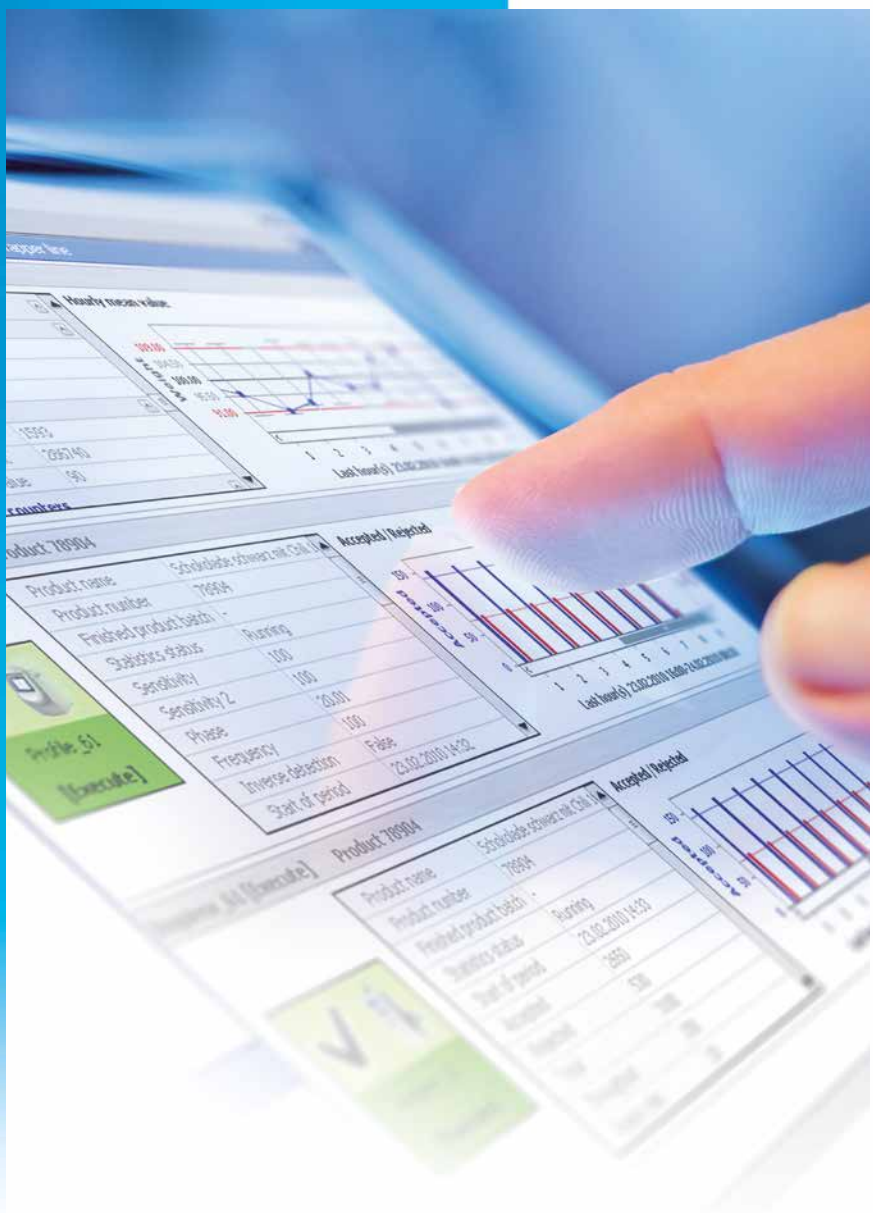
Product Inspection



ProdX

Providing process transparency

Increasing productivity

Facilitating quality assurance

Enhanced Production Line Performance

ProdX Data Management Software

METTLER TOLEDO

Quality, Productivity & Transparency
Saving Time, Reducing Costs

The pressure on manufacturers to comply with multiple standards and regulations is growing. This is accompanied by increased consumer demands for product diversity, a push for tighter production tolerances and the desire for enhanced productivity. These requirements can be addressed by connecting equipment through software and managing production data centrally.

Gathering data from product inspection devices such as in-line checkweighers, metal detectors, x-ray and vision inspection systems is essential for today's manufacturing facilities. ProdX software from METTLER TOLEDO makes product inspection data management easy by providing full traceability of production processes, real-time monitoring of Critical Control Points (CCPs) and easy data gathering. ProdX is becoming a key element for producers to have transparency of plant activities.

Increased efficiency

By logging user activities and events, monitoring the effectiveness of CCPs and visualizing product waste, ProdX supports quality assurance regimes and helps to achieve a consistent product quality. Automatically recording of routine monitoring tests of CCP's reduces workload saving valuable time.

