sequencer bank will be selected automatically.

Bank Chaining

Using the *CHAIN* buttons you can select banks to be chained during playback. The LED right underneath the *CHAIN* buttons indicate which bank is playing. A blue LED indicates that a different bank than the selected bank is currently active.

Synthesizer

The Synthesizer section features a very primitive synth with one oscillator, one filter and a simple envelope. It is just there so that you do not need to add a subsequent MIDI or VST instrument when you want to setup a funky sequence...

Note that you have to switch the synth *ON* if you want to hear it!

Performance Controls

Program Menu

If you know my other plug-ins then there will be no surprises: To select one of the 64 patches just click on the program number, and edit its name by clicking in the text field.

Context Menu

When clicking on the *Menu* button, a context menu opens with the following options:

Copy Program	Copy current program to internal clipboard
Paste Program	Paste internal clipboard to current program
Init Program	Initialize the current program
Load Program	Load a program file containing a program to the current program
Save Program	Save the current program to a program file
Load Bank	Load a bank file containing 64 patches into *SequencAir*
Save Bank	Save the 64 patches to a bank file
Select Startup Bank	Select the bank file that should always be loaded when *SequencAir* is started
Load Startup Bank	Load the Startup bank file; can also be used to check what the current Startup bank is
Unselect Startup Bank	Unselect the current Startup bank
Default Path for Program Files	Sets the default path for program and bank files
MIDI Thru	Set globally if MIDI data sent to *SequencAir* should be sent through to its MIDI output (stored in configuration file)
Ignore Program Change	Set globally if MIDI Program Change data sent to *SequencAir* should be ignored (stored in configuration file)
Reload Configuration	Reload the configuration file (see section *MIDI Learn*)
Save Configuration	Saves the configuration file (see section *MIDI Learn*)
Synth Is Always Disabled	Disables the internal synthesizer permanently; useful when switching programs while *SequencAir* should only control external MIDI instruments
Check Online for Update	When connected to the Internet, this function will check if a newer version of *SequencAir* is available at fullbucket.de
Visit fullbucket.de	Open fullbucket.de in your standard browser

MIDI Learn

Every (yes!) parameter of *SequencAir* can be controlled by one MIDI controller. This is also true for the *BANK* and *CHAIN* buttons and allows for cool performances using your favorite MIDI controller.
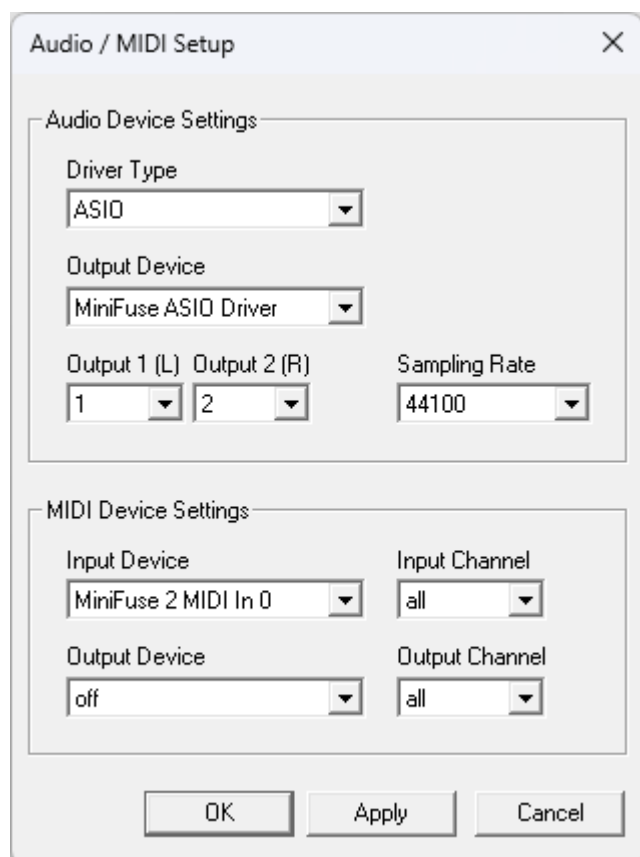
If you want to change the assignment of MIDI controller (CC; *MIDI Control Change*) to *SequencAir* parameter the *MIDI Learn* function comes in quite handy: Just click the *LEARN* button on *SequencAir*'s control panel (button turns yellow) and wiggle both the MIDI controller and the parameter you want to assign (you can abort *LEARN* by clicking the button again). To save the controller assignments use "Save Configuration" in the *Menu* context menu (see previous section); they are stored in the `sequencair.ini` configuration file. The exact location of this file depends on your operating system and will be displayed when you click on "Reload" or "Save Configuration".

If you want to unlearn the assignment, right-click the *LEARN* button (the label now reads "UNLRN"). Now wiggle the MIDI controller or the parameter that you want to unlearn.

