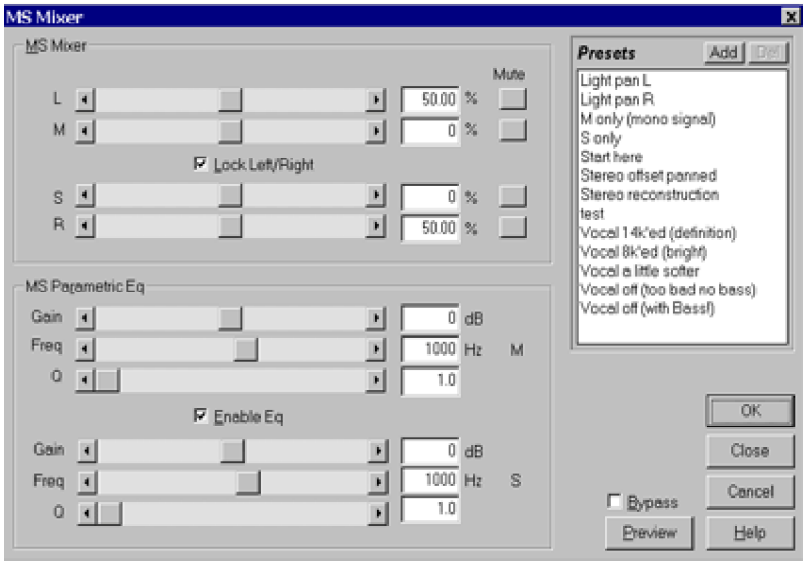
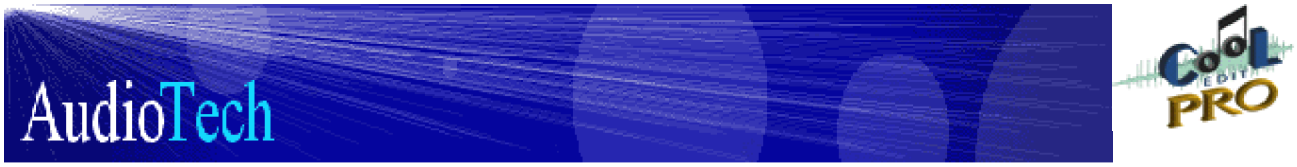
MS Mixer transform plugin for Cool Edit **Version: 1.0**

- **Separate L, R, M and S controls.**
- **One-band full parametric equalizer for M and S channels.**
- **Mute buttons for L, R, M and S.**
- **Full Presets, Scripting and Batch support.**
- **Full Real-Time Preview with Bypass function.**



Operation

MS mastering technique is one of the most advanced resources a mastering engineer can have. It allows engineers to fix at mastering stage some mix defects that otherwise would send the process back to mixing stage. MS Mixer works only with stereo material. It calculates M and S channels from L and R, doing simple math. After that, you have M channel which contains all mono content (usually the bass, main vocal and all center panned instruments) and channel S, which have all side panned instrument and secondary vocals. It's possible then to push the M slider to positive side to add main vocal presence (and bass) to the mix. Don't want to reinforce the bass? Just press MUTE buttons on L, R and S, tune the M EQ to hear mainly the vocal and…voila!
The opposite effect is possible as well. Want that vocal in a lower plane? Just make M channel negative. You can even remove it from the mix. There is also a preset for vocal removing keeping the bass, not easy to find feature. Usually the S channel has all stereo reverb tails. In some material you can add depth to main vocal raising S channel in the mix. Tweaking the EQ for S channels can lead to very pleasing reverb improvements. **Cool Edit look and feel** MS Mixer supports both Real-Time Preview capability and Preset Handling routines, making the interface on it exactly like the one in natively included transforms. It works with all stereo wave formats that are handled by CE, including 8, 16 and 32 bit at any sample rate.



2352-Byte Select plugin for Cool Edit **Version: 1.0**

2352-Byte Select is a small utility that allows the user to precisely select a multiple of 2352 bytes when preparing a track for CD burning.

Description

It's a well known issue that if you attempt to burn a track that is not multiple of 2352 bytes, using many different CD burning software you get a click between tracks. It's due the CD-R software is filling the space in the last block with junk. There are some utilities out there to cut the wav file to 2352 multiple, but I think it's nicer to have that functionality included in Cool Edit.

