

# SPL Analog Code Plugin Manual



## Transient Designer Plus

## **Transient Designer Plus Analog Code Plugin**

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This user's guide contains a description of the product. It in no way represents a guarantee of particular characteristics or results of use. The information in this document has been carefully compiled and verified and, unless otherwise stated or agreed upon, correctly describes the product at the time of packaging with this document.

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# Installation

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## Plugin Alliance Activation

Your Analog Code plugin must be activated in your Plugin Alliance account. You can set it up and log into your account anytime at <http://www.plugin-alliance.com>

For details about the activation process, read the Plugin Alliance Activation Manual. The PDF file is stored in the same folder of your computer like this product manual file.

Alternatively, the following web page provides the same information: <https://plugin-alliance.com/en/learn/article/items/plugin-alliance-activation-manual.html>

## System Requirements and Compatibility

For details about system requirements and supported platforms or formats visit

<https://plugin-alliance.com/en/systemrequirements.html>

## MAC and Windows Installation

1. Check for the latest plugin software version before installation:  
<https://plugin-alliance.com/en/products.html>
2. Execute the installer file and follow the instructions.



## The Analog Code

While SPL hardware products have been fascinating audio professionals from home studio owners to mastering engineers in the world's most renowned facilities for years, the need for this technology in the form of plugins has also been an ever-growing demand. With the Analog Code plugins we have finally accomplished our much desired goal: to transfer to the digital domain the high quality we have striven to achieve with our analog processors throughout several decades.

The first time we ever heard a software that fulfilled our expectations, one of our hardware developers said to the programmers: “you have cracked the Analog Code” — thus was coined the name of our digital products.

## Transient Designer Plus

The ability to shape and mold the impulses of your sounds is as indispensable as the ability to treat their frequencies. With some careful tuning, compressors help achieve punch, soften transients, or reduce decay, but they are dependent on several volume and time-based parameters.

The Transient Designer from SPL eliminated that dependency, providing a simple and straightforward interface with only two primary parameters: Attack and Sustain. In plugin form, this dynamics processor drastically improved the workflow of thousands of mixes around the world- in a lightweight and flexible, digital package. This Analog Code plugin is based on SPL's original analog Transient Designer, which established the revolutionary concept for level-independent dynamics processing.

Working with the Transient Designer is very simple and yet the possibilities for studio and live applications are seemingly endless.

# Introduction

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The Transient Designer Plus is the next level to the legacy of impulse shapers from SPL. This new tool has all the straightforward convenience and power of the original Transient Designer, but with several added features that boost the potential of any dynamic character. An internal sidechain allows for filtering of critical frequencies so as to focus on the transients you want to excite, while an external sidechain brings motion and rhythm to your program. An added Dry/Wet mix knob aids in parallel processing, while a built-in soft clip limiter ensures a clean output from the digital domain.

The Transient Designer Plus plugin provides a revolutionary concept for level-independent dynamic processing. It is completely different in principle from common compression technologies that are based upon processing signals from a specific signal level. Working with the Transient Designer Plus is very simple: Attacks can be amplified or attenuated and sustain may be prolonged or shortened. However, the possibilities for studio and live applications are seemingly endless.

The technical foundation for processes inside of the analog paragon is SPL's Differential Envelope Technology (DET). DET allows level-independent dynamic processing by calculating differences in generated envelopes.

DET represents a radically different approach to dynamics processing, both from the technical and creative way of signal processing: thanks to the level-independent processing the setting of a threshold is not necessary. Other common controls, for example parameters for time-constants are set automatically—and in a musical manner as they follow the characteristics of the input signal.



## Attack

With the ATTACK control you can amplify or attenuate the attack of a signal by up to 15 dB. Positive ATTACK values emphasize attack events, negative ATTACK values smooth out the attack envelopes of sound events. For an extensive description and explanation of the possible applications of the ATTACK control please refer to “Applications” on page 12 cont.



## Sustain

With the SUSTAIN control you can amplify or attenuate the sustain of a signal by up to 24 dB. Positive SUSTAIN values lengthen the sustain, negative SUSTAIN values shorten the sustain. For an extensive description and explanation of the possible applications of the SUSTAIN control please refer to “Applications”, page 12 cont.



## Sidechain Filter

The Transient Designer Plus includes a sidechain filter that can reject parts of the signal in order to prevent them from being processed, while passing those that you wish to affect. This is useful for ensuring impulses from percussion in a drum loop become excited without overemphasizing an already strong kick drum; similarly, one can add transient to a kick drum without over-exciting high-end percussion.



### SC ON

Activates the Sidechain Filter.



