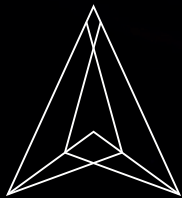


Sound Adventures

UNRIVALLED IMMERSIVE 3D SOUND EXPERIENCE



ASTRO SPATIAL AUDIO



Unite Your Audience
The Martin Audio Experience

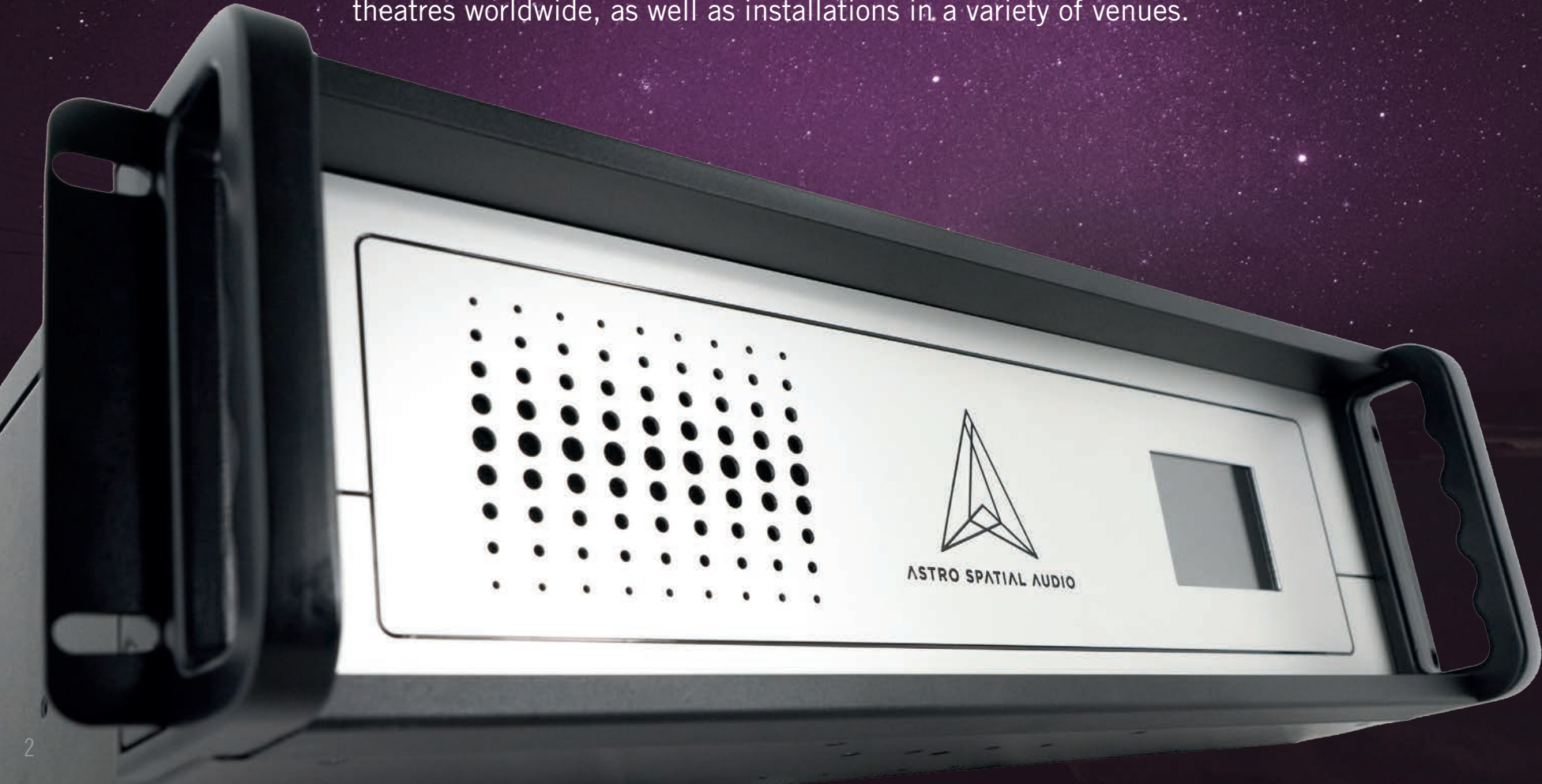


Sound Adventures

UNRIVALLED IMMERSIVE 3D SOUND EXPERIENCE

Martin Audio loudspeakers in combination with Astro Spatial Audio software and processing unite your audience in an unrivalled immersive 3D sound field.

