

Space is the Place

Finding the Right Effects Processor

By Tony Thomas

Shopping for an effects processor can be confusing. According to the spec sheets for some of these devices, they promise to do everything but empty the trash and walk the dog. When you get them in the studio and crank up the dials, however, their limitations become apparent. The primary purpose of effects processors is to provide reverb and delay, but the newest units can produce dozens of effects including phase, flange, distortion, multi-tapped delays, guitar amp emulation, rotary speaker effects and much more.

While spec sheets can give you some indication of the audio quality of an effects device, the only way to judge if a device can do the job is with your ears. This is because of the various computer models and algorithms used to create the effects, the quality of the components and the power of the microprocessors and digital signal processing (DSP) chips.

Unlike electronic musical instruments which often decrease in popularity and value not too long after their release, many effects devices seem to improve with age like fine wine. Many leading engineers and producers haul around racks of discontinued processors of relatively recent vintage just because they can't duplicate their effects libraries with the latest gear. Some units have a sonic signature so unique, they just can't be forged. That is why listening tests are so important in purchasing effects.

When listening to different effects units, try to use a variety of sources including drums and percussion, vocals, synthesizers, electric guitars

and acoustic instruments. This will give you an indication of how each processor handles different types of material. Listen for the smoothness of the reverb settings (especially the tails), the frequency response, the realism and musicality of all the effects and the audible artifacts generated.

While the focus these days seems to be on multi-processors which can create several different effects at once, you will find that most of these devices can only do one effect at a time really well. This is due to the fact that such multi-processors have finite resources which must be shared when producing such effects. This generally results in loss of quality when multiple effects are used. While this may not be apparent when used with synths and screaming guitars, it will become obvious when you are processing vocals and acoustic instruments.

You will also find that some processors sound warm and friendly while others will strike you as cold and sterile. Some have a thin metallic sound, while others are rich and thick. Some will sound better on drums, some will make vocals pop out of a mix, while others will make acoustic instruments sparkle. Some are better for delay and flanging, while others have awesome sounding reverb and chorus.

As a result, you may want to consider purchasing several effects units. Since the price of digital effects units have fallen in recent years from \$10,000 or more to a few hundred dollars or less in some cases, you can now afford to have as many processors as your board or patch bay can handle. That way, you

can find unit that is perfect for vocals, another for drums and percussion, one for acoustic instruments and perhaps a "Swiss army knife" unit with dozens of dazzling effects to fill out your collection. Also, you can purchase synths and sound modules with built-in multi-effects units which will help take some of the load off of your other processors. While built-ins don't always sound as good as dedicated units, they are generally suitable for synth sounds and samples and their parameters can usually be memorized as a part of the patch.

When shopping, look for effects units with a solid set of presets, easily editable parameters, plenty of memory for user programs and the ability to offload programs you create to a computer via MIDI system exclusive commands. This will give you the ability to customize sounds for a given project and save those sounds for future reference. Remember, good effects units are like gold. They appreciate in value (at least in your estimation) with every project you use them on.

This article originally appeared in SCENE Magazine in 1993. Copyright 1993 Tony Thomas. All Rights Reserved.