



## Newsletter Summer 2002

Check out the latest from AuSIM Inc, leading provider of audio simulation solutions for mission-critical applications of communications, simulation, and aural information display since 1998.

News Topics:

- SIGGRAPH 2002**
- COTS Journal**
- US Navy Display Day**
- NSWC Dahlgren's ICE Lab**
- Joining "The Coop"**
- Satellite Studios**
- NASA, NPS**

GoldServe Product Updates:

- RollingNugget™**
- Multi-Voice Presence (MVP) Series**
- Communication Systems**
- New ChannelManager**
- New Ultra-Low Latency Options**
- More Spatialization Capability**

AuSIM3D™ Updates:

- AuSIM3D™ Kernel Monitor**
- Multiple Listener Environment**
- Model Plug-in Option (Source, Environment, Listener, Display)**
- Event Lists (Timing Sync Up!)**
- MIDI Support**

HeadZap™ Feature Additions:

- High Resolution Map Insert**
- New AuProbe™ Loudspeaker**
- 96kHz Option**
- Multi-Speaker Option**
- Head-Tracking Option**
- Portable Option**

AuTrak™ Latest Features:

- InterSense IC2 & IT2 Support**
- Filter Plug-in**
- Sampler**

Special thanks to our partners.

## *In the news ...*

- SIGGRAPH '02:
  -  AuSIM3D™, integrated with technologies from partners InterSense, iMove, and Olympus, demonstrates the application of 3D audio in communications for dismounted soldiers.
  -  AuSIM partners with Polhemus and Kaiser Electro-Optics to demonstrate NASA scientific applications of 3D audio for space station design and airport planning.
- Featured in the March and April issues of COTS Journal. Relieving soldier information overload and increasing situational awareness by displaying information and communications aurally with AuSIM3D™.
- Invited in March to participate in US Navy Display Day event in Washington, DC. As interest in utilizing 3D audio for Navy communications rises, the Navy solicits AuSIM to show off its proven technology for wider industry adoption.
- Completed communication system installation in the US Navy's ICE Lab, at NSWC in Dahlgren, VA. New, ultra-low latency Multi-Voice Presence system is the showcase for advanced 21<sup>st</sup> century communications. Upgrade in Summer '02 includes new head-tracking devices for dynamic-perspective 3D audio; improving overall spatial perception and tuning. Contact us about visiting.
- Since relocating AuSIM's engineering, manufacturing, marketing, and sales groups in January and joining "The Coop," a business incubator headed by Fakespace Labs, AuSIM has taken advantage of expanded manufacturing facilities, business development services, and shared human resources, accounting, and operations efforts. We thank Fakespace Labs for inviting us to become part of the establishment as the new facility and services have proved invaluable to AuSIM.
- AuSIM Satellite Studios celebrates its one-year anniversary. Over the past year, the studio has been ramping up with work that includes custom HRTF measurements, audio recording and post-production, sound design, and voice-prompt recordings.
- AuSIM has developed close working relationships with researchers at NASA Langley and Ames as well as at the US Naval Post Graduate School (NPS), resulting in significant new extensions to AuSIM's products.

## *In the industry ...*

As AuSIM establishes itself as the leading provider of audio simulation solutions, we recognize our invaluable relationships with other leaders in the industry and send out thanks to our partners.

### Manufacturing Partners:

*Anova Microsystems*  
*Frontier Designs*  
*Hosa*  
*RME Audio*  
*Sennheiser*

Feel free to contact us for more information or for opportunities to partner or invest.

Send email to: [info@ausim3d.com](mailto:info@ausim3d.com)

Call us at: (650) 32-AUSIM

### Strategic Marketing Partners

*FakeSpace Labs*  
*io-Displays*  
*iMove*  
*InterSense*  
*Kaiser Electro-Optics*  
*Polhemus*

## *In the technology ...*

### **GoldServe Product Updates:**

- AuSIM introduces the RollingNugget™ to its product line. A portable, laptop form-factor, GoldServe™ alternative with capabilities that range between the ReCREate™ and the popular GoldMiner™ system. This system allows you to hit the road without leaving behind the 3D audio!
- Multi-Voice Presence (MVP) Series Communication Systems for the research lab or field deployment. These systems allow operators to monitor multiple incoming voices/circuits/channels simultaneously with full 3D audio spatialization for perceptual separation of voices. MVP improves intelligibility, information transmission bandwidth, and overall situational awareness.
- The latest ChannelManager provides interactive selection of devices and a graphic monitor of all inputs and outputs.
- AuSIM drops latency on spatialization for GoldMiner™ and RollingNugget™ platforms. Optimizations decrease total system latency on live inputs from 98 msec to 6 msec! US Navy takes advantage of the improvement for spatialization of sideband and communicating without hearing noticeable delay. Call us about upgrading your old system.
- Improved GoldMiner™ performance is now rendering 120 simultaneous sound sources on the base system. Upgraded systems can now be delivered providing over 400 localized sound sources. Such systems are useful for acoustic simulations, complex scenes, acoustic analysis, and planar radiator simulations.

### **New AuTrak™ Features:**

- AuTrak™ now supports InterSense's host engine and thus the very popular InertiaCube2 and InterTrax2 orientation trackers.
- AuAST™ Filter Plug-in now supports Kalman, non-linear warp correction, transformation, and scaling filters.
- AuAST™ Sampler allows tracker sampling-to-file and graphic visualization for any output. The sampler provides a means to sample a warp-correction database for de-warping spaces for electro-magnetic tracking.

### **AuSIM3D™ Updates:**

- The new AuSIM3D™ graphical Kernel Monitor details events and the state of the spatialization engine and serves as an invaluable tool for debugging application development.
- Multiple Listeners within a single environment are now supported and fully tested by US Naval Post Graduate School Researchers.
- Aural Simulation Model Plug-in architecture is now exposed and developers can implant their own models for source, environment, listener, and display.
- Implementation of EventLists for on-board timed-sequencing of spatialization control. EventLists aid in precisely controlling simulation events.
- MIDI thru is now supported. This feature of legacy CRE systems is once again providing a convenient means of controlling MIDI equipment from a client application.

### **New HeadZap™ Features:**

- HeadZap™ now supports High-Density Map Inserts, allowing dense measurement of an area of interest within a complete Acoustic Head Map.
- The new AuProbe™ Loudspeaker delivers uncompromised, flat and linear performance from 200Hz, with a far-field distance of only 60 cm.
- 96 kHz Option – AuProbe™ and HeadZap™ can now be upgraded to 96 kHz, 24-bit sampling.
- AuProbe™ and HeadZap™ now support Multi-Speaker set-ups, up to 32 loudspeakers. The completely calibrated and equalized system provides much quicker subject measurement.
- Real-time subject Head-Tracking during HRTF measurement signals error on subject movement, aids in subject positioning, provides actual measurement orientation, and allows for data correction.
- Coupled with the RollingNugget™, HeadZap™ becomes a portable, airline carry-on system with setup on the road in less than 1 hour.