Case Study

The Lakes are Alive with the Sound of Music!

Sustainable Festivals

Cirrus Research plc
dedicated to noise measurement

SUSTAINABLE FESTIVALS

Case Study

The Client

Chris Selkirk of Sustainable Festivals
sustainablefestivals.co.uk

The Kit

Optimus Green Environmental Sound Level Meter

The Venue

Lakes Alive Festival, Kendal

The Issue

Monitoring and reporting accurate data on large scale acoustic and optical art installations which were situated in or very near to residential and built up areas over several hours.

> “Chris turned to Cirrus Research once more to ensure he had the perfect environmental sound level meter for the job”

The phrase “The Hills are alive....” is more well-known than “Lakes Alive” when it comes to musical classics but that might not be quite true if you’d have asked Kendal residents recently.

In its third year, a three-day musical and monumental art festival called “Lakes Alive” is breaking new ground in the stunning Lake District. Commissioned by the Lake District National Park, the festival offers an eclectic free programme of contemporary art, spectacular illusions with audience participation, created by artists from around the UK as well as internationally.

One of the UK’s leading acoustic specialists Chris Selkirk from Sustainable Festivals was appointed to manage two of the main projects over the weekend.

Attempting to take acoustic measurements in such diverse settings was never going to be easy and Chris turned to Cirrus Research once more to ensure he had the perfect environmental sound level meter for the job.

With more than 10 years’ experience in the acoustic field, Chris has worked with Cirrus for many of those, but this time took advantage of the company’s flexible hire policy to ensure he could get his hands on the very latest technology to meet his needs. Chris opted for the Cirrus’ Optimus Green Environmental Sound Level Meter, ideally suited for outdoor noise data capture.

His first project – Chorus – was akin to something out of War of the Worlds; a monumental installation of giant kinetic sculptures and a celestial choir of spinning sound machines. This was created by award-winning artist and British Composer of the Year, Ray Lee.

This immersive work, which created a strange and beautiful world of sound and movement within the ancient walls of Kendal Castle, also created some rather strange acoustic headaches for Chris.

As an idea of scale, Chorus was made up of a large-scale soundscape installation of 14x 5m tall tripods with two mechanical arms atop. Each had two speakers emitting tones and sounds whilst spinning for a 360° acoustic effect. The piece was positioned at the highest point above the town, at Kendal Castle, deliberately so to create an artistic vision dominating the landscape whilst accompanied by eerie orchestral sounds. And whilst Chorus created a mesmerising optical illusion for visitors, it was also positioned within a residential area.

Chris explained: “Unusually for this event, the Chorus art piece was designed and positioned to be heard in both the near field and far field. The purpose of Chorus was to dominate the landscape and create an immersive large-scale piece of art with sound and light that can be experienced by large audiences.

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"The location of the installation is on top of the largest hill in the town at Kendal Castle, surrounded by residential estates. For music-based events the design purpose would be to minimise off-site noise levels, whereas this piece wants to be heard as far away as possible!

"There were 28 speakers which are placed 5m above the ground, which are also rotating at up to 100rpm, it made for an amazing aural and visual spectacle for the audience and strange unusual acoustics in the environment."

His second project - "Halo" - was another light and sound interactive piece situated in Fletcher Park, Kendall, where the audience becomes the composer as they move through the installation created by musician and inventor Michael Davis. Triggered by movement the visitors created ever-changing patterns of light and sound, so no two performances were quite the same.

"Both these art installations were within residential areas," said Chris. "It made for a very interesting but challenging weekend. The Lake District is also well known for its inclement weather, the Optimus Green kit was perfect due to its large full colour display, been able to click between display screens whilst taking measurements provides full access to the measurement data."

Fortunately for Chris the Optimus Green Class 1 Sound Level Meter was able to give him all the noise data he needed on both projects.

By measuring every parameter he needed simultaneously, the Optimus Green recorded everything in one measurement. There was no risk of choosing the wrong function or missing any data. Once Chris had decided on his optimum locations for data capture, all he needed to do was switch on, calibrate and start.

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His data was all displayed on the large OLED screen, so he was able to see immediately if there were any noise issues that need further investigation. The screens were also incredibly easy to navigate even in dark outdoor settings.

The NoiseTools software package that comes with every Optimus Green gave Chris a quick and simple way to download, analyse and report his noise measurements. His advance usage meant he could see every function measured by the instrument for review and analysis, and he could also export the data.

Another useful tool for Chris was the VoiceTag audio recordings which can be played back for reference and are automatically stored with the measurement data. Audio recordings can be replayed and analysed in 1:12 Octave Bands which means Chris has all the data at his fingertips when reporting back to his clients or other regulatory bodies.

Why Choose the Optimus Green Environmental Sound Level Meter?

- Compliant to IEC 61672-1:2013 & IEC 61672-1:2002
- Type Approved to IEC 61672-1:2013 (Class 1 Instruments)
- Type Approved to IEC 61672-1:2002 (Class 1 Instruments)
- Backed by our 15 Year "No Quibble" Warranty for your peace of mind
- High Performance to Class 1 or Class 2 Standard
- Quick, simple and easy to operate
- Simultaneous measurement and data logging of all available parameters
- Measures Fast, Slow & Impulse Time Weightings
- dB(A), dB(C) and dB(Z) Frequency Weightings included
- Real-time 1:1 & 1:3 Octave Band Filters
- Tonal noise analysis
- VoiceTagTM voice note recording
- AuditStoreTM measurement verification
- Acoustic FingerprintTM audio triggering, recording & alerts during measurements for replay and analysis
- Compatible with CK:670 & CK:680 environmental noise monitoring kits for a total environmental noise monitoring solution