### SC Solo

Solos the frequency selected by the Sidechain Filter.



### SC EXT

Enables external signal routing into the sidechain, affecting the behavior of the Attack and Sustain parameters.

# Control Elements

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## Parallel Mix

Emphasize transients with confidence knowing you can heavily process a sound, then blend it with the original signal. 100% DRY is an unprocessed signal, 100% WET is a fully processed signal



## Output Gain

The OUTPUT GAIN control allows you to reduce the output signal by up to -20dB or boost it by up to +6dB. This ensures that following devices receive an optimized level. The center position at 12-o'clock equals 0dB output. If the OVL-LEDs gets triggered, reduce

the Output Level to avoid internal clipping.



## Limit

With the LIMIT button you can use the built-in soft clip limiter to help ensure digital clipping is kept to a minimum when heavily processing signals. However, this is not a peak stop limiter and one should always be mindful when adding transients to content that is already loud.



## Link

The LINK mode can not be activated when a mono track is processed. Thus the LINK mode can only be activated when a stereo track is processed. In that case the louder of the two stereo tracks determines the control signals (according to ATTACK and SUSTAIN settings). If the LINK mode is not activated for a stereo track, left and right channel are processed independently according to their individual levels.





## Signal LED

The SIG. LED indicates that an audio signal reaches the input. In the analog world this LED helps the operator especially in complex setups to determine immediately whether the Transient Designer Plus actually receives any signal. In the digital domain it simply tells you that the channel where you inserted the plug contains a signal that is loud enough to ensure correct processing.



## Overload LED

The OVL LED indicates internal clipping. Whether the clipping is audible or not depends on the kind of audio material you are processing. Nevertheless it should be avoided that the OVL LED illuminates. Use the Output Gain control to reduce the output level if the OVL-LEDs keeps flashing.



## Gain Reduction Meter

This meter shows the amount of output gain reduced by the soft clip limiter.

## Mouse Wheel Control

All SPL Analog Code plugins support mouse wheel control for rotary controls and faders. Place the mouse cursor over a rotary control or fader and move the wheel or scroll ball of your mouse to adjust the control or fader. Hold the CTRL (Windows) or APPLE/COMMAND key while moving the wheel or scroll ball for fine adjustments with higher control resolution.

# Control Elements

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## Plugin Settings Toolbar



### Bypass

Bypasses processing done by the SPL Transient Designer Plus

### UNDO/REDO (Arrows)

Up to 32 steps of parameter history

### Settings A / B / C / D

Select banks of parameter settings; use the A/B/C/D settings to copy a complex channel setting and alter it slightly for different parts of your song, for example. These settings can be automated by your DAW system, so you can jump from setting A (in the verse) to setting B (in the chorus, for example).

### COPY / PASTE / RESET

Copy and Paste between setting banks, reset parameters of selected bank

### ABOUT

Information about the development of the plugin



## Plugin Alliance Toolbar



### “KEY” ICON

Opens the plugin Activation Dialog

### “?” ICON

Opens a dialog through which one can access the plugin’s help documentation, online product page, or any available updates.

### “\$” ICON (When Applicable)

If you’ve purchased your plugin using the Plugin Alliance Installment Payments option, the “\$” icon, links to your account so you can make a payment on your Lease-License

# Applications

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## Overview

The Transient Designer Plus™ AU/VST/AAX DSP plugin can be used with any host application that supports VST (i. e. Cubase, Nuendo, WaveLab, ...), AU (Apple Logic), or AAX (Avid ProTools).

You can manipulate the attack and sustain characteristics of a signal regardless of level in the most intuitive and simple way. Usually equalizers are used to separate instruments in a mix – the tonal aspect of the signal is considered, but not the temporal aspect.

The Transient Designer Plus now opens this next dimension in signal processing. By manipulating the attack and sustain curves of a sound event, the mix can be made to sound more transparent. Instruments can be mixed at lower levels while still maintaining their positions in the mix—but occupying less space.

The following examples are given as suggestions and examples. The described procedures with specific instruments can of course be transferred to others which are not mentioned here.



## Drums & Percussions

The processing of drum and percussion sounds is probably the Transient Designer Plus's most typical application.