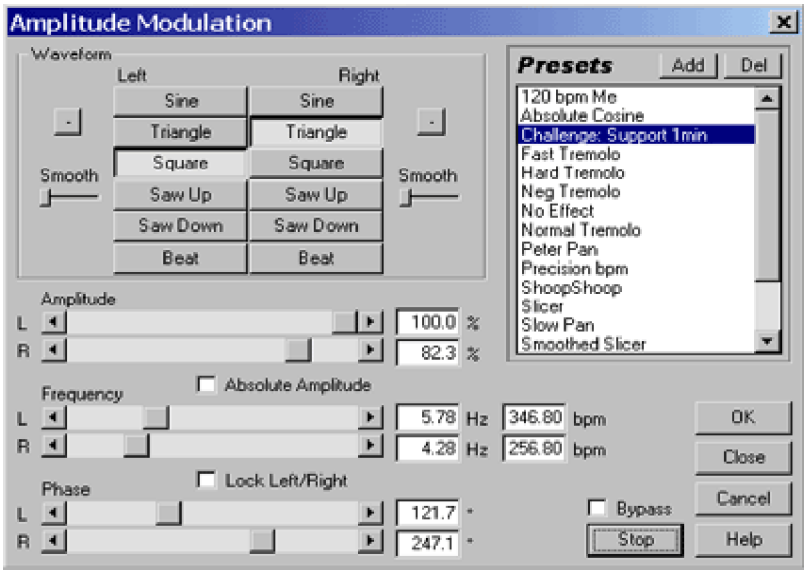
Operation

Just highlight the part you want to cut, and click on Transform...Special...2352-Byte Select (you can assign it to a keyboard combination for fast access) and the utility will select the nearest multiple of 2352-bytes (always inward).
NOTE: Unfortunately, Cool Edit API does not allow the undo function to be disabled inside a transform. The user should press "skip" when undo progress bar appears. Notice that undoing a 2352 operation would possible add to the end of the file some unwanted information.

AudioTech

Amplitude Modulation transform plugin for Cool Edit Version: 1.0

- **Six modulation waveforms: Sine, Triangle, Square, Saw Up, Saw Down and Beat.**
- **Fully separated stereo Amplitude, Frequency and Phase controls.**
- **Centered, Negative or Absolute modulation possible.**
- **BPM text box to enter frequency.**
- **Low Pass Filter applied to LFO with variable frequency.**
- **Full Presets, Scripting and Batch support.**
- **Full Real-Time Preview with Bypass function.**



Operation

Modulation is produced by an LFO, with six different wave shapes (Sine, Triangle, Square, Saw Up, Saw Down and Beat) amplitude and frequency controls. Standard setting for amplitude modulation is centered.
It means the modulation will make source material softer and louder, according to modulation amplitude setting. With the "-" switch, it's possible to change modulation mode to "negative modulation". This way you can normalize, then apply modulation with no clipping (it's always better to normalize to -1dB, due filter effect). It is possible also to change mode to "absolute amplitude" modulation. In this mode, the modulator just give the source the absolute value selected as maximum. When absolute amplitude modulation is selected, negative switch has no effect.
Frequency is indicated and selected in Hertz or BPM. The upper frequency limit is 20Hz, or 1200 BPM. The frequency step is .001 BPM using edit text box, and .002 using the slider. Phase goes full

range, from 0 to 360 deg in .01 deg increments (using the text box). All wave shapes (except sine) are routed to a bi-quad 2nd order low pass filter before performing the modulation, in order to partially remove high transients that would click. The "smooth" slider changes the frequency response, making the wave duller or sharper. The cutoff frequency varies from lfo_freq+10 to lfo_freq+100, keeping the wave shape practically unaltered for all frequency settings. This filtering stage make all waveforms very usable, even the sharpest square.
When phase control setting is different for L and R channels, you've got auto panner. Amplitude, frequency, phase, waveform and smooth values are fully independent for both stereo channels, which gives the user a lot of creative potential.

Amazing presets!

An impressive selection of presets are included, to show all potential of Amplitude Modulation.

