

AYAIC – Ceilings Of Sound Pro

Table of Contents

Welcome	1
Getting Started.....	2
Presets.....	3
Reference Equalizing.....	3
Using The “Live” Function	4
What Are Ceiling Guides	6
Using Ceiling Guides.....	6
Functions.....	7
Credits and Thanks.....	8

Welcome:

When it comes to mixing music professionals and beginners alike often find the equalization process to be one of their greatest challenges. How much low end does the bass require? How bright or smooth should the hihat sound? How phat should the guitars be? How do I get the vocals to stand out? Ultimately because of variances in amplifiers, drums, microphones, FX, mic placement, etc. there can never be a "one method fits all" approach. However there is one thing that every instrument, percussion, guitar and vocal track has in common...they are all just noise. Just as the spectrum of light is the ceiling of perfect color...white, pink and brown noise are the ceilings of perfect sound.



AYAIC – Ceilings Of Sound Pro

Everything we hear flows along the spectrum analyzer lines of one of these noise ceilings. We can tilt them by either negative or positive values and they remain extremely musical. By mixing multiple instances of noise ceilings with any multiple of +/-1.5db tilt you can create the ceiling shape you need to equalize your source material perfectly. In other words you can now simply "EQ along the lines". This is what Ceilings Of Sound is all about. Ceilings Of Sound Pro takes it to the extreme by coupling 15 ceiling bands with the most powerful EQ developed...the 50-band Linear Graphic EQ. Traditionally these types of EQs, although high in detail and musicality, are very difficult to work with but by driving them with our ceilings and a "conform" feature they are now easy, fast and fun to use. If the need should arise where cpu load is an issue we have included a 31-band mode that still gives you detailed EQ power but saves cpu usage.

Getting Started: - *creating a basic ceiling*

Load Ceilings Of Sound Pro into your tracks insert slot. Play your sound source. After the spectrum settles click the "Ceiling Generator" and the ceiling bands will automatically create your ceiling. To adjust the ceiling simply click-n-drag the crossover points or click to select a crossover point then adjust it using its frequency & slope displays. Double-clicking on a crossover point deletes it while double-clicking anywhere on the ceiling creates one. To hear your adjustments click the "Conform spectrum to Ceiling" and the 31-band (default) will automatically adhere to your created ceiling shape. For more detail click the "ceiling edit" button to change to "EQ edit" mode, click the "31 band" button to change to 50-band mode then click "conform" once more. Since the ceiling slopes are based on integers of noise you can experiment with wild and crazy shapes...no matter things will still remain musical. Ceilings Of Sound Pro allows you to sound-design like never before and sonically fit your tracks together with ease during mix-down. When your song is ready you can Master it with the confidence that your final work will sound great on any speaker you play it on.

- Crossover settings of 300hrz (low) & 4000hrz (high) are important to remember..."*the lead vocal leads the track*". All humans produce sound using the same mechanics so although one voice may be full & rich while another bright & thin the overall ceiling will remain basically the same. Use the *brown* guide for the body of the vocal, follow *white* noise from 300hrz on downward and use the *pink* guide from 4000hrz on up. Rolloff from 80hrz to 120hrz & 12khrz to 14KHz depending on the singer. Now you're good to go for POP vocals. Follow the *pink* guide at 5000hrz for a more R&B/JAZZ vocal sound. For ROCK vocals follow the *-pink* guide at 300hrz to get that rolled-off "in your face" vocal sound. Follow the *brown* guide all the way up to your rolloff point for backing vocals. Rolling off at 10khrz with *18db* slope works great on most vocal styles.

AYAIC – Ceilings Of Sound Pro

Presets:

Ceilings Of Sound comes loaded with many professional presets to get you started. They are comprised in banks and cover everything from mixing to mastering. If you want to create a preset from a pre-existing sound source simply play the sound source you like and click “Auto Generate Ceiling” to create your preset. You may save any preset you create or alter into the “user” bank. The “user” bank is designed so that you have easy access to your presets for name changing, preset sharing, etc. “**Open user presets folder**” opens your user preset folder. To audition presets quickly or to change presets quickly during mix-down turn on “enable auto conform”...this automatically conforms the EQ whenever a new preset is selected. You will find a constant supply of presets from both professionals and users alike on the **Downloads** page of our website - <http://www.ayaicinc.com>

You can also check out our [Forum](#) page for more preset tips or [sign up](#) to be a member for free to meet, interact with and follow other members of the Ceilings Of Sound community.

