



## A WORLD FIRST AT NAMM 2019: SENNHEISER AND DEAR REALITY PRESENT END-TO-END WORKFLOW FOR 3D AUDIO

Anaheim (CA), January 24, 2019 – With 3D immersive audio continuing to make its way into productions globally, Sennheiser and its partner Dear Reality are showcasing a full scene-based end-to-end workflow for VR and 360° video productions at NAMM. Recording solutions on display include the Sennheiser AMBEO VR Mic for Ambisonics recordings, the AMBEO Smart Headset for easy binaural content production, and Neumann’s much revered KU 100 binaural head. Meanwhile, Dear Reality will demonstrate its *dearVR SPATIAL CONNECT* mixing software, which enables engineers and creators to mix spatial audio for 360° videos in a VR environment. In addition, Dear Reality announces its upcoming *dearVR AMBI MICRO VST/AAX* plug-in for DAWs, developed in cooperation with Sennheiser’s AMBEO team.



The Sennheiser AMBEO VR Mic will be shown in a variety of use cases such as immersive music productions and immersive podcasting

(Photo credit: Nicholas Büchi, Zürcher Hochschule der Künste)

### *dearVR AMBI MICRO*

NAMM visitors can experience Dear Reality’s brand-new DAW plug-in *dearVR AMBI MICRO*, an all-in-one solution for Ambisonics productions, which will be available from February.

*dearVR AMBI MICRO* is a plug-in for DAWs that supports engineers in the binaural monitoring and mixing of Ambisonics 360°/VR productions

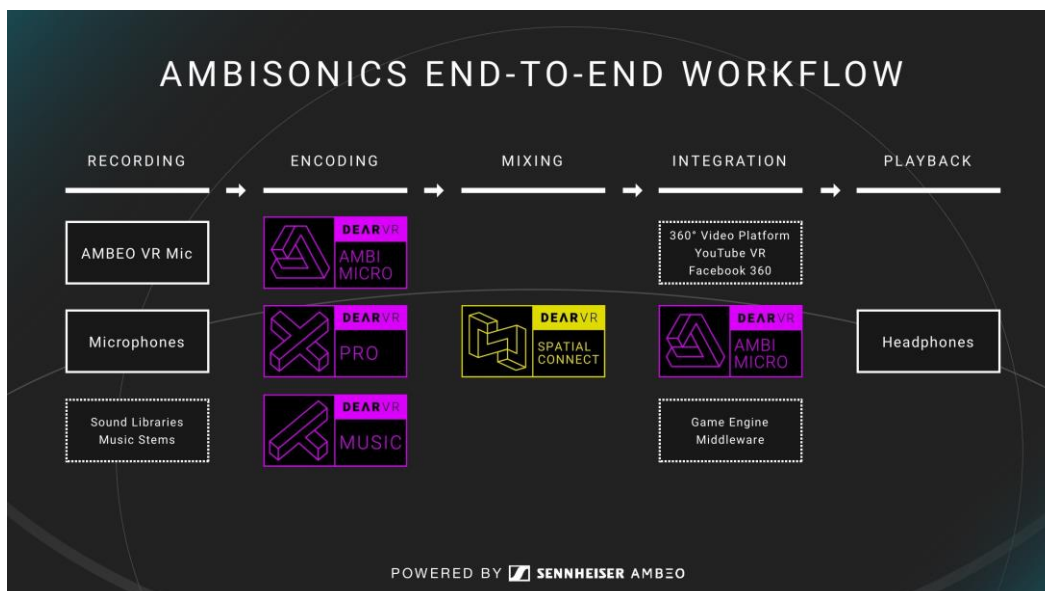




The plug-in allows audio engineers to mix, monitor and render Ambisonics recordings with the AMBEO VR Mic or B-format Ambisonics tracks up to 3<sup>rd</sup> order with head-tracked binaural audio. Thus, engineers can immediately assess what an Ambisonics track will sound like on a 360° video platform or in a game engine and can fine-tune the audio as needed.

The plug-in includes the Sennheiser AMBEO A-to-B converter and AMBEO Ambisonics-to-binaural conversion technology. For monitoring and mixing, it is able to render both Ambisonics A-format and B-format to binaural for headphones. When connected to *dearVR SPATIAL CONNECT*, engineers can mix and listen with headtracking in VR.

### Typical Ambisonics production workflow



#### RECORDING

Use the AMBEO VR Mic to record full Ambisonics audio. Simple mono microphone recordings or library sounds can also be used but require special encoding.

#### ENCODING

For further processing, the various input formats need to be converted to Ambisonics B-format and rendered binaurally for headphone monitoring. For these purposes, the new *dearVR AMBI MICRO* includes the AMBEO A-to-B and AMBEO Ambisonics-to-binaural conversion libraries. Mono sources can be encoded to Ambisonics with *dearVR PRO/MUSIC*.



#### MIXING

*dearVR SPATIAL CONNECT* enables the user to mix virtual sound sources in VR and to control their position and levels in the *dearVR PRO* plug-in when in Ambisonics output mode.

#### INTEGRATION

By adding *dearVR AMBI MICRO* to the Ambisonics master bus in the DAW, the user can binaurally monitor the Ambisonics mix with headtracking using a VR headset. This makes for an easy assessment of the Ambisonics track on 360° video platforms or in game engines.

#### PLAYBACK

Use any pair of Sennheiser or Neumann headphones to monitor the binaural soundfield. We highly recommend the studio-quality Sennheiser HD 600, HD 650, HD 660, HD 800 S and HD 300 PRO, or the Neumann NDH 20.

#### **Binaural content creation at AES@NAMM**

3D audio production techniques will also be featured in the AES@NAMM program by Sennheiser's 3D audio engineer, Gio Jacuzzi. His presentation, "Dynamic and Static Binaural Recording, Mixing and Reproduction for Immersive Audio", will cover the entire toolchain for recording, mixing, and playback of binaural content, and can be seen at the Hilton, Level 4, C7 on Friday, January 25 from 4:00 p.m. to 6:00 p.m.

Participants will learn about the underlying technologies and various practices for creating static binaural and dynamic binaural (Ambisonics) content, as well as how to use the Neumann KU 100 dummy head, the AMBEO Smart Headset, and the AMBEO VR Mic.

**Visit Sennheiser and Neumann at NAMM, Anaheim Convention Center North, Level 1, Booth No. 14108.**

#### **About Sennheiser**

Shaping the future of audio and creating unique sound experiences for customers – this aim unites Sennheiser employees and partners worldwide. Founded in 1945, Sennheiser is one of the world's leading manufacturers of headphones, microphones and wireless transmission systems. With 21 sales subsidiaries and long-established trading partners, the company is active in more than 50 countries and operates its own production facilities in Germany, Ireland, Romania and the USA. Since 2013, Sennheiser has been managed by Daniel Sennheiser and



Dr. Andreas Sennheiser, the third generation of the family to run the company. In 2017, the Sennheiser Group generated turnover totaling €667.7 million. [www.sennheiser.com](http://www.sennheiser.com)

**Local press contact**

[Jeff Touzeau](#)  
jeff@hummingbirdmedia.com  
+1 (914) 602-2913

**Global press contact**

[Stephanie Schmidt](#)  
stephanie.schmidt@sennheiser.com  
+49 (5130) 600 – 1275