

Big Tick
<http://bigtick.pastnote.com>

Angelina



1. Overview

Angelina is a **shareware** program that generates synthetic choirs sounds.

Like all our synths, Angelina can be used either as a standalone synthesizer or as a vst plugin.

2. Installation

The downloaded package should consist in the following files:

Angelina.dll	The actual plugin file. You should copy this file into your vst plugins directory before being able to use it in your favourite vst host.
Angelina.exe	The standalone version of the synth
Angelina.rtf	The document you are reading right now !
Angelina.fxb	The default presets bank for the synth.
Soundtrack.fxb	A second bank of presets.

as well as several .tun files (microtuning settings).

3. Interface description

Main section

The **level** knob is used to control the main level of the synth. The **voices** parameter selects the maximum number of notes Angelina is able to play back before voice stealing occurs.

Unison section

Angelina can trigger several detuned notes at once, using the **voices** and **detune** controls in the unison section.

Osc1, Osc2 and Breath sections

In Angelina a note consists in 2 pitched oscillators (**osc1** and **osc2**), and a noise oscillator (**breath**). The pitched oscillators have a **FM** control, that can be used to vary their timbre. You can also choose from 8 different waveforms using the **shape** controls. The **mix** knobs are used to control the mix of the 3 oscillators into the output. The breath oscillator also has an highpass filter that can be controlled using the **color** knob.

Granular section

The "granular" effect is basically a delay line, used to process osc1 and osc2 in alternance. This can produce very strange ambient effects, especially if osc1 and osc2 are heavily detuned. The **time** parameter controls the delay line length, and the **level** parameter the amount of feedback on this delay line.

Chorus section

The output of all playing notes is sent through a 4-voices chorus effect, with typical **speed** and **depth** controls.

Reverb section

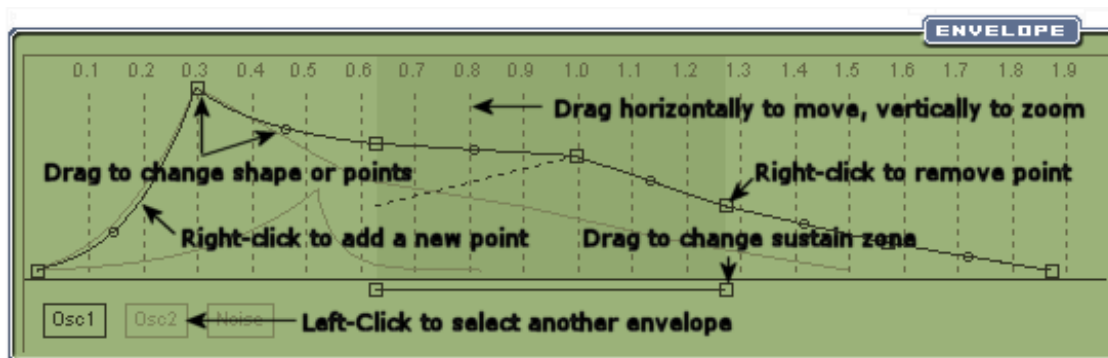
After the chorus, this simple but effective reverb effect can be used to add depth to the sound.

Velocity Modulation (VeloMod) section

The controls in this section define how Angelina reacts to velocity: the **time** knob defines how the playing velocity will impact the envelopes speed, the **level** knob applies to the envelopes levels, and the **breath** knob applies to the level of the breath oscillator.

Graphical Envelopes section

In this section you can graphically draw the envelopes for all 3 oscillators. The picture below explains how to use the graphical envelopes:



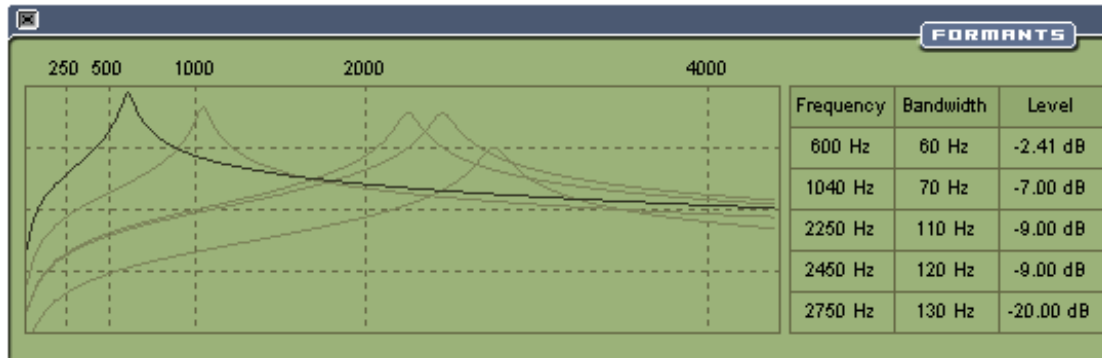
Formants section

The most interesting feature of Angelina is probably the formants controls. To put it simply, each oscillator is sent to a formant bank whose settings can be selected from predefined human voice values. Each formant bank has a **start** and **end** value, and a **morph** knob allowing to move the actual formant between these values. This allows, for instance, to morph from an "Aaaah" vowel to an "Ooooh".

The **emphasis** knob control the width of the formant peaks.

The squared area to its right is the **X/Y control pad**, that can be used to control the morphing of both formant banks at once.

