



BROCHURE

IMPROVE EFFICIENCY THROUGH ADVANCED LINE PERFORMANCE MANAGEMENT

Line Performance for Manufacturing

A software solution for manufacturing plants to capture and evaluate line performance, enabling equipment uptime, line throughput quality and OEE improvements.



AVEVATM



Overview

In the face of increasing market competition and rising consumer expectations, maximising equipment utilisation, productivity and quality, and minimising production losses are critical factors for manufacturers to stay profitable.

To achieve this, manufacturers need to identify causes of production losses and opportunities for improvement, work on continuous improvements, and optimise resources utilisation in the areas of human, equipment and materials.

Line Performance by AVEVA is specially designed for manufacturers to meet this purpose. It enables manufacturers to evaluate line performance, with the capability to capture data and perform root-cause analysis on production losses. Its model-driven capability allows best practices and business rules to be documented into and enforced by the system, enabling performance sustainability through operation governance, standardisation, workforce empowerment and accountability. The solution is available for manual plants where data entry is worker-based, for fully automated plants where data is collected directly from automation systems, and for semi-automated plants where data entry can be a combination of human effort and system capture.

Line Performance offers:

- Real-time data acquisition and visibility of production equipment utilisation performance and production progress
- A comprehensive work order handling platform with whole plant work order management and overview, individual machine work order execution, progress and queue.
- Tools including content cards, dashboards and analytic reports for performance monitoring and evaluation, covering all production, quality and maintenance aspects of line management
- Sophisticated data processing capability to process large amounts of data in a short time
- Reduced deployment effort, with the ease of installation configuration and customisation

Line Performance can be incrementally deployed, avoiding the "big bang" of MES deployments, allowing you to start small and scale according to your needs. What's more, the solution comes with a standard solution installer, configuration wizard and customisation tools which provide the "baseline" for customisation, mitigating the risk of deployment.



How Line Performance works

Line Performance manages overall packaging line performance with integrated reporting and analysis fed from the process. In addition to being a work order management and execution platform, it provides dashboard and production reports, enabling users with real-time information of packaging line performance and the capability to identify performance improvement areas. The solution enables manufacturers to maximise performance of their lines by:

- Providing a platform for work order management and execution
- Enabling real-time data acquisition and providing visibility of production equipment utilisation and production progress
- Providing tools for in-depth performance evaluation
- Enabling a workflow-driven framework for performance sustainability, standardisation, and promoting workforce collaboration, enforcement and accountability

It's easy to buy – you simply choose the number of OEE data capture points. That's it.

Line Performance Features

Process Modeling and Data Categorisation

Line Performance provides the capability to define the assets model, user needs and control and information requirements. Work orders, dashboard and reports can be replicated to follow the same definition once the process model is constructed. This facilitates performance evaluation as data is captured and put directly into context.

Utilisation Management

Line Performance provides an interface for handling of utilisation events. Equipment utilisation states and reasons can be recorded manually or automatically by linking the PLC signals. The interface supports comments, merging and splitting of events, enabling accurate reporting. The solution is also able to administer full visibility by displaying an overview of utilisation performance, including events timeline and summary.

Business Values:

- Increase Return on Assets (ROA) through in-depth performance evaluation to maximise process equipment utilisation
- Maximise profitability through low start-up costs
- Leverage the agility to rapidly deploy process improvements



Figure : Line Performance provides an interface for utilisation data handling and full visibility of utilisation performance.



Work Order Management and Execution

Line Performance work order capability is equipped with work order management console and work order execution console.

The work order management console consists of a work order overview for whole plant production status monitoring. In this mode, work orders can be created or deleted, assigned to a line or moved to another line. Detailed information of each work order can be viewed and status can be changed as needed.

The work order execution console is used to view and execute the work order assigned to the line. This enables the user to see all the working orders assigned to the line, starting and ending work orders to capture corresponding production counts, events and reasons.



