

# Understanding Plugins

At its core, a Plugin is a software based approximation or simulation of an analogue piece of equipment. In many cases the only real piece of hardware inside modern mixers is the mic preamp, everything else is run on a computer. If you have a digital soundboard you are already using plugins - you just don't realize it. All the EQ, compression, gates, reverb, and delay you are using doesn't exist outside the computer inside your mixer. Analogue mixers had physical circuitry that altered the tone or intensity of the sound running through the console. None of that exists in a digital soundboard. Plugins are tools and the design of this session is to give you more tools in your toolbelt to solve problems.

## Starting Point

Sometimes it can be difficult to find a place to start with plugins. I find the best place to start is inside your mixer you already own. Most modern mixers have a selection of plugins (often called effects) that can achieve most of the results we are talking about today.

## Try New Things

Most digital soundboards allow audio to be routed to a computer digitally over a USB cable. What most don't realize is that you can route the audio back into the mixer. This means you can use a DAW like Pro Tools, Studio One, or Logic to add plugins to your live mix. How many plugins can you run? That greatly depends on the capabilities of your computer. This process works well for effects like reverb and delay; however, we must always mind latency.

## What is Latency

Latency is a measurement of how long it takes the signal to enter your soundboard and then exit. It is measured in milliseconds because it is usually tiny and nearly imperceptible. You will see some soundboard manufacturers boast zero latency on the console. What that really means is that everything inside the soundboard is consistent and in time with itself. Latency really becomes a problem if you take two signals and one has more latency than the other - they sound out of time which can cause phase issues and it just sounds bad. If you send a vocal to

## Do it the Right Way

Many consoles give you the ability to add an option card that connects your computer to a plugin server. Waves makes the Waves SoundGrid Server. These are super powerful computers designed specifically for running plugins. They offer low latency and almost limitless options for running plugins in a live environment.



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# My Favorite Plugins By Use Case

## Emulate a Guitar Amp

[CLA-2A](#)

Compressor / Limiter

[CLA Guitars](#)

Amp Simulator, Compressor, Processor

## Punchy Drums

[CLA-76](#)

Peak Limiter, Compressor / Limiter

[Trans-X](#)

Transient manipulator

## Punchy Bass

[CLA-76](#)

Peak Limiter, Compressor / Limiter

[CLA-2A](#)

Peak Limiter, Compressor / Limiter

## Vocal Presence

[C6](#)

Dynamic Multiband Parametric Compressor

DeEsser

[F6](#)

Dynamic EQ

DeEsser

[CLA2A](#)

Compressor / Limiter

[H Delay](#)

Vocal Delay

## Warm and Present Acoustic Guitar

[MaxxVolume](#) Dual Band Compressor

## Amazing Live Stream Processing

[MaxxVolume](#) Dual Band Compressor

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[Waves Soundgrid Server](#) - Dedicated server for running Waves Plugins at

[Waves Multirack](#) - Software for running waves interface on a computer

[Soundgrid Interfaces](#) - Low latency dedicated interfaces for connecting to a Soundgrid Server

**NEVER buy Waves plugins at full price.**

They always run sales. Demo the plugin you want to use and then wait for it to go on sale



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