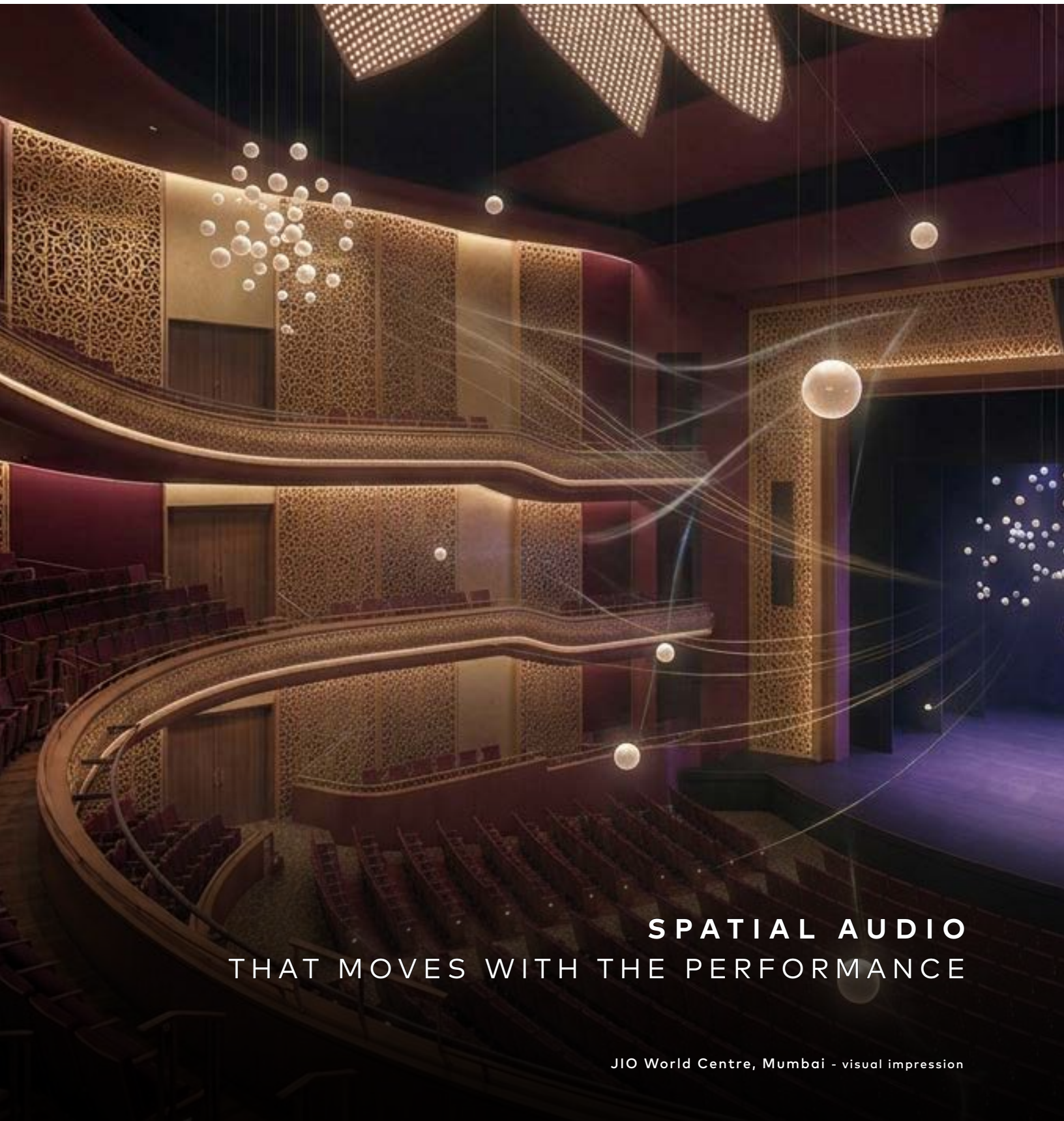




SPATIAL AUDIO
THAT MOVES WITH THE PERFORMANCE

ONE SPACE. SOUND IN MOTION

Spatial audio has become an essential part of how performances, installations and immersive experiences are designed.

SIAP Spatial turns audio sources into controllable spatial objects, positioning, moving and enhancing them in real time across the venue, with exceptional sound quality and an intuitive creative workflow.



