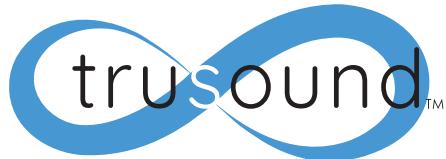


*sound as  
it's meant to be*



# Location Based 360 Immersive Audio Platform

Welcome to TruSound, a cutting-edge company at the forefront of 360-degree immersive sound technology. We are dedicated to revolutionizing audio experiences through innovative research, development, and manufacturing of state-of-the-art sound systems and equipment. Our team of passionate audio professionals combines years of expertise in music composition, production, and sound design with the latest technological advancements to create unparalleled auditory environments.

At TruSound, we're not just about technology - we're about transforming how people perceive and interact with sound. Our mission is to create hyper-realistic sound spaces that seamlessly blend artistic vision with technical excellence, providing creators with powerful new tools to express their ideas. Join us as we explore the future of audio and redefine the possibilities of immersive sound.

# ABOUT

## Stephen Thomas Cavit CEO



As Co-Founder and CEO of TruSound, Stephen brings a wealth of experience and accolades to the company. His impressive track record includes three Emmy Awards, a THEA Award, and an IAAPA Brass Ring Award, showcasing his expertise in audio production and innovation.

Stephen's talents have been further recognized through his participation as a two-time BMI Conducting Workshop fellow and a Sundance Composers Lab fellow, demonstrating his commitment to continuous learning and excellence in his craft.

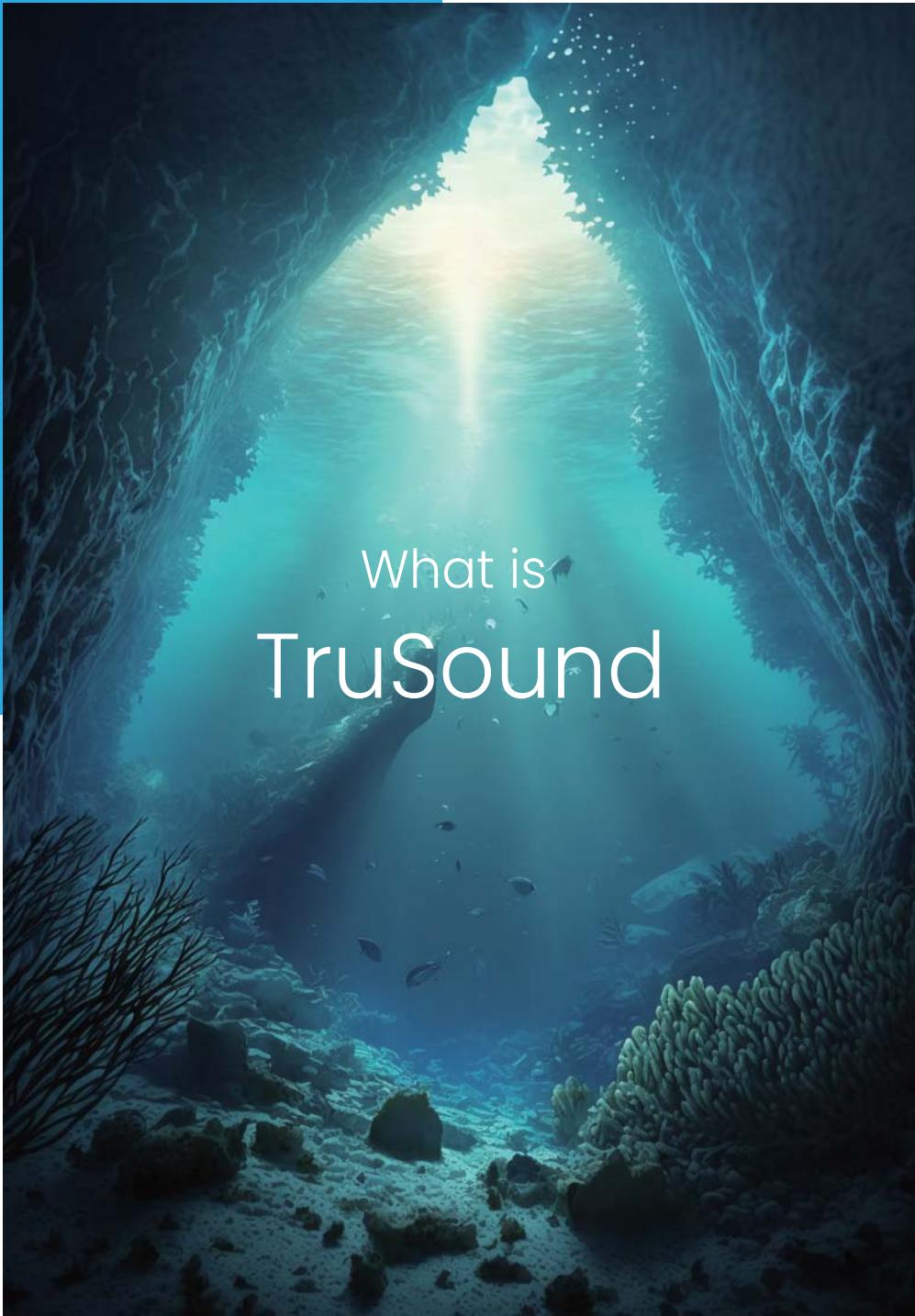
Stephen's years experiences in music industry let him to have the ability and sensitivity to combine artistic ideas and pioneer technology together, that's where TruSound started.