Utilising patented acoustic technology the result is scalable and easy to operate fully object-based immersive audio delivering new creative options for live acts and theatres worldwide, as well as installations in a variety of venues.



FEATURES

- Unite Your Audience with 3D immersive sound fields
- Create movable sound effects and mixes in real time
- Room acoustic enhancement to meet the intended acoustic properties of an event
- Extend stereo image for audience – Wide Stereo
- Integrate with real time tracking solutions to improve audio localisation for every member of the audience

APPLICATIONS

- Live Sound events
- Performing art facilities such as theatres and opera houses
- Houses of Worship
- Museum / Art installations
- Theme parks
- Exhibitions
- Corporate Events

PROVEN TECHNOLOGY

Since 2016, Astro Spatial Audio has been deployed on Broadway, the West End, in opera houses and auditoriums as well as nightclubs and art installations. Using adapted Wave Field Synthesis algorithms, Astro Spatial Audio's SARA II audio rendering engine is an immersive 3D audio tool for live and entertainment venues. Martin Audio now offers Astro Spatial Audio as part of an integrated offering with its loudspeakers.



OBJECT BASED AUDIO

Traditional Channel based surround audio has drawbacks in that playback occurs only on the same speaker arrangement as during production; it's not possible to provide a fuller, richer sound if you expand your system, and offers little adjustment by end user.

The SARA II Premium Rendering Engine utilises object based audio which provides full control over position, level, acoustic characteristics and distance to enable a more flexible loudspeaker system to provide sound anywhere within the room in the most realistic and natural way.

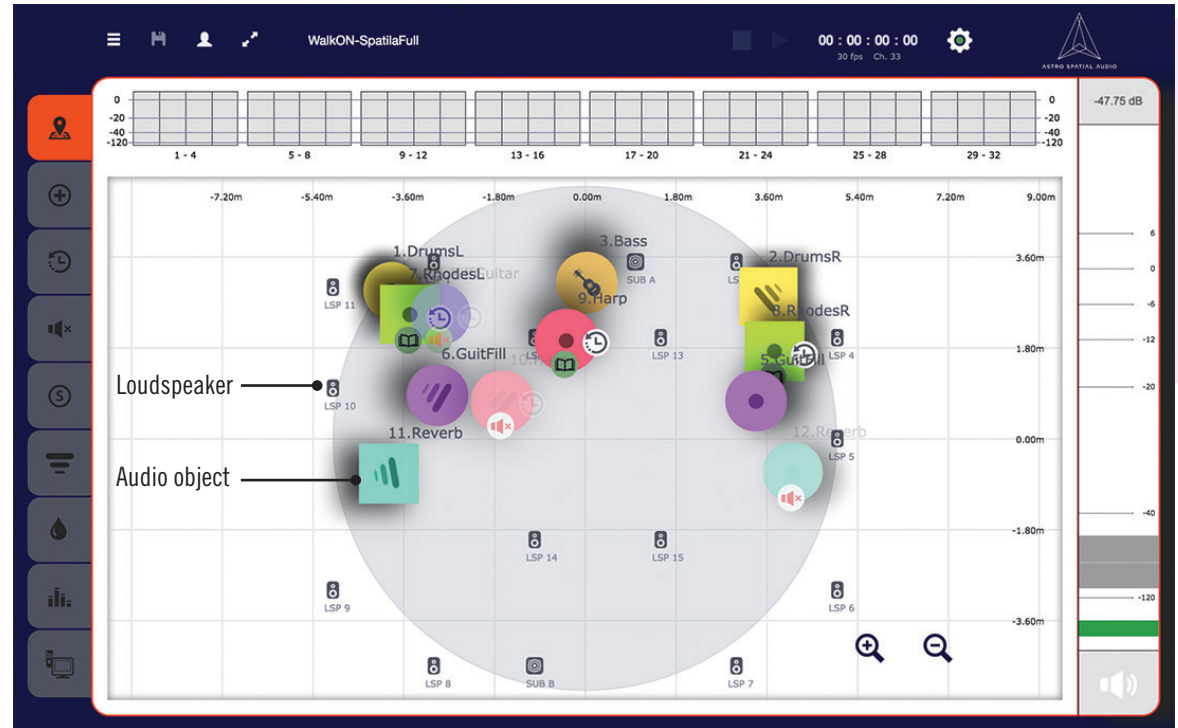
More than just 360°, its fully immersive 3D

