

GSynth Manual

Welcome to GSynth

GSynth is a monophonic VSTi with three sine oscillators. It also features an LFO for controlling the output level.

Interface



Each knob is laid out the same way for consistent and easy reference. Above each one, its function is labelled. Below each one is a numerical readout of the value assigned. There are also two buttons to aid configuration, "Random" and "AutoLevel".

Oscillator Controls

Many parameters are repeated for each oscillator, e.g. "Cent", "Attk", etc. Each of these parameters will be described only once below.

Partial: This controls the frequency of the oscillator. The first oscillator is fixed to play at the frequency implied by the depressed MIDI key. The remaining two

oscillators play at a multiple of that frequency, set by this parameter.

Detune: This allows each oscillator to be detuned by up to a semitone (100 cents) sharp or flat. **Attk and Rel:** Defines the envelope of the oscillator, i.e. the time taken to reach full volume after a key is pressed and the time taken to reach silence after the key is released.

Porta: Controls the portamento of the oscillator, i.e. the time taken for the oscillator to "slide" from one note to the next.

Level: The level of the oscillator.

LFO Controls

The LFO is used to modulate the overall output level. It is synchronised to the start of each bar. Three parameters describe the LFO shape, frequency and the modulation depth.

LFOWave: The wave-shape of the LFO, e.g. Sine.

LFOFreq: The frequency of the LFO in cycles per bar.

LFODepth: How much the LFO will affect the output level.

Global Controls

The remaining parameters affect the overall sound.

PtchBend: The maximum pitch-bend caused by the pitch-bend wheel.

PortaRst: After this time has passed the portamento is reset. Once the portamento is reset, the next note played will simply play at the implied frequency, without "sliding" from the previously played note.

MainLvl: The output level.

Random: Pressing the random button will randomize all of the parameters apart from "PtchBend", "PortaRst", and "MainLvl". After randomization, the "MainLvl" parameter is set automatically, as if the "AutoLevel" button were pressed.

AutoLevel: Sets the "MainLvl" parameter so that the peak output level does not exceed -3 dB.

Hints and ideas

- Each oscillator has its own "Attack" and "Portamento" setting, allowing interesting, evolving sounds to be created.
- The best way to get a feeling for GSynth is by using the "Random" button and then tweaking the parameters.
- The "Random" button can create extremely inharmonic sounding settings because of the "Detune" parameters. Holding down "Shift" while clicking on the "Random" button creates better-behaved presets.

Installation

I've always aimed to ensure that the GVST plug-ins are each a single file and as compact as I could make them.

For simple plug-ins like these, installation usually boils down to copying a file, so I've never created any automated installers. I know some people would prefer an installer, so apologies for the extra hassle, but hopefully it won't be too difficult.

The installation process will vary for different hosts and different operating systems, but I'll try to cover the basics below.

32-bit or 64-bit (Windows and Linux)

The Windows and Linux plug-ins come in 32- and 64-bit versions. Generally speaking you will need the one that matches the host software you're running.

If you're not sure, you can usually tell if you look at the "About" screen, which can usually be found in one of the application menus.

Taking Audacity as an example: at the time of writing you can find the necessary detail in the "Build Information" tab of its "About" screen.

If all else fails, you could try both and see which works. These days 32-bit applications are becoming increasingly rare, so try the 64-bit version first.

General installation

1. All GVST plug-ins come compressed in a `.ZIP` file, so the first step is to extract the files from the `.ZIP` file.
2. Once extracted, you should have a plug-in file - on Windows it will be a `.DLL` file, on Mac a `.VST` file, and on Linux a `.SO` file.
3. You will need to copy the plug-in file to the appropriate folder for your host program and possibly configure the host software to find it.
4. Many hosts will allow you to specify a folder on your computer where it should look for plug-ins. For example, in the Preferences in Audacity for Windows or Mac, you can add extra locations for VST plugins.
5. In most cases, you will need either to restart the host program or re-scan the plug-in folder in order for newly-installed plug-ins to appear.
6. The exact process will depend on the software you're using. You should be able to find specific instructions by searching the Internet, e.g. "How to install a VST plugin in Cubase".

Special/default plug-in locations

On a Linux machine, the convention is to locate VST plug-ins under the `~/.vst` directory. I have all the GVST plug-ins copied into `~/.vst/GVST`.

Similarly, there is a common location for audio plug-ins on a Mac:

`~/Library/Audio/Plug-Ins`. I copy all the GVST plug-ins into

`~/Library/Audio/Plug-Ins/VST`.

It's usually more convenient to place the plug-ins in a location of your choosing and point your host software to it, if that's supported by the application.

License

1. GVST plug-ins are provided to the user at no cost. While every GVST plug-in is tested to the best of the developer's ability, no warranty or guarantee is offered to the end user.
2. No suggestions made by the developer or his representatives (i.e., freely offered support) are to be taken as an implied warranty or guarantee.

3. These plug-ins may only be distributed by the official GVST website, or by parties explicitly given permission by the developer.
4. GVST plug-ins are to be distributed only in their original form as intended by the developer (i.e., the unaltered archive).
5. GVST plug-ins are freeware, meaning you are never under any obligation to pay for them! However, should you wish to help support continued development of GVST software, please consider donating through the official website.
6. GVST plug-ins can be used freely to create and process audio for private or commercial works.

In a nutshell, the code's all mine, but any music or sounds you create using GVST plug-ins is all yours. Of course, if you hit the big time then do feel free to pop back and donate a little something.

Credits

- Plug-in development, website and graphics by Graham Yeadon.
- A special mention to Rick "grymmjack" Christy and Greg Pettit who helped me with the UI design and documentation early on.
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