

# GChorus Manual

## Welcome to GChorus

GChorus is a traditional chorus effect. It takes an incoming audio stream, splits it in two, detunes one stream by a user-defined amount, which also oscillates between being in and out of tune, and then blends the two back together again.

The effect can be thought of as adding a second performance of the material. The detuning of the second performance mimics the slight discrepancies in pitch and timing that would be present if two people were to perform the same piece.

## Interface



The user interface features four knobs which control all of the plug-in's parameters. Each features a label above, and an editable readout below.

**Depth:** Once the audio stream is "split", one copy is brought in and out of tune at a user-defined rate. The Depth control allows you to set how much detuning occurs in cents (percent of a western-scale even-tempered semitone). At 100 cents (the maximum), the copy will oscillate between being a semitone flat and a semitone sharp.

**Freq:** The detuning of a chorus effect is not static. Rather, the signal moves in and out of tune by an oscillator, whose frequency is set by the user. The rate of oscillation is measured in Hz (cycles per second).

**R Phase:** When used on a stereo signal, GChorus uses a separate LFO to detune each of the two channels. When R Phase is 0°, the two LFOs are in

sync. However, changing the R Phase parameter causes the left and right channels to vary independently. Returning to the analogy used in the introduction, this is like adding separate performers to the left and right channels.

**Mix:** This controls the amount of the original signal vs. the amount of the effected signal that comes out of GChorus. At 0%, you will not hear any of the chorus effect, and at 100% you will not hear any of the original signal.

## Hints and ideas

- GChorus can be used to create a subtle "doubling" effect on instrumental or vocal material.
- With extreme detuning and by aggressively cutting the dry signal, GChorus can be used for creative sound-mangling, leaving the resultant audio an unrecognisable (but glorious!) mess.
- When using GChorus on a stereo track, you can use the "R Phase" parameter to add width to the sound.
- When using GChorus as a send effect, the "Mix" parameter should be set to 100%.

## 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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