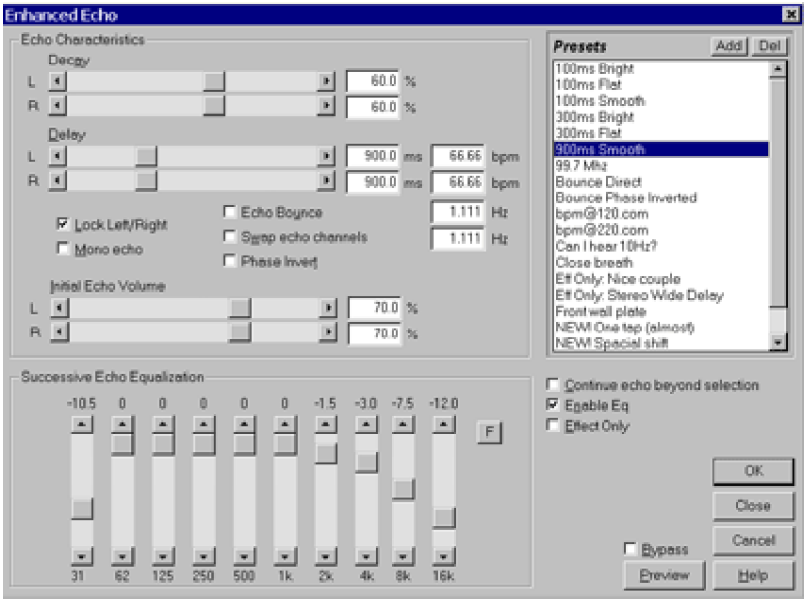
Cool Edit look and feel

Amplitude Modulation supports both full Real-Time Preview capability and Preset Handling routines, making the interface on it exactly like the one in natively included transforms.
It works with all wave formats that are handled by CE, including 8, 16 and 32 bit at any sample rate.

AudioTech

Enhanced Echo transform plugin for Cool Edit version 1.2

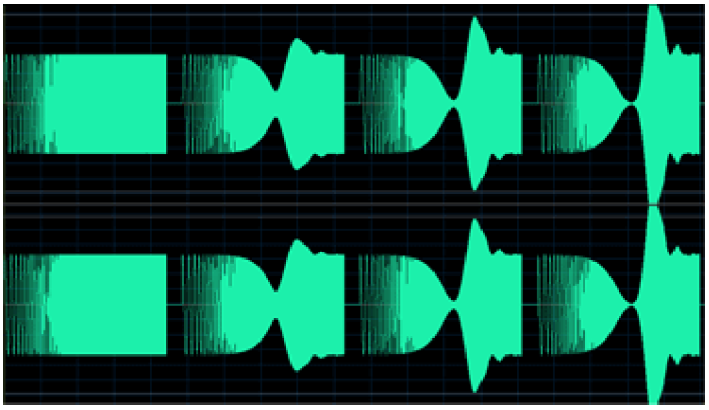
- **BPM and frequency textboxes to enter delay time.**
- **Much better 10-band eq (see below).**
- **Pushbutton to make eq flat.**
- **Enable/Disable eq to boost performance.**
- **Effect only function, to post-process the resulting echo.**
- **Phase invert checkbox, to add width and dimension to the echo effect.**
- **Swap echo channels function.**
- **Full Presets, Scripting and Batch support.**
- **Full Real-Time Preview with Bypass function.**



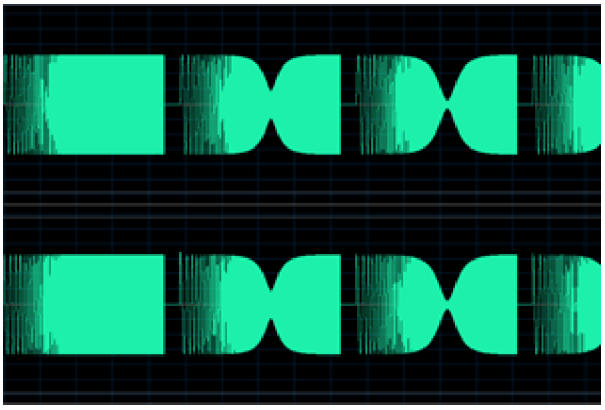
EQ Details

Cool Edit Echo equalizer is based on the Quick Filter also included with Cool Edit. Frequency response of that filter is very unpredictable. According to the interface, EQ is supposed only to decrease (0dB is the slider maximum) selected frequency band. However it's easy to clip a wave with that EQ, due filter ringing effect. You can see it in following graphs:

Cool Edit Echo Successive EQ:



Enhanced Echo Successive EQ:



This is a 1 second log sweep from 20Hz to 20KHz, after passing through a 1.1 second delay with 100% feedback, and 1KHz (1.3KHz in CE Echo) control moved down to -15dB. The CE filter is ringing with peaks over original signal level, easily clipping loud passages. This is fixed in Enhanced Echo.
New design also includes the ability to tab-select the sliders, in order to manage the EQ settings with Up-Down and PgUp-PgDown keys. It is also possible to fully disable the EQ to boost offline processing performance if you don't want to use it.

