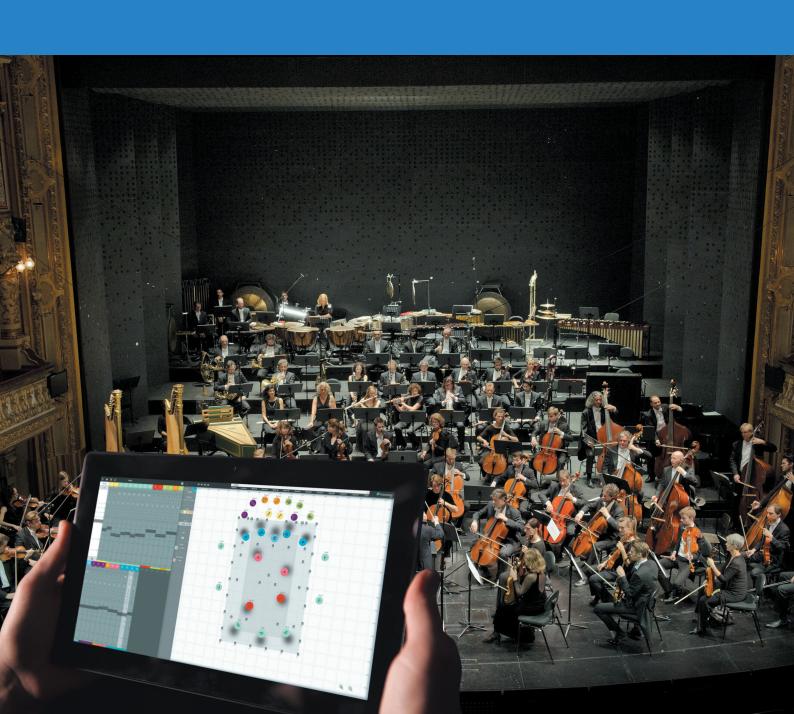# Fraunhofer

IDMT

FRAUNHOFER INSTITUTE FOR DIGITAL MEDIA TECHNOLOGY IDMT

SPATIALSOUND WAVE

SpatialSound Wave is an object based system for producing and replaying true-to-life three-dimensional sound. While the system allows the listener to virtually immerse in the sound and enjoy an acoustically realistic sound experience, it offers sound engineers new options to easily and efficiently produce spatial sound.

A three-dimensional sound experience

Using SpatialSound Wave, audio objects can be positioned at will, providing a totally realistic compliance of what is seen and what is heard. The system features an innovative module for interactive room simulation – by a simple push of a button, any room you can think of is simulated in a perfectly realistic fashion, giving the listener the impression that they are actually right in the middle of a given acoustic scene.

Easy and intuitive use

SpatialSound Wave's web based, easy-to-use user interface is platform independent. Due to its modular structure, the system can easily be adapted to individual requirements, allowing users to integrate SpatialSound Wave into their daily workflow routine. As the system can be accessed simultaneously over multiple end devices, a number of users can work on the same project at the same time.

Flexible system adaptation

SpatialSound Wave supports any type of loudspeaker. Sound mixes produced with the help of SpatialSound Wave can be replayed via different speaker arrangements without losing the sound impression intended by the artist. Conventional speaker arrangements (e.g., L/R, L/C/R, or delay lines) can easily be integrated.

Areas of application

- Full dome
- Live sound
- Entertainment
- Exhibitions, trade shows, and other events
- Research and education

Technical information

- Dynamic room simulation (regenerative, convolution-based) comprising as many as 16 audio objects
- Use with any Digital Audio Workstation or live input
- Quick installation due to intuitive setup
- Timecode synchronization
- Supports different interfaces, such as OSC or MIDI (can easily be extended)
- Allows integration of tracking systems
- Easy-to-use, browser-based GUI for personal computers and mobile devices

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