- Emphasize the attack of a kick drum or a loop to increase the power and presence in the mix.
- Shorten the sustain period of a snare or a reverb-flag in a very musical way to obtain more transparency in the mix.
- Shorten toms or overheads without physically damping them.
- Adjust the apparent “distance” of the microphone by simply varying the ATTACK and SUSTAIN values.
- The Transient Designer Plus is a perfect alternative to noise gates. Since it adapts processing to the original signal, the sustain is shortened more musically than with fixed release times – within seconds a drumset is reliably free from crosstalk.
- Enjoy an amazingly simple integration of drum sounds into a mix. If the acoustic level of a snare is expanded to approximately +4 dB by increasing the attack value, the effective increase of peak levels in the overall mix is merely about 0.5 dB to 1 dB.

## External Sidechain: Exciting a signal

Turn a seemingly motionless pad into an undulating sequence, or add subtle polyrhythm to any pattern. The External sidechain function also responds to the Sidechain Filter, allowing you to select the part of an external rhythm that will impart its character onto your sound. Percussion tracks work well for this, and it's a great way to create interaction between instrumentation without the need for compression.

## Drums: Ambience

If your drums happen to sound as if the room mics have been placed in a shoe closet, the Transient Designer Plus can immediately turn that sound into the ambience of an empty warehouse. Just send the room mics stereo channels through the Transient Designer Plus and crank the ATTACK control to emphasize the first

# Applications

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wave.

Now slowly increase SUSTAIN values to bring up a “all-buttons-in-1176-sound” room tone—but without pumping cymbals. For a solid and driving rhythm track just fine-tune the SUSTAIN control to make sure that the room mic envelope ends more or less exactly on the desired upbeat or downbeat.

## Guitars

Use the Transient Designer Plus on guitars to soften the sound by lowering the ATTACK. Increase ATTACK for in-the-face sounds, which is very useful and works particularly well for picking guitars. Or blow life and juice into quietly played guitar parts.

Distorted guitars usually are very compressed, thus not very dynamic. Simply increase the ATTACK to get a clearer sound with more precision and better intonation despite any distortion.

Heavy distortion also leads to very long sustain. The sound tends to become mushy; simply reduce SUSTAIN to change that. If you, however, want to create soaring guitar solos that would make even David Gilmour blush, just crank up the SUSTAIN control to the max and there you go.

On acoustic guitar tracks you can emphasize the room sound by turning up SUSTAIN. If you want the guitars to sound more intimate and with less ambience, simply reduce SUSTAIN.

## Bass: Staccato vs. Legato

Speaking of bass: Imagine a too sluggishly played bass track ... you may not have to re-record it: Reduce the SUSTAIN until you can hear clear gaps between the downbeats—the legato will turn into a nice staccato, driving the rhythm-section forward.



## The Re-Invention Of Reverb

With all reverb applications mentioned below, the left and right channels of the Transient Designer Plus are panned hard to left and right (or where they would have been panned to without the Transient Designer Plus™) to achieve the same stereo image.

Always and everywhere the same reverb presets – boring, aren't they? Try looping the left and right output of your reverb through the Transient Designer Plus.

Create two mono tracks panned hard left and right with the same audio material and insert the same reverb in both channels in an insert before the Transient Designer Plus plugin. Now crank the master ATTACK control to the maximum and reduce SUSTAIN to a bare minimum. The intensity of the reverb is now much higher in the beginning while the reverb time is reduced.

The opposite can be just as intriguing: manipulate a reverb pattern so that it takes on a pyramidal slope. Turn the ATTACK all the way to the left and SUSTAIN all the way to the right. Now the beginning of the reverb is strongly reduced whereas the sustain blossoms and seems almost endless (obviously that will only happen if the decay of the reverb in the actual reverb device has been set to a sufficient value—a signal must always be present as long as the sustain time lasts).

# Applications

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## Backings

A common problem especially with tracks that are recorded and mixed in different studios: Backings lack of ambience, and finding a reverb that “matches” takes time ... so simply emphasize the original ambience by turning up the Transient Designer Plus™’s SUSTAIN control. And the opposite problem, too much ambience, is similarly simply solved with the opposite processing—just reduce SUSTAIN.

## Keyboards & Sampler

Sounds in keyboards and samples usually show a lot of compression., not maintaining enough of their natural dynamic. Increase the ATTACK values to re-gain a more natural response characteristic. The sounds occupy less space in the mix and appear more identifiable even at lower volumes.

## Post Production

When dealing with overdubs in movies you can easily add more punch and definition to effect sounds from any sample library. The same applies to outdoor recordings that suffer from poor microphone positioning—simply optimize them afterwards.

## Mastering

Like with any good thing, you also have to know where not to use it. For example, using a Transient Designer Plus in mastering usually is not recommended, as it is rarely a good idea to treat a whole mix at once. Instead, treat individual elements within the mix.





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# **Transient Designer Plus**

## Analog Code Plugin

### **Manual**

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