

jBEAM Lab Starter/Professional

Type 2897A...

Software for data analysis, visualization and report generation

jBEAM is a software for data analysis, visualization and report generation. With jBEAM measurement data analysis are made easy.

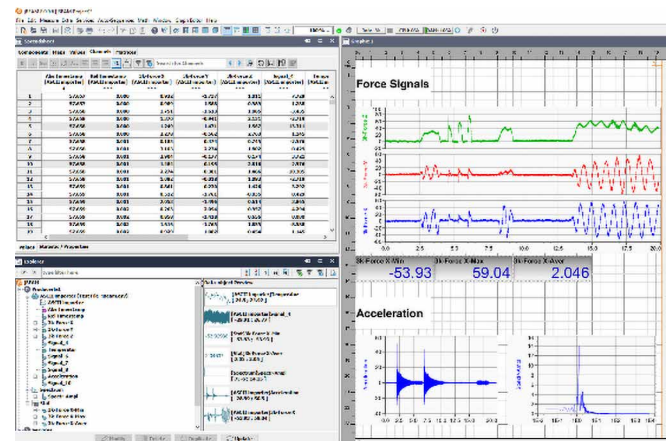
The benefits of jBEAM:

- Better and faster analysis of your data thanks to perfect presentation through extensive visualization tools
- Accomplish the required analysis quickly and efficiently with the interactive toolset
- Save time for creating reports with the automated reporting in different standard file formats

Description

jBEAM is a comprehensive post-processing software with extensive analysis functions and the capability of visualization and report generation. Due its platform independence and multilingualism, worldwide customers in R&D are using the software for quick analysis as well as for managing complex projects with terabytes of data.

jBEAM supports the import of multiple measurement file formats common in R&D and testing labs as well as multimedia formats to combine your measurement data with images, audio and videos. The extensive analysis functions range from simple arithmetic operations, curve analysis and FFT calculations to matrix operations, signal filters and statistics. Thanks to the comprehensive visualization functions, which range from simple text elements, forms and tables to all kind of 2D



and 3D graphs there is always a suitable format to display your measurement data and analysis results. In addition, the control elements allow you to create interactive visualizations and reports.

jBEAM Lab is available in the editions "Starter" and "Professional". jBEAM Lab is available either as part of the KiStudio Lab Software Package (Type 2910A) or as stand-alone post-processing software (Type 2897A). For a comparison of the two available editions, please check the section "Technical data".

2897A_003-476e-05.21

Technical data

| | | Starter | Professional |
|--------------------|--|---------|--------------|
| Data import | | | |
| Data file | ADF (Andromeda Data File) | | ✓ |
| | ASAM-MDF (v3/v4) | ✓ | ✓ |
| | ASCII | ✓ | ✓ |
| | Diadem (dat, tdm, tdms) | | ✓ |
| | Excel (xls,xlsx) | ✓ | ✓ |
| | Famos | | ✓ |
| | HBM Catman | | ✓ |
| | HBM Perception | | ✓ |
| | Hioki HiCORDER | | ✓ |
| | iFILE (AVL) | | ✓ |
| | Kistler CSV | ✓ | ✓ |
| | Kistler Open File | ✓ | ✓ |
| | LMS Test.Lab (tdf) | | ✓ |
| | LS-DYNA (dat) | | ✓ |
| | Matlab | | ✓ |
| | NetCDF | | ✓ |
| | Racelogic VBox | | ✓ |
| | RPCIII (MTS) | | ✓ |
| | Universal FileFormat (UFF 58, UNV) | | ✓ |
| | Vehicle Bus files (CAN/LIN; .blf, .asc, .dbc files) | | ✓ |
| | Yokogawa (HDR incl., WDF with additional Yokogawa license) | | ✓ |
| | Zwick (erg) | | ✓ |
| GPS-Data | GPS Exchange Format (GPX) | | ✓ |
| | NMEA(GPS) | | ✓ |
| Images | bmp, gif, jpeg, jpg, png, svg, wbmp | ✓ | ✓ |
| Audio | au, rmf, mid, wav, aif, aiff | | ✓ |
| Video | avi, mpg, mov, mp4, m4v | | ✓ |
| Data export | | | |
| Data file | ASCII | ✓ | ✓ |
| | Microsoft Excel | | ✓ |
| | GPS Exchange Format (GPX) | | ✓ |
| | MDF | | ✓ |
| | NetCDF | | ✓ |
| | RPC III | | ✓ |

