

Bruel & Kjaer UK **Monthly Newsletter**/June 2011

Welcome to the June issue of our monthly Newsletter, which provides a round up of the latest news, products and courses from Bruel & Kjaer UK.

If you would like further information about any of the features in this newsletter, please contact ukinfo@bksv.com

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[Download here](#)

Company News:

Bruel & Kjaer Royston: ISO 14001 Certified

Bruel & Kjaer Royston has successfully achieved ISO 14001 certification, the key environmental standard for many global businesses.

ISO 14001 is an International Standard on Environmental Management and specifies a system of controls against which an organisation can be certified, by an accredited third party - in this case the British Standards Institute (BSI).

The company will meet its environmental objectives using specified strategies, which include managing its resources to minimise raw material usage, correctly disposing of waste, reducing harmful emissions and promoting energy conservation and recycling.

Where possible, Bruel & Kjaer Royston will use components, materials or substances that are less harmful to the environment and raise this awareness amongst its employees, to enable them to carry out their work with the same consideration.

Bruel & Kjaer's VTS Head of Operations, Andrew Turner said: "We are delighted to achieve this certification for the management system now implemented at our UK site in Royston. This means that our facility for engineering, manufacturing and servicing LDS shakers - and Bruel & Kjaer UK's calibration laboratory - are now fully ISO 14001 compliant and ready to meet our global customer requirements and environmental responsibilities."

[Read more about Bruel & Kjaer service and calibration](#)

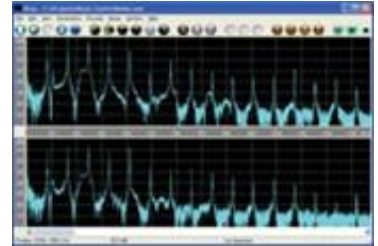


Environmental:

NEW Software for Room Acoustics - DIRAC 5

Brüel & Kjær now offers DIRAC 5 - the latest version of room acoustics measurement software tool created by Acoustics Engineering.

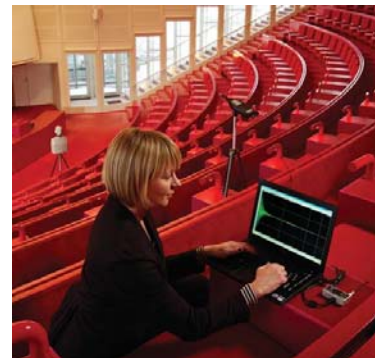
DIRAC Room Acoustics Software (Type 7841) is used for measuring a wide range of room acoustical parameters, including:



- ✓ Measurement of the speech intelligibility of a sound system
- ✓ Measurement of the acoustical properties of an enclosure
- ✓ Characterisation of room acoustics before and after modification
- ✓ Comparison of acoustical quality of different rooms
- ✓ Modelling room acoustics using measurements taken in a scale model
- ✓ Research and education on acoustics
- ✓ Troubleshooting room acoustics

Based on the measurement and analysis of impulse responses, DIRAC supports a variety of measurement configurations.

For accurate measurements according to the ISO 3382 standard, you can use the internally generated MLS (maximum-length sequence) or sweep signals through a loudspeaker sound source. Survey measurements are easily carried out using a small impulsive sound source, such as a blank pistol or even a balloon.



Speech measurements can be carried out in compliance with the IEC 60268-16 standard, for male and female voices, through an artificial mouth-directional loudspeaker sound source or through direct injection into a sound system, taking into account the impact of background noise.

DIRAC is not only a valuable tool for field and laboratory acoustics engineers, but also for researchers and educational institutions.

Brüel & Kjær is the sole worldwide distributor of DIRAC 5 software.

