



SMART ANALYTICS SERVICE

Connect your data with your algorithms in one platform.



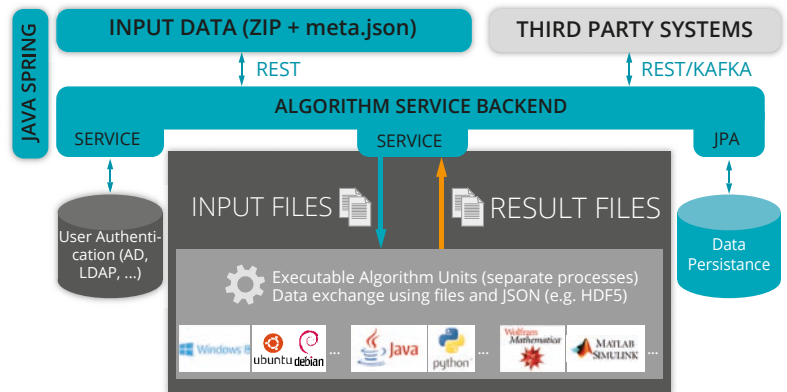
What is Smart Analytics Service?

Smart Analytics Service is a scalable microservice infrastructure, which connects data with your inhouse-developed algorithms. Import, identification and assignment of incoming data is done continuously and automatically. Thus data, like industrial IoT data or financial data can be interactively linked and processed

by your algorithms. Different technologies such as native executable, scripts, Java, Scala, Python, Mathematica notebooks, Matlab Runtime, etc. are supported. Incoming data can be linked to various algorithms based on meta information tags of your data.

Functions of Smart Analytics Service

- OS and programming language agnostic algorithm support (executables, scripts, versions, configurations, ...)
- arbitrary data collection via REST endpoint or Apache KAFKA
- smart meta information parsing of input data (JSON)
- highly configurable data to algorithm routing
- smart retrieval of previous results as additional algorithm input
- processing options of input data: chronological, timeout, maximum instances



- full featured HATEOAS-compatible REST interface (including Swagger UI documentation)
- web-based algorithm management interface
- graphical filtering/ordering of inputs and algorithm results
- email notifications on warnings/errors during algorithm execution
- simple deployment (Java Spring Boot Web as single jar)
- support of multiple relational databases via JDBC (Postgres, MariaDB, Oracle, H2, Derby, MSSQL...)

Benefits of Algorithm Service

- ✓ time saving due to automated import, including identification and classification of the algorithms – your focus can be placed on the development of new algorithms
- ✓ included version and configuration management of your uploaded algorithms
- ✓ customizable and secure web interface offers rich upload, download, management and search functionalities
- ✓ interactive resend/recalculation features to reapply new algorithm version to historic data
- ✓ on-the-fly algorithm invocation via REST module execution endpoints
- ✓ high scalability through containerized hosting (e.g. Docker, Kubernetes, ...)