

13.1: Introduction

Echo, reverb, flanging, and chorusing are all classified as time delay effects. Basically, the sound is delayed by a certain amount of time and then added back to the original sound. The precise details on how the process occurs; the delay times, possible feedback paths and so forth define these processes. Echoes are distinct repeats of the signal, usually a few hundred or more milliseconds in spacing. A single relatively short echo is referred to as a slap echo, and if a little shorter yet, as doubling. Reverb is a collection of complex echoes, each with some filtering, creating a smooth continuous wash of sound. Flanging and chorusing are similar and are based on relatively short time delays (about 1 to 10 milliseconds for flanging and in the vicinity of 20 to 30 milliseconds for chorusing). These delays are varied over time and give rise to comb filter effects that impart a unique character to the signal.

This page titled [13.1: Introduction](#) is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by [James M. Fiore](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.