For more information please contact: **+44 (0)1763 255 780** or email: ukinfo@bksv.com

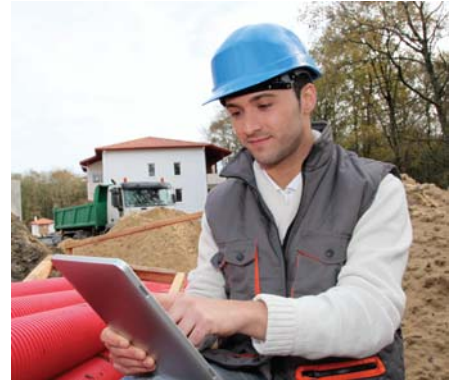
Industrial:

Reduce Project Risk From Noise & vibration - Construction Sentinel

Vibration from large construction projects can present a significant risk of damage to nearby property. Along with noise, vibration also has the potential to cause nuisance in the community, by triggering complaints. If not managed properly then both can cause delay, increased project cost and potential litigation.

Brüel & Kjær's Construction Sentinel system can reduce project risk by continuously monitoring noise and vibration:

- ✓ Receive direct, automatic alerts with all the information needed to investigate an exceedance in order to take immediate action
- ✓ Automatically record noise and vibration data so you can demonstrate compliance at all times
- ✓ Show communities and regulators you are taking your impact seriously and it is being controlled
- ✓ Have detailed measurements to hand for on-the-spot response to queries or complaints



As part of our Noise Sentinel family of subscription services - for long-term, unattended outdoor monitoring - Construction Sentinel provides continuous monitoring of noise and/or vibration specifically for large construction projects.

Properly managing noise and vibration is key to reducing project risk - and with proactive monitoring you can reduce it by maintaining compliance in order to keep communities and regulators happy.

The system operates 24/7 and alerts you immediately should noise or vibration exceed defined levels, allowing you to take immediate action to change operations before a breach occurs. You can investigate the source to verify if the exceedance is your responsibility, and then take appropriate action. Construction Sentinel operates over the internet, so you can be on-site, in your office or anywhere there is an internet connection.

Construction Sentinel takes care of all the hassle including instrument provision, installation, operation, data capture, records management, calibration and fault rectification. We even take everything away and give you all the data at the end of the contract, freeing you to focus on your construction project.

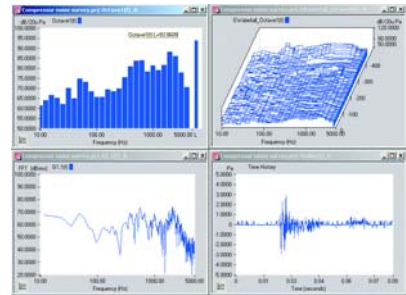
Provided as a fixed-price subscription service and including everything you need to provide high quality, accurate assessment of noise and vibration impact, you can be certain of your monitoring costs throughout the life of the project. And because you're not buying the equipment, there are much lower establishment fees than if you were to purchase and operate your own instrumentation.

For more information please contact: **+44 (0)1763 255 780** or email: ukinfo@bksv.com

Mini Analyser - Mini Price: PHOTON+

Brüel & Kjær has launched PHOTON+, a cost-effective, all-in-one system which accelerates the time from data acquisition to analysis, making it ideal for:

- ✓ Modal Testing
- ✓ Order Tracking
- ✓ Spectrum Analysis
- ✓ Waveform Recording
- ✓ In-vehicle Data Acquisition
- ✓ Rotating Machinery Analysis
- ✓ Transient Capture and SRS
- ✓ Waterfalls & Spectrograms
- ✓ Sound Quality



PHOTON+ turns any PC into an instrument-quality portable analyser for multi-channel noise and vibration analysis:

- ✓ Multi-channel with 2 to 4 inputs and 1 output / tachometer
- ✓ Just one click to switch between real-time measurements, data recording and post-processing
- ✓ Compact and weighs less than 227g (8oz) - easy to carry about for field or laboratory use
- ✓ Fast, real-time processing for quick setup, instant results and on-site data verification
- ✓ High precision measurements with 24-bit inputs, including full anti-alias protection
- ✓ Multiple input ranges (10 mV to 10V) and low measurement noise floor for accurate low level measurements



For more information please contact: **+44 (0)1763 255 780** or email: ukinfo@bksv.com

M1 Customers News Mail - Summer 2011

Brüel & Kjær's latest news mail for PULSE M1 customers is out now.