Right-clicking in the X/Y control pad brings up a menu, where you can select the amount of latency on the knobs and X/Y pad, as well as the way the knobs react to mouse motion (circular or linear).



The 1.2 version also added user-defined formants. Selecting the "user-defined" option in the formants presets drop-down menu brings up the window displayed above. In this window, use left and right clicks on the values to the right to edit the parameters of the 5 formants. Modifying parameters will change the response curve displayed (in dB/Hz) to the left. You can also drag the curve area to change the resolution.

Midi section

This small section to the left of the X/Y pad allows to define Angelina midi behaviour. When the midi out button is turned on, Angelina will generate automation output as midi control changes. When off, it will use the default vst automation.

When the learn button is turned on, Angelina gets into "midi learn" mode: this mode allows to define midi mapping for an external midi controller, simply by first moving a knob in the user interface, and then moving a control on your external controller.

Microtuning

The **tune** button allows to select a .tun file; these files are used to define microtuning settings.

A few .tun files are included with Angelina. Should you want more, you should use the free *Scala* software, which is the worldwide de-facto standard for tuning programs. *Scala* is available at <http://www.xs4all.nl/~huygensf/scala>

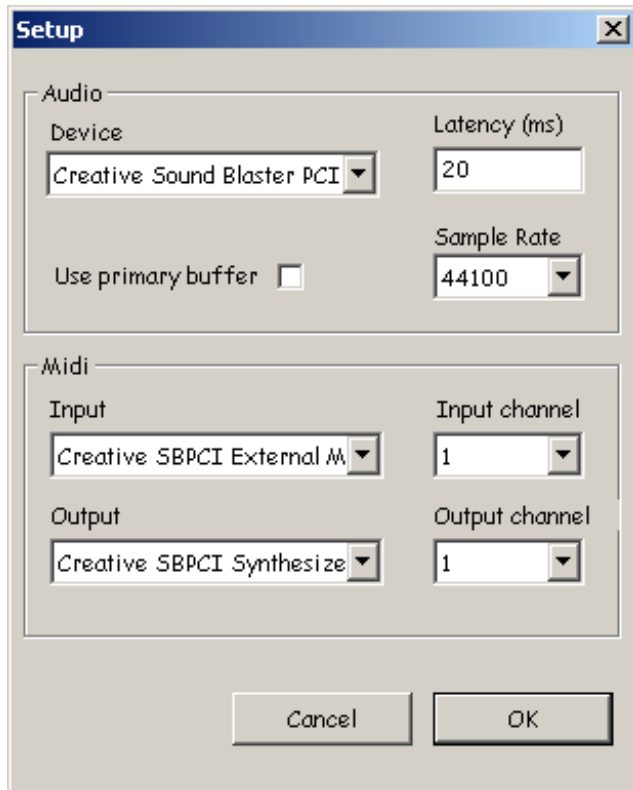
Patches section

Every changes you do to a patch are stored into a temporary patch. This temporary patch is committed into one of the 8 patches slots whenever:

- You save the current bank. The temporary edits are then stored to the currently selected patch slot.
- You use alt-click on one of the 8 patches buttons. The temporary edits are then stored to the clicked patch slot. You can use this feature to quickly copy a patch in any of the 8 slots.

4. Standalone operation (PC only)

Running the Angelina.exe file will launch the standalone version of the synth. In this mode the program does not require a VST host, but is directly controlled by a MIDI input device. You can configure the standalone mode settings by clicking on the setup button, in the top right bar. This should bring up the following window:



The audio section, to the top, configures settings for the audio (DirectSound) interface:

Device	The audio device to use.
Latency	The desired playing latency (for 44100 sample rate). Experiment with this value, too high a value will cause a noticeable delay when playing your MIDI keyboard. Too low a value will cause audible noise and crackle.
Use primary buffer	When set, the system will use exclusive access to the audio device. This will allow for better latency settings, but will prevent other applications from playing sound while the synth is in use.
Sample rate	The desired sample rate. The higher this value, the lower the actual latency, but the higher the CPU usage.

The midi section below defines settings for the MIDI interface:

Input	The midi input device to use.
Input Channel	The desired MIDI input channel.
Output	The midi output device to use
Output Channel	The desired MIDI output channel

All these settings are stored within the registry, under the following key:

HKEY_CURRENT_USER/Software/BigTick/Angelina

If you wish to uninstall the program (and have used the standalone version) you should remove this key manually.

5. Registering

The unregistered version of Angelina is fully functional, does not time out, but can't save banks or patches, and does not generate automation data.

The full version costs EUR 40, and can be purchased as explained on our web site at <http://bigtick.pastnotecut.org>

Additional benefits to registered users include:

- The effect-only version of Angelina, that can be used to process external audio through the formant filters.
- Our famous ep-phazer and dodecaline plugins.

6. Effect-only version

There is also an effect-only version of the formants filter section, that can be used to "angelinize" external audio. This version is available for free to registered users.

6. Credits

Credits go to **Deadskinboy** for the beautiful user interface, and to **Rick McGowan** for information about microtuning support.

VST Plugin-In Technology by Steinberg.

VST is a trademark of Steinberg Soft- und Hardware GmbH

Thanks to all, if you make anything nice with this program please let us know at bigtick@pastnotecut.org

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- The error results from operator error, errors in data or software not supplied by Big Tick, or use that exceeds the Permitted Use or is not in accordance with the Documentation
- The error has already been fixed in an update that you have not yet installed.

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