LOTYLDA BI
Business Intelligence

ABOUT LOTYLDA BI

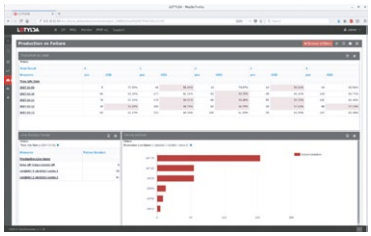
It is an **online platform for collecting, storing and analyzing data. It is available via web browser.** It provides the tools for ETL creation, data storage, reporting, analysis and prediction modules. It includes its own data tool OptiMiner based on the GUHA method. It enables data analysis thanks to database cluster. Real-time data is recorded to a memory persistent database. LOTYLDA can be enlarged by add-ons.

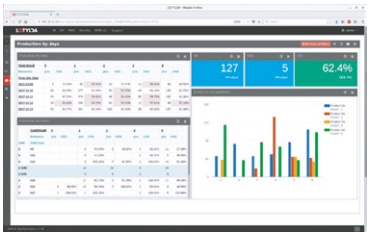
DATA PUMPS

They serve for **repeatable and continuous collection of data** from the following resources:

- REST API
- database (MSSQL, MySQL, PostgreSQL, MongoDB, Oracle etc .)
- word processors
- machines connected via OPC-UA, Profinet, Modbus
- cameras, pictures or videos

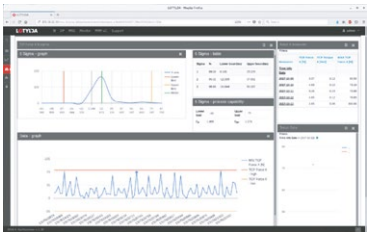
They can run real-time analysis using statistical methods, algorithms for processing signals or neural networks. They are able to iterate with BI when processing the scanned data by retrieved historical data. The flow of data pumps is monitored and controlled by DP Management. Data Pumps are run by physical (PC, Raspberry PI) or virtual machines.





REPORTS AND ANALYSIS

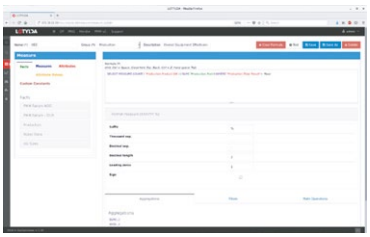
It is possible to generate reports and dashboards that can be consequently shared with other users when opened in a web browser environment.
The analysis can be supported by statistical analysis functions, it is possible to add prediction using statistical models or neural networks. All metrics are user-defined using their own LolaQ language, and are instantly available. It is possible for the user to create customised attributes. Reports and dashboards can also be used in other applications.



DATAMINING – OPTIMINER

To find non-trivial dependencies, LOTYLDA uses its **own datamining tool OptiMiner,** which is developed in collaboration with Prof. Jan Rauch and Doc. Milan Šimůnek. GUHA (General Unary Hypothesis Automaton) method is applied.

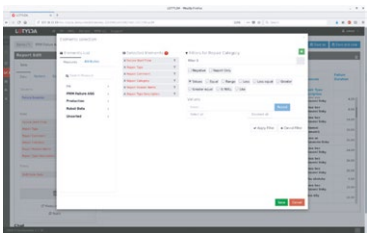
It enables the analyst to search for data and find interesting connections without the need to identify hypotheses in advance.



NEURAL NETWORKS

Processes detected by datamining can be **simulated using neural networks.** The system LOTYLDA uses convolutional neural networks.

These can be used for:
• prediction • simulation • classification
A learned model can be used in the dashboard as an explanatory element.



ACCESS RIGHTS

It is possible to define the possible access to objects (metrics, reports, dashboards) and data based on the structure (to what extent can the user / group access the data) or based on the content (what data can be accessed by a user / group).
The system is interconnectable with LDAP / AD.

LOTYLDA
...for smart decision

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