This edition includes:



Exclusive offers for M1 agreement holders*

Get a **40% discount** on PULSE Reflex Core products (Types 8702, 8704 and 8706) with a current M1 contract for Types 7700, 7770 and 7771.

Upgrade your IDAe Generator from Sine-only to a Full Generator at a **50% discount**

Economical acoustical array

Noise source identification with array acoustics is more economical for PULSE users, with a complete 18-channel array system, and Beamforming Type 8608.

Easing Renault's workflow

Find out how Brüel & Kjær were able to help Renault simplify their measurement processes by enhancing their existing PULSE system.



Sound intensity measurements with LAN-XI

The sound intensity measurement technique available in your CPB analyzer Types 7700 and 7770 can be used to determine sound power, sound absorption and sound transmission.

With the new front panel UA 2104, sound intensity measurements are now fast and easy.

To receive your copy of the M1 PULSE news mail, please contact:

heather.wilkins@bksv.com

**Offers valid until 31 December 2011*

Save Time and Money with PULSE Data Recording & Analysis Tools

Ever-shortening development time and ever-increasing testing expenses mean that safely capturing measurement data in one fluent procedure is of critical importance.

Brüel & Kjær provides a wide range of data recording and analysis tools - from pocket-sized units to systems with 1,000+ channels - created to save you time and money with:

- ✓ Minimal and simple setup - reduces demand on the operator
- ✓ User-friendly and intuitive - makes systems quicker to use
- ✓ Reliable, valid data - reduces test time and obtains correct information first time

PHOTON+

Multi-purpose, portable analyser with 2 or 4 channels. Records to PC via USB, making any PC into an instrument-quality recorder for sound and vibration analysis.

[Read more about PHOTON+](#)



PULSE LAN-XI™

High performance system with 1000+ channels. Provides recordings to PC with simultaneous real-time analysis.

[Read more about PULSE LAN-XI](#)



LAN-XI Notar™

Rugged standalone recorder with up to 12 channels. Battery power and solid-state memory for multi-channel recording.

[Read more about LAN-XI Notar](#)



SoNoScout

In-vehicle binaural recording with 2 channels. Ultra-portable sound and vibration recorder with quick RPM estimation for data comparison.

[Read more about SoNoScout](#)



Post-processing software

With your time data safely recorded, PULSE Reflex core provides powerful analytical tools, including experimental modal analysis, building acoustics and crank angle.

[Read more about PULSE Software](#)

For more information, please contact: **+44 (0)1763 255 780** or email: ukinfo@bksv.com

Transducers & Conditioning:

New: 2-channel Battery-powered CCLD Signal Conditioner

Brüel & Kjær's 1704-A is a conditioner/amplifier, which provides two channels of CCLD (Constant Current Line Drive) power for CCLD transducers such as:

- ✓ Charge accelerometers (using Type 2647 Inline charge amplifier)
- ✓ Accelerometers
- ✓ Microphones
- ✓ Tacho probes



CCLD conditioning offers users the advantage of allowing the transducer power to be delivered using the same coaxial cable that the transducer uses to return the measurement signal, thus reducing cabling costs and improving noise immunity – especially when compared to using multi-conductor cables.

Brüel & Kjær's 1704 unit includes:

- ✓ Built-in, rechargeable battery optimised for in-situ measurements
- ✓ Wide range of gains (x1, x10 and x100) amplify signal before A/D to improve noise floor
- ✓ Selectable acoustic band pass and A-weighting filters that remove unwanted frequencies
- ✓ Two channels for cross and FRF measurements

Read more about our [1704 CLP Microphone](#)

Brüel & Kjær Service Centre:

Online tracking tool for service

Bruel and Kjaer UK's interactive tracking tool allows customers to instantly check the progress of their instruments, whilst in for service or repair.

