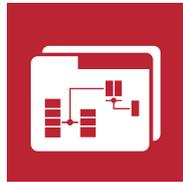


LISTEN.
THINK.
SOLVE.®

FactoryTalk® Performance

Better manage OEE for more efficient
and profitable operations



**Rockwell
Automation**

 Allen-Bradley • Rockwell Software

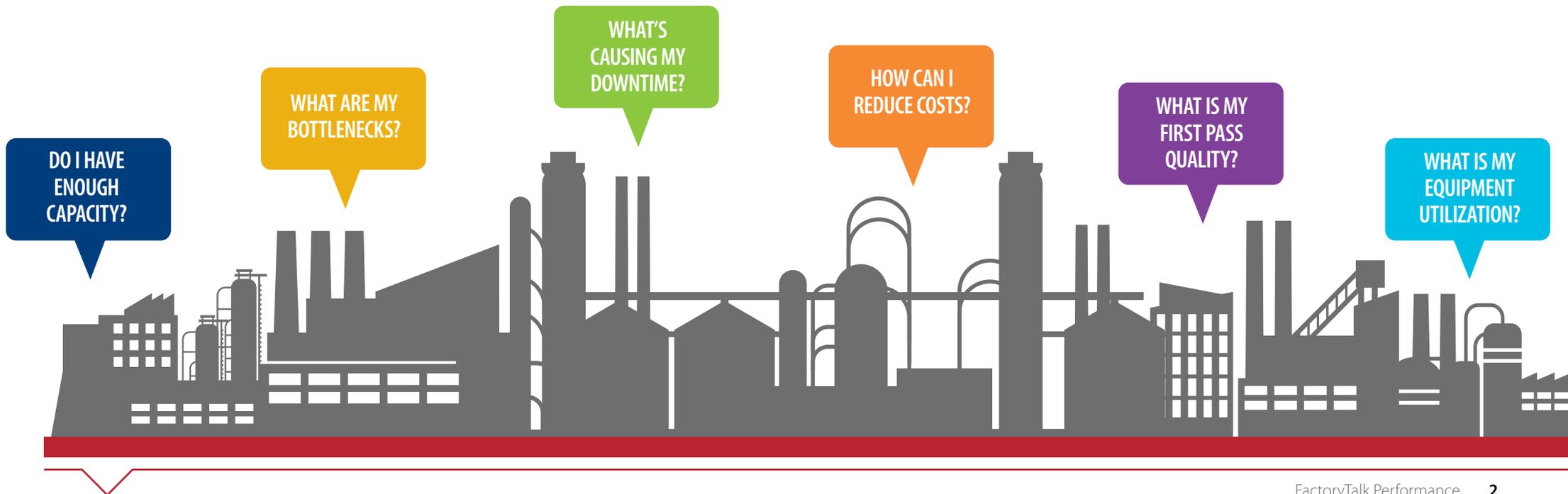
Addressing **the issues**

How can manufacturers improve efficiency?

Improving manufacturing profitability hinges on improving Overall Equipment Effectiveness (OEE), and, to that end, most manufacturers collect production data. They may, however, lack effective ways to analyze that data and/or miss critical data needed to identify the real issues affecting cost and productivity.

FactoryTalk® Performance is a scalable solution that helps manufacturers to improve efficiency with an automated system that measures and analyzes data continuously to determine key corrective actions required to reduce the things that reduce OEE.

These include downtime, unproductive time, cycle time and scrap. The application pinpoints which corrective actions will have the most impact, again and again over time.



How we can help

FactoryTalk Performance and Scalable MES

FactoryTalk® ProductionCentre® MES applications allow companies to connect, manage, validate and optimize production to achieve smart manufacturing in a scalable approach.

FactoryTalk Performance is integrated with ERP and built on a modular framework. Using it, you can increase enterprise productivity and reduce costs by using plant assets, materials and labor more efficiently.

Our other scalable MES applications available include FactoryTalk Production and FactoryTalk Quality. Start with a solution at a machine or work area and, with minimal infrastructure requirements, scale to an integrated MES solution as you realize ROI.



FactoryTalk Performance

From OEE to Profitability

Direct your efforts accordingly and improvement occurs automatically. Typically, manufacturers have achieved efficiency improvements of 10-40%!