The SARA II turns audio inputs (pre-recorded material, audio console, mics) into Audio Objects by adding metadata:

- Level
- Spatial position
- Acoustic characteristics
- Velocity
- Distance
- Point source or Plane wave (=point source at infinity)

Martin Audio Loudspeakers are mapped in the software and each audio source / object can be placed or moved in real time - or via a timecode, cue based or with a tracking system - through the 3D listening space.

The listener hears the objects, not loudspeakers, with interactions between loudspeakers and Doppler effects eliminated via algorithms.



Benefits for the Engineer:

- Less critical speaker layout
- Quick setup times
- Exchangeable between venues
- No audible artefacts
- No change in workflow
- Integration with tracking
- Third party support / OSC

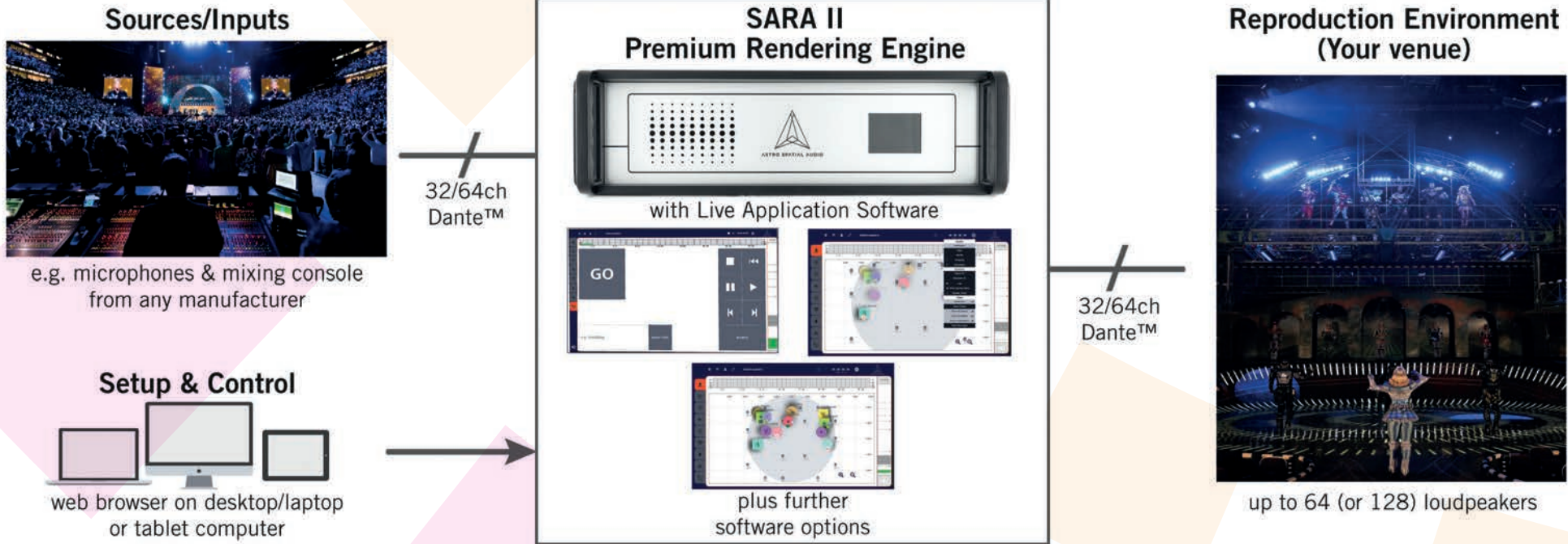
Benefits for the Audience:

