

BK CONNECT 2023.0

PULSE 27.0

HIGHLIGHTS

BK Connect® 2023.0 has been released!
To download, go to:

<https://www.bksv.com/services/support/license-management>

The installation package includes:

- BK Connect® 2023.0
- PULSE™ LabShop version 27.0
- PULSE™ Operational Modal Analysis version 7.2.2.4
- PULSE™ Source Path Contribution (SPC)
- Team Server



New in BK Connect

HBK continues focusing on helping teams to maximize their productivity in their daily work by giving them unique tools to support the entire workflow.

This release's major highlights include the following:

- New Team Search File Import with Mapping task
- Support of Microsoft® SQL Server® 2022
- New in BK Connect Data Processing:
 - Updates to Record and Process task
 - Support for time data in the Graphical Auto-tracker
 - New signal filter in the Process Chain
 - RPM-based elements in the Process Chain now support rpm profiles as input
- New in BK Connect Hardware Setup:
 - New hardware setup loading tool
 - Improvements to the Level Meter
- New in BK Connect Structural Dynamics Suite:
 - Saving of calculated residuals
 - New Condensation Optimization parameter
 - ODS animation from the shape table
- New in BK Connect Array Analysis:
 - Particle velocity calculation
 - RPM profile displays
 - Simultaneous export of all results in playback mode
- New in BK Connect Indoor Pass-by:
 - Improvements that support for UN R51 Addendum 50 Revision 3
 - Fine-tuning of condition number threshold before SPC calculation
- Updates to Front-end Setup tool
- Other enhancements and bug fixes

New in PULSE LabShop

Existing customers can continue to use their current PULSE projects/templates as needed, as well as benefit from the updates in this release:

- As with BK Connect, PULSE LabShop databases now support Microsoft® SQL Server® 2022
- Updates to the OLE interface
- Simplified project saving
- New in Vehicle Pass-by:
 - Support for additional field pass-by standards
 - Capability to deselect runs
- Other enhancements and bug fixes

New in PULSE Operational Modal Analysis

- New SHM software pack BZ-8553-S
- New annual lease licenses
- Other enhancements and bug fixes

For more information

To find out more about the latest additions, [contact](#) your HBK sales representative for product and solutions information as well as for special hardware, software and maintenance offers – including any not mentioned here. You can visit [Data Analysis Software](#) to find out more about the range of Brüel & Kjær® data analysis software.

New Team Search File Import with Mapping task

This new Team Search File Import With Mapping task was created to import files that are in an indexed Team Server file repository, and as such, requires that you have a Team Server repository.

You can use the task to search the repository for data using metadata, then map the metadata from the indexed file to metadata used in BK Connect according to BK Connect's data model objects: Project, DUT, Test, Test Condition, Setup and Result. This mapping makes it possible to organize the data to fit the Test Plan used across BK Connect (for example in Data Processing's Record and Process task). The advantage is a more efficient sharing of data for streamlined testing.

For more information

See the [BK Connect Data Viewer](#) product data, readme or online help.

New in BK Connect Data Processing

Signal filtering

It is now possible to use filters to select what signals are used by the first-line elements in the process chain. This will make it possible to process a selection of signals per element and will reduce the amount of data produced. Ultimately, this will improve the performance and reduce the amount of unnecessary data.

Time data supported in the Graphical Auto-tracker

The Graphical Auto-tracker, available with Order Analysis Option Type 8405-E, now supports time data as input. When using time data, a spectrogram will be created based on the selected channel. Then when appending the profile, a new modified recording will be created including all original channels plus the created tracked profile.

Other enhancements

- The Assign sub-task in Record and Process has been changed to Annotate
- In measurement applications: To ease the annotation of metadata to measured data, we have added metadata entry of main metadata (DUT, Test Condition, Project, Test, Setup and Result) to the measurement tasks
- The Generator Setup now supports swept sine waveforms
- All elements requiring rpm information can now select rpm profiles as input. This is even possible using the Order Tracking elements, but due to the nature of a profile it will not give the accuracy as a physicals tachometer signal

For more information

See the [BK Connect Data Processing](#) product data, readme or online help.

New in BK Connect Hardware Setup

Improved loading of hardware setups

There are several improvements (and fixes) in the loading of hardware setup files as well as the use of hardware setups stored in a test, including:

- Conflicts are detected between the the currently loaded hardware setup and the hardware setup file being imported or the one stored in the active test. When a conflict is detected, the user is advised. Examples of possible conflicts:
 - Mismatch between number of modules, number of channels, module types, the sequence of modules and/or the modules serial number
 - Mismatch of positions of transducers with serial number (devices) followed by optional choices for handling the mismatch
- Added a Clear HW setup table before loading file option
- Added an Initiate TEDS detection after the file has loaded option
- Added a Cancel option when a mismatch is detected
- Added a dedicated TEDS detection button in the HW Browser

Other enhancements

- In the Monitor, the Level Meter has been further improved for multichannel support and warnings as well as the persistence of display selections and added sorting capability

For more information

See the [BK Connect Hardware Setup](#) product data, readme or online help.

