

FLEXIBLE SOFTWARE PLATFORM

SOUND AND VIBRATION SOFTWARE THAT WORKS LIKE YOU WORK



Brüel & Kjær 

BEYOND MEASURE

INTRODUCING A NEW DIMENSION IN SOUND AND VIBRATION SOFTWARE

Great performance starts with working smarter

For sound and vibration professionals today, software solutions can be unintuitive and complex. This can result in too much time being spent on manual workarounds, validation and repeated measurements, ultimately leading to the risk of bad data and wasted time. BK Connect, the latest software platform from Brüel & Kjær, adds a new dimension to testing and analysis user friendliness.

BK Connect is designed around your needs and tasks, and in particular, your workflow. As a full-feature analysis platform, it simplifies testing and analysis procedures, enabling you to work even more efficiently and with a high degree of flexibility.



CONFIGURABLE USER WORKFLOWS FOR MAXIMUM EFFICIENCY

Streamlining the analysis process requires flexible software. BK Connect eliminates the need for external customization because it can be easily adapted to meet the needs of the team. This lowers the risk of error and ensures a high level of efficiency when performing repeated standard tests through the use of predefined templates. Selectable parameters and favourites enable you to scale the system to your needs, resulting in fewer clicks and less time spent completing tasks.



SOUND AND VIBRATION SOFTWARE JUST GOT INTUITIVE

Trouble-free testing and analysis begins with user-friendly software. BK Connect is extremely agile, and its clean, easily understood user interface makes it easy to navigate between tasks and understand your data. All of this makes BK Connect easy to learn and use, and results in increased efficiency while maintaining maximum accuracy.



AN INTEGRATED ALL-IN-ONE SOFTWARE PLATFORM

BK Connect eliminates tedious and error-prone data transfers between multiple systems because everything you need is in one integrated platform. The platform integrates seamless data acquisition, real-time monitoring, post-processing, multiple analysis, data viewing and reporting in the same system. This versatility enables you to achieve more right from the very start as you can now work more dynamically than ever before.



RELIABLE DATA FOR CONFIDENT DECISION MAKING

Brüel & Kjær is synonymous with trust, reliability and accuracy, and all this is embedded in BK Connect. The platform offers exceptional data management for you to get more out of your data while ensuring that you can trust BK Connect completely to deliver the data you need to make confident decisions. High-quality data acquisition and post-processing ensure accurate, ordered and well-annotated data. And searchable metadata makes the right data easily accessible for analysis, simplifies grouping and data comparison, and ensures traceability.



OPEN UP YOUR SYSTEM

No matter which system you use, getting the most out of your existing data depends on compatibility. You can be sure that BK Connect is compatible with data from leading sound and vibration measurement and analysis systems. It seamlessly integrates with external data sources and offers an open application programming interface (API) that supports integration with test bench control systems.



BK Connect – get value at every step:

- Data reviewing from previous testing
- Set up acquisition hardware
- Data acquisition
- Data processing
- Processed data review and comparison
- Application-specific processing
- Reporting

GET ACCESS TO WHAT YOU NEED, WHEN YOU NEED IT

Every sound and vibration professional works a little differently. BK Connect is designed around unique user workflows and tasks so that you get access to what you need, when you need it.



TEST OPERATORS AND ENGINEERS

A process that's simply a matter of Run. Record. Report.

Efficiently running repetitive tests, analyses and reports calls for hassle-free operations and smooth workflows. Thanks to its intuitive user interface, BK Connect lets you navigate easily from task to task. It also gives you the opportunity to work in templates with pre-defined favourites designed to suit your needs. Ultimately, all this streamlines your workflow and makes testing and analysis processes a simple matter of running the program, recording the measurement and reporting the results.

Key features:

- **Integrated quick reporting** is just one click
- **Done management button** for user-defined easy navigation between tasks
- **Accelerator mounting check** to minimize uncertainty

SOUND AND VIBRATION SPECIALISTS

Increased flexibility for a high efficiency

When performing ad hoc troubleshooting you need a software platform that can evolve and learn by enabling you to make changes to analyses as you go, and by enabling access to data when you need it. BK Connect gives you the benefits of dynamic data selection, easy data access and multiple analyses. This enables you to solve the most difficult and complex tests and analyses with certainty. With BK Connect, you can also take sound and vibration competences and test procedures to new levels. Its configurable set-up and the possibility to develop pre-defined templates makes it easier for you to define testing procedures and develop standard tests to be utilized by the organization.

Key features:

- **Ability to quickly develop templates** to suit specific test requirements
- **Graphical process chain** for easy analysis process set-up
- **Result matrix** for a quick and intuitive overview of your data

TEST MANAGERS

Maximize performance, minimize errors

As a test manager, you depend on your testing department to deliver the data you need. BK Connect increases performance and efficiency, ensuring valid data and timely procedures while the platform's reliability eliminates costly downtime in your department. You will enjoy the benefits of real-time data monitoring and access to a global calibration database where you can trace data quality to minimize errors. Using the BK Connect Data Viewer application allows you to find, sort and compare data, and integrated reporting lets you review and approve test data with a high level of confidence.