Enhanced productivity

By showing how product inspection equipment is performing, ProdX allows you to achieve more with your devices. ProdX provides process visibility, allowing you to monitor the performance of production as well as store product parameter and changeover data centrally.

Process transparency

Manufacturing Execution Systems (MES) are essential for collecting data from all aspects of the production floor. As an intermediate system, ProdX simplifies the networking of inspection devices with the MES and provides reports for compliance with standards and regulations.

Flexibility in production

Connectivity and ease of data network integration are paramount in today's production facilities. ProdX can harvest data from many third-party product inspection devices, giving you a complete overview of your production processes.

Pulling All The Strings: ProdX is The Central Productivity Tool

ProdX allows you to connect and control your entire product inspection management process from a single point or from multiple remote locations, eliminating the need for time-consuming production line patrols. The software collects data from product inspection equipment and captures the relevant production data. ProdX is able to trigger alarms or send warnings via emails or SMS messages to specific users if process adjustments are required.

ProdX Features and Benefits:

For all product inspection systems:

- Logs events (alarms, warnings)
- Logs activities such as user intervention, parameter changes etc.
- Logs all rejects, optionally inclusive of an image (only with x-ray and vision inspection system)
- Creates e-mail or SMS alerts to notify users about incidents
- Performs product or batch changeover for all product inspection devices in a line
- Provides production data to superior system via OPC UA Server

For vision inspection systems:

- Automatically collects, monitors and documents counters per station and cameras

For metal detection and x-ray inspection systems:

- Monitors critical control points (CCPs)
- Automatically collects, monitors and documents counters and incidents
- Automatically logs tamper-proof performance tests results

For in-line checkweighing systems:

- Automatically collects, monitors and documents hourly batch or total statistics for documentation according to legal conformity
- Optionally collects all individual weight values
- Creates and maintains product setup parameters in central database and downloads parameters to one or multiple checkweighers

Improving Quality
Creating a Compliance Strategy

Consistent product quality is a core building block within any company. The majority of manufacturing industries are governed by a mix of internal and external regulations and standards. In the food and beverage industry, these include the British Retail Consortium (BRC), International Featured Standard (IFS) and the Food and Drug Administration (FDA). Legislation and Good Manufacturing Practice (GMP) are also major drivers for product quality.

ProdX software automatically collects inspection data and records any parameter changes made to the product inspection system, as well as operator activities in one convenient location. This significantly reduces the need to interact directly with the CCPs on your factory floor and saves time and effort by enabling quality operatives to focus on other issues. ProdX also collects data to meet local Weights and Measures legislation, and supports compliance with Global Food Safety Initiative (GFSI) standards.

Monitoring the Effectiveness of CCPs

ProdX provides real-time monitoring of inspection devices, ensuring processes are under control at each CCP.

Corrective Actions

ProdX logs any incidents occurring in the inspection process and allows a cause and corrective action to be entered to reduce the likelihood of recurrence.

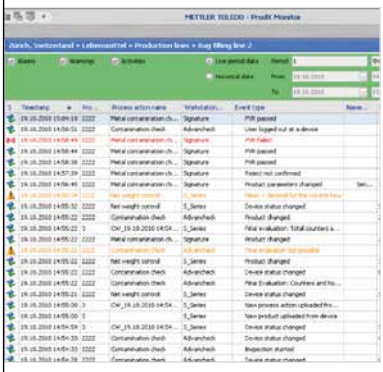
Verification

Manufacturers are required to conduct performance verification tests at defined intervals. ProdX logs and documents every test execution and result.

"If you think compliance is expensive, try non-compliance."

Former Deputy U.S. Attorney General Paul McNaulty

Record Keeping and Documentation



To support GFSI compliance with focus on HARPC, ProdX keeps all production data in a central database from which reports and documents can be easily accessed.

The 7 Principles of HARPC

ProdX enables users to log their product inspection equipment performance tests, strengthening compliance with the **Hazard Analysis and Risk-based Preventive Controls** (HARPC) framework. This provides the necessary documentation to support compliance audits.

1. **Identify Hazards**
2. **Risk-based Preventive Controls**
3. **Monitoring of Effectiveness**
4. **Corrective Actions**
5. **Verification**
6. **Record-keeping and Documentation**
7. **Requirement to Reanalyze**

Enhanced Productivity
Getting the Most out of Your Processes

A competitive edge in the market is what most manufacturing businesses strive for. Productivity is one of the essential assets for reaching this goal.

ProdX can help to increase productivity by facilitating:

- Faster and less error-prone product or batch changeover
- Early detection of trends for process correction
- Central management of CW and MD product and device parameter setups
- Support of PackML tags
- An increase in Overall Equipment Effectiveness (OEE)

Faster Product or Batch Changeover

With ProdX, product or batch changes can be performed from a single point for all inspection devices in a line, making changeovers quicker and less

Early Detection of Trends for Remedial Action

When non-conforming products are detected, ProdX will help to identify trends and instigate preventive action where necessary to prevent recurrences.