New in BK Connect Indoor Pass-by

Updates to UN R51 Addendum 50 Revision 3

The latest additions that support UN R51 Addendum 50 Revision 3 include:

- Annex 3 Accelerated and CRS measurements
- Annex 7 ASEP
- Annex 9 RD-ASEP
- ISO 362.3 B.6, Disturbance noise correction of power train noise measurement
- Tyre Noise correction according to the standardized Microsoft® Excel® format as specified in the draft ISO 362-3
- Export of Testplan values to CSV file from Measurement task
- Team Server support for the R51 measurements described above

Other enhancements

- Speed and rpm values will now indicate the position like front, rear or reference point
- The SPC Validation sub-task will help you to fine-tune condition number threshold by comparing SPC modelled and measured spectra at selected validation microphones before performing the full pass-by SPC calculation. Result data is automatically pushed to the Project Browser

For more information

See the [BK Connect Indoor Pass-by](#), [Pass-by SPC](#) and [VVS Measurement](#) product data, readme or online help.

New in BK Connect Structural Dynamics Suite

Enhancements include:

- Residuals calculated during modal parameter estimation can now be saved in the mode table and used for FRF synthesis
- A Condensation Optimization parameter has been added to optimise stability diagram consistency and resolution
- Animation of spectral ODS shapes can be done by either selection in the graph area (current) or in the shape table (new)
- A "Description" field added as an option to the Geometry legend

For more information

See the [BK Connect structural analysis](#) product data, readme or online help.

New in BK Connect Array Analysis

Enhancements include:

- Particle velocity can now be calculated and shown for SONAH measurements*
- The rpm profile from tacho probe can be shown together with the spectrogram*
- The rpm profile from CAN bus can be shown together with the spectrogram
- In playback mode, it is now possible to export the results (sound pressure, sound intensity or particle velocity) from all mesh points to a UFF file and Microsoft Excel in a single operation*

*Also available in Acoustic Camera Applet Type 8493-A-N-SYS

For more information

See the [BK Connect Acoustic Camera](#) product data, readme or online help.

General BK Connect enhancements and bug fixes

Included Microsoft SQL Server 2022 Express

With the inclusion of SQL Server 2022, the database engine installer resolves the Log4j vulnerability issues.

Improved diagnostics in Front-end Setup tool

The BK Connect Front-end Setup software that is included with the installation has improved diagnostics to help ensure faultless connection to your LAN-XI hardware:

- New Stability Monitoring to monitor device connection by checking for delays in data retransmission
- Clearer verification process including fixes to external validation

Other enhancements

- Users can install a Local Team Server without an active network adapter

- Shift+drag to expand the display is now also available for 2D fast displays. This enables a double Y-axis when expanded (previously only for X and Z axes)

For more information

See the [BK Connect](#) web pages, readme or online help.

New in PULSE LabShop

Updates in PULSE Vehicle Pass-by

- Support for R41 Rev2 Am10 RD-ASEP for motorcycles
- Support for R51.03 Supplement 7 preliminary implementation:
 - Annex 3: Appendix 2 Tyre Rolling Noise corrections
 - Annex 3: Appendix 3 Tyre Rolling Noise measurement
 - Annex 9: RD ASEP – measurement part only
- Support for free rolling noise (FRN) as it relates to the 362-3:2021(E) Annex B.8, including a new dedicated tyre noise correction template supporting FRN and TI
- It is now possible to deselect a run in case there are errors

Other enhancements

- Updates to the OLE interface with a new playback speed controller and offset setting control
- Streamlining project saving tasks by removing irrelevant options like saving demo projects as not and saving changes
- It is now possible to easily disable start-ups that use a user-defined template. Go to the **File** menu and click **Undo Open Default Template**

For more information

See the [Data Analysis Software](#) web pages, readme or online help.

New in PULSE Operational Modal Analysis

New software pack

The new Structural Health Monitoring Pack BZ-8553-S contains the following software:

- BZ-8550: PULSE Data Manager Base Module for OMA Pro
- BZ-8551: PULSE Automatic File Upload Module for OMA Pro
- BZ-8552: PULSE Modal Parameters History Module for OMA Pro
- BZ-8553: PULSE Damage Detection Module for OMA Pro

New in the software

- Import of CAD geometries with file formats dxf, dwg and stl
- Rendering details of nodes and arrows can be defined for improved handling of large geometries

New annual lease licenses

The following type numbers are now available as annual lease licenses:

- 8760-NY: PULSE Operational Modal Analysis Basic, Annual Lease
- 8760-A-NY: PULSE Operational Modal Analysis Basic, Academic, Annual Lease
- 8761-NSY: PULSE Operational Modal Analysis Standard, Annual Lease
- 8761-A-NSY: PULSE Operational Modal Analysis Standard, Academic, Annual Lease
- 8762-NSY: PULSE Operational Modal Analysis Pro, Annual Lease
- 8762-A-NSY: PULSE Operational Modal Analysis Pro, Academic, Annual Lease
- BZ-8527-A-NY: PULSE Batch Processing for OMA Pro, Annual Lease
- BZ-8527-B-NY: PULSE Batch Processing for OMA Pro, Academic, Annual Lease
- BZ-8553-NSY: PULSE Structural Health Monitoring Pack, Annual Lease
- BZ-8553-A-NSY: PULSE Structural Health Monitoring Pack, Academic, Annual Lease

When expired, a new annual lease license can be purchased or it can be traded in for a perpetual license at a discounted price. Annual lease licenses are only available as node-locked licenses. Ask your local sales representative for details.

For more information

See the [PULSE Operational Modal Analysis](#) web pages, product data or online help.

Exclusive offers

To hear more about the current campaigns and special offers available to you as an M1 customer, contact your [local sales representative](#).

www.bksv.com/analysis-software