- Immersive Experiences
- 2D, 3D surround
- Matches visual and audio experience as one
- Full stereo image for more of the audience
- Improved localisation on stage



SARA II Premium Rendering Engine

WORKFLOW SUMMARY



MOVING SOUND FOR ADDED DIMENSION

Create a truly dynamic experience for the audience with sound effects and mixes that can move in real time throughout a venue.

The control of light and video systems can also be coupled with the sound system.

Perfect for dynamic theatre events or creating sonic experiences in theme parks and AV art installations.



DYNAMIC VARIABLE ROOM ACOUSTICS

A unique dynamic sonic simulation creates a large variety of natural sounding room acoustics that can electronically shape a venue to meet the intended acoustic properties of an event. Transform a lifeless performance hall to have the dramatic acoustic properties of an operatic auditorium or cathedral.

Perfect for speech reproduction or concert acoustics.

UNITE YOUR AUDIENCE IN STEREO

Traditional sound reinforcement with left / right audio will mean for large proportions of the audience they do not enjoy the benefit of true stereo image.



With several sources distributed across the front of stage, the SARA II engine can adjust the output from each source to provide more of the audience with stereo image. The more sources, the more of the audience is covered with stereo image. As a result the 'sweet spot' becomes a 'sweet area' and walking the room the image is consistent and stable.



REAL TIME TRACKING - TRACK PERFORMERS & POSITION SOUND ACCORDINGLY

Track performers on stage and position sound accordingly in the venue so every member of the audience align their visual and audio experience, for a truer, more impactful performance.

The SARA II engine can integrate with both Stagetracker II from TTA as well as BlackTrax.

For information on Stagetracker II, please visit <https://www.tta-sound.com/>

For Information on BlackTrax, please visit <https://blacktrax.cast-soft.com/>



SPECIFICATIONS

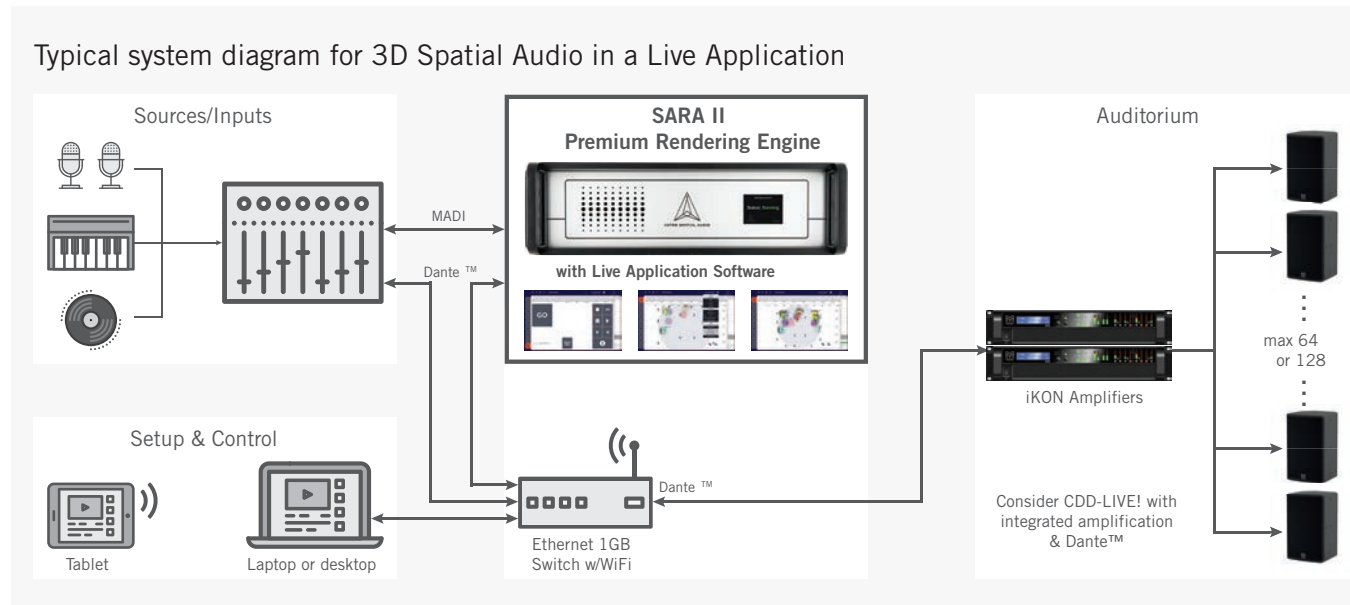
SARA II Premium Rendering Engine incl. Spatial Sound Wave core V4

