

FIELD system

CONNECT







DESCRIPTION

OPERA PREDICTIVE

OPERA PREDICTIVE is an **industrial web-based predictive analytics app**, developed for FIELD system platform. The application is perfectly **integrated with FIELD system**, in order to automatically gather in real time devices critical parameters (vibrations, temperatures, pressures etc.) that could generate machine failures and/or produce scraps or defective products. OPERA PREDICTIVE uses the emerging technologies and trends in the manufacturing sector (**IoT**, **Big Data, AI, ML, Cloud Neural Networks**) to implement **predictive techniques on the device** (CNCs, robots or other production equipment).

The app enables to continuously monitor equipment critical variables and, using cloud neural networks, allows to identify and predict anomalous deviations that could result in a machine failure (predictive maintenance) or in a defected product (predictive quality). The app allows to visualise in web-based dashboard the device critical parameters and for each variable a dedicated dynamic and intuitive graph is accessible to the user. Marked by different colours, real time and predictive values over time are displayed, including the calculation of the prediction reliability. Operators, maintenance or quality managers are immediately notified about predictions that show a variable going out of limits, so that they can take actions before the issue arises.

OPERA PREDICTIVE OEE is perfectly integrated into the complete **OPERA MES Platform**, international MES to implement the "**Digital & Smart Factory 4.0**", across any company size, connecting any device and managing any operation (Production, Material, Quality, Maintenance). OPERA MES is a product by Open Data Srl.

KEY BENEFITS

- Gain visibility into device conditions and its health status
- Minimise unplanned machine downtimes and failures
- \bullet Improve equipment uptime ϑ efficiency
- Reduce maintenance costs (do maintenance only when needed!)
- \bullet Improve product quality ϑ customer satisfaction
- Proactive informed decision making

KEY FEATURES

- Integration with FIELD system
 Gather machine critical parameters in real time
- Condition Monitoring
 Continuously view in real time equipment status and conditions
- Cloud Neural Networks & Predictive Formulas

 Diagnose deviations and anomalous behaviour using

 AI-driven techniques
- Dynamic & Intuitive Dashboard for rapid comprehension of the issues

For each variable, display real time values and upcoming predictive ones, by also indicating the percentage of prediction reliability

• Predictive Maintenance

Predict deviations that affect the health status of a machine and carry out maintenance tasks before the failure occur

Predictive Quality

Predict deviations in specific process parameters that affect product quality and implement concrete quality measures

- Visualisation & Management of Alarms & Notifications
 Visualise alarm messages on the machine dashboard & send them to third party mobile messaging apps
 (e.g. Telegram)
- Native integration into OPERA MES Platform Implement Industry 4.0 Projects





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APP PREVIEW

OPERA PREDICTIVE









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