Figure : Manage and execute work orders easily in Line Performance

Dashboard and Reports

Line Performance dashboard and reports are based on Lean Manufacturing and Total Productive Maintenance (TPM) practices. They offer useful information for the production, quality and maintenance teams, such as OEE details, loss analysis, production details, MTBF and MTTR.

With a single data entry platform, data are categorised automatically. Users are able to obtain performance overview of equipment and line through dashboard and retrieve details for analysis through reports. The dashboard and reports help users save valuable time by eliminating the need to consolidate massive amount of data and generating reports for production meetings and production loss deployment exercises becomes a breeze.

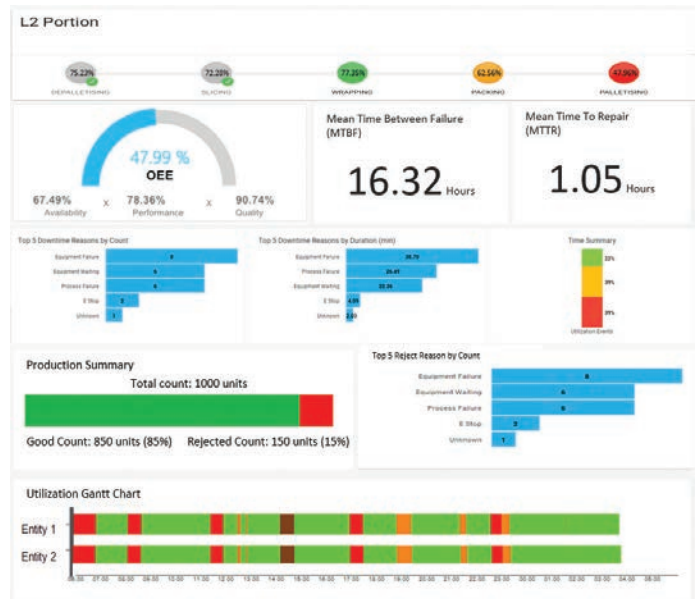


Figure : Rich dashboard provides KPIs at a glance



Model-driven Approach

Line Performance's model-driven capability allows best practices and business rules to be brought into the system. Users are able to embed process improvements for performance sustainability in day to day production operations. Line Performance acts as a comprehensive continuous improvements and change management tool.



Predefined Contents

The user interface, dashboard and reports are predefined, and allow for modifications and customisations. This reduces setup and deployment complexity, project cycle and delivery timeline while maximising usability and flexibility.

Content Cards

Line Performance is equipped with useful content cards, providing users clear visibility of production status including group summary, entity summary and entity actionable summary.

Users are able to select different types of content cards to form a customised view. For example, users are able to use content cards to obtain an overview by area, by line or by equipment. Content cards can also be used with other internal or external content to form a customised view.



Workflow-Driven Configuration

Configuration is effectively guided through workflow-driven questions. The step-by-step wizard provides ease of setup.

Customisable Page Views

The contents page is dynamic and can be created or modified by simply selecting content cards of interest to the user. Users are also able to fetch contents from other internal or external sources. The Navigation Menu enables convenience for users to select newly created or customised pages.

Foreign Language Capability

Text shown in Line Performance are labeled with resource key, supporting quick switching between languages. The solution allows new resource keys to be added in the event of newly added contents and customised pages. Translation or change of resource key values can be done either by importing a .csv file or by specific label editing.

PackML Compliance

Template is available within Line Performance for faster and easier deployment on PackML-compliant machine. Machine states and logics triggering the states are predefined according to OMAC PackML standards.