Audio and control	
Audio inputs	32 standard (expandable)
Audio outputs	64 standard (expandable)
Sample rate	24 bit @ 48 kHz
Latency	<5 ms
External Control	Open Sound Control (OSC) for MIDI, RS232 and GPIO
Front panel display	2.8" TFT LCD color touch screen
Standard: MADI	1 x Optical (SC) and coaxial (BNC)
Option: Dante™	1 x RJ45 Gigabit Ethernet LAN port
Wordclock	Selectable internal / external (BNC)
Network	1 x Gigabit on Ethercon Neutrik NE8
Maintenance only	1 x VGA, 1024 x 768 or higher
	2 x USB 3.0, 1 x RJ45 Gigabit Ethernet
Storage	
RAM	16 GB
Internal storage	2 x 120 GB Solid State Drives
Redundancy	RAID 1 SSD (internal) / Optional parallel SARA II Engines

Power Supply	
Input voltage	100 – 240 Vac, 50-60 Hz, 6.3 A max
Max Output	450 W
Connector	Neutrik PowerCon NAC3MPA-1
Option	Redundant PSU, 2 x 500 W, 8 A with audible and visual warnings
General	
Housing	19" Rackmount, 3 RU
Dimensions	WxDxH 482 x 550 x 132 mm (19" x 21.7" x 5.25")
Weight	11.9 kg (26 lbs) plus cables
Operating System	Linux CentOS

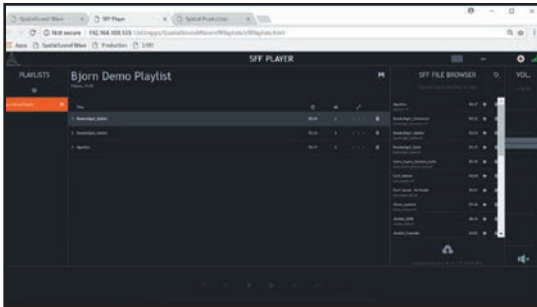
Key Features

- Powerful, ease of use
- Minimum 32 configurable audio objects
- Minimum 64 output channels
- Wordclock
- LTC Timecode
- Robust 3RU rack-mount housing
- Ultra-low noise cooling
- Redundant Solid State Drives
- A range of redundancy options
- Web-browser based control



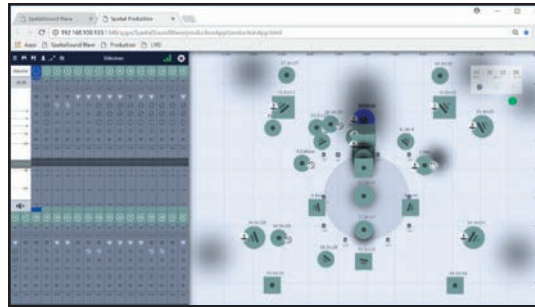
PRODUCT SUMMARY – SOFTWARE APPLICATIONS

Applications are add-ons to the standard hardware and software as described previously. All apps work independent from each other & are freely configurable to meet the project requirements. Expansion of applications is possible.