Where sound becomes part of the space

A FLEXIBLE SPATIAL AUDIO ENVIRONMENT

Sound sources can be placed, moved and controlled in real time, creating direction, depth, motion and envelopment throughout the venue.

SIAP delivers exceptionally smooth, natural object movement, while Instant Sonic Immersion (ISI) can transform individual sources or groups into rich, expansive spatial experiences at the touch of a button.

From immersive playback to cue-based movement, live control and tracking integration, SIAP Spatial gives designers and operators the creative freedom to shape and transform sound - inspiring new ways to design and experience a performance.

HOW SIAP SPATIAL WORKS

At the core of SIAP Spatial is the AVA platform, which receives playback, live, console and networked audio signals, maps them to spatial objects or immersive playback paths, and renders the result across the loudspeaker system in real time.

Input

Playback, live sources, console stems and networked audio are prepared for spatial processing.



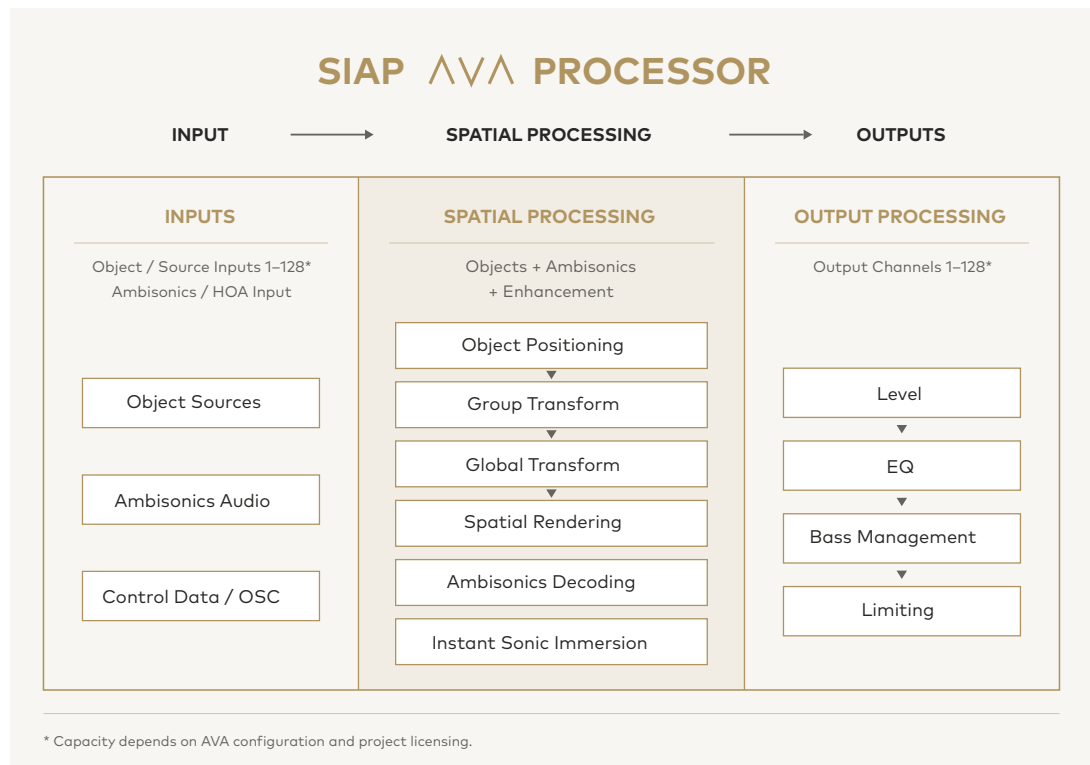
Spatial Processing

The AVA Processor positions, moves, enhances and renders sound sources within the spatial sound field.



Outputs

Spatially processed signals are optimised and distributed to the loudspeaker system.