You can expect:

- Increased capacity with higher production from existing equipment and deferred capital expenditures
- Decreased manufacturing costs with lower overtime and reduced labor costs
- Lower material costs through improved quality and reduced scrap
- Reduced overhead costs by saving time collecting data and preparing reports and real-time availability of efficiency information



Measure Performance

FactoryTalk Performance collects and stores machine performance data obtained from the control system in real-time. This data includes production and scrap counts, machine cycle times, downtime durations and causes, and all forms of unproductive time. It takes raw control system data at the line and equipment levels, and computes key performance indicators (KPIs), adding context data for analysis.

The Performance app allows you to scale from a single machine all the way to multiple sites. Using provided editors, as shown in the following example, you can easily model your production lines and equipment. Configure data collection easily using drag-and-drop and easy-to-build expressions.

The screenshot shows the 'Line Configuration' interface in the Performance Management app. The interface includes a top navigation bar with 'Home', 'Administration', and 'Logout admin'. Below the navigation bar, there are buttons for 'Import' and 'Export'. The main area contains a table with columns for 'Machine', 'Monitor', 'Ideal Run Rate', 'Total UOM', 'Line Total', 'Line Bottleneck', 'Line Good', 'OEE Avail (%)', 'OEE Perf (%)', and 'OEE Qual (%)'. The table lists three machines (E01, E02, E03) with an ideal run rate of 100 Each / hour and OEE targets of 85.0 for Availability, Performance, and Quality. A 'Materials' section at the bottom left shows a table with columns for 'Name' and 'Description', listing 'Jam.1'. Red callout boxes with arrows point to various features: 'Quickly navigate and personalize workspace' points to the top navigation bar; 'Import and export configuration data for improved speed and consistency' points to the 'Import' and 'Export' buttons; 'Quickly add line configurations by copying' points to the 'Copy' icon; 'Define line level targets for OEE components' points to the 'OEE Targets' section; 'Configurable units of measure are ideal for converting machines' points to the 'UOM' column; 'Define equipment level targets for OEE components' points to the 'OEE' columns; and 'Identify materials being produced' points to the 'Materials' table.

Quickly navigate and personalize workspace

Import and export configuration data for improved speed and consistency

Quickly add line configurations by copying

Define line level targets for OEE components

Configurable units of measure are ideal for converting machines

Define equipment level targets for OEE components

Identify materials being produced

Create line configurations to suit performance characteristics of different materials

Analyze Performance

FactoryTalk Performance provides both operators and management with the information they need to analyze and improve line performance.

Dashboards provide real-time information so that operators can assess performance against established targets and react quickly to changing conditions.

A collection of out-of-the-box reports allows managers to uncover and quantify the real problems impacting efficiency and to prioritize corrective actions.

The Performance app gives you the capability to manage to the line level and, when required, drill down to the equipment level to reveal detailed downtime and root cause data.

Out-of-the-box reports facilitate a wide range of analysis

Built-in filters allow you to get to just the data you want easily

OEE report. Grouping by Day performed automatically based on the timeframe requested.

Production totals, including Target value and Reject count

OEE averages by day and for the entire selected period

OEE components by day. The color indicates whether the target was met.

Actual vs. target detail by day for OEE and its three components

Day	OEE		Availability		Performance		Quality		Produced Quantity			
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Total	Good	Reject
3/8/2017	61.41%	61.37	85.00%	84.99	85.00%	84.95	85.00%	85.00	345,600	249,544	212,112	37,432
3/10/2017	61.41%	61.38	85.00%	85.00	85.00%	84.95	85.00%	85.00	345,600	249,562	212,119	37,433
3/9/2017	61.41%	61.38	85.00%	85.00	85.00%	84.96	85.00%	85.00	345,600	249,568	212,133	37,435

