

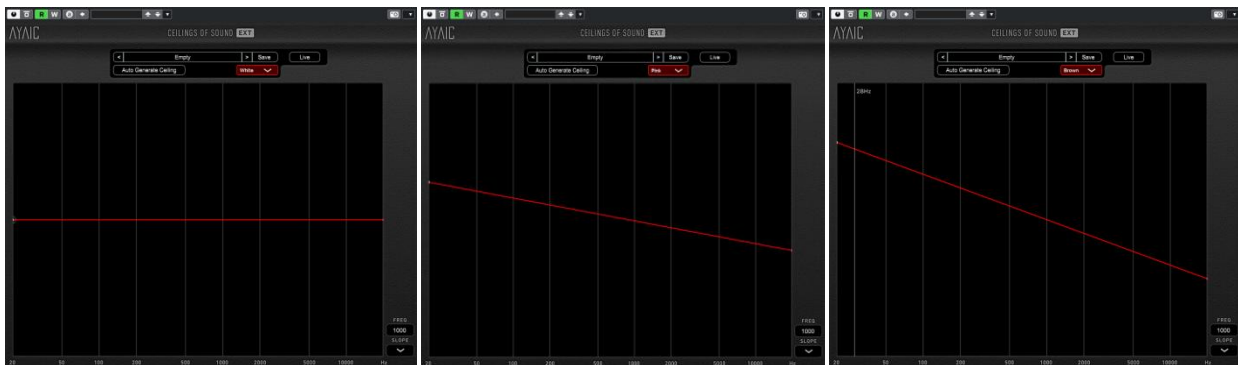
AYAIC – Ceilings Of Sound Xtended

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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.



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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 the original Ceilings Of Sound is all about. Ceilings Of Sound Xtended takes it further by coupling 15 ceiling bands with an "Auto Generate Ceiling" function that allows you to create ceilings and presets with just the click of a button.

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. Use the ceiling guides to make sure your created ceiling shape is in balance with itself. Once you have the ceiling shape you want use your favorite hardware or software equalizers to EQ along the ceiling. If the spectrum rises above the ceiling apply equalization to bring it down, if the spectrum is below the ceiling use equalization to bring it up. "Make one line match the other line" it's that easy. Since the ceiling slopes are based on integers of noise you can experiment with wild and crazy shapes...no matter what, things will always remain musical. Ceilings Of Sound Xtended is a great tool to help you sound-design like never before as well as sonically fit your tracks together with ease during mix-down. When your song is ready you can use COS Xtended to Master it with the confidence knowing that your final work will sound great outside of the Studio

- 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 14Khrz 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.

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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. 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:

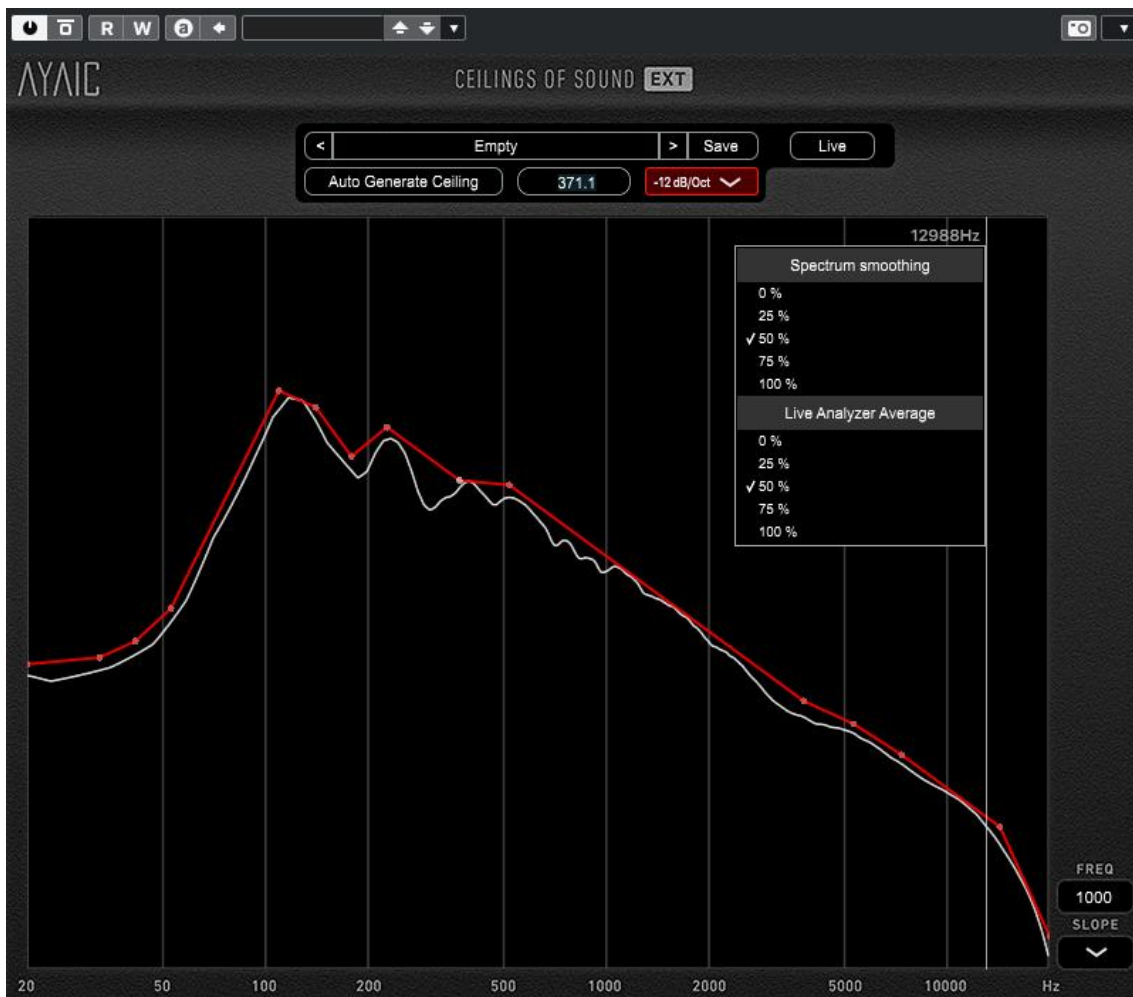
There are many great “EQ matching” plugins on the market today that can do a wonderful job at making to separate audio files sound very much alike. Unfortunately they are all plagued with one primary problem...subtle harmonic differences that make one element sound great can often be very detrimental 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 Xtended because you are EQing along sound ceilings so the element or full mix you are equalizing will always remain musically intact. Simply import the WAV/AIFF file that you like, load Ceilings Of Sound Xtended 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 Xtended into the insert slot of the track you will be EQing, load your preset, play the track or song and begin equalizing with confidence. If you are M/S (*mid/side*) mastering simply insert an M/S encoder in the insert slot above Ceilings Of Sound Xtended 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 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.

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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 Xtended 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.

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



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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.

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Plugin Functions:



A – Spectrum (white line)

H – Ceiling Guides

B – Auto Generate Ceiling

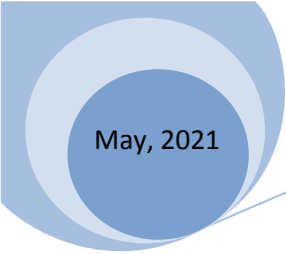
C – Presets

D – Crossover frequency/slope display

E – “Live” spectrum analyzer

F – Ceiling (red line)

G – Options



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CREDITS and THANKS

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AYAICWARE

<http://www.ayaicinc.com>