AVA PLATFORM REFERENCE

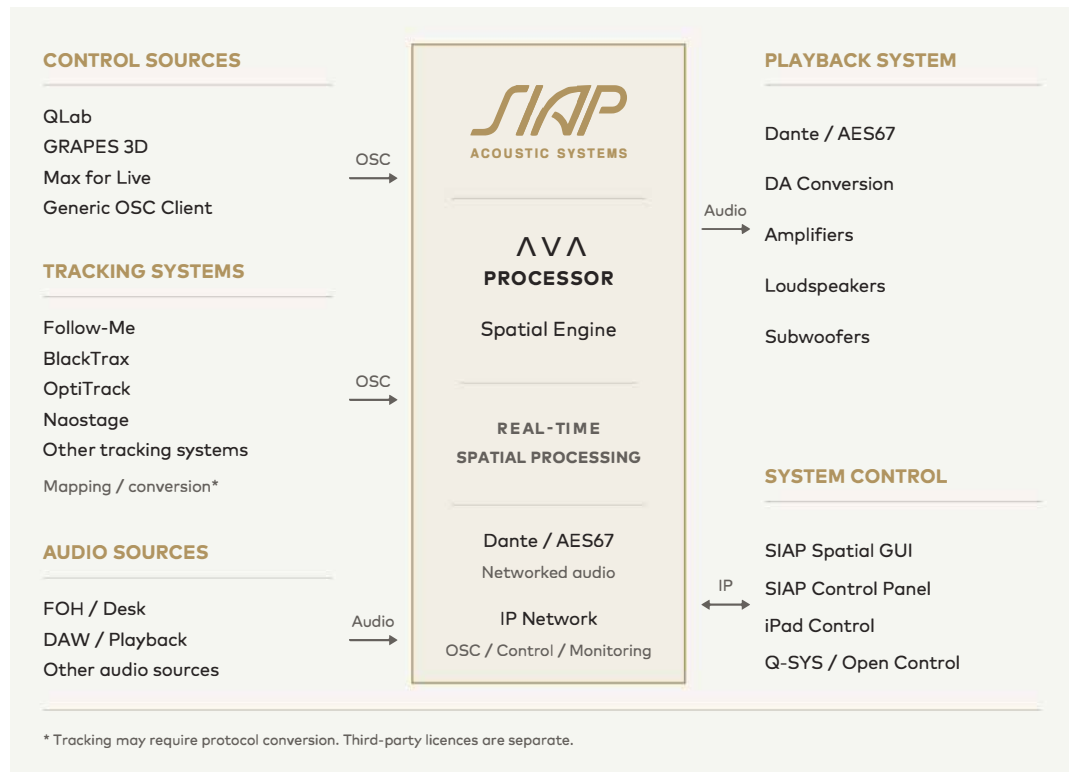
For AVA platform details, hardware configuration, system I/O, processor scaling and licensed spatial audio options, please refer to the separate AVA Platform documentation, including the relevant brochures and datasheets. This Spatial brochure should be read in conjunction with those documents.

SYSTEM INTEGRATION

SIAP Spatial integrates into professional audio and show-control environments through Dante / AES67 networked audio and IP network control via OSC.

The AVA Processor operates as the central spatial processing engine. Audio sources can be supplied from playback systems, DAWs, mixing consoles or other external sources via Dante / AES67 or analogue conversion. Object positions, movements and scene changes can be controlled from the SIAP Spatial GUI or from external systems via OSC.

This allows SIAP Spatial to work alongside cue-based show control, creative automation, performer tracking, central audio and show-control platforms. External control systems can be integrated via OSC, depending on the project workflow.



READY TO DEPLOY

SIAP Spatial is designed for straightforward deployment. System integrators can install and configure the AVA Processor as part of the wider audio system, without the need for dedicated SIAP tuning or on-site commissioning. Once the system is in place, creative and technical teams can use SIAP Spatial independently, supported by clear documentation, setup guidance and practical tutorials.

KEY BENEFITS

BENEFIT	DESCRIPTION
OBJECT-BASED SPATIAL CONTROL	Position, move and control individual sound sources in a three-dimensional venue model.
VENUE-GRADE AUDIO QUALITY	The SIAP Spatial engine delivers exceptional sound quality, with SIAP Wave Propagation ensuring smooth, stable and natural object movement in compact rooms, immersive spaces and large-scale venues.
INTUITIVE CREATIVE WORKFLOW	SIAP Spatial gives designers and operators clear visual control over objects, groups and spatial parameters, making immersive sound design fast, intuitive and accessible.
IMMERSIVE PLAYBACK	Combine object-based sources with Ambisonics / HOA playback for enveloping spatial sound fields.
REAL-TIME MOVEMENT	Create live, cue-based or externally controlled movement of voices, instruments and effects.
IMMERSIVE SIAP REVERB	SIAP's renowned reverb processing has been optimised for object-based spatial audio, adding exceptional depth, scale and sonic richness to immersive sound designs.
INSTANT SONIC IMMERSION	Use SIAP ISI to instantly create expansive spatial experiences, adding scale, movement and immersive impact through HALO and other creative spatial effects.
SPATIAL PANNING METHODS	Select the spatial panning method that best matches the source, loudspeaker layout and artistic intention, including DBAP, VBAP, EVBAP I, EVBAP II and SIAP Wave Propagation .
GROUP AND GLOBAL TRANSFORM	Move, rotate or scale complete object groups or global spatial layouts while preserving their internal relationships.
SHOW CONTROL INTEGRATION	Connect to external OSC-capable systems for cues, automation, creative control and tracking workflows.
UNIFIED AVA PLATFORM	Combine spatial audio and active acoustics within one coherent SIAP AVA architecture.