Run via our website, this facility offers free collection of products for calibration - from anywhere in the UK - and provides a tracking number which can be used to make a direct check on the status, whereabouts and return date of equipment throughout its service.

Developed to simplify service procedures and give customers more control over their equipment, the tracking tool is a typical example of Bruel and Kjaer UK's expert service range, which has continually developed over the 25 years the company has been in the calibration business.

Bruel and Kjaer UK's service range is completely flexible, allowing customers to make individual purchases or combine a variety of requests into a single service agreement.



Brüel & Kjær has built two new laboratories in the Royston Facility for accredited calibration.

Our laboratories are UKAS accredited to the international standard ISO/IEC 17025.

Brüel & Kjær can provide traceable or accredited calibration for sound level meters, microphones, calibrators, artificial ears, conditioning amplifiers and accelerometers.

For more information on Bruel and Kjaer's UK Service Centre, please visit the [Service Section](#) of our website or contact: **+44 (0)1763 255 780**.

Training & Courses:

Bruel & Kjaer UK's Training Courses & Webinars 2011

Bruel & Kjaer UK's **2011 Training Course Calendar** is available to download via our website, please [Click Here](#)

Bruel & Kjaer UK Courses 2011:

Theory & Practice of Vibration Measurements -
5th & 6th September

[Register Now](#)

Sound Insulation Measurement -
15th September

[Register Now](#)

Type 2250 User Training - 21st September

[Register Now](#)

Theory & Practice of Noise Measurement - 12th & 13th October

[Register Now](#)



Bruel & Kjaer UK FREE Interactive Training Sessions

Take advantage of free online training with Bruel and Kjaer UK's expert engineers by signing up for our one-hour web-based courses:

2250 User Basic - 22nd September

[Register Now](#)

2250 User Advanced - 29th September

[Register Now](#)

MATRON - 6th October

[Register Now](#)

2250 User Basic - 20th October

[Register Now](#)

2250 User Advanced - 27th October

[Register Now](#)

MATRON - 3rd November

[Register Now](#)



Vibration Testing for Engineers – Training Courses 2011

Vibration Testing for Engineers and Technicians

This two day course provides a practical introduction to the subject of vibration testing. Designed around the needs of engineers new to the subject of vibration testing and yet offering a useful refresher course for the more experienced user, this course explains how to interpret vibration test specifications and apply them to a vibration test system.

Subjects covered are sinusoidal vibration, random vibration and shock/bump testing together with a background to the equipment required for each type of test, methods of control and simple fixturing.

The course emphasises the practical aspects of vibration testing, the realities, problems encountered and common mistakes which can be made.

The course removes the mystery of vibration testing and replaces it with facts and common sense.

Vibration Testing - 19th & 20th July
[Register Now](#)

Vibration Testing - 20th & 21st September
[Register Now](#)



Vibration hands on practical course and test simulation

An optional third day is available which covers the LDS Laser usb Controller for sine, random, shock and mixed mode testing and continues a more in depth hands on for the student. Tests will be run on an LDS V830 to provide each student with confidence for a realistic setup of an air cooled system.

Day three is 90% practical and puts into practice the lessons learnt on days one and two, including all project parameters, error messages and control methods whilst observing resonance and Limit control on a test piece.

Bring along your specifications and requirements.

The third day will be restricted to a maximum of six customers to allow all students some test time. (Only available at Royston UK company Headquarters)

Practical Vibration Testing - 21st July
[Register Now](#)

Practical Vibration Testing - 22nd September
[Register Now](#)

Bespoke Training

LDS also offers bespoke, onsite training courses for customers. For further details on these specialised courses, please contact: trevor.harrison@bksv.com

[See all Vibration Training dates here](#)

Brüel & Kjær is pleased to announce its support of the Institute of Sound & Vibration Research (ISVR) 2011 Advanced Course.



