

Studio 36 - Additional Noise Monitoring and Insulation Works

Following initial planning approval and construction of the Studio 36 venue at Bognor further developments have taken place by the Butlins Team over a number of months to enhance noise monitoring capabilities and breakout from the venue.

Following the initial install of a noise limiter and distributed sound system, the following additional have been completed recently in August 2021:

Installation of an internal permanent noise monitoring system called the XLC Audio & Acoustic Analyser with Projector Pro

The XL2 Audio and Acoustic Analyser is dedicated for live sound, installed sound, building acoustics and environmental noise applications. As a precision Class 1 or Class 2 instrument it can be used to monitor compliance with entertainment licensing conditions, assess environmental noise impact and optimise installed audio configurations at both indoor and outdoor venues.



Live sound engineers are supported with a three colour 'traffic light' indication of whether the prevailing noise level is within agreed broadband and frequency limits. An additional noise management facility is the "Sound Level Predictor" PC software which allows the engineer a glance into the future to see what the average sound pressure level is likely to be at the end of the monitoring period and to adjust the mix accordingly to remain compliant with noise limits.

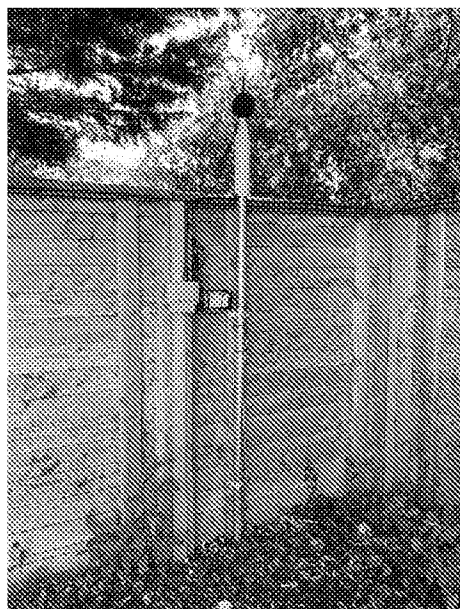
Some of the key benefits of the XL2 for entertainment noise monitoring are outlined as follows;

- Class 1 or 2 accuracy according to IEC 61672 Sound Level Meter standard for unquestionable integrity in noise compliance monitoring*
- All broadband, frequency and audio data are stored simultaneously allowing convenient reporting on prevailing noise climate.*
- A large numerical display of the prevailing noise levels referenced to noise limits with a green, amber or red status indication for the sound engineer.*
- Quick and easy reporting of noise compliance from stored measurement data in text format for easy import to Excel or the Data Explorer PC s/w.*

This system has enabled where live musical instruments are played within the venue to ensure that even at peaks and before reaching the agreed noise limit level the system can be adjusted to reduce levels accordingly by the sound engineers.

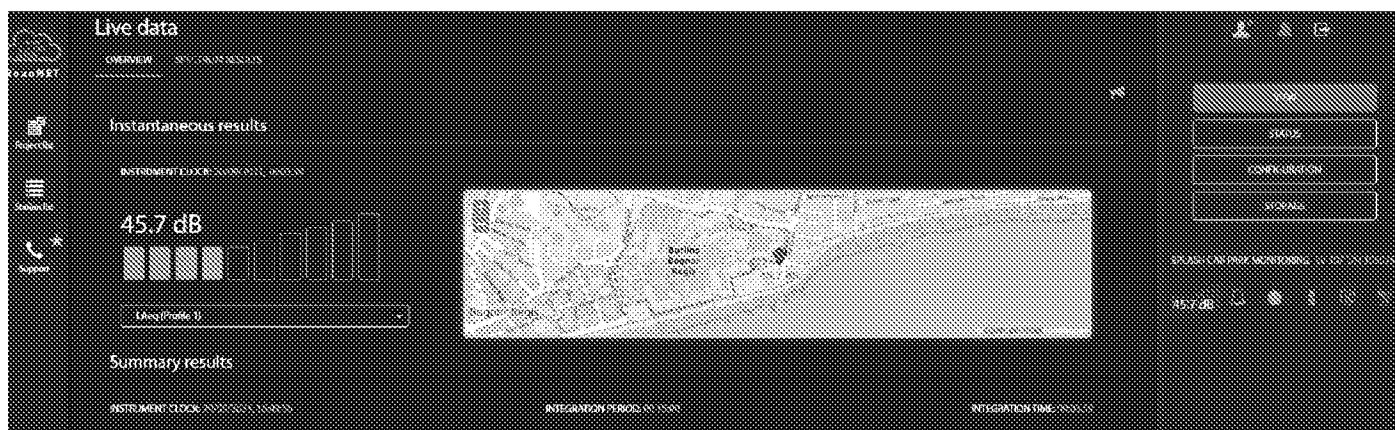
Installation of a Cloud Based Real Time External Monitoring Stations to the boundaries of the resort enabling real time data, the Svantek 307 Noise Stations.

