LESON DeepStereo

Audio innovation pioneer Music Unit and its spin-off LESON unveil DeepStereo, a groundbreaking technology that revolutionizes immersive sound. This unique innovation fulfills a 50-year-old dream of the music industry: immersing listeners into a soundscape, regardless of their equipment. DeepStereo combines an innovative format and a cutting-edge tool to transform any mono or stereo file into a high-quality 3D immersive audio experience. Compatible with all headphones, speakers, and soundbars, this patented system performs real-time transformations without the need for complex installations or reliance on proprietary ecosystems. As demand for 3D audio soars, this universal standard marks the start of a transition as significant as the shift from mono to stereo half a century ago. DeepStereo doesn’t just simulate natural soundscapes; it unlocks new possibilities for creating, consuming, and experiencing music in fully immersive 3D environments - anytime, anywhere. Feel the sound as if it’s alive within you - finally a reality.

Immersive audio is gaining tremendous popularity. Over 80% of GenZ consumers report being willing to invest in 3D audio solutions if the experience delivers on its promise. Yet, current technologies fall short due to their complexity, high installation costs, reliance on closed ecosystems, and limited content availability. Additionally, sound quality often fails to deliver. LESON addresses these challenges with a unique approach backed by over a decade of research and innovation.

With DeepStereo, Music Unit introduces a technology that redefines industry norms, going beyond the simple conversion of stereo to 3D audio. Exclusive algorithms developed by Music Unit ensure 3D transformations that retain the richness and dynamics of the original sound without the artifacts found in other formats. This makes it an ideal solution for audiophiles and content creators seeking uncompromised sound quality.

Completely agnostic, DeepStereo doesn’t require require costly conversions or specialized equipment. Any standard headphones, speakers, or soundbars can now deliver an unmatched immersive audio experience. This universal accessibility positions Deep Stereo to democratize immersive audio, paving the way for widespread adoption across industries like entertainment, transportation, and artistic creation.

Julien Chirol, co-founder of Music Unit and LESON, states: “We are proud to unveil DeepStereo at CES 2025. This technology offers artists and producers an unprecedented way to create 3D soundscapes. For instance, artists can precisely position instruments and effects within a three-dimensional space, adding depth and detail to their compositions. This enables listeners to feel uniquely connected to the music, as though they are enveloped by sound. Most importantly, DeepStereo truly democratizes immersive audio: it transforms any device into a 3D experience, anywhere and for everyone.”

DeepStereo represents a legacy of audio innovation. LESON benefits from the unique expertise of its parent company, Music Unit, a production studio that has been transforming audio for over 20 years. Combining engineers and musicians, LESON focuses on merging artistic creativity with cutting-edge audio technology to push the boundaries of 3D sound. DeepStereo doesn’t simply “push” sound left or right like traditional stereo. Instead, it allows users to rediscover their music libraries, films, and video games with new auditory depth, without needing new devices or learning complex configurations. Unlike the flat, limited sound of stereo, DeepStereo immerses listeners in an acoustic bubble comparable to a live performance. This instantaneous, immersive, and unparalleled quality experience provides natural, fluid soundscapes in any environment. It enhances engagement and emotional impact, turning every listening session into a complete experience.

In gaming, for example, DeepStereo creates sound immersion that transforms gameplay. By precisely localizing sounds in a three-dimensional space, it gives players a competitive edge and a more captivating experience. DeepStereo breaks new ground for industries like electronics, entertainment, transportation, and music production. For electronic device manufacturers, it offers a seamlessly integrable software or hardware solution for products like smartphones, headphones, and connected speakers - without significant cost increases. For streaming platforms, DeepStereo enhances the music and movie listening experience, boosting user satisfaction and retention with existing content—no new formats or remastering required. For studios and content creators, DeepStereo simplifies immersive audio production, which is often expensive and complex with traditional tools. Artists can transform their work into 3D immersive experiences from standard stereo files, enabling limitless creative experimentation. DeepStereo also transforms live sound engineering. By incorporating spatial audio into concerts, sound engineers create 3D environments that amplify audience experiences.

The creation of content in DeepStereo relies on Music Unit’s patented My Bee Knows binaural technology, which stands out for its ability to preserve the original signal quality, making it compatible with any playback device - whether headphones or speakers. Binaural synthesis mimics natural hearing, where each ear perceives sound with slight temporal and tonal differences. The artificial reproduction of these “transfer functions” tricks the brain into perceiving the virtual spatialization of a sound that originally lacked it.

My Bee Knows revolutionizes binaural synthesis by retaining the full quality of the

original recording. Combined with a unique process that includes crosstalk cancellation, Deep Stereo delivers a breathtaking sound immersion on regular speakers. The rendering becomes compatible with Deep Stereo’s specifications for any format, whether mono, stereo, 5.1, or multichannel, ensuring an exceptional and consistent immersive experience.

DeepStereo is the result of 12 years of collaboration between LESON and prestigious French institutions, including the CNRS, École Polytechnique, and the Paris Conservatory. This combined expertise has led to patented technology positioning France at the forefront of audio innovation. The solution is already adopted by the Cité de la Musique for audiovisual content production and distribution. It is also integrated into NOUS Digital’s Sonic HR 6DoF headphones used in museums and is currently under trial at Radio France.

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