

SafFron Manual

Fretted Synth Audio

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1 Setup

SafFron is a simple, stereo, 24 voice polyphonic Soundfont Player. In its default setting it runs using very little CPU. A filter, modulation and FX section can be used to enhance the tone of a loaded soundfont (CPU will rise accordingly, the filter and bright velocity are polyphonic so they increase in CPU per voice playing). A very nice looking easy to use GUI is provided thanks to ArtVera, also provided by Vera is a small Soundfont bank and some great presets to show some of what SafFron can do to your soundfonts. Each soundfont patch contains a "default" setting so you can hear the soundfont unaltered, followed by a processed version of the patch.

Installation - Copy **SafFron.dll** and the folder **SafFron** (containing Artvera-SafFron.sf2 and SafFron-default.fxb) into the VST plugin folder of your host. Load SafFron-default.fxb to test the default soundfont bank and presets.

Load Soundfont - Click on "Load" in the top-left corner of the plugin to load your own soundfonts. Note: The entire soundfont bank is loaded into ram, SafFron will only load Soundfont "Instruments" it can NOT load Soundfont "Presets" also known as layered or multi soundfonts. Both are due to be fixed in SynthEdit v1.1, SafFron will be updated when released.

Select Soundfont - Use the drop down list or the arrows to select a patch from a loaded soundfont bank.

2 Controls

2.1 About the GUI controls

All knobs move by linear mouse movement (up and down). Fine adjustments of the controls can be made by holding the Ctrl key on your computer keyboard while moving the control.

2.2 The Synth

2.2.1 Amp Env section

- Attack** - sets the amp envelope attack time.
- Hold** - sets the time before the decay envelope begins.
- Decay** - sets the amp envelope decay time.
- Sustain** - sets the amp envelope sustain level.
- Release** - sets the amp envelope release time.
- Amp Velocity** - sets the amount MIDI velocity will affect the level of a playing tone.
- Bright Velocity** - sets the amount MIDI velocity will affect the high frequency of a playing tone.
When set to zero (all the way down) the circuit will use no CPU.
- PitchBend** - sets the amount of MIDI pitchbend response.

2.2.2 Filter Env section

- Cutoff** - sets the frequency of the filter.
- Reson** - sets the filter bandwidth.
- Filter Type** - select from six filter types or bypass the filter saving CPU.
- Env Amount** - sets the envelope amount to the filter cutoff, Normal and Inverted.
- Attack** - sets the filter envelope attack time.
- Hold** - sets the time before the decay envelope begins.
- Decay** - sets the filter envelope decay time.
- Sustain** - sets the filter envelope sustain level.
- Release** - sets the filter envelope release time.

2.2.3 Modulation section

- Waveform** - from sixteen different waveforms or bypass saving CPU.
- Destination** - sends the modulation to the filter cutoff or the oscillator pitch.
- Rate** - sets the modulation speed.
- Phase** - sets the waveforms phase, both positive and negative values (useful when host synced).
- Attack** - sets the time from gate on until full modulation is reached of the set amount.

- Release** - sets the release time of the modulation envelope.
- Mod Amount** - sets the amount of modulation sent to the destination selected.

2.3 Effects

2.3.1 Chorus FX section

- Rate** - sets the chorus modulation speed.
- Delay** - delay time, also affects the stereo width.
Low settings = narrow stereo spread, High settings = wide stereo spread.
- Depth** - sets the amount of modulation to the delay time.
- Mix** - sets the dry/wet levels.

2.3.2 Flanger FX section

- Rate** - sets the flanger modulation speed.
- Fdbk** - sets the amount of feedback to the delay, both positive and negative values.
- Delay** - sets the flanger delay time.
- Depth** - sets the amount of modulation to the delay time.
- Mix** - sets the dry/wet levels.

2.3.3 Phaser FX section

- Rate** - sets the phaser modulation speed.
- Fdbk** - sets the amount of feedback to the delay, both positive and negative values.
- Delay** - sets the phaser delay time.
- Depth** - sets the amount of modulation to the delay time.
- Mix** - sets the dry/wet levels.

2.3.4 Delay FX section

- L/R Delay** - sets the delay time, true stereo.
- L/R Fdbk** - sets the delay feedback amount.
- Cross** - turns stereo cross feedback on/off.
- Level** - sets the delay volume.

2.3.5 Reverb FX section

- Delay** - sets the predelay time to the reverb.
- Size** - sets the reverb room size and tail length.
- Width** - sets the stereo spread of the reverb.

Damp	-	sets the amount of high frequency damping of the reverb tail.
ER	-	sets the level of early reflections.
Level	-	Sets the reverb volume.

2.4 Tempo Source and Bar Dividers

All modulated/time effects and the modulation can have its speed\rate set in three different ways!

Manual - When set to manual all FX and Modulation gets its speed by its own "Rate" or "Delay" knob setting.

Host - When set to host all FX and Modulation gets its speed from the host. Each can then have different dividers of the bar using the drop down lists.

Tap - When set to Tap all FX and Modulation gets its speed by the speed that you click on the "Tap" button.. Each can then have different dividers of the bar using the drop down lists.

Tempo - Shows the current tempo when set to host or tap.

2.5 MIDI CC Map

The following controls have a pre-assigned MIDI Continuous Controller number (See MIDI CC map).

01	Modulation Wheel
07	Volume
64	Hold Pedal
70	Chorus On/Off
71	Filter Resonance
74	Filter Cutoff
80	Flanger On/Off
81	Phaser On/off
82	Delay On/Off
83	Reverb On/Off
91	Reverb Level
92	Flanger Mix
93	Chorus Mix
94	Delay Level
95	Phaser Mix

3 About & Credits

Known Limitations

Bugs: This plugin was made in SynthEdit but as you can see Jeff has put his all into quality. I am limited to only repairing bugs with the structure not SE itself. Should any errors occur I would, of course, try to see if fixes could be made.

Credits

VST Plugin and ASIO by Steinberg Media Technologies AG

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Graphics by Vera Kinter (*ArtVera*) www.artvera-music.com

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AF Phaser ©2003-2004 by Attila Fustos - attilafustos@k.ro ...and to all of the SE contributors....thanks

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