## Roger Hayler CTO

Roger is CTO and lead developer, brings a solid academic background with a Bachelor's degree in Electroacoustics from Salford University, UK. This specialized education forms the cornerstone of his expertise in audio technology and acoustics.

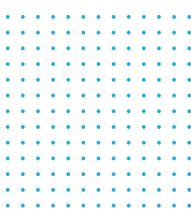
Roger's professional journey includes roles as a noise and vibration control consultant at ATP, UK, and involvement in studio design at Feldon Audio, UK. A key highlight of Roger's career is his work on China Giant Screen audio system R&D, showcasing his ability to develop cutting-edge solutions for large-scale immersive audio environments. This experience directly translates to his role in driving TruSound's technological advancements.



What is  
**TruSound**

## Immersive & Interactive Audio

TruSound is a state-of-the-art audio rendering system that delivers a true 3D immersive and interactive audio experience. It utilizes a sophisticated real-time engine to render the audio scene based on the location of objects and loudspeakers. With TruSound, you can create a high-definition sound field that accurately replicates the spatial characteristics of the audio content, making it feel as if you're right in the real world.



## Realistic Effects

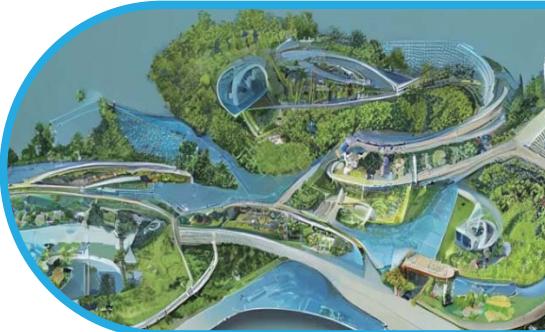
This cutting-edge technology goes beyond traditional stereo systems by delivering more realistic movement and positioning effects.

## Maximum Optimal Listening Area

TruSound focuses on optimizing the sound field for the maximum the best audience area, ensuring an exceptional experience for everyone, not just those sitting in the "sweet spot." It's like having a concert hall or a movie theater come to life in your own space.



# Where is TruSound



## Theme Parks and Attractions

TruSound's technology is ideal for creating captivating audio experiences in dark rides, flying theaters, and special movie theaters. Our systems enhance the immersion factor, transporting visitors into fantastical worlds through sound.

## Immersive Exhibitions

Museums and art installations benefit from TruSound's ability to create layered, interactive audio environments. This technology brings exhibits to life, offering visitors a more engaging and memorable experience.



## Entertainment Venues

From music bars and EDM clubs to live shows, TruSound elevates the audio experience. Our technology creates dynamic, enveloping soundscapes that intensify the energy and emotion of performances.

## Retail and Hospitality

TruSound can transform retail spaces and hospitality venues, creating immersive environments that enhance brand experiences and customer engagement. Our technology can be tailored to create unique ambiances that complement various settings.