ISVR's Advanced Course consists of a three-day core element, running between 12th and 16th September at the University of Southampton's Highfield campus.

The course is preceded by an optional two-day refresher in the principles of vibration and acoustics. Following completion of the refresher segment, attendees then select their training schedule from a choice of three, specialist areas:

Noise Control Course

Outlines the underlying principles of noise control, examines the character of noise in some key applications - and discusses how noise may be reduced by design or through palliative treatment.

It's divided into three sections entitled Basic principles, Techniques and Applications & Case Histories.

[Register Now for Noise Control](#)

Structural Dynamics Course

Helps delegates to fully appreciate the nature of structural dynamics and provides an overview of the potential and applicability of some measurement and analysis techniques.

It includes a series of presentations and a half-day, hands-on laboratory session.

[Register Now for Structural Dynamics](#)

Aeroacoustics Course

Provides a sound practical basis for acousticians and engineers working at an advanced level within areas such as turbomachinery noise, aerodynamically generated noise in ducts and air moving systems, noise generated by unsteady flow over airframes and motor vehicles and noise generated by unsteady turbulent mixing in jets and wakes.

[Register Now for Aeroacoustics](#)

All of the training sessions will be held between **12th and 16th September** at the University of Southampton's Highfield campus.

[Read more about ISVR Advanced Course and register now](#)

Global product & service information:

University of Windsor establishes Wind and Renewable Energies Research Centre

The University of Windsor signed an agreement with Brüel & Kjær to establish North America's first Wind and Renewable Energies Centre of Expertise (WRECE) in the Centre for Engineering Innovation.



The agreement, signed jointly by University of Windsor President Alan Wildeman and Grahame Clinch, Global Key Account Director for Brüel & Kjær, will provide \$1.4 million in research equipment to University of Windsor's Noise Vibration and Harshness-Sound Quality Group (NVH-SQ), led by Assistant Professor Colin Novak. A graduate level course using the equipment has already been developed and will be taught this summer.

The centre will be located in the Industrial Courtyard of the University of Windsor's \$112 million Centre for Engineering Innovation, currently under construction - the University's largest capital project to date. WRECE and Brüel & Kjær will jointly be the Industrial Courtyard's first occupants and will move into their new space later this year.

Equipment will include a large-scale wind turbine model and supporting software for teaching and research that will allow the group to study wind turbine noise and sound power, as well as design and vibration testing of turbine components.

"We have had an excellent partnership with the University of Windsor, working closely with Dr. Novak and the NVH-SQ group to provide the engineering faculty with access to the latest NVH technologies for both advanced education and application to industrial projects," says Alan Humphrey, Vice-President of Global Sales for Brüel & Kjær. "When combined with the expertise available from the University of Windsor, I believe we will achieve major research advancements while being mutually beneficial to both partners."

Dr. Novak says because wind turbines are now an integral part of the landscape and an important source of future power generation, ongoing research on noise, vibration and efficiency is essential. "If we carefully monitor the vibration and noise wind turbines generate we are well-positioned to minimise their impact on people. Wind energy is a constantly evolving technology that will have an impact on the lives of everyone – not just in our immediate community but around the world."

Novak adds that advanced study of the turbines' gearboxes and blades will also be part of the research.

Once completed, the Industrial Courtyard will provide a venue for companies, researchers and students to work together to test ideas, solve problems and develop strategies for translating research into commercially viable processes.

Lars continues: "This cooperation with The University of Windsor complements our cutting edge research in providing high value and sustainable sound and vibration solutions for the wind turbine industry, which also includes the development of effective noise management applications."

[Learn more about monitoring wind energy](#)

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