Audio / MIDI Setup (Standalone App Only)

If you are using the standalone application of *SequencAir* you have to configure the Audio / MIDI settings first (i.e. which audio / MIDI driver you are using, the sample rate etc.). Note that this dialog will be available only if *SequencAir* is not running or recording!

For the plugin versions of *SequencAir* all this stuff is handled by your DAW host and can be omitted.

A Word About Using *SequencAir*

By Ben Martin (2019)

As stated above, the *SequencAir's* internal synth is only there for rough and immediate dirty programming of your ideas. Probably you'd better use external VST instruments to bring your ideas to life.

Many of the included preset examples should be routed to external VST instruments and (if needed) audio effects to bring the sequences to another level and closer to the originals. For instance, the sequence "On the Run" by Pink Floyd uses the built-in synth only for hit-hats. The filter modulation and the melody line is also present, so to fully enjoy this sequence you need to route *SequenceAir* to an external VST synthesizer and mix it with *SequenceAir's* internal synth hit-hats. If preferred you can also route this sequence to two different external VST instruments, one to play the melody and the one to play the hit-hats while disabling *SequenceAir's* internal synth completely.

The two last rows of the sequencer panel (normally assigned to PAN and the Modulation wheel) represent MIDI Control Changes pre-programmed to a specific MIDI-CC. Instead, you can route these rows to any parameter of your favorite external VST instrument, but this is not a requirement since you can always program the parameters in the VST using your own personal preferences (manually, by DAW automation etc.).

Live and flexible performances are possible with *SequencAir* when taking advantage of the *MIDI Learn* function. This feature allows you to navigate in realtime trough the 16 pre-programmed sequence banks with a simple touch of a hardware MIDI controller button.

Frequently Asked Questions

How do I install SequencAir *(Windows App 32/64 bit version)?*

Just copy the file `sequencair.exe` (32 bit) or `sequencair64.exe` (64 bit) from the ZIP archive you have downloaded to any folder and start it.

How do I install SequencAir *(Windows VST2 32 bit version)?*

Just copy the files `sequencair.dll` from the ZIP archive you have downloaded to your system's or favorite DAW's VST2 plug-in folder. Your DAW should automatically register the *SequencAir* VST2 plug-in the next time you start it.

How do I install SequencAir *(Windows VST2 64 bit version)?*

Just copy the file `sequencair.dll` from the ZIP archive you have downloaded to your system's or favorite DAW's VST2 plug-in folder. Your DAW should automatically register the *SequencAir* VST2 plug-in the next time you start it.

Note: You may have to remove any existing (32 bit) `sequencair.dll` from your VST2 plug-in folder or else your DAW may screw the versions up…

How do I install SequencAir *(Windows CLAP 32/64bit version)?*

Copy the file `sequencair32.clap` (32 bit) or `sequencair64.clap` (64 bit) from the ZIP archive you have downloaded to the `C:\Program Files\Common Files\CLAP` folder. If your DAW supports the CLAP format, it will automatically register the *SequencAir* CLAP plug-in the next time you start it.

How do I install SequencAir *(Windows VST3 64 bit version)?*

Just copy the files `sequencair.vst3` from the ZIP archive you have downloaded to your system's or favorite DAW's VST3 plug-in folder. Your DAW should automatically register the *SequencAir* VST3 plug-in the next time you start it.

How do I install the SequencAir *(Windows AAX 64 bit version)?*

Copy the file `sequencair_AAX_installer.exe` from the ZIP archive you have downloaded to any of your system's folder and run it. Your AAX-enabled DAW (Pro Tools etc.) should automatically register the *SequencAir* AAX plug-in the next time you start it.

How do I install SequencAir *(Mac VST/App universal 32/64 bit)?*

Locate the downloaded PKG package file in Finder (!) and do a right- or control-click on it. In the context menu, click on "Open". You will be asked if you really want to install the package because it comes from an "unidentified developer" (me ☺). Click "OK" and follow the installation instructions.

What is the plug-in ID of SequencAir*?*

The ID is `f b S Q`.

Can I save the MIDI controller/parameter assignments?

Yes, by using "Save Configuration" in the *Menu* context menu (see section *Context Menu*).

How do I know if a new version of **SequencAir** *is available?*

When connected to the Internet, open the Options menu (see section *Context Menu*) by clicking the disk icon and select the entry "Check Online for Updates". If a new version of *SequencAir* is available on fullbucket.de the respective information will be shown in a message box.

Why is there no Mac Audio Unit (AU) version of **SequencAir?**

This is because of the missing MIDI send capabilities of AU prior to version 3. ☹

I cannot sync the standalone application to MIDI clock…?

I strongly recommend to use the plug-in inside the DAW of your choice instead!