The SV 307 is an all-in-one noise monitoring station which means that the sound level meter has been integrated with a 4G modem and outdoor enclosure. The instrument is designed to monitor noise levels and their spectra, record and audio signal and GPS localization. Microphone performance is constantly monitored by the patented dynamic system check. All meteorological quantities such as wind speed, wind direction, rain, humidity etc. or dust particles PM2.5 or PM10 can be stored together with the noise data when external sensors are connected.



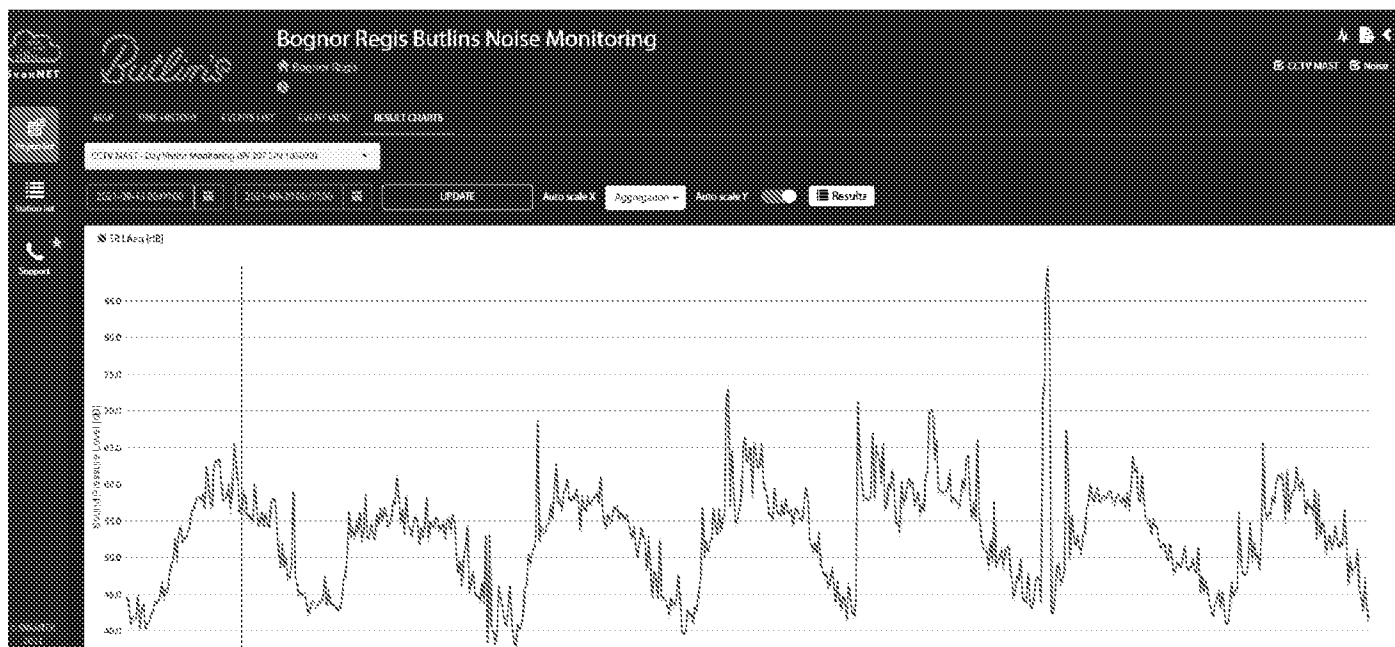
Picture shows set up of the Svantek 307 (Splash Car Park Location)

Example of Splash Car Park & Visitor Entrance Monitoring Live Dashboard:



Example of Sound Levels over a weeks period taken at 15 minute intervals at the Day Visitor Monitoring Station.

(Note: Events above 70db are at 9.30am / 3.00am / 4.40am outside of Venue Operating hours)



The on site safety team have ongoing direct access to the system and can liaise directly with all venues across the estate within seconds. With the added ability to listen in to real time to each of the stations, dealing with any form of complaint or feedback from external parties can be managed instantly.

Installation of Internal Acoustic Drapes to the Studio 36 Venue to the West, North and East elevations

All drapes have been made from black heavy pure-wool serge . As a flat fabric this weighs 600 gsm (grams/square metre), the fabric has been laid out in a pleated panel with a an additional 50% fullness, creating a weight of 900gsm per 5m expanse.

Main wall drapes and wall pelmets have been installed to three sides of the venue to reduce noise breakout and improve internal sound quality.

Additional roof borders (flat) have been installed, these are 1m deep strips of wool serge attached to the bottom of each roof beam for the full width of the building. Sound radiating upwards (often reflecting off table tops etc) is progressively absorbed by the parallel strips of fabric.

Studio 36 prior to install



Studio 36 post install



