

Motor 360

SmartService – higher asset availability with data analytics



The challenge

The conveyors that keep parcel operations running depend on drives. Frequently systems run into a failure mode due to mechanical problems. An unexpected drive failure can even interrupt operations entirely. The consequences are costly damage and downtime, which also affects system availability.

For operation and service teams, maintaining particular system components very often require partial disassembly of a conveyor line before any work can be performed. With hundreds or even thousands of motors in a single material handling system, maintenance is a time-consuming task.

Our solution

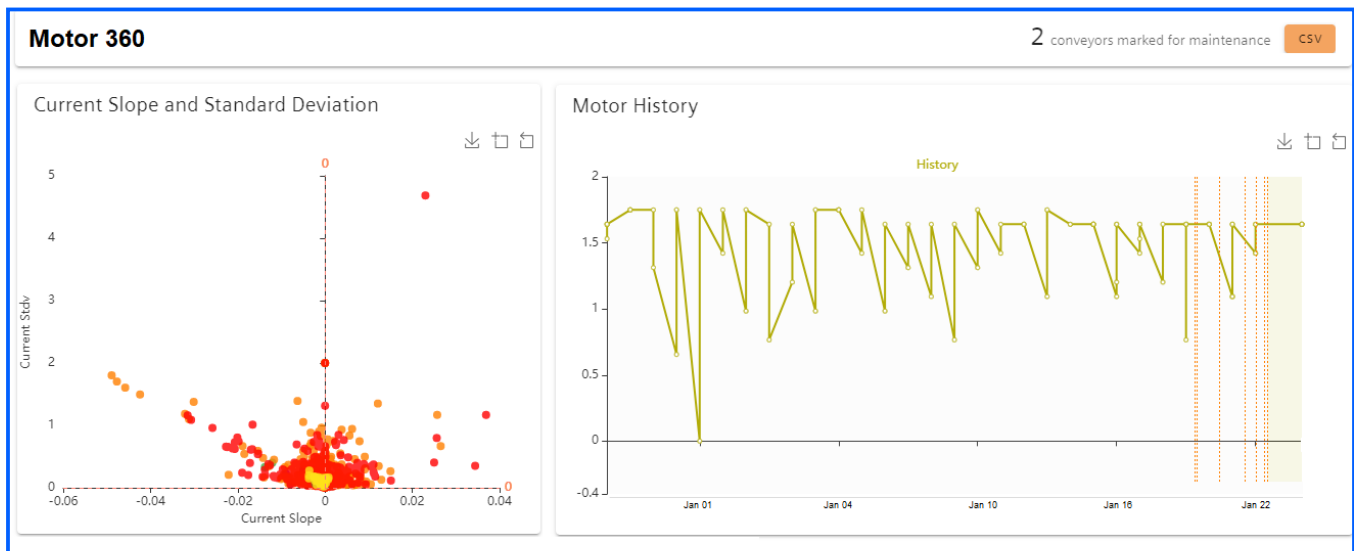
Motor 360 provides transparency on asset health and helps with detailed and early localization of deteriorating conditions. To begin, data from the programmable logic controllers is gathered and transmitted to a repository for further analysis. Observations of motor data over a longer period provide a reliable indication of potential maintenance issues. This allows to take necessary measures in good time.

Motor 360 goes further by analyzing data from drives detecting potential failures of mission-critical components. That avoids unexpected downtimes, and keeps a material handling system operating more reliably.

Furthermore, Motor 360 assists with the prioritization of maintenance activities, putting critical drives at the top of the list for service personnel.

Customer benefits

- Increased system reliability and availability feasible due to predictive analytics and transparency of asset condition
- Reduction of unnecessary work with targeted, condition-based, just-in-time maintenance actions that save resources, time and money
- Efficient workload coordination thanks to permanent monitoring and analysis
- Fast, full diagnostics at a glance using modern dashboard visualization



Just-in-time maintenance

Predictive analytics as described here forms the basis for condition monitoring maintenance strategies. When predictive maintenance information is embedded in a maintenance plan, benefits include just-in-time equipment servicing, a balanced workload for the service team, as well as optimized spare parts utilization and stock management.

Above and beyond that, by streamlining maintenance higher levels of operational availability can be achieved while increasing efficiency and productivity - both in operations and in maintenance teams.

Analytics and visualization concept

The captured condition data – and additional statistics such as operating hours and asset start and stop times – is transferred via a secure protocol to intelligent data hubs for advanced analytics.

The Motor 360 dashboard employs detailed charts, graphs and tables to visualize system status. The displayed dashboards can be adjusted according to customer needs. Furthermore, various options are available to adapt the application to special requirements and preferences.

Prerequisites

- VFD with PROFINET communication
- Motor 360 PLC libraries
- PLC OPC UA server enabled
- LogX4 deployment with network access to conveyor PLCs

