# audioarchitect"



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The original HiQnet vision of 2005 was to create a common control platform for all devices from microphone to speaker. Ten years later, the tally of devices in the HiQnet family exceeds 150 – from wireless microphone systems, mixing consoles and signal processors, to amplifiers and powered loudspeakers. Several HiQnet software applications exist to provide true system configuration and control, each with feature sets tailored for the specific system application or scenario.

The brand new HiQnet Audio Architect<sup>™</sup> audio system design and configuration software application retains the revolutionary system design philosophy centered on operational workflow first introduced in HiQnet System Architect<sup>™</sup>, and the use of a diagrammatic representation of the installed or live sound venue. Devices understand both their physical and logical placement - in racks, arrays and rooms - and the software therefore becomes 'educated' about how they are to be used in the real-world. Audio Architect can then begin automating many of the laborious system design tasks for free. Control interfaces for control and monitoring of all manner of groups of devices are generated automatically, for example.

In creating Audio Architect, Harman has also incorporated the BSS Audio Soundweb London DSP system backbone within the core functionality of System Architect – combining the power of our proven open-architecture platform with AKG wireless microphones, dbx and Lexicon fixed-architecture processors, Crown amplifiers and JBL powered loudspeakers.



HiQnet Audio Architect now replaces HiQnet System Architect as Harman's primary installed sound system configuration and control software application. Although modeled on System Architect operation, it is so much more than System Architect version 4, that it demanded a new identity all to itself. HiQnet Audio Architect thereby marks a major milestone in the lifecycle of our ongoing HiQnet software initiative.

It features the widest range of audio devices and audio network transports at your disposal in any single audio system design software interface available today. By bringing together the two worlds of HiQnet System Architect and Soundweb London to create HiQnet Audio Architect, we have created the next stage in the evolution of audio system design software.

## **OPEN-**ARCHITECTURE



One of the fundamental building blocks of the Audio Architect system is the power and flexibility of the distributed DSP network backbone of BSS Audio's Soundweb<sup>™</sup> family. Launching a Soundweb device from the main workspace transforms the entire interface into an openarchitecture design world. The familiar processing objects can be added to individual devices, and the signal path created with virtual wires.

Considerable care has been taken in implementing Soundweb configuration and control. The transition from HiQnet London Architect<sup>™</sup> software has been made as simple as possible, while incorporating the new open-architecture paradigm into the Audio Architect workflow and system design.

Previous users of London Architect will notice that when a Soundweb device is launched from the main Audio Architect workspace, the open-architecture design environment is almost identical. Dedicated workspace modes for configuration of audio processing, logic processing and control port configuration are all directly accessible from the Soundweb London Ribbon tab.

#### THE BSS AUDIO SOUNDWEB FAMILY



Soundweb Contrio Wall Controllers

### NETWORK SIMPLICITY

Audio Architect includes the capability to route a wide variety of digital audio network protocols from and to compatible devices system-wide over an Ethernet network with AVB, Cirrus Logic CobraNet<sup>®</sup> and Audinate Dante<sup>™</sup>. Creating added audio routing flexibility within a HiQnet system design, Audio Architect can also be used to route audio amongst devices on a BLU link ring – Harman's proprietary low-latency, high-channel capacity digital audio bus. This versatility makes audio routing within a HiQnet system as easy as A, B, C, D. It is now possible to move from one networked audio transport to another and stay on the same control platform without needing to learn multiple software applications.



#### AVB

AVB, or Audio / Video Bridging, is the name for a set of IEEE standards to ensure high quality audio and video streaming over Ethernet. What sets AVB apart from other Ethernet audio transports is that the network switches themselves ensure that audio data is given complete priority over any other data on the network. What this means in practice is that without any complex network management, audio is guaranteed to arrive at the destination device with no interruption even possible. Running over a Gigabit network, AVB naturally claims a very low latency and a high audio channel count. Crown DCi ND amplifiers support the AVB protocol.

Harman is a founder member of the AVnu Alliance - an organization dedicated to ensuring AVB compatibility across the audio and video industries in the professional, consumerandautomotivemarkets. The increasing number of its member manufacturers are working together to make AVB fulfill its promise of becoming a unifying audio and video transport. More information on the AVnu Alliance can be found at www. AVnu.org.



#### HARMAN BLU LINK

While Ethernet-based audio transports lend themselves well to site-wide audio networking, Harman BLU link provides an unprecedented level of audio routing flexibility to today's system topologies. A complementary high-bandwidth low-latency digital audio bus, BLU link is capable of routing 256 channels of audio directly from device to device within a local rack, or even within an entire rack room.



The fault-tolerant BLU link bus is currently compatible with the majority of Soundweb London devices and Crown DCi N Series amplifiers. BLU link offers a distance of 100m between devices over standard CAT5e cable, and the BSS Audio MC-1 fiber optic media converter can be used to increase the distance between devices to over 10km (6.2 miles) using single mode fiber.

#### CIRRUS LOGIC COBRANET®

CobraNet technology, from Cirrus Logic, has long been the pro audio industry's adopted audio networking solution. Many HiQnet devices are CobraNet compatible and Audio Architect is capable of routing audio between them. CobraNet is based on 100Mb Ethernet, so channel counts are limited in comparison with AVB and Dante. Larger systems will often require managed switch configuration.







#### AUDINATE DANTE™

Dante is a proprietary audio networking technology from Audinate and employs standard Internet Protocols over 100Mb and / or Gigabit Ethernet. Channel counts can be high over Gigabit Ethernet,

although switch management is required for most Dante systems. The Soundweb London BLU-806 and BLU-326 bring Dante capability to the Soundweb London family.

### FLEXIBLE CONTROL

#### FULL SCREEN MODE

Full Screen Mode makes HiQnet Audio Architect truly unique and especially valuable for efficient operation by automatically utilizing the exact same design environment, optimized for touch screen control and system monitoring operations. Full Screen Mode is configured within the standard Audio Architect application and can be run from the startup directory to turn Audio Architect into a dedicated control application. Access Control setup is honored so multiple user logins are possible. Full Screen Mode simplifies operation and reduces repetitive tasks by reusing the very same venue workspace that was used for system configuration, saving design time and reducing design complexity.

Full Screen Mode can also incorporate customized interfaces created with Audio Architect's built-in Custom Panel designer.





#### **CUSTOM PANELS**

Although much of the system control interface creation is automated by Audio Architect, the application still includeas a comprehensive Custom Panel design environment for the creation of application-specific control panels. The dedicated mode lays out just the tools you need for the purpose, optimizing the design process and automatically filttering out unnecessary information.

Controls include faders, rotaries, buttons, LEDs, meters, EQ and dynamics graphs, text input and display, images, customizable regions and simple drawing tools - each of which can be fully graphically and operationally customized.

## motion control "

HiQnet Motion Control<sup>™</sup> is an Apple iOS app which enables customized control interfaces designed in Audio Architect to be exported to iPad, iPhone and iPod Touch devices for mobile system control. Dedicated design templates are available within Audio Architect for the configuration of customized interfaces, which can be used to control devices from AKG, BSS Audio, Crown, dbx and JBL.

Any number of control panels designed within the Audio Architect custom panel designer can be loaded onto an iOS device directly from the Audio Architect interface, without the need to connect to Apple iTunes. Navigation between the panels couldn't be easier - either by the use of swiping gestures or from an automatically-generated bar at the bottom of the iOS display.





Motion Control is the perfect tool for system-specific, day-to-day control, as well as a tool for commissioning engineers to walk the venue with control literally at their fingertips.

HiQnet Motion Control is available from the Apple App Store and will also function with HiQnet System Architect. AKG

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