

jBEAM – state-of-the-art test data analytics software



Full-scope visualization and analysis of your measurement data

jBEAM is your professional software for data analysis, visualization and report generation. Its modern architecture allows to use it as desktop application, as interactive server application or as individually extendable class library. It is based on Java and therefore independent of the operating system. jBEAM is made for working with big data, and supports numerical data as well as audio, video and geographical data.

Interactive analysis

Accomplish the required analysis quickly and efficiently

- Work dynamically with your test data
- Interactive control elements (cursor, input field, knob, slider etc.) for parametrization of calculations
- Export configurations analysis as a template for future reporting
- Prepare measurement data for data science application

- Use predefined templates for projects, diagrams, page layouts (table of contents, header, footer, ...) and calculation groups
- Offer these services company-wide or even to our customers with jBEAM Webservice - our analysis engine for parallel reporting and format conversion at scale-on-Premise or into the cloud
- Add analytics and reporting capabilities to your MDM by integrating jBEAM

Automated reporting and conversion

Create complete test reports

- Reports with more than 500 pages
- Formats such as PDF, Word, Powerpoint, HTML and more
- Enrich and convert your measurements into data formats, like MDF, MATLAB or Excel

Data acquisition and process control

Easy hardware integration

- Perform recordings and live evaluations with a wide range of measurement systems in industry (OPC UA), vehicles (CAN Bus) or R&D (Kistler LabAmp, NI DAQ, HBM QuantumX, ...)
- Operate user interfaces and control test benches with jBEAM

Integration and customization

Open interfaces to enterprise solutions

- Continue to use your existing solutions even within a jBEAM evaluation by writing Python or Groovy scripts, embed MATLAB JavaBuilder files or write your own Java Plugins.
- jBEAM is optimized for worldwide MDM (measurement data management) systems, either third party MDM systems or Kistler's own MaDaM, which is designed to profit from the jBEAM features: integrate it your way!
- Works well with other Kistler products, like KiStudio, KiDAQ, and LabAmp.

Data post processing

- More than 100 file formats are supported
- Incl. CAN-data, NetCDF, ASAM-ATFX, ISO MME ...
 - Stand-by-channels
 - Auto load when used
- Auto resampling to common time grid
- Auto reload for changing file content
- Video and audio support
- Geodetic: GPS calculations
- Map diagrams based on: OpenStreetMap, Google, HERE & Bing

ASAM Standards (reading and writing)

- ODS data base and files
- MDF

Big Test Data

- Distributed workflow in the network
- Apache Kafka Interface
- Ideal to integrate into MDM systems

Fields of application

jBEAM can be used in a multitude of application fields. It is a powerful and universal tool for processing test data of any kind.

jBEAM Editions

jBEAM is offered in different editions bundling the features for your domain, e.g.

- **jBEAM Lab** – universal solution for data acquisition (e.g. with LabAmp Charge Amplifiers) and analysis
- **jBEAM Durability** – for fatigue analyses, e.g. with special calculation modules: damage accumulation, rainflow analysis, spike detection
- **jBEAM Powertrain** – with calculations and diagrams you need for engine tests and exclusive support of KiBox and KiBox2

jBEAM Cluster

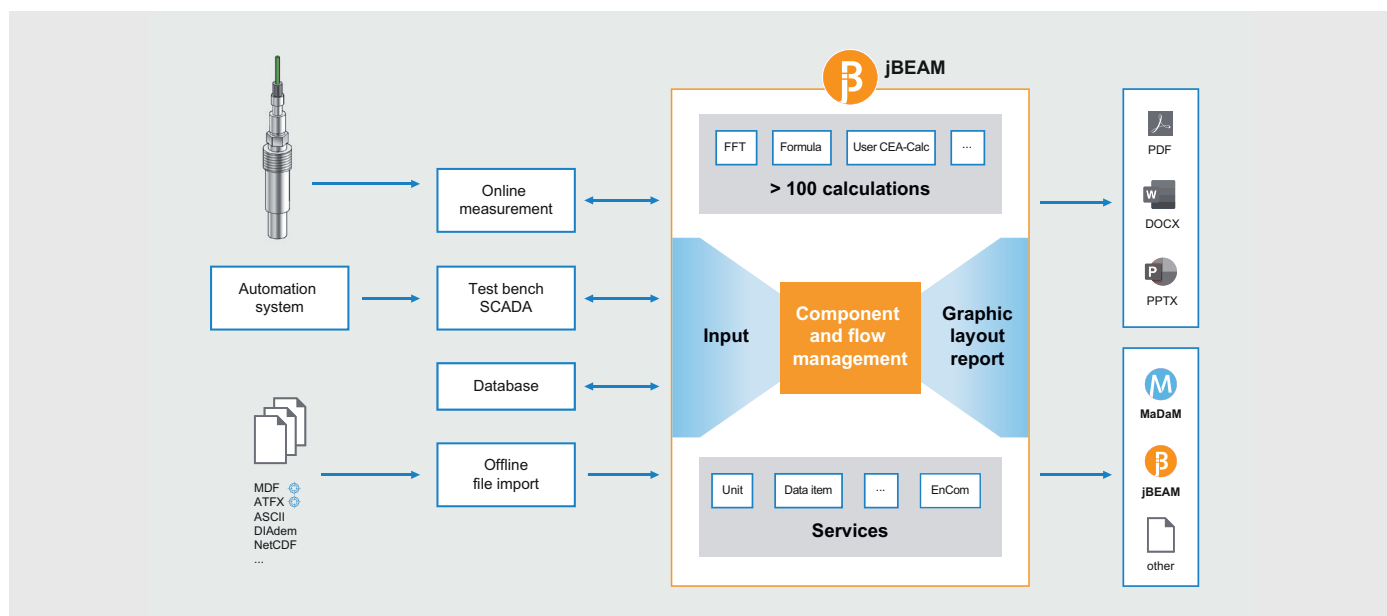
- Application-oriented, parallel evaluation of a multitude of data sets, based on engineering algorithms
→ ideal support for data science ventures
- Parallel evaluation on a local machine or on several nodes
- Supports conventional NAS structures
- Supports MDfS: the high performance file storage system with multiple nodes (Measurement Data Distributed File System)

Data Mining

- Multi-layer framework to analyze Big Test Data with the goal to extract new information from existing data
- Ready to use data mining algorithms (layer 1): K-Means, Apriori, Predictions, PCA, ...
- Extensible framework (ASAM, CEA compatible) for customized engineering specific algorithms (layer 2)

Pivot table analysis

Aggregate huge table data to get on overview of the relevant information.



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measure. analyze. innovate.