# Key Features

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## 1. Object-based 3D Spatial Panning

TruSound utilizes advanced Spatial Panning in three dimensions, allowing for precise positioning of audio objects in space. This technology ensures smooth transitions and realistic movement of sound sources.

## 2. Unique Decorrelation Algorithms

TruSound's proprietary decorrelation algorithm minimizes interference between loudspeakers, ensuring clarity and definition in complex sound environments. This feature is crucial for maintaining the integrity of the sound field across multiple speakers.

## 3. Psychoacoustic DSP Processing

By incorporating cutting-edge psychoacoustic principles, TruSound's DSP processing generates a truly immersive 360-degree sound field. This approach takes into account how the human brain perceives sound, resulting in a more natural and enveloping audio experience.

## 4. Pan-Split Function

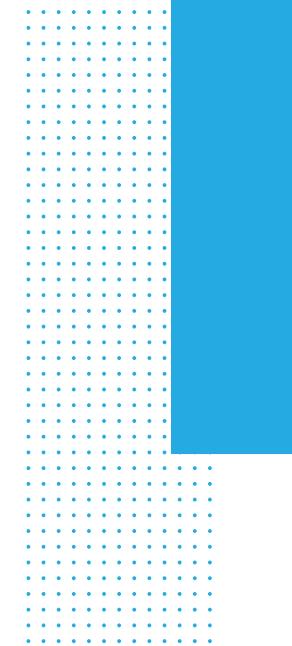
The innovative Pan-Split function allows for even more precise object positioning, giving sound designers granular control over the placement of audio elements within the 3D space. This feature is particularly useful for creating highly detailed and accurate soundscapes.

## 5. Interactive Audio Experience

TruSound can synchronize with tracking systems using the OSC protocol, achieving 3D spatial positioning through the tracking system. It can be easily configured to align with the coordinate axes of the tracking system.



# Key Features



## 6. Self-Healing Function

TruSound incorporates a robust self-healing function that ensures continuous operation even in the event of hardware failures. This feature automatically redistributes audio signals to functioning speakers, maintaining the integrity of the sound field and minimizing disruptions to the listener experience.

## 7. Independent Filing Function

With TruSound's unique independent filing function, a single audio production can be easily adapted to different venues. This versatility allows creators to design once and deploy across multiple locations, saving time and resources while ensuring consistent quality across various installations.

## 8. Customizable Interface and Configuration

TruSound offers highly customizable plan views and loudspeaker configurations, allowing for tailored setups that match the specific requirements of each venue. This flexibility ensures optimal performance regardless of the physical space or acoustic challenges present.

## 9. Binaural Monitoring with HRTF Selection

The system includes a sophisticated binaural monitor generator with selectable Head-Related Transfer Functions (HRTF). This feature allows sound designers to accurately preview the 3D audio experience through headphones, facilitating precise adjustments and quality control during the production process.



## Hardware



TruSound Client

Remote Version\*



TruSound Server

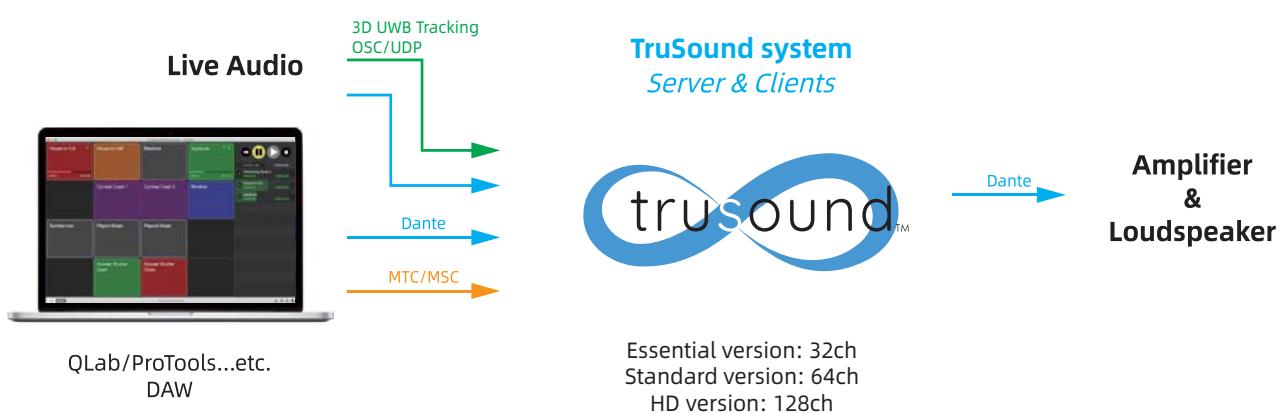
Essential version: 32 x 32  
Standard version: 64 x 64  
HD version: 64 x 128