New Creative Options!

Want that equalized+chorused+compressed echo you dreamed with? Just make a copy of the wave, tweak parameters while previewing until you like the effect and apply the "Effect Only" checkbox. Now you can apply chorus, compression or whatever you want to add to the echo only and then mix the result back with original wave. Phase inverting one channel on a stereo wave you can feel a much wider echo. Swap the echo channels to get the echo of one channel in the other. Mono echo allows you to get that 50's metallic echo effect.

Cool Edit look and feel

Enhanced Echo supports both full Real-Time Preview capability and Preset Handling routines, making the interface on it exactly like the one in natively included transforms.
It works with all wave formats that are handled by CE, including 8, 16 and 32 bit at any sample rate.

AudioTech

High Frequency Stimulator transform plugin for Cool Edit

Version: 1.1

• Double-Precision cosine shaped waveshaper to get a smooth and controlled harmonic content.

• Drive control to "push" the waveshaper.

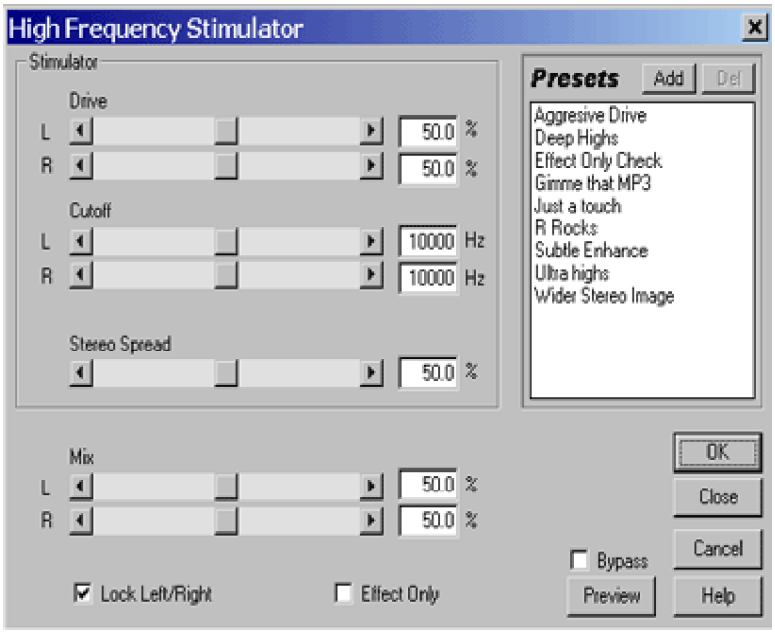
• High Pass Filter with variable cutoff frequency.

• Wet/Dry Mix sliders. • Stereo Spread control to enhance stereo image.

• All settings independent for both stereo channels.

• Effect Only switch.

• Full Presets, Scripting and Batch support.



Description

There are two ways to increase high frequency contents of source material: levering high harmonics amplitude (filters, graphic, paragraphic and parametric equalizers, spectral enhancers) or adding to the source harmonic content not originally present (aural exciters, BBE). HF Stimulator works this last way. It's incredible powerful to make that voices "airy", to artificially recreate high frequency contents of low sample rate wav's and to "candy coat" any track that needs to cut when playback on tiny speakers, for the web, and broadcasting on radio or TV.

How it works

The transform uses a biquad high pass filter with variable frequency setting followed by a soft waveshaper. It generates harmonic content not present in the original material. The waveshaper

algorithm is a modified lookup version of cosine waveshaping, with restricted constants to avoid clipping and double precision drive control. Waveshaped high frequency content and original signal are mixed back with a Dry-Wet control.

Cool Edit look and feel

High Frequency Stimulator supports both full Real-Time Preview capability and Preset Handling routines, making the interface on it exactly like the one in natively included transforms.
It works with all wave formats that are handled by CE, including 8, 16 and 32 bit at any sample rate.

All DSP code and interface programmed by René G. Ceballos.
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