Signal-Wise: we get the signal right

Sound Viewer

Super Resolution on Earphones

Sound Viewer is capable of providing a super resolution (i.e., a resolution much less than the wavelength of the sound wave) to discern multiple sound sources in 3D space simultaneously over the frequency range of 20 - 20,000 Hz.

In particular, Sound Viewer is capable of minimizing random background noise and extracting target sound source information in a non-ideal environment.

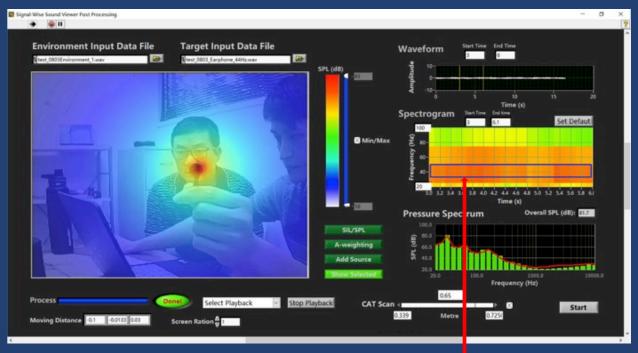


Sound Viewer — A one-of-a-kind comprehensive noise diagnosis and analysis system.

Signal-Wise: we get the signal right



A single earphone producing broadband sounds centered at 32 1/3-octave bands inside a crowded office, where SNR < 0 dB, was captured.

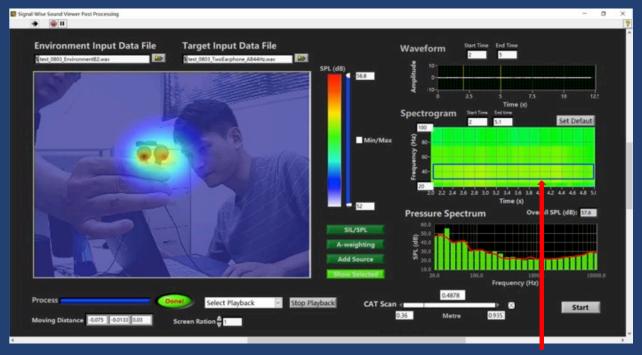


A single earphone producing broadband sounds centered at 44 1/3-octave bands inside a crowded office, where SNR < 0 dB, was captured.

Signal-Wise: we get the signal right



Two side-by-side earphones producing broadband sounds centered at 32 1/3-octave bands inside a crowded office, where SNR < 0 dB, were captured.



Two side-by-side earphones producing broadband sounds centered at 44 1/3-octave bands inside a crowded office, where SNR < 0 dB, were captured.