2897A_003-476e-05.21

| | | Starter | Professional |
|---------------------|--|---------|--------------|
| Report | PDF document | ✓ | ✓ |
| | Microsoft Word document | | ✓ |
| | Microsoft PowerPoint document | | ✓ |
| | HTML file | | ✓ |
| | Image (PNG, JPEG, SVG) | ✓ | ✓ |
| | Screen video | | ✓ |
| | Page formatter | | ✓ |
| | Template library (template manager) | | ✓ |
| | Automation & Collections | | |
| | Data source manager | | ✓ |
| | Catalog import | | ✓ |
| | Catalog export | | ✓ |
| | Importer cleaner | ✓ | ✓ |
| | Component group | | ✓ |
| | Component collection | | ✓ |
| | Grouping data objects | ✓ | ✓ |
| | Ungroup/group data objects | ✓ | ✓ |
| | Data object loop (multiple data objects processor) | | ✓ |
| | Multi file importer | | ✓ |
| | File watcher | | ✓ |
| | Cycle view | | ✓ |
| | Scripts (Groovy, Beanshell) | | ✓ |
| | Scripts (Python) | | ✓ |
| Calculations | | | |
| Arithmetic | Formula editor for numeric objects | ✓ | ✓ |
| | Formula editor for numeric channels (line by line) | ✓ | ✓ |
| | Formula editor with text resolver | | ✓ |
| | Integration & Differentiation | ✓ | ✓ |
| | Bit arithmetic | ✓ | ✓ |
| | Coordinate transformation | ✓ | ✓ |
| | Pythagoras | ✓ | ✓ |
| | X-values | ✓ | ✓ |
| | User defined Java function | | ✓ |
| | User defined Java class | | ✓ |

| | | Starter | Professional |
|--------------------------|---------------------------------------|----------------------------|--------------|
| Curve calculations | Envelope curve | | ✓ |
| | Integration of hysteresis curves | | ✓ |
| | Least mean square fit | | ✓ |
| | Manual channel adjustment | | ✓ |
| | Memory | | ✓ |
| | Move tests | | ✓ |
| | Partial curve | ✓ | ✓ |
| | Resampling | | ✓ |
| | Resample angle-based | | ✓ |
| | Resolve Newton formula | | ✓ |
| | Signal calibration | | ✓ |
| | Sort channel values | | ✓ |
| | Split channel by date | | ✓ |
| | Split curve into matrix | | ✓ |
| | Synchronize curves | | ✓ |
| | Synchronize via absolute time channel | | ✓ |
| | Synchronizing of hysteresis curves | ✓ | ✓ |
| | X-Data-Change | ✓ | |
| | Curve analysis | Correlation of two signals | |
| E-Modulus | | | ✓ |
| Peak area detection | | | ✓ |
| Peak detection | | | ✓ |
| Plateau analysis | | | ✓ |
| Plausibility of channels | | ✓ | ✓ |
| Step response | | | ✓ |
| Vibration analysis (FFT) | FFT spectrum | ✓ | ✓ |
| | Effective value | | ✓ |
| Signal filters | FFT bandpass | | ✓ |
| | CFC filter | | ✓ |
| | Editable filter | | ✓ |
| | FIR filter | | ✓ |
| | Moving average | ✓ | ✓ |

