

BATALYSE

Automated data processing in R&D, QM and production

Markus Hagen, Eran Nave, Josef Quan Nguyen, David Hui Shyan Lau
Batalyse GmbH, Walzbachtal Germany Contact: contact@bataylse.com

Phone +49 176 244 716 88



LINKEDIN



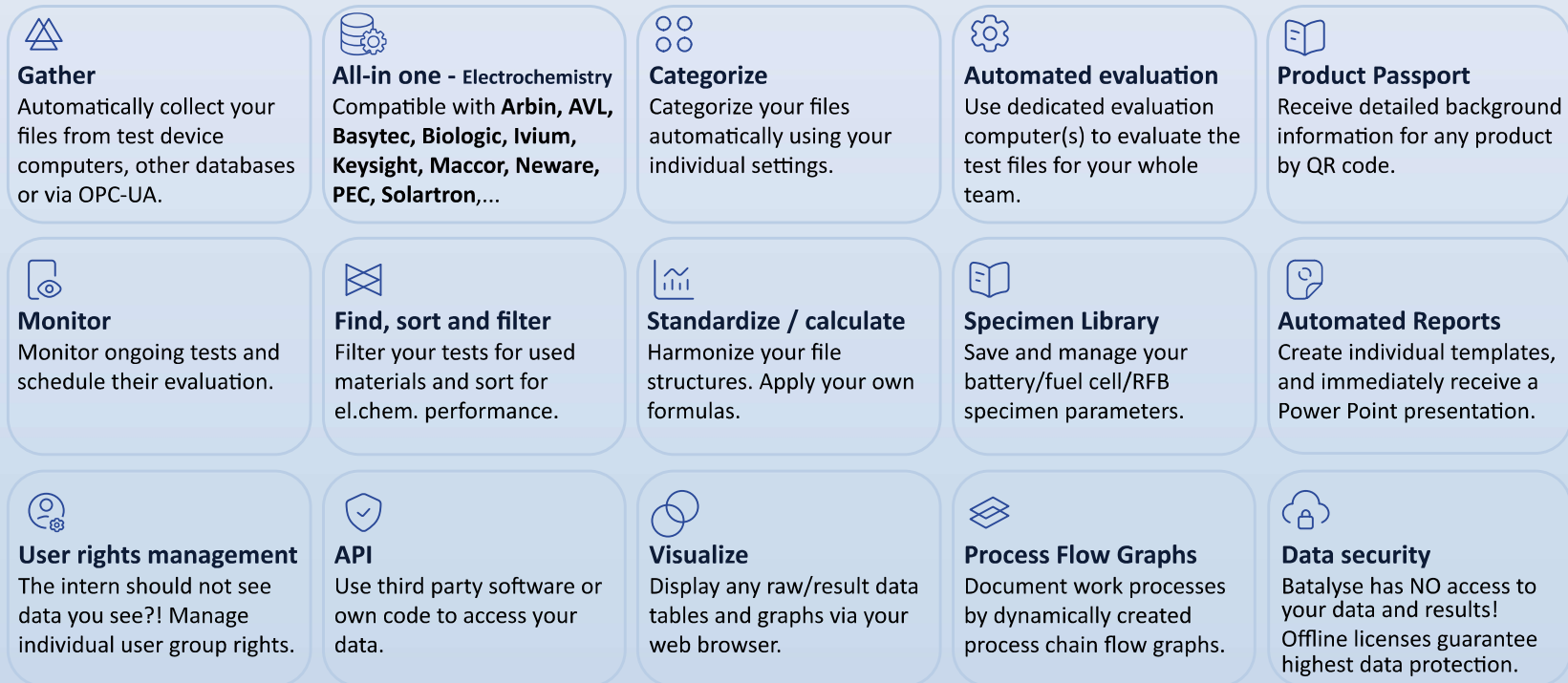
VCARD

INTRODUCTION

In the realm of research and development, various data types and file structures often pose a time-consuming challenge for data preparation. **Batalyse** addresses this issue by automating data processing and management, providing a streamlined solution for any test device and file structure.