Key features:

- **Easy data retrieval** for maximum efficiency
- **Quick data validation** for faster data review and approval
- **Global calibration database** for data quality tracking

TEST REQUESTERS

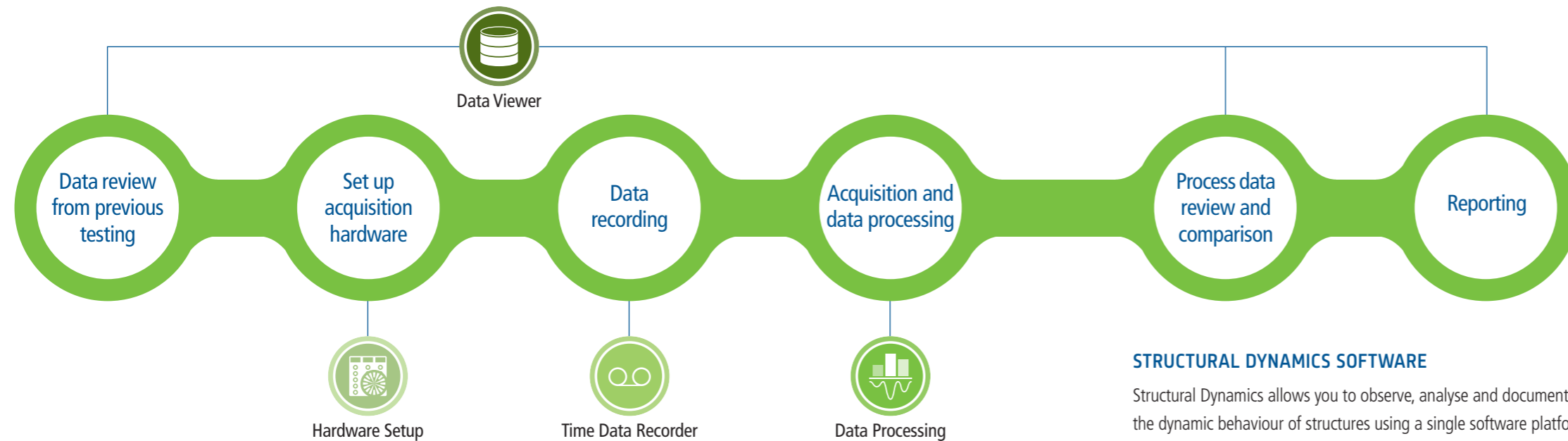
Accurate data for confident decisions

As product life expectancies shorten, the pressure is on manufacturers to develop new products faster. Data is central to success. As a development or design engineer, you depend on the right input, in the right format, delivered on time. BK Connect links you to valid data faster, increasing productivity while giving you all you need to make more confident decisions about your product's design, durability, quality – and much more. This reduces time to market and secures a more attractive return on investment for your products.

Key features:

- **Fully documented metadata** for finding, sorting and comparing data
- **Quicker reporting** you can trust to be accurate
- **Graphs and visualisations** for seamless data interpretation

ADDED VALUE AT EVERY STEP OF YOUR WORKFLOW



BK Connect, modular software for all your testing and analysis needs
 BK Connect applications are user-centric, modular and form the foundation for your sound and vibration analysis platform. Each core application can function as a stand-alone tool, performing basic tasks or, when combined with other applications, as a custom set of tools that enable tailored workflows, from test design to the final report.

GENERAL PURPOSE ANALYSIS SOFTWARE

These applications and options provide the tools to fit the different phases of a sound and vibration project scenario – from standard tests to complex troubleshooting, and from data management through to reporting.

Measurement set-up and data recording

The most fundamental part of data acquisition is the ability to record time data. To prepare for your test, you may need to review historical data from last year or yesterday's test. When ready, the Hardware set-up allows you to configure your transducers, either using physical or virtual hardware. Once you have recorded the time data, the possibilities for what can be accomplished are limitless.

- Data viewer
- Hardware set-up
- Recorder
- File importer/exporter Finite element model interface

Data processing and signal analysis

At the heart of any data processing system are the many types of signal analysis available allowing the user to solve simple or complex problems. Whether performing 2D FFT analysis on stationary signals or generating D Waterfall analysis for non-stationary signals, BK Connect has the analysis calculations you need.

- Overall analysis
- Data processing
- FFT
- CPB
- Advanced calculations
- Order analysis
- Order tracking
- FRF
- Envelope analysis

STRUCTURAL DYNAMICS SOFTWARE

Structural Dynamics allows you to observe, analyse and document the dynamic behaviour of structures using a single software platform covering setup, measurements analysis and test-FEA integration.

Operating Deflecting Shapes (ODS) analysis and modal testing

BK Connect supports time, spectral and run-up/down ODS analysis, as well as single or poly-reference hammer and shaker model testing. Accurate and reliable modal results are obtained even in the most demanding situations using a targeted set of best-in-class mode indicator functions, curve-fitters and analysis validation tools.

Model correlation

Correlation Analysis is an easy-to-use post-processing application that enables you to correlate two modal models whether they are finite element models or test models. Correlation Analysis and Structural Measurements constitutes an integrated system for test planning, modal measurements, modal analysis and model correlation.

Shock response spectrum (SRS) analysis

A transient (shock) event, has the potential to damage components in a structural system. As with any motion input to a system, the response can be amplified by structural resonances, increasing the damage potential. All five SRS models mentioned in ISO 18431–4:2007 are implemented in the module.

ACOUSTICS

Acoustic Signature starts from visualizing the sound field using Noise Source Identification to understand not only the Acoustic Level, but if the end user will like how the product sounds.

Array analysis

Acoustic Camera is a complete troubleshooting system for real-time noise source identification (NSI) that can be used for both stationary and non-stationary measurements. The Array post-processing suite includes beamforming and holography.

Sound quality metrics

The sound quality of a product is of ever increasing importance when assessing the total quality of the product. Traditional objective measuring and analysis methods such as A-weighted sound pressure and FFT analysis are not enough for analysing product sound. In the end, only the human ear can tell the designer whether he is producing the right sound.



Read more at www.bksv.com/bkconnect

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