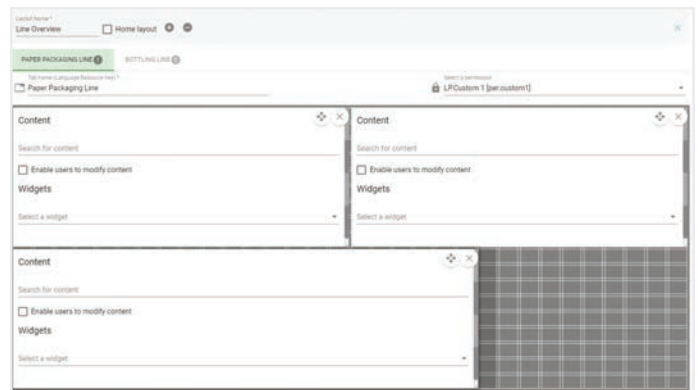


Figure : Line Performance allows new pages to be easily created or modified to fetch contents from other internal or external sources.



Line Performance Benefits

Optimise Throughput and Equipment Utilisation

Line Performance is unique in its comprehensive data acquisition and processing capability. It can run large volumes of process data quickly without affecting system performance. This provides real-time information needed to enable in-depth line performance evaluations and actions required for process improvements.

Empower Operations

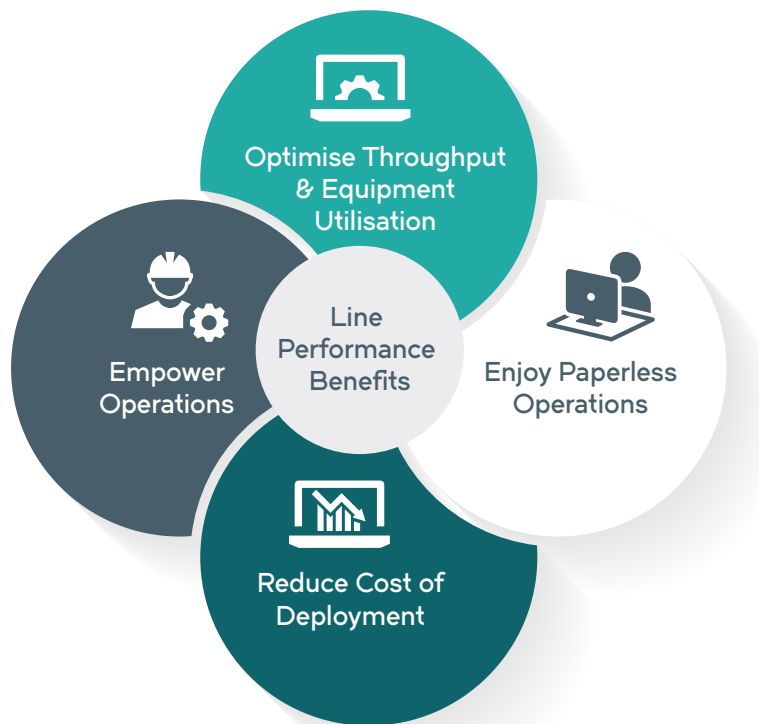
Equipped with an easy-to-use user interface dashboard and reports, process engineers can quickly access both real-time and historical data. Rich performance reporting and analysis covers all relevant information needed for production, quality and maintenance teams.

Reduce Cost of Deployment

A predefined / standardised user interface, along with dashboard, reports, configuration and installation procedures, reduce the customisation time needed for deployment. This makes the installation and configuration easy, reduces the engineering time and cost and mitigates the risks and errors that could happen during deployment.

Enjoy Paperless Operations

Line Performance automates data consolidation, and presents meaningful information in the system without requiring manual tabulation efforts, reducing the risk of errors and creating a more responsive, adaptive environment.





Customer FIRST Software Maintenance and Support Program – Our Mission: Your Success

The Customer FIRST Software Maintenance and Support Program is a flexible portfolio of services that help protect and extend the value of your AVEVA software solution across the entire lifecycle. A Customer FIRST Agreement establishes a formal service relationship with AVEVA, enabling access to the latest software upgrades and providing expert technical assistance, optional services and self-help tools to help you improve your operational effectiveness.

For more information on Customer FIRST, please visit: sw.aveva.com/support/customer-first

Learn More

For more information about the Line Performance, contact your local sales, or visit:
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