

L-Acoustics' L-ISA Immersive Technology Ensures That The New SPYSCAPE Espionage Museum Doesn't Stay A Secret



SPYSCAPE's Surveillance Challenge room is home to a highly immersive 38.1 L-ISA system from L-Acoustics (photo credit: Scott Frances)

EW YORK CITY – July 2018 — SPYSCAPE, the contemporary and interactive museum dedicated to espionage that opened in Manhattan earlier this year, shows the many facets of the spy-vs-spy game. In doing so, it also reveals how L-Acoustics' L-ISA Immersive Hyperreal Sound technology makes the fantastic believable. Deployed across two main rooms of the 60,000 square-foot Midtown venue, the museum's L-ISA complement comprises five dozen L-Acoustics enclosures of various models into two multi-channel setups (38.1 in one of them!) that completely immerse large groups of visitors in an experiential espionage adventure, maximizing storytelling and engagement.

Working closely with SPYSCAPE Creative Director Ross Phillips, London-based Audio Director Nick Ryan and Technical Sound Designer/Immersive Mixing Engineer Davey Williamson were responsible for the sound design experience the museum would present to its audience.

"We wanted to create a complex, captivating custom speaker deployment that enhanced the space and had almost limitless potential for immersive audio delivery to the audience," Williamson explains. "We designed the system from the ground up, working closely with Adjaye Associates, to ensure both of our concepts for audio and architecture complimented each other and worked in unison."



SPYSCAPE Audio Director Nick Ryan (left) and Technical Sound Designer/Immersive Mixing Engineer Davey Williamson (right) integrating the Briefing Lift's AV system

Upon entering SPYSCAPE, guests step into one of the world's largest elevators and view a 270-degree sound-and-video "briefing" with audio in full surround as well as overhead. A narrator speaks, the voice cosseted by three-dimensional atmospheric pads and music beds, accented with computer sounds and textures that complement the visuals.

The 19.1 L-ISA Hyperreal Immersive Sound configuration is comprised of three coaxial X12 speakers and three smaller 5XT on each side; left and right rear channels each use a pair of 5XT; the overhead "elevated" audio uses six 5XT speakers; and the system is anchored by a single SB18 subwoofer. Each of the 20 channels has its own amplifier channel through five LA4X amplified controllers. The systems were integrated by Swansea, Wales-based Atlas AV with local support from Certified Provider Firehouse Systems. The museum is located only a few blocks away from L-Acoustics' NYC office, a convenient location for Application Engineer Jesse Stevens to provide additional on-site system support.

The film and music/sound design for the Briefing Lift were created by Territory Studios and synced via both Logic Pro X and Avid ProTools to gain the 300-plus discrete tracks that were required. A DiGiGrid MGB was to transport 64 channels of MADI as sources into a Pyramix system with a Merging Technologies HAPI audio interface.

"We first created a mock-up of this at Nick Ryan's studio, based in London's Somerset House," explains Williamson, "a process that took place over a week. But being able to compose music, create sound design, and then mix, spatialize and use dynamic object movement through the L-ISA system in 3D was an immense advantage.

"We used Pyramix's automation workflow with the L-ISA VST plug-in on 64 tracks to control the L-ISA Processor," continues Williamson. "We sent MIDI clock to both Pyramix and L-ISA controller from Logic so snapshots in the controller session were available and to keep Pyramix in sync. With so much of the visual content represented with sound design, we had a huge task to spatialize the environment with the audio soundtrack."

Williamson says L-ISA's ability to let them precisely position each speaker and then apply object-based mixing over 300 channels of audio across this complex soundscape creates an astounding level of immersiveness. "We used a mixture of static placement and dynamic movement in our mixing palette, which came to great effect with the film's immersive three-sided screen layout," he explains. Pyramix worked perfectly in tandem with the L-ISA

controller, as the detailed yet efficient automation workflow was able to modify the locations of the sources in the L-ISA controller as required.



The exterior of SPYSCAPE's Surveillance Challenge room (photo credit: Scott Frances)

SPYSCAPE's second L-ISA room continues this effect on an even larger scale. The Surveillance Challenge 360-degree room is arguably the show piece of the museum: a large, cylindrical space, around 50 feet diameter and 26 feet in height, and the gallery tells the story of surveillance. Here, 38 speakers and a pair of subwoofers create a 38.1 system. The system comprises three rings of ten 5XT speakers each: one at floor level, one at the mid-wall height, and one at ceiling level. Eight more 5XT are deployed in a smaller ring on the ceiling pointed at visitor head height. Two SB18 subs placed in the center of the ceiling facing down provide low frequency coverage throughout the room. Ten LA4X amplified controllers power all elements across 40 discrete amplification channels.

"Sherif El Barbari at L-ISA Labs, as well as the rest of the L-Acoustics team—including Guillaume, Florent, Cédric and Sylvain—were such a huge help in being able to pull this whole project off. The sound may be 'undercover' as far as the general public is aware, but it's a mission-critical component to SPYSCAPE's complete success."

About SPYSCAPE

SPYSCAPE is an exciting new education and entertainment company that inspires ordinary people to do extraordinary things – using spy stories to see the world more clearly and an exploration of your own skills and identity to discover your inner spy. SPYSCAPE was developed by experts in design, experience, museums and storytelling, with help from a former Head of Training at British Intelligence – former employer of Ian Fleming and his most famous character, James Bond.

SPYSCAPE opened an iconic museum & experience in New York City in early 2018. Located two blocks from MoMA, it has quickly become one of the city's most popular venues – it features three parts: (i) a contemporary museum of great spy stories and artifacts, including an original German Enigma machine, Edward Snowden's BEAM robot and the Stuxnet cyber-weapon which attacked the Iranian Nuclear centrifuges; (ii) immersive, hands-on, experiences from code-making and code-breaking to Special Ops laser tunnels, from a 360 degree Surveillance mission to high-tech lie-detection booths; (iii) your individual spy profile evaluation (created by a former Head of Training at British Intelligence and leading psychologists) which tells you which of ten archetypal spy roles you're best suited to.

The architect of the museum was Sir David Adjaye, architect of the National Museum of African American History & Culture in Washington DC and the Nobel Peace Centre in Oslo. In addition to the main exhibition

galleries, the museum also features temporary exhibition galleries, the world's finest Spy Bookshop, a comprehensive Spy Gift Shop, multiple Event Spaces and a Café & Bar . SPYSCAPE's late opening 'Missions & Martinis' sessions on Thursdays have become a big hit for date nights.