

## Using Effects Effectively: Part 1

*By Gary Allen*



So you went out and bought your favorite bands new CD. You were listening to it, and enjoying it when something on track 4 caught your attention. You ask yourself, “How did he/she get that sound out of that guitar?” Maybe it was a crystal clear clean riff or a down and dirty distortion that just screamed. Chances are that you just heard effects used in the studio. But what effects were used to get that great sound? In the next few weeks I am going to try to sort that out for you. This is part one of “Using Effects Effectively”.

What are effects?? Effects can be anything used to alter the pure sound of an instrument or voice. In early days outdoor theaters were designed in such a way that would give the voices or the music the most dynamic range of volume possible. This way a larger crowd could enjoy the music without amplification that did not exist back then. When musical recording was in its younger days studios would use the room environment to create effects as well as manual manipulating tape as it played. With the boom in digital technology today a small home studio can outfit itself with a mind boggling amount of different effects for a small price compared to 10-20 years ago when only multi million dollar studios could afford them. One example of this would be an Aural Exciter. Studios could rent this unit for about \$10,000 a week. Now you can buy one for your home studio for about \$200. Now days you can buy a dedicated effects unit for one type of effect with multiple settings or a unit with multiple effects that can be chained together. Lets not forget about stomp boxes. They are small effect units themselves.

One quick note about effects before we get started. You cannot set up your effects in your practice area and expect them to sound the same in the club you will be playing at this weekend. Room environments change the dynamics of your effects. Allow yourself plenty of time to set up your equipment and tweak your effects at the club before you start playing. If you don’t you can have a disastrous show and may not be invited back to that club again. Remember that every club is a different room environment. It is best to keep a notebook on how you set up your effects at each club in case you play there again.

Now lets talk about specific effects.

## Echo Effects:

**Reverb:** I thought that “Reverb” would be a good place to start since it is built in to most guitar amplifiers on the market today. Reverb is an echo effect reminiscent to sound you get when you are overlooking a canyon and can’t resist the urge to shout “hello” and hear it echo back at you. This probably makes reverb one of the first known sound altering effects to man. If you want an example of reverb turn the reverb knob all the way up on your guitar and strum it. Immediately deaden the strings with your hand and you should hear the echo reverberate from the speaker.

In the early days of recording reverb was done in different ways. One way was to place a microphone at one end of the room and another close to the speaker cabinet. You would then record the guitar on two tracks and play them back together giving a sort of echo effect. If the effect needed to be tweaked or changed the engineer would move the microphones or speakers around the room until the desired effect was achieved. Another way of achieving reverb is to place the microphone and amp in a bathroom. We have all sung in the shower before and thought we sounded pretty good, right? Bathrooms are small rooms usually with hard walls that reflect sound instead of absorbing it. I have read articles on bands that still record their albums like this today.

There are many units available today that recreate multiple environments for reverb. The Alesis MidiVerb4® is an example of one of these units. It lets you sound like you are playing anywhere from a stadium to a closet and anywhere in between. I use this particular unit mostly for vocals and acoustic guitar. It can be used effectively on electric guitars, bass, drums and keyboards also.

There are many types of reverbs that you may run across in your search for the best sound for you. Two of the most common are spring reverb and plate reverb. I am not going to go into the differences right now but if anyone wants to know more about them let me know.

**Note:** As a general rule of thumb to little reverb is always better than too much. Too much reverb in the mix can make the sound muddy and drown out vocals and other instruments.

**Delay:** Delay is probably one of the most valuable effects. It is the building block that many other effects such as reverb, flange and chorus are built from. A delay is basically what the name says. It is a delay of the original signal of the guitar that plays at a set time after the original notes or chord is sounded. It can range from milliseconds to several seconds depending on how you set the time parameters. Set at several seconds you can actually solo over yourself.

Slapback delay is probably the most commonly used and can range from 30 milliseconds to 100 milliseconds.

Delay is a fun one to play around with and it can add warmth to a dry sound.

**Chorus:** Chorus is a version of delay and is my favorite effect for clean sounds. Chorus gives the impression of multiple instruments playing the same part. The unit puts a very small delay in the signal and depending on the amount of delay it detunes the echo to give the effect that another guitar is playing with you. This effect adds a sparkle and

clarity to your sound. There are chorus units that have multiple delays and detunes that can really get interesting.

**Flange and Phase Shifters:** Flange as I understand it was created by accident in a studio. It was found that if you played back a reel-to-reel tape of the guitar track and held up the reel with your hand and let it go it would catch up with the other tracks causing what would become known as flanging. The best way I can describe this effect is like riding a roller coaster. You go up the hill slowly (The engineer holds the reel back with his hand) and when you hit the top you pause for a millisecond and then you rush to the bottom very quickly (The engineer lets go of the reel to let it catch up with where it should be) and then you start up the hill again slowly (The engineer holds it with his hand again) to do it all over again. The other instrument tracks would be played normally and the guitar track would be held up and let go to catch up at regular intervals throughout the track. This created a “whooshing sound” on the guitar track. Kind of like a jet engine.

Thanks to electronic and digital technology we can reproduce this effect with stomp boxes and multi effects called flangers. Flange moves in and out a constant and steady predetermined speed that you set.

Phase shifters are like flangers except they have multiple flanges going on at the same time and sometimes with no predetermined speed. Both are great additions to any guitar player's set-up.

A couple of things you need to remember about using effects in general. There are no set rules on how to use these effects. You can use just one or you can use a combination of all of them. While the echo effects are similar in ways they have their own distinct differences that can compliment one another in a mix. Play around with them and have fun. You never know what you will come up with.

All the effects I have mentioned have their own parameters that can be adjusted giving you a full range of variations to play with. You can find your own signature sound by using what you like from each one.

Effects can improve the sound of your guitar and sometimes can make you think you are playing better. They can cover small mistakes, but I urge you to not use them for this. That is not the intended purpose of effects. You should be able to play a part cleanly with good technique before you start adding effects. I sometimes play my guitar parts without effects just to make sure I still have good playing techniques and proper positioning. If you can play it clean it will sound even better with effects.

**Note:** If you use compression and gates always put your reverb and delay behind the gates in the effects chain so they fade out naturally instead of being cut off by the gate.

In Part 2 of “Using Effects Effectively” we will look at compressors, limiter, expanders, and gates.

Any comments and questions about this article please E-mail me at [garya@gravelpits.com](mailto:garya@gravelpits.com)

Gary Allen