

## **CFX Delay/Chorus/Flanger**

[Delay](#)

[Chorus](#)

[Flanger](#)

Note: CFX Delay, Chorus and Flanger effects are not intended for use at the 11 kHz sampling rate.

**See Also:**

[Mixing Effects](#)

## Delay/Echo

Delay/Echo creates a series of repeating signals from the original signal. You vary the amount of this delay or echo by changing the Delay Time and the Feedback Mix. Use the modulation parameters to detune the processed signal.

Parameter	Explanation
Delay Time (ms)	Sets the time between signal repeats. Longer times create a delay effect, and short or medium times (up to about 80 ms) create an echo effect. You can have up to 5 seconds (5000 ms) of delay.
Dry Mix (%)	Controls the volume of the original, unprocessed signal.
Wet Mix (%)	Controls the volume of the processed signal.
Feedback Mix (%)	Controls how much of the processed signal is fed back through the effect. A higher Feedback Mix will increase the number of signal repeats.
Mod. Rate (Hz)	Controls the rate of modulation.
Mod. Depth (ms)	Controls the amount of modulation.

## Preset

Use this field to choose and enter presets.

## Audition

Click on this to hear the results of the command on the first three seconds of the selected audio.

**See Also:**

[Chorus](#)

[Flanger](#)

[Reverb](#)

[Mixing Effects](#)

## Chorus

Chorusing “fattens” the audio to make one instrument sound like many. When many people sing together, for example, each of their voices is slightly out of tune and off the beat. Therefore, detuning and delaying the signal makes many instruments sound richer, including guitars, vocals, and strings.

<u>Parameter</u>	<u>Explanation</u>
Delay Time (ms)	Sets the time between signal repeats. Chorus allows up to 80 ms of delay.
Dry Mix (%)	Controls the volume of the original, unprocessed signal.
Wet Mix (%)	Controls the volume of the processed signal.
Feedback Mix (%)	Controls how much of the processed signal is fed back through the effect. A higher Feedback Mix will thicken the chorusing.
Mod. Rate (Hz)	Controls the rate of detuning.
Mod. Depth (ms)	Controls the amount of detuning. Setting this very high will result in an obviously out-of-tune sound. A lower setting will create subtle chorusing.

## Preset

Use this field to choose and enter presets.

## Audition

Click on this to hear the results of the command on the first three seconds of the selected audio.

**See Also:**

[Delay](#)

[Flanger](#)

[Reverb](#)

[Mixing Effects](#)

## Flanger

Flanging consists of two signals, one delayed slightly so that the signals are out of phase. This creates a spacey, ethereal sound.

<u>Parameter</u>	<u>Explanation</u>
Delay Time (ms)	Delays the signal slightly. Flange allows short delay times (up to 20 ms.)
Dry Mix (%)	Controls the volume of the original, unprocessed signal.
Wet Mix (%)	Controls the volume of the processed signal.
Feedback Mix (%)	Controls how much of the processed signal is fed back through the effect. A higher Feedback Mix will cause more dramatic flanging.
Mod. Rate (Hz)	Controls the flange speed.
Mod. Depth (ms)	Controls the amount of flange.

## Preset

Use this field to choose and enter presets.

## Audition

Click on this to hear the results of the command on the first three seconds of the selected audio.

### **See Also:**

[Delay](#)

[Chorus](#)

[Reverb](#)

[Mixing Effects](#)

## Mixing Effects

You can control how audio is routed to effects, whether using effects in realtime or offline. You use the **Mixing** controls described here to control routing of offline effects.

**Process In-Place, Mono to Mono** — The effect replaces the original audio with the output of the effect. Settings within the effect control the balance between wet and dry signals.

**Process In-Place, Creating Stereo Output Tracks** — The original tracks are replaced with tracks created via the stereo effects output. Settings within the effect control the balance between wet and dry signals.

**Create a Send Submix** — The selected tracks are mixed together in a submix which is “sent” to the effect, and the “return” is used to create a new set of tracks. You can control the Return Track by selecting the desired starting track in the drop-down control. You can retain your original, dry track by selecting the Keep Original Data checkbox.

If you choose to keep the original tracks, it is best to make the effect produce a full-wet signal for later mixing via tracks; otherwise — if you don’t keep original tracks — you can control the wet/dry mix in the usual way within the effect controls.

**Note: Create a Send Submix** automatically chooses a mono or stereo submix for the effects send and a mono or stereo return from the effect based on the effect, i.e. if the effect takes a mono input and returns stereo tracks, that is what will happen.

**See Also:**

[Delay](#)

[Chorus](#)

[Flanger](#)

[Reverb](#)

## Generating stereo or mono output

In Cakewalk, audio can be on mono tracks or stereo pairs of tracks. A mono track is just one track. A stereo pair consists of two consecutive tracks; the first track is panned hard-left (0) and the second track is panned hard-right (127). You can convert mono tracks into stereo tracks, and vice versa, under these conditions:

- If you select a mono track and apply effects, you can choose “Generate Stereo Output from Mono Tracks” from the effects command dialog box. When you click OK, Cakewalk will automatically create a stereo pair for the processed output of each mono track. Cakewalk places each stereo pair on two new tracks, and removes the selected events from the original track.
- If you select a stereo pair of tracks and apply effects, you can choose “Generate Mono Output from Stereo Tracks.” Stereo events that are spread over two tracks will collapse into one event that is panned to the center (Pan=64.) The new clip will appear in the next unused track, and the selected events will be removed from the original track.

Note that if the stereo pair is already followed by a mono track, Cakewalk will store the results in the existing mono track instead of creating a new one.

If you only select one of a stereo pair of tracks, you can choose “Generate Mono Output from Stereo Tracks.” That track’s data is fed in mono to the effect. The processed audio replaces both tracks in the original stereo pair.

### **See Also:**

[Delay](#)

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[Reverb](#)

*realtime* — the effect takes place while recording or playing back, whenever playing or recording.

*offline* — the effect takes place immediately, and processes tracks once given data at that time, whether modifying tracks or creating new ones.

*wet* — the output of the effect, exclusive of the original unmodified signal.

*dry* — the original, unmodified signal, which is the input to the effect.