TruSound Client

Rack Version\*

## System Connection



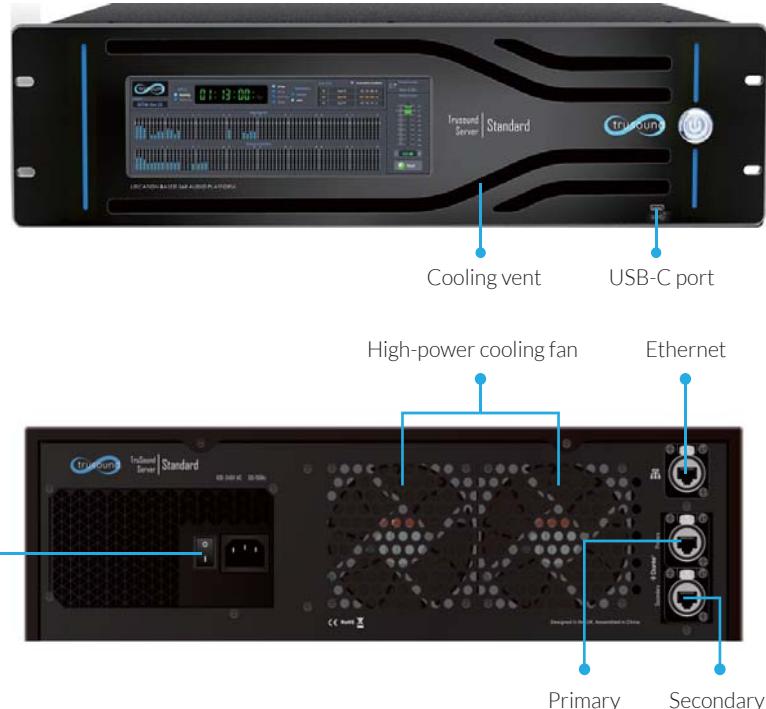
# Server Processing Host

## Audio DSP Engine

- 3D-VBA Panning Processing
- Speaker System Bass Management Processing
- Real-Time Renderer

## Automation Engine

- Snapshots and Cues
- MTC, MSC, OSC, UDP Interfacing
- Live XYZ Tracking Interfacing



\* The image above shows the Standard and HD versions, where the Essential version shares the same interface for Dante and Ethernet.

# Client

## Control Software



- Application used to configure the TruSound server and program performances
- Customized Venue, Object and Speaker configuration
- Snapshot and Cue to maximize automation function

Modular software design for extensible future audio processing and control features.

# Server Specifications

TruSound Essential		TruSound Standard	TruSound HD
Input Channel	32	64	64
Output Channel	32	64	128
Sample Rate	48 kHz	48 kHz	48 kHz
Bit Rate	24 bit	24 bit	24 bit
Touch Screen	7.9 inch IPS Touch Screen, 400 x 1280 pixel	7.9 inch IPS Touch Screen, 400 x 1280 pixel	7.9 inch IPS Touch Screen, 400 x 1280 pixel
Digital Signal Format	Dante / AES67	Dante / AES67	Dante / AES67
3rd Party Control	MTC / MSC / OSC / UDP via Ethernet port	MTC / MSC / OSC / UDP via Ethernet port	MTC / MSC / OSC / UDP via Ethernet port
CPU	Intel® Core™ i7	Intel® Core™ i9	Intel® Core™ i9
RAM	16 GB	32 GB	32 GB
Internal Storage	500 GB SSD	500 GB SSD	500 GB SSD
DSP Processing Latency	1.48 ms	1.48 ms	1.48 ms
System Latency	14.8 ms	1.48 ms	1.48 ms
Connectors	1 USB-C port, 1 Ethernet port	1 USB-C port, 3 Ethernet port	1 USB-C port, 3 Ethernet port
Electrical	100~240V, 50~60 Hz, 10A Current, Auto- Switching	100~240V, 50~60 Hz, 10A Current, Auto- Switching	100~240V, 50~60 Hz, 10A Current, Auto- Switching
Rated Power	550W	550W	550W
Rack Spaces	19" Rack Mount, 3U	19" Rack Mount, 3U	19" Rack Mount, 4U
Net Dimensions (HxWxD)	129 x 483 x 388 mm (5" x 19" x 15")	129 x 483 x 388 mm (5" x 19" x 15")	176 x 483 x 388 mm (7" x 19" x 15")
Packing Dimensions (HxWxD)	210 x 555 x 545 mm (8.3" x 22" x 21.5")	210 x 555 x 545 mm (8.3" x 22" x 21.5")	256 x 555 x 545 mm (10" x 22" x 21.5")
Net Weight	11.2 kg (24.7 lb)	11.2 kg (24.7 lb)	13.5 kg (29.8 lb)
Packing Weight	13.5 kg (29.8 lb)	13.5 kg (29.8 lb)	16 kg (35.3 lb)