SERVICES & SUPPORT

SIAP supports system design, loudspeaker layout, spatial configuration, commissioning and project-specific integration where required.

WORKFLOW & INTEGRATION SUPPORT

SIAP can support the complete spatial workflow where required, from AVA configuration and object setup to control integration, loudspeaker layout advice, training and workshops. This helps venues, designers and integrators get started quickly, even when specialist spatial-audio knowledge is not available in-house.

CREATIVE SPATIAL CONTROL

SIAP Spatial gives designers direct visual control over sound objects, groups and spatial parameters, allowing sources to be positioned, moved and shaped in real time. By loading a venue model into the visualiser, users can design and review spatial layouts in direct relation to the actual performance space.

With the SIAP Instant Sonic Immersion (ISI) Suite, selected objects and groups can be transformed into expansive spatial experiences. Effects such as HALO Pulsar, HALO Nebular Glow and HALO Quasar help designers add scale, movement, atmosphere and immersive impact within minutes.

For advanced movement design, SIAP Spatial can integrate with external OSC-capable tools for trajectory automation, while the SIAP Spatial GUI remains the central environment for spatial control, processing and system overview.



SIAP Spatial Control GUI - 3D object-based spatial control

DESIGNED FOR CREATIVE WORKFLOW

SIAP Spatial combines visual object control, venue model visualisation and real-time spatial processing in one environment, helping designers move, shape and enhance sound quickly and intuitively.

SYSTEM CONFIGURATION

SIAP Spatial runs on the scalable SIAP AVA platform and is configured according to project scale, loudspeaker layout, audio I/O and required spatial processing capacity.

From compact immersive rooms and installations to large theatres, concert halls and advanced loudspeaker layouts, each SIAP Spatial system is specified to match the creative and technical requirements of the venue.

MODEL	AVA 3	AVA 5	AVA 7	AVA 9
TYPICAL APPLICATIONS	Studios, demo rooms, compact installations	Small venues, immersive rooms, rehearsal spaces	Medium venues, theatres, multipurpose halls	Large venues, concert halls, advanced spatial systems
SYSTEM SCALE	Compact	Small to medium	Medium to large	Large / Advanced
AUDIO OBJECTS	Up to 16*	Up to 32*	Up to 64*	Up to 128*
OUTPUT CHANNELS	Up to 24*	Up to 48*	Up to 64*	Up to 128*
HIGHER ORDER AMBISONICS	Up to 3rd order	Up to 6th order	Up to 7th order	Up to 7th order
ACTIVE ACOUSTICS	-	-	Supported, mode-switching	Simultaneous
SAMPLE RATE	Up to 96 kHz	Up to 192 kHz	Up to 192 kHz	Up to 192 kHz
REDUNDANT PROCESSOR	-	Optional	Optional	Optional

* Capacity depends on AVA configuration, sample rate, I/O format, processing scope and project-specific licensing.

PROJECT-SPECIFIC CONFIGURATION

Each SIAP Spatial system is configured around the required number of audio objects, spatial output channels, audio I/O, spatial processing capacity, control workflow and integration scope.

For projects requiring both SIAP Spatial Audio and SIAP Active Acoustics, the AVA platform can be configured accordingly. AVA 7 supports AAS and Spatial within the same platform with mode-switching between configurations, while AVA 9 is intended for advanced systems where AAS and Spatial may operate simultaneously.

External creative tools, DAW plug-ins, tracking systems and show-control platforms can be integrated where required. Third-party software and partner tools, such as GRAPES 3D, are licensed separately where applicable.

GET IN TOUCH

One Space. Sound in Motion.

Let's shape your spatial sound environment.

Part of the SIAP AVA Platform
Active Acoustics | **Spatial** | Virtual Acoustics



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