Central Management of Device Parameters

ProdX allows checkweighing and metal detection product setup to be maintained centrally and downloaded to additional production lines, reducing time and workload.

Supports PackML for Operational Consistency

ProdX contributes to operational consistency and data exchange across production facilities by supporting the PackML standard.

Strengthening Production Processes

Improving Overall Equipment Effectiveness (OEE)

By allowing the entire product inspection management process to be controlled from a single point, ProdX reduces the need to interact directly with CCPs and helps to increase OEE by providing alerts when devices are not performing as expected.

1. **Faster Product or Batch Changeover**
2. **Early Detection of Trends**
3. **Central Management of Device Parameters**
4. **Support of PackML**
5. **Strengthening Overall Equipment Effectiveness**

Transparency at All Levels
From Sampling to 100% Inspection

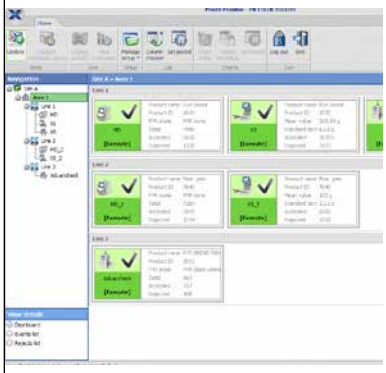
Transparent production processes that are monitored and documented in real time are essential in manufacturing today. They make it possible to quickly respond to anomalies in the production process when manufacturing safety-critical products.

Quality assurance and production managers are often not directly at the production line to see exactly what's happening. By capturing, compiling, evaluating and visualizing all production and statistical data, performance tests and parameter changes, ProdX offers a condensed overview of device status, helping decision makers gain valuable insight into the production process at a glance.

Remote View of Product Inspection Devices As They Work

ProdX allows you to check the status and results from your product inspection devices remotely.

ProdX Dashboard for Clear Information at a Glance



An easy to read dashboard gives a condensed overview of the status and production figures of each inspection device.

Logging of Product Changeover and/or Parameter Modification

ProdX logs any activities such as modifications or parameter changes for each inspection device.

Tracking of Non-conforming, Rejected Products

All non-conforming products are logged with the time stamp, reject image and reason for rejection. In addition details about the corrective measures can be added.

Production Plant Data

Improved Transparency and Accessibility

Improved process efficiency and faster response times are crucial assets to higher productivity. To increase productivity, it pays to keep an eye on the most important parameters such as uptime, line throughput and waste rate. ProdX provides all this data in real time, whether you're at your desk or on the production floor.

1. **Remote View of Product Inspection Devices**
2. **Easy to Read Dashboard for Clear Information at a Glance**
3. **Logging of Product Changeover and Parameter Modification**
4. **Tracking of Non-conformant, Rejected Products**
5. **Logging Performance Test Execution and Test Results**

Enhanced Functionality and Integration
Alarms Can Provide Peace of Mind

The effective relaying of information is vital in today's production plants. Making full use of resources and avoiding the inefficient transfer of information is critical. ProdX ensures that no piece of information is lost and all data is used to its full potential.

ProdX captures and compiles data from various product inspection devices, including third-party equipment, giving you valuable insight into the production process at all times. It allows users to configure alerts which can be used for on-call management, enabling staff to be more mobile, more efficient and capable of performing additional tasks simultaneously.

Email and SMS Alarms for Quick Remedial Action

When pre-defined events occur, users are immediately alerted by email or text message.

MES/ERP Connection for Smooth Integration

The ProdX OPC-UA server offers smooth system integration into customers' ERP and MES systems.

Ease of Installation and Configuration

ProdX offers an easy installation and setup of connected inspection equipment in comparison with similar SCADA or MES systems.

Integration of Third Party Inspection Devices

ProdX is capable of analyzing and harvesting production data and events from third-party equipment.

New Levels of Monitoring and Control
Over Your Production Process

By providing seamless integration of product inspection devices, ProdX makes processes more streamlined, more accessible and more efficient, helping you remain in control of your production process by providing data whenever and wherever you need it.

1. **Email and SMS Alerts for Quick Remedial Action**
2. **MES / ERP Connection for Smooth Integration**
3. **Easy Installation and Configuration**
4. **Integration of Third Party Inspection Devices**
5. **New Levels of Control Over Your Production Process**

See How it Works

Take an On-Line Guided Tour

Visit our website to find out how ProdX data management software can support quality and productivity in your daily production.

www.mt.com/prodx

ProdX on YouTube

www.mt.com/pi

For more information

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Subject to technical changes.
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