## TruSound Features

### Immersive sound rendering algorithm

Object-based 3D-VBA Panning System  
Immersive and interactive audio real-time renderer engine  
Psychoacoustic Based DSP Processing to generate a 360 immersive sound field  
Unique decorrelation algorithm between adjacent loudspeakers  
Pan-Split Function  
Based on object and loudspeaker location  
Upmix and Downmix Function  
Self-healing Function  
Independent Filing Function

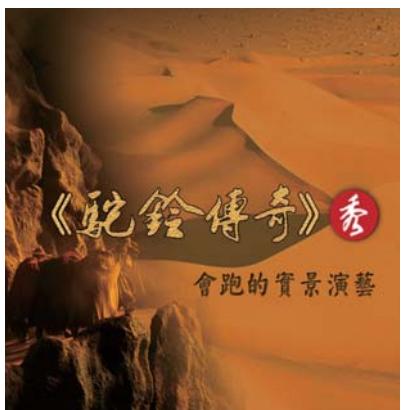
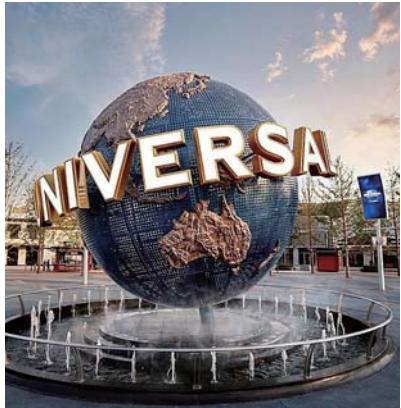
Binaural Monitor generator with choose-able HRTF  
MTC / MSC / OSC / UDP Control protocol  
Live XYZ Tracking Interfacing  
Bass Management processing  
Loudspeaker setting: level, mute, selectable size for bass management  
Object setting: level, solo, mute, mute group  
Up to 1000 Snapshots  
Non-limitation CUE list

### 3D Modelling

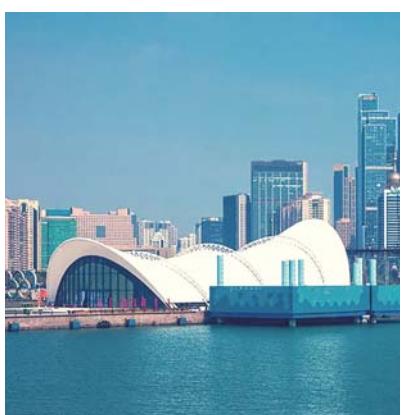
Customized plan view and loudspeaker configuration  
Quad 3D views  
Room Shape: Cuboid, Cylinder, Floor Plan  
User definable loudspeaker: name, type, position, rotation  
User definable object: name, color, position

# CASE

## Sharing



Universal Beijing Resort	Shanghai Science and Technology Museum	
The Camel Bell Legend		Unique Dream of Red Mansion
Qingdao Olympic Sailing Center	CCTV Competition	Cartier, the Power of Magic



# Immerse Yourself in Sound



[www.trusound360.com](http://www.trusound360.com)