

Barco AudioCue

Real-time 3D audio for simulation and training systems



- Independent of speaker setup
- Audio cues are always aligned with visual cues
- Compatible with any IG system and simulation network
- Expandable with live input on-site
- Proven technology - ready for training

Barco AudioCue helps elevate the complete sensory experience of trainees by taking them beyond their visual cues, enabling them to process sound as it is meant to be heard.

The high quality and precise audio cues allow the trainees to pinpoint objects and occurrences before they are within visual range, greatly contributing to faster decision-making and a trained, educated reaction pattern when a situation is at its most critical state. The result is a system that increases the awareness and effectiveness of training, better answering the needs of a wide variety of training and simulation markets, including ground training (rescue, security, direct combat, ...), urban, JTAC, and healthcare.

3D sound: a new layer in training

In training and simulation, an engaging and true-to-life scenario is key to guarantee fast reactions when training for a mission. Up to now, the market has however neglected the benefit of high quality, real life sound in simulated trainings. Still, the trend to move as many training situations to simulators is now demanding additional layers of immersion to fully prepare trainees. Adding true-to-life audio cues highly adds to the realistic feeling of the simulation system. Combined with great visuals, this highly improves the impact of the training.

Real life audio in real-time

Barco AudioCue uses the patented IOSONO CORE processing system, a unique solution providing the most advanced real-time rendering of sound in the simulation market. The sound is therefore always coming from the exact location where the object should be relative to the trainee's position.

The system is scalable, adapting to the highest demands. The AudioCue processor drives flexible speaker arrangements from 9 to 128 channels, customized to any room, shape or other constraints. What's more, there is no 'sweet spot' in the system for sound, eliminating the risk of negative training. Barco's immersive audio solution includes hardware and software processing capabilities that seamlessly integrate into any existing content or IG setup.

PRODUCT SPECIFICATIONS**BARCO AUDIOCUE**

Housing	19 in. / 4RU
Processor	Intel(R) Core(TM) i7 Hex core processor 3.3GHz (3.6GHz max. Turbo frequency)
Memory	16 GB RAM
Hard disk	128 GB SSD
Power supply	Voltage / Frequency range: 100-240 VAC / 50-60 Hz
Remote control	Control unit provides control of all functionality which is accessible through a VNC client over a standard TCP/IP network connection. Static IP and DHCP possible.
Connectors	<ul style="list-style-type: none">■ USB: 2 x USB 2.0, Type A■ Ethernet ports: 1 x Gigabit ethernet, RJ45 (Remote control) / 1 x Gigabit ethernet, RJ45 (Extension)■ Wordclock input / output: 1 x BNC 75 ohm / 1 x BNC 75 ohm■ Video sync input: 1 x BNC 75 ohm■ Linear timecode (LTC) input: 1 x BNC ohm
Audio connectors	<ul style="list-style-type: none">■ MADI optical input / output: 1 x SC per 64 channels / 1 x SC per 64 channels■ MADI electrical input / output: 1 x BNC 75 ohm per 64 channels / 1 x BNC 75 ohm per 64 channels■ AES/EBU input / output: 1 x Sub-D (DB-25F with UNC 4-40) per 8 mono input / output channels
Standard software	<ul style="list-style-type: none">■ 3D Immersive Audio Rendering. Speaker setups with multiple layers and dome shapes supported. Rendering of 256 audio objects simultaneously to all available audio outputs with up to 24 bit / 48 kHz. 96kHz processing supported for high resolution audio. Frame accurate synchronization via audio input, wordclock input and video input or timecode■ Audiokinetic's Wwise synthesis engine integrated■ VT-MAK's VR-Link simulation connection gateway integrated
Software options	<ul style="list-style-type: none">■ Simlink: R/T Interactive (simulation) audio modelling and synthesis. Interoperable with DIS and HLA standard compliant simulation networks■ Real-time listener tracking for soundfield optimization for head mounted display applications or listener tracking■ Scene player for easy playout and layering of preconfigured scenes■ Output manager supporting 128 output channels in a matrix configuration■ System tuning: acoustical tuning and sound improvement of an IOSONO system based on multiple microphone measurements and individual FIR filters for every loudspeaker■ Optional: Render+ real-time processing of 5.1 and 7.1 audio inputs for enhanced spatial distribution of audio scenery
Hardware configurations	All configurations with redundant power supply R963841008 ACS-410 AudioCue Sim RT 1x MADI with 64 input / output mono channels Simlink and VR-Link simulation interface R963841009 ACC-410 AudioCue Core* configurable Possible configurations: 1x MADI with 64 input / output mono channels 2x MADI with 128 input / output mono channels 2x AES with 32 input / output mono channels Optional TCO module for all configurations *No simulation interface
Dimensions (W x H x D)	485 x 178 x 615 mm / 19 x 7 x 24.2 inches
Weight	14 kg / 30.8 lbs
Certifications	CE, KC, CCC, UL, RCM

Last updated: 24 Feb 2021

Technical specifications are subject to change without prior notice. Please check www.barco.com for the latest information.