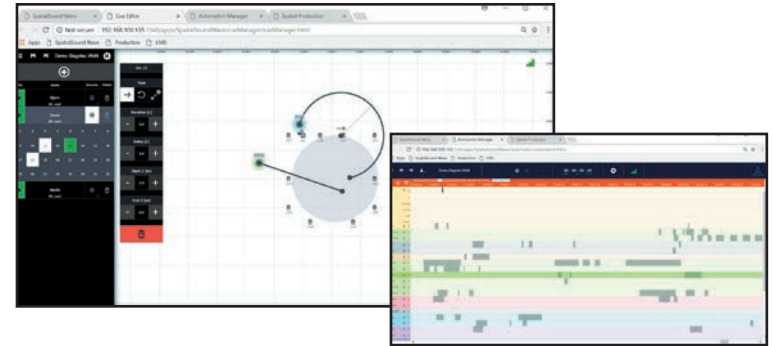
Playout application

Software application for play out (or play back) of content directly from the SARA II engine. Load and play out of self-produced sessions, includes scaling and gain control, and playlist creation. Can be used in parallel to production application.



Production application

Core software for the production, modification and reproduction of audio sessions where audio scenes can be configured, stored and recalled.



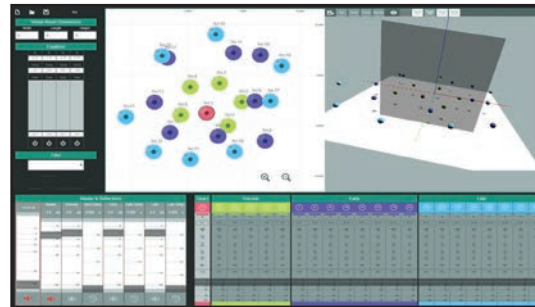
Enhanced Editor

Enhanced editor offers more flexible and versatile use of the system to create and edit files. Includes automation editor for timeline based editing and cue editor for event based editing.



Live application

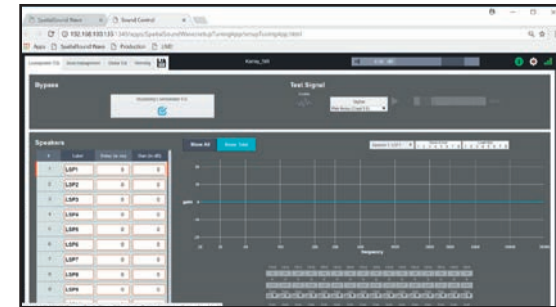
Optimised layout for live show applications. Includes larger production canvas, multi-metering and easy to access tools.



Room Simulation Pro application

Software application for interactive dynamic object based reverberation enhancement.

- Room acoustic parameter can be set per input source.
- Max. 16 RSM sources
- Predefined 3D room impulse responses.
- Independent setup of Direct, discrete, early and late reflections
- Use as InLine or non InLine system



Delay Gain Matrix

Different delay/gain routing matrices to optimise values when integrating with larger FOH systems and create dedicated reinforced matrices within the system.

Sound Adventures

UNRIVALLED IMMERSIVE 3D SOUND EXPERIENCE

Martin Audio Limited

Century Point

Halifax Road

Créssex Business Park

High Wycombe

Buckinghamshire

HP12 3SL

England

FOR SALES ENQUIRIES:

UK

Telephone: +44 (0)1494 535312

E-mail: info@martin-audio.com

NORTH AMERICA

Telephone: 818 649 7776

www.martin-audio.com

All information is Copyright © 2019 Martin Audio Ltd.

Martin Audio, the Martin Audio logo and Hybrid are registered trademarks of Martin Audio Ltd. in the United Kingdom, United States and other countries; all other Martin Audio trademarks are the property of Martin Audio Ltd.



Unite Your Audience
The Martin Audio Experience

Version 2.0