Reference Equalizing:

There are many great “EQ matching” plugins on the market today that can do a wonderful job at making to separate audio files sound very much alike. Unfortunately they are all plagued with one primary problem...subtle harmonic differences that make one element sound great can often be very detrimental to a similar sounding element. When used in mastering if one mix has a snare around 207hrz and another mix has the snare around 265hrz things can begin to sound worse rather than better in that frequency range as *matching* is applied. This is never an issue for Ceilings Of Sound Pro because we are conforming to sound ceilings instead of matching to a frequency capture and since we are dealing with noise slopes the element or full mix you are conforming will always remain musically intact. Simply import the WAV/AIFF file that you like, load Ceilings Of Sound Pro into an insert slot, play/loop the WAV/AIFF file and use the “Auto Generate Ceiling” to create your ceiling shape. When you are finished *Save* your preset. Then insert Ceilings Of Sound Pro into the insert slot of the track you will be EQing, load your preset, play and allow the spectrum to settle then click “Conform spectrum to Ceiling”. You will find that your sound has conformed without adding any unmusical or destructive artifacts. If you are M/S (*mid/side*) mastering simply insert an M/S encoder in the insert slot above Ceilings Of Sound Pro and solo the *mid* material. Once you have created your *Mid* ceiling preset, solo the *side* material and create your *Side* ceiling preset. Now you can EQ your Mid & Side material

AYAIC – Ceilings Of Sound Pro

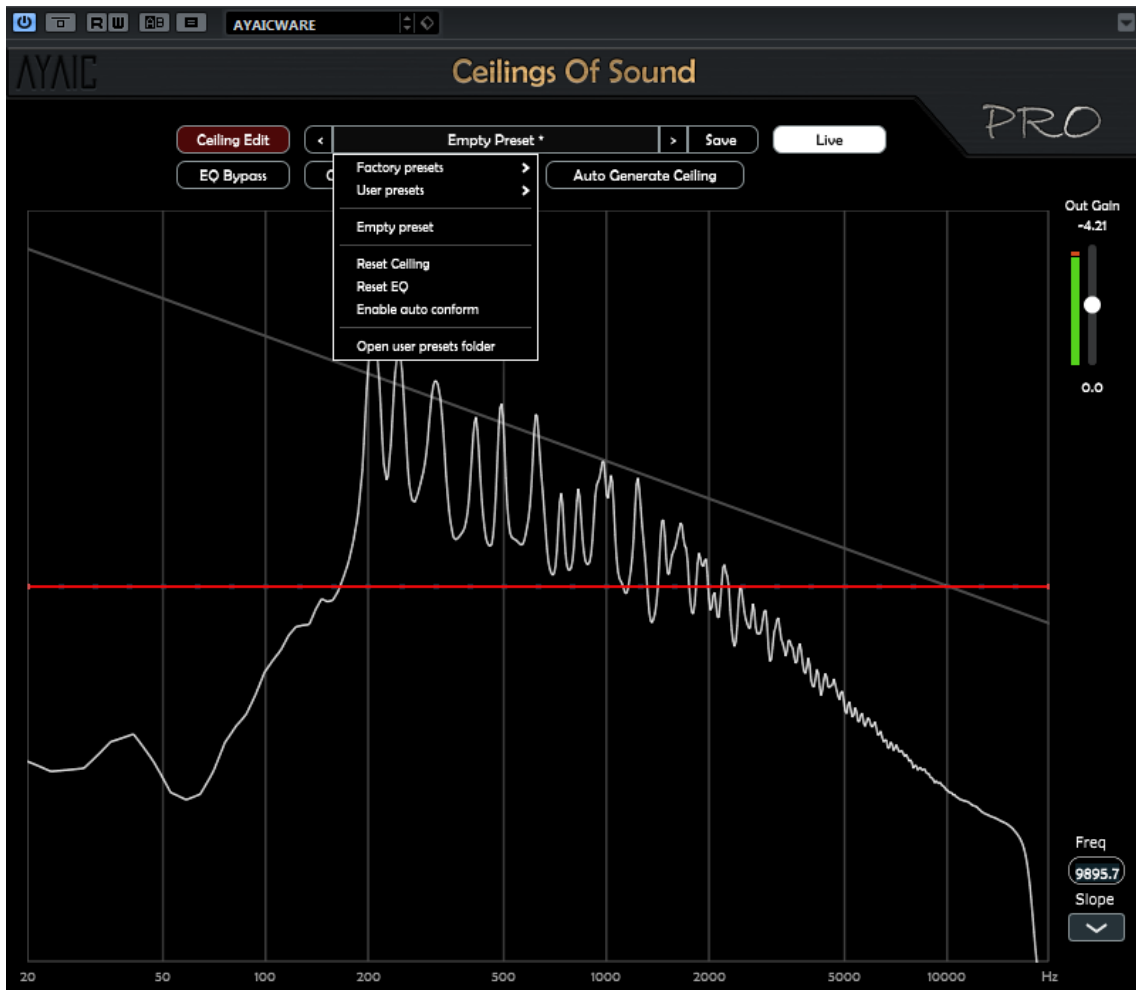
separately using your created presets. Again you will find it very easy to EQ your mixes while retaining the musicality that made you love them in the first place.