| | | Starter | Professional |
|-----------------|--|-----------------------------|--------------|
| Data filters | Matrix columns filter/sorter | | ✓ |
| | Value filter | | ✓ |
| Statistics | Append values, event triggered | ✓ | ✓ |
| | Append values, statistical or formula | ✓ | ✓ |
| | Box-Whisker-Statistic | | ✓ |
| | Extract statistical values | ✓ | ✓ |
| | Extract values by index list | ✓ | ✓ |
| | Statistics of channels | ✓ | ✓ |
| | Statistics of matrix columns | ✓ | ✓ |
| | Counting procedures | 1D-Classification | ✓ |
| | Reversal points | | ✓ |
| | Statistical frequency 1D | ✓ | ✓ |
| | Statistical frequency 2D | | ✓ |
| Conversions | Absolute date time → relative time | ✓ | ✓ |
| | Change item creation time | | ✓ |
| | Channel → group of values | | ✓ |
| | Channels → matrix | | ✓ |
| | Concatenate channels | ✓ | ✓ |
| | Concatenate producers | | ✓ |
| | Concatenate values | ✓ | ✓ |
| | Convert date time | | ✓ |
| | Convert string to numeric value | | ✓ |
| | Counter to physical values | ✓ | ✓ |
| | Cuts through maps and matrices | | ✓ |
| | Data object switch | | ✓ |
| | Index for relative time | | ✓ |
| | Integer channel to bit matrix | ✓ | ✓ |
| | Key to label | | ✓ |
| | List of properties | ✓ | ✓ |
| | Position vector ↔ matrix | | ✓ |
| | Property ↔ value item | ✓ | ✓ |
| | Timed images from video | | ✓ |
| | | YMDHMS → absolute date time | ✓ |
| Audio producers | Audio recorder | | ✓ |
| | Converter numeric channel to playable audio signal | | ✓ |
| | Audio synthesizer | | ✓ |

2897A_003-476e-05.21

| | | Starter | Professional |
|------------------------------------|------------------------------|---------|--------------|
| Characteristic map calculations | Engine map matrix | | ✓ |
| | Engine map statistics | | ✓ |
| | Iso-torque curves | | ✓ |
| | Turbo charger map matrix | | ✓ |
| | Turbo charger map statistics | | ✓ |
| | Characteristic map trace | | ✓ |
| Graphic functions | | | |
| Number of graphic object instances | | 100 | 1 000 |
| Simple forms | Line | ✓ | ✓ |
| | Rectangle | ✓ | ✓ |
| | Circle | ✓ | ✓ |
| | Curved line | ✓ | ✓ |
| | Speechbox | ✓ | ✓ |
| | Tabbed graphic area | | ✓ |
| Text elements | Plain string (rotatable) | ✓ | ✓ |
| | Plain text | ✓ | ✓ |
| | Formatted text | | ✓ |
| | MathML graphic | | ✓ |
| | HTML viewer | | ✓ |
| | Variables as text | ✓ | ✓ |
| Tables | Table of content | | ✓ |
| | Free table | ✓ | ✓ |
| | Interactive table | | ✓ |
| | Item property table | ✓ | ✓ |
| | Legend | | ✓ |
| | Spreadsheet | ✓ | ✓ |
| | Matrix table | | ✓ |
| Graphics | Digital display | ✓ | ✓ |
| | Bar graph | ✓ | ✓ |
| | Needle indicator | ✓ | ✓ |
| | Boolean display | ✓ | ✓ |
| | Controlled arrow | | ✓ |
| | Controlled image | | ✓ |
| | Curved line (controlled) | | ✓ |
| | Multi digital display | | ✓ |
| | Dynamic images | | ✓ |
| | Realtime table | | ✓ |
| | TY stripchart | | ✓ |
| Statistic & History dialog | | ✓ | |

