**SARA II Live Software**

The Live Application brings a sophisticated spatial sound platform to the sound engineer.

**Key Features**

- Create real-time, synchronised, live and pre-recorded 3D audio productions with tablet friendly software that includes multi-touch control and main-page inputs meters.
- Use quick selection tools to access mute and solo functions plus sources and object placement, dynamic room acoustics and to switch between point source and plane wave.
- Store, protect and copy productions, gain full processor operation and use Open Sound Control for MIDI, GPIO and RS232.

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**Creating spatial surround-sound**

The SARA system is intended to control, place and move audio objects to deliver a superior perceptual experience to the listener's ears, optimising results across the audience areas.

Unique and simplified user control interfaces make the production design and show delivery processes easy to learn, quick to build, but very powerful in 3D spatial sound delivery.

**Input signals – audio sources become Audio Objects**

The SARA II Premium Rendering Engine turns audio files into audio objects with added intelligence. The Audio Objects can include pre-recorded material stored in SARA II, audio console outputs, room sampling microphones, or other audio sources.

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Typical web-based control surface with OSC interface, as used on a tablet
Simplified room modelling

A realistically useful, but simplified model of the room is very quick to construct based on typical, pre-defined room shapes. These can be sized to match the target event space. Loudspeakers can be quickly located in the model space to match the requirements of the project or show using their x,y,z coordinates.

The show can be auditioned anywhere from studio monitors to a stadium-sized playback installation and is easily moved between different playback venues.

Objects can be operated by multi-touch controls from a tablet or smartphone.

Graphical User Interface – placing and moving Audio Objects in 3D space

The graphical user interface is optimised for live operation, making it easy to take these sound sources and place or move them in real time through a 3D listening space. On screen, the audio objects resemble pucks that can be located individually or in groups with a mouse, joysticks, or more flexibly with a tablet as a controller.

In the show, each audio object is independently rendered and updated 40 times per second through the available physical loudspeakers onto the designer’s virtual sound locations. The listener hears the objects, not the loudspeakers. Interactions between loudspeakers and Doppler effects caused by movements are eliminated via object-oriented algorithms.