Using The “Live” Function:

More and more live-sound mixing is being done on digital mixers these days. Some of these mixers are capable of running VST/AAX plugins. If not the FOH engineer is probably using an outboard plugin processing unit that brings the power of studio plugins to his real-world mixing station. Ceilings Of Sound Pro is designed for that as well. Simply select the “**Live**” function and the plugin becomes a realtime spectrum analyzer with all the EQ power of the ceilings. You can right-click anywhere on the spectrum window to bring up the **Spectrum smoothing** and **Live Analyzer Average** options to set the speed and feel of the analyzer window to your taste. - *You can also use **Spectrum smoothing** as a tool when conforming the EQ. Without changing your ceiling shape experiment with different smoothing integers as you conform the EQ.*

AYAIC – Ceilings Of Sound Pro

**** (Live Analyzer Average only functions when in Live mode) ****



AYAIC – Ceilings Of Sound Pro

What Are Ceiling Guides

The ceiling guides in **COS Pro** & **COS Xtended** are there to help you equalize your material easily, efficiently and with the utmost confidence. Noise is perfect sound and perfect sound is what the sonic industry is forever chasing whether it is designing recording studios, manufacturing professional speakers or mixing and mastering audio...it's all about white, pink and brown noise.

Let's talk a little bit more about noise. Although you will often hear the audio industry refer to white, pink and brown noise the truth is that there are many colors of noise. Just like visual colors there are primary and secondary colors of noise.

Primary noise colors such as white, pink and brown are noise that is tilted by weights of 3db per octave. In other words all numbers divisible by 3.

Secondary noise colors are the 1.5db per octave weights in between...1.5, 4.5, 7.5, etc.