2897A_003-476e-05.21

| | | Starter | Professional |
|---------------------------|---|---------|--------------|
| Graphs/Charts | Universal 2D chart | ✓ | ✓ |
| | - Line/Point diagram | ✓ | ✓ |
| | - Graph objects diagram | | ✓ |
| | - Scaled image | ✓ | ✓ |
| | - Timed images | | ✓ |
| | - Bubble diagram | ✓ | ✓ |
| | - Moving sprite | | ✓ |
| | - Box-Whisker diagram | | ✓ |
| | - Vector field diagram | | ✓ |
| | - Matrix diagram | | ✓ |
| | - Isoline/Contour diagram | | ✓ |
| | - Moving map | | ✓ |
| | - Engine map (characteristic field) | | ✓ |
| | - Difference engine map (characteristic field) | | ✓ |
| | - Turbo charger map (characteristic field) | | ✓ |
| | - Difference turbo charger map (characteristic Field) | | ✓ |
| | - Axis synchronization | | ✓ |
| | Universal 3D chart | | ✓ |
| | - 3D points diagram | | ✓ |
| | - 3D surface diagram | | ✓ |
| | - 3D waterfall diagram | | ✓ |
| | - 3D bar diagram | | ✓ |
| | - 4D surface diagram | | ✓ |
| Line/Points chart (polar) | | ✓ | |
| Radar graph | | ✓ | |
| Pie graph | | ✓ | |
| Graphic objects | ✓ | ✓ | |
| Vector field | | ✓ | |
| Multimedia | Dynamic images | | ✓ |
| | Image | ✓ | ✓ |
| | Audio player | | ✓ |
| | Video player | | ✓ |
| Control elements | Button (to run a command) | | ✓ |
| | Button (to start an action) | | ✓ |
| | Checkbox for boolean values | ✓ | ✓ |
| | Combobox (selector for strings) | ✓ | ✓ |
| | Command field | | ✓ |
| | Data item selector | ✓ | ✓ |
| | Data item reference holder | | ✓ |
| | Dialog configurator | | ✓ |
| Import controller | | ✓ | |

| | | Starter | Professional |
|-------------------------------------|--|---------|--------------|
| | Interactive table (multiple column types for display and controls) | | ✓ |
| | Iterable graph input controller | | ✓ |
| | Turning knob | | ✓ |
| | Multi button line (to start different actions) | | ✓ |
| | Property editor | ✓ | ✓ |
| | Radio buttons (selector for strings) | ✓ | ✓ |
| | Slider (selector for numeric values) | ✓ | ✓ |
| | Switch/Toggle button for boolean values | ✓ | ✓ |
| | Tabbed graphic area | | ✓ |
| | Text input field | ✓ | ✓ |
| | Time controller | ✓ | ✓ |
| | Value input field for numbers | ✓ | ✓ |
| | Command push button | | ✓ |
| Miscellaneous | | | |
| Messaging elements | Data object observer (trigger) | | ✓ |
| Data generator | Text matrix (2D) | | ✓ |
| | Actual time | ✓ | ✓ |
| | Basic graphic objects | | ✓ |
| | Numeric channel | ✓ | ✓ |
| | Grouped maps | | ✓ |
| | Numeric matrix (2D & 3D) | ✓ | ✓ |
| | Property map | ✓ | ✓ |
| | Signal data | | ✓ |
| | Text channel | ✓ | ✓ |
| | Time channel | ✓ | ✓ |
| Open street map (OSM) integration | | ✓ | ✓ |
| User interface and languages | | | |
| | Arabic | ✓ | ✓ |
| | Chinese | ✓ | ✓ |
| | Czech | ✓ | ✓ |
| | English | ✓ | ✓ |
| | French | ✓ | ✓ |
| | German | ✓ | ✓ |
| | Italian | ✓ | ✓ |
| | Portuguese | ✓ | ✓ |
| | Russian | ✓ | ✓ |
| | Spanish | ✓ | ✓ |
| | Swedish | ✓ | ✓ |

System requirements and recommendations

The system requirements for jBEAM Lab Starter/Professional very much depend on your analysis needs. The following system configuration is recommended for a setup that covers most use cases:

| | |
|--------------------|--|
| Operating system | Windows 10 |
| Processor | Intel Core i5-7500, 2.7 GHz or better (recommended) |
| Memory | 4 GB (minimum) |
| Mass storage | SSD (recommended) 2 GB free disk space for installation (minimum) |
| Display resolution | 1920 x 1080 / full HD (recommended) |

Ordering key

| | |
|------------------------|---|
| jBEAM Lab Starter | 1 |
| jBEAM Lab Professional | 2 |

Type 2897A



2897A_003-476e-05.21