

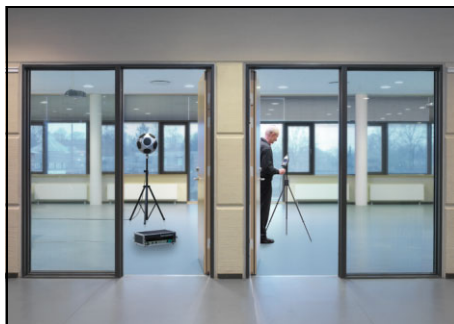
## Newsletter/November 2008/Issue 1

*Welcome to this first issue of Brüel & Kjær Environmental Newsletter. We hope you'll find it interesting and informative. It will be distributed four times a year with the aim of providing news and information for customers dealing with assessment of environmental noise, monitoring of noise, assessment of noise and vibration at work, calculation of environmental noise, or measurement and calculation of building and room acoustics.*

### In this Issue

- New Complete Hand-held Building Acoustics Analyzers
- Remote Noise Test Helps Keep Festival Peace
- Investigation of Tonal Noise
- View On-line Video Demonstrations
- Web Courses
- Training Courses at Brüel & Kjær Headquarters

### New Complete Hand-held Building Acoustics Analyzers



With an award-winning design and based on extensive research amongst sound and vibration technicians, engineers and consultants, Hand-held Analyzers Types 2270 and 2250 are both innovative, 4th generation analyzers from Brüel & Kjær.

Type 2270, with its dual-channel measurement capability, and the single-channel Type 2250 host many of the same measurement application modules. One of these is the Building Acoustics application module.

#### Measure Airborne-, Façade-, and Impact Sound Insulation

Application software BZ-7228 is now available for Hand-held Analyzers Types 2250 and 2270, providing flexibility, ease of use, and the reliable results needed for building acoustics field measurements.

#### Type 2270 Dual-channel Measurements

If you want to save time, BZ-7229, the dual-channel measurement application for Type 2270, enables you to measure in the source and receiving rooms simultaneously for airborne tests or outside and inside for façade measurements.

Back at the office, Qualifier™ Type 7830 offers versatile post-processing and reporting of your measurement results.

Sit back and experience the ease-of-use of Hand-held Analyzer Type 2270. Our [short animation](#) demonstrates how easy it is to use Type 2270 for building acoustics measurements.

For more information see [Building Acoustics Analyzers](#).

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## Remote Noise Test Helps Keep Festival Peace

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Festival fans and local residents were in complete harmony during Ireland's Oxegen music festival, held in June at the Punchestown Racecourse, as the local County Council used a wireless network to monitor noise levels in surrounding areas. Kildare County Council hired state-of-the-art measuring equipment from specialist, Brüel & Kjær UK to ensure the festival license wasn't breached by the off-site levels exceeding 65 dB,  $L_{Aeq,15 \text{ minute}}$ .

Brüel & Kjær specialists were responsible for configuring Brüel & Kjær's largest network of Type 2270s ever used in a real customer application. By

utilising Type 2270's LAN adaptor and the wireless network pre-installed on site, it was possible to set up a number of meters around the site and monitor noise levels from one central location on a PC.

"In the past, the council typically had several staff on site constantly checking the sound level meters, so this system simplified the monitoring and reduced the number of personnel, as we were able to control all the meters from one point," said Dan Saunders, Application Engineer, Brüel & Kjær UK.

"We used a total of nine 2270s, connected to the network with unique IP addresses, and programmed each one with their location name, making it easy to identify them on the central PC. With the network it was simple to start, stop and adjust measuring on all meters, plus the data was stored onto memory cards, so if we had experienced any problems the recordings wouldn't be lost."

Gerry Crehan of Kildare County Council, who was responsible for the noise monitoring, said, "The great thing about the system is that everything's in one place. You can see all the levels and control all the sound level meters from one computer screen". The network proved to be of further use to Mr. Crehan, as it was also used to remotely download the information after each day's monitoring, so that he was able to hold daily meetings with the concert promoters and had the previous day's data to hand ready for any discussions.



You can read the [full Case Study in Brüel & Kjær Magazine Issue 2, 2008](#).

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## Investigation of Tonal Noise

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With an award-winning design and based on extensive research amongst sound and vibration technicians, engineers and consultants, Hand-held Analyzers Types 2270 and 2250 are both innovative, 4th generation analyzers from Brüel & Kjær.

Type 2270, with its dual-channel measurement capability, and the single-channel Type 2250 host many of the same measurement application modules. One of these is the Tone Assessment Option BZ-7231.

Noise can be described as tonal if it contains a noticeable or discrete, continuous note. This includes noises such as hums, hisses, screeches, drones, etc., and any such subjective description is open to discussion and contradiction when reported.

As the objective measurement result can be comprehensive in its detail, it can also be helpful to have a sound recording of the noise for a non-technical audience to listen to subjectively. To “hunt” for a tone, Type 2270/2250 can be used in a manner similar to a hand-held amplifier with headphones connected to the headphone output, and the microphone signal played through the headphones. You can then amplify the signal in real-time in 1 dB steps. This enhances the operator’s ability to hear low level tones that the complainant may be more tuned to or, in some cases, to deduce a tonal element as being a hearing damage issue, for example tinnitus, rather than anything physically present in the acoustic environment.

With the FFT-based Tone Assessment Software the easy, safe and clever approach of Type 2270/2250 is embodied in the easily visible colour display, the very high frequency resolution offered by up to 6400 lines of analysis, the wide dynamic range and the clever tap-and-drag operation of key display and measuring features.

For more information see [Tonal Noise](#).

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## View On-line Video Demonstrations

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Hand-held Analyzers Types 2270 and 2250 meet the demands of today’s wide-ranging sound and vibration measurement tasks with the accuracy and reliability associated with Brüel & Kjær instrumentation. Can such a compact yet powerful instrument also be intuitive and easy to use? To experience the ease of use of Type 2270, please [view the on-line video demonstrations](#), or enjoy [Type 2250’s Interactive Tour](#).

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## Web Courses

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Brüel & Kjær Headquarters offers free sound and vibration online training. Join a short online course instructed by our qualified engineers. Further instructions follow when you have registered.

[15 January 2009: 09.30 & 16.00 CET: 1 hour Calculating Environmental Noise from Airports](#)

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## Training Courses at Brüel & Kjær Headquarters, Denmark

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Educating and training customers is part of the Brüel & Kjær tradition. We focus on educating and equipping the course participants with the necessary sound and vibration knowledge and skills. Our global educational programme offers modular courses and training that cover theory, applications and instrumentation.

Please visit the [training course overview](#) for more information and registration.