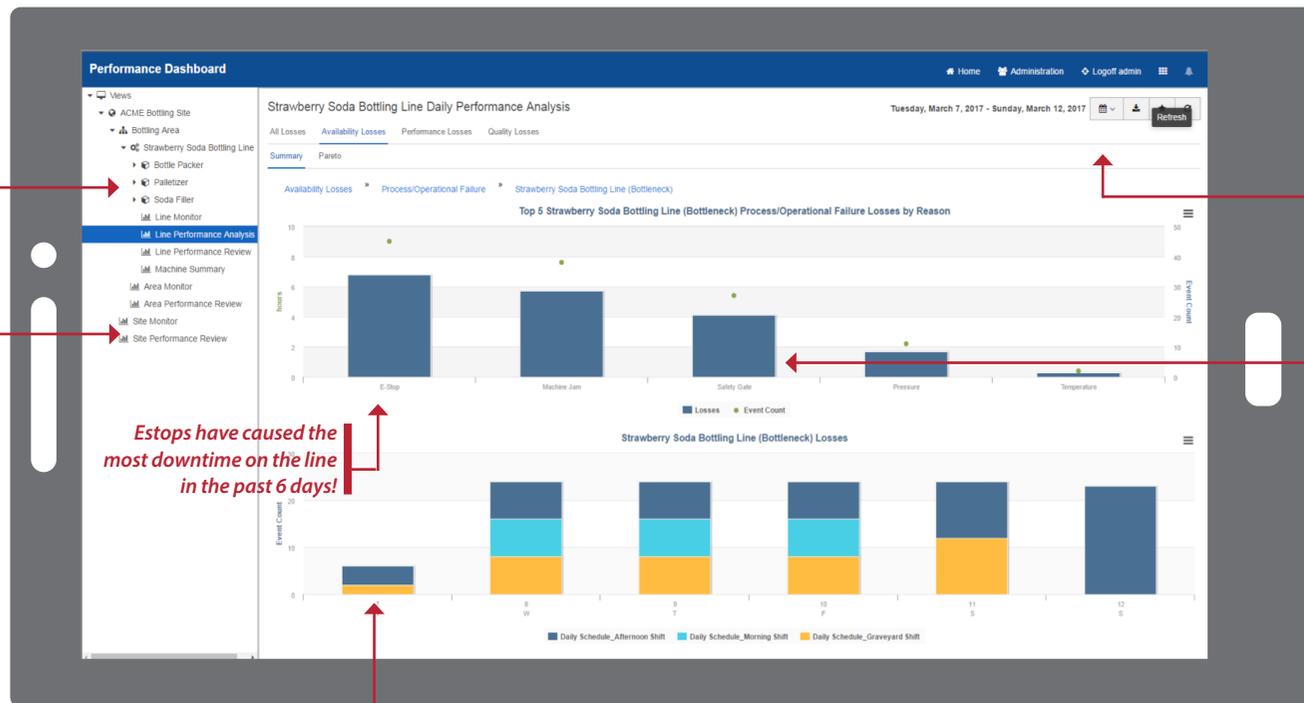
Take **Corrective Action**

FactoryTalk Performance provides analytics that help you to identify which issues will provide the greatest returns in efficiency and cost reduction when remedied. With the ability to drill down to the root cause of downtime, you can prioritize corrective actions for the largest return.

Applying this technique consistently over time increases efficiency incrementally and enables you to improve performance substantially. Finally, you can take corrective action with confidence based on solid, concrete data rather than speculation. You can also use the application to benchmark the results of corrective actions, to validate fixes and even calculate ROI.

Dashboards organized automatically according to the Plant Model

Out-of-the-box dashboards are provided, each with multiple pages



Estops have caused the most downtime on the line in the past 6 days!

Downtime count distribution by day and by shift

Built-in filters allow you to easily get to just the data you want

Downtime due to safety gate stops might be the easiest one to address

Is the FactoryTalk Performance application right for you?

- Are you constantly struggling to make your production numbers?
 - Do you know what the capacity of your lines is?
 - Are you at capacity?
 - Do you have extra capacity?
- Do you have a way to analyze production data that identifies the root cause of issues?
 - Do you know if you have collected all of the necessary data?
 - Is the collected data current, detailed and accurate?
- Can you easily identify which corrective actions will carry the most impact?
- Can you easily measure the effect of past corrective actions and use it to determine future ones?

Working together with Rockwell Automation

- Make more of your Connected Enterprise by connecting with Rockwell Automation and our partners.
 - Get answers to your questions on sales, products, services and technical support. **Find out more.**
 - Access help to design, build and maintain your system solution through the Rockwell Automation PartnerNetwork™ of leading distributors, system integrators and others. **Find out more.**

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