EXPERIMENTAL

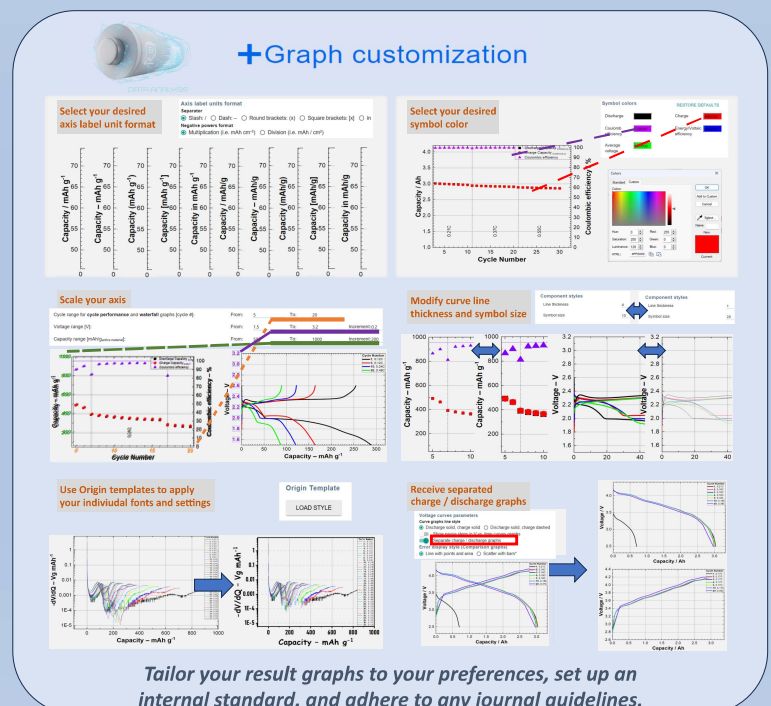
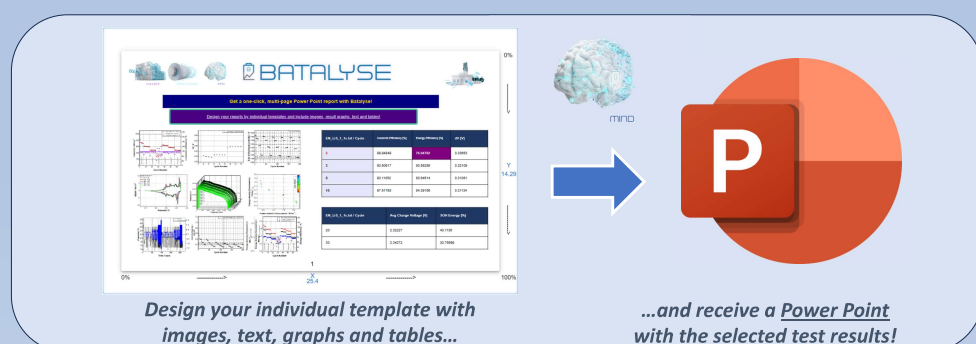
The Batalyse software suite comprises independent yet seamlessly combinable modules: "Collect", "Data Analysis", and "Mind".



Collect is a database tool designed to gather, standardize, and categorize your data automatically. It saves and links raw data, result tables, and result graphs, including a library for specimens and test plans. Users have the flexibility to apply their own nomenclature to extract additional information from the file name and manage user rights. The system allows easy filtering and sorting of test files based on electrochemical performance. Through an API, specific production batch test files can be extracted and analyzed by an AI, identifying correlations between performance and process parameters.

Data Analysis independently evaluates and benchmarks electrochemical files, regardless of the applied test device or file format. It generates over 100 customizable result diagrams in the language of your choice. When combined with "Collect," Data Analysis automates the evaluation process, uploading all result diagrams and tables to the database.

Mind serves as a comprehensive Lab Information and Management System (LIMS), integrating multiple databases such as chemicals, hazardous substances, products, projects, processes, and test/result data. When acquiring new chemicals, the system automatically incorporates information from "PubChem." Efficiently identify lab chemicals through custom labels, complete with QR codes for easy recognition. Document and illustrate your work using process chains, providing convenient access to all relevant information. Automate report generation and receive ready-to-use PowerPoint presentations. The system also includes a product passport feature, showcasing selected information for external customers while thoroughly documenting all details for internal users.



CONCLUSION

The Batalyse software automates data processing for R&D, QM and production of **batteries, redox flow batteries (RFB), fuel cells, and electrolysis**. It seamlessly links and structures all data and information, allowing convenient access through an API. This integration facilitates the identification of correlations between process parameters and product quality using artificial intelligence (AI).



Baden-Württemberg
MINISTERIUM FÜR WIRTSCHAFT, ARBEIT UND TOURISMUS
Förderprojekt: BW1_5010: Automate