**Noise weights can be positive or negative integers and still remain perfectly musical.*

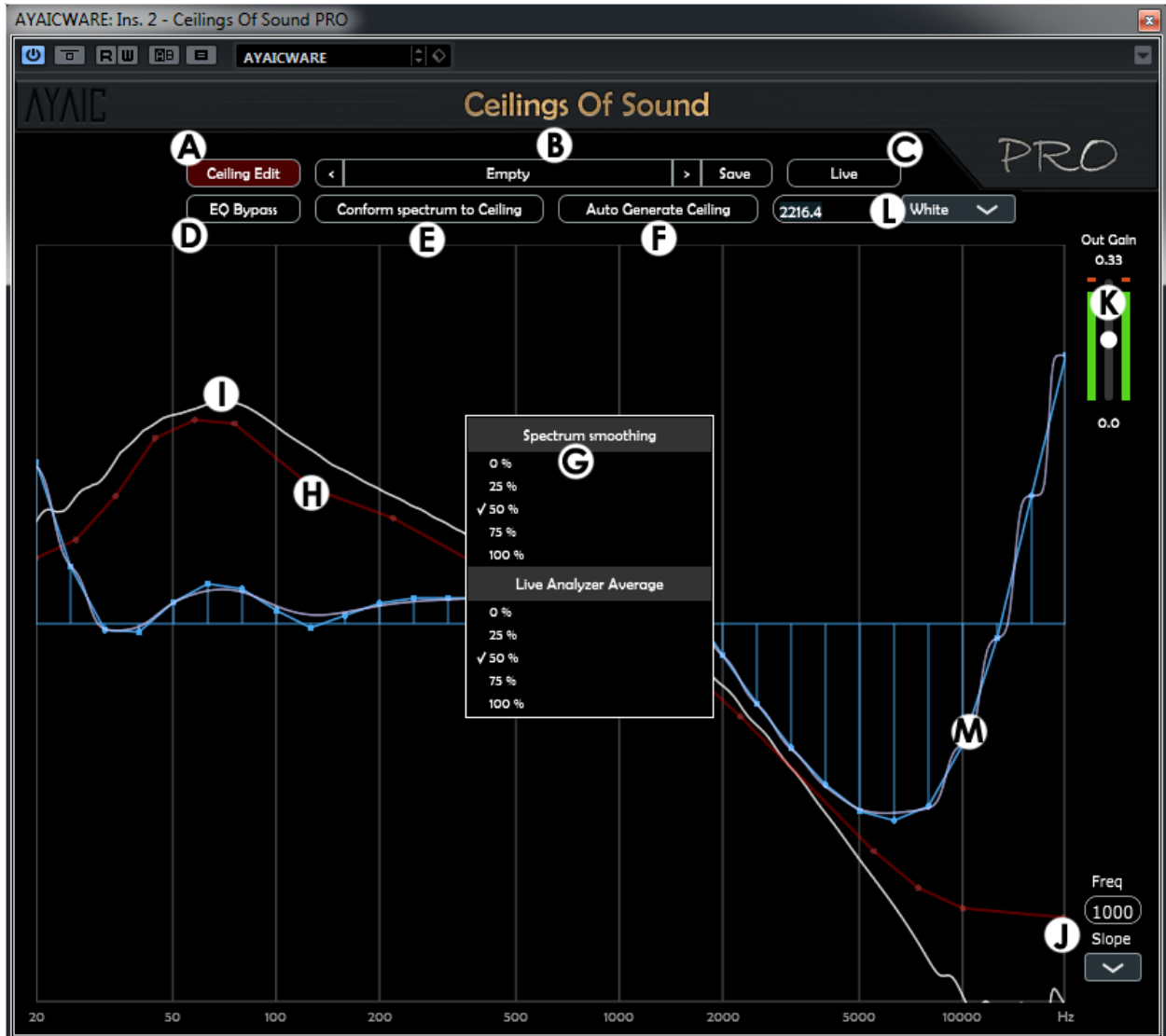
Generally speaking most overall frequency balances, *the relationship between high and low content*, follow a primary noise color with sections of frequencies following secondary noise colors. However this is not always the case. Warm RnB vocals may follow white noise up to 300hrz, brown noise from 300hrz to 4khrz or 5khrz and pink noise from 4-5khrz on up...of course high and low roll-offs are used as well. Bright Rock vocals may follow inverted pink noise up to 300-500hrz then pink noise to 2.4khrz then brown noise from 2.4khrz and above...again high/low roll-offs are used. As you can see some elements will follow a combination of noise colors. The key is to experiment with different noise colors and combinations. Keep in mind that the steeper the "tilt" the less high end is present and the more an element will "move back" in a mix.

Using Ceiling Guides

Select a ceiling guide then click-n-drag or type in a frequency to move it into position. Adjust your ceiling until it aligns along the guide slope. You may find that you use different guides for different sections of the frequency spectrum. These guides allow you to use COS Xtended in any environment so no matter if you have ear fatigue after a long day, are fighting a flu but on a deadline, working on an airplane through earbuds or mixing in a hotel room during a tour you always will be confident that your frequency balances are right where they should be and none of your hard work is ever in vain.

AYAIC – Ceilings Of Sound Pro

Plugin Functions:



A – Ceiling Edit/EQ Edit

B – Presets/Enable Auto Conform

C – “Live” Function

D – EQ Bypass

E – Conform spectrum to Ceiling

F – Auto Generate Ceiling

G – Options

H – Ceiling

I – Spectrum

J – Noise guides

K – Meter/Output gain

L – Crossover frequency/slope display

M – 50/31-band Linear Phase EQ

AYAIC – Ceilings Of Sound Pro

CREDITS and THANKS

Produced by Ayaic International LLC

DSP

Pulsar Digital SARL

Software

Ronald Froese

GUI Design

Ronald Froese

Pulsar Digital SARL

Preset Design

Ronald Froese

AYAICWARE

<http://www.ayaicinc.com>