FactoryTalk® VantagePoint EMI

Enterprise Manufacturing Intelligence

VantagePoint provides:

- **Mobile Capabilities:** FactoryTalk VantagePoint EMI is enabling frictionless productivity by providing out of the box web-enabled content browsing and display creation. Browse the UPM from any mobile device and create displays with simple drag and drop gestures!

- **Create and publish** a wide range of enterprise reports with our Advanced Reporting options using well known platforms like Microsoft Excel and SQL Server Reporting.

- **Notifications** provide information in time to make productive decisions. Configure notifications to send reports via email or SMS based on events to ensure that important information is delivered when you need it!

- **Time-to-value:** Pre-configured reports, trends, dashboards, and flexible rapid development tools help save time and money.

- **Connect** to any common plant floor device or system. Premier connectivity to real-time data via FactoryTalk Live Data (Logix, PLC/SLC™, FactoryTalk View, 3rd-party controllers, etc.) and historical data via FactoryTalk Historian PLUS connectivity to FactoryTalk Metrics, FactoryTalk ProductionCentre, FactoryTalk EnergyMetrix and other real-time and historical data sources.

- **Secure reporting** content in the model by defining user roles.

- **Integrate** FactoryTalk VantagePoint EMI reporting content using Excel Services or Web Parts on a SharePoint® page leveraging other collaboration tools from Microsoft®.

Make more use of the data you already collect. Find new information to improve operations.

What if key decision makers had real-time production information in a dashboard, trend, report, or key performance indicator (KPI) on a mobile device or computer web browser updated continually and available any time? And, what if that decision maker was notified when production parameters moved outside their pre-set limits? More informed decisions, utilizing real-time data, on mobile devices or desktops becomes a standard process in your improved operations. Think about the alternative of the time spent preparing simple reports. Hours and days can be spent collecting relevant data from disparate systems, which then needs to be routed and analyzed before production decisions can be made.

Only FactoryTalk® VantagePoint EMI organizes, correlates, and normalizes disparate data from your manufacturing and production processes and business systems in a Unified Production Model (UPM). It then enables you to organize and present information in everyday language — tailored to users' needs on mobile devices or desktops.

LISTEN.
THINK.
SOLVE.®

Allen-Bradley • Rockwell Software

Rockwell Automation

FactoryTalk VantagePoint EMI helps solve many of the delays associated with typical manufacturing reporting. Delays and inaccuracies that can develop as users find and pull relevant data from various manufacturing and production systems, put them into spreadsheets – then rationalizing, correlating and disseminating the results. And by the time anyone gets around to reading these reports, the information is stale. At worst, intended recipients don't bother and they miss important information – information they need to increase productivity and reduce cost.

Problem Solved

By organizing all data sources in a Unified Production Model, bridges are created between multiple systems, vendors and data types. Data in the model can be accessed from anywhere, by anyone in real world terminology, not obscure PLC addresses or unknown historian variable names. This data can then be presented as information relevant to the user's role and responsibility within the organization. For example:

- Machine operators can see machine-level information, such as a dashboard that includes OEE gauges, time, fault and part analysis, OEE by hour with a target including a tabular event detail list
- Plant managers can view plant-level Key Performance Indicators like a Production Scorecard – replacing a manual production summary that most of them update manually
- Operations executives can see enterprise-wide reports, for example a plant-to-plant comparison of real-time production and financial performance

Everyone has access to the information needed to make timely decisions.

Take the Cost Out of Connectivity

FactoryTalk VantagePoint EMI takes much of the cost out of the data gathering you are doing now by automating data collection across multiple systems and platforms.

Connectors are included for out-of-the-box, direct connections to Rockwell Automation Integrated Architecture sources. Connectors to other systems are available as options.

Besides gathering real-time, live data, FactoryTalk VantagePoint EMI can provide trending context by using information from FactoryTalk Historian as well as third-party historians. This helps users get the information they need to recognize the significance of what is happening at the moment against the background of the data over time.

FactoryTalk VantagePoint EMI Mobile Capabilities

FactoryTalk VantagePoint EMI now includes mobile capabilities that enable users to create displays and interact with data across any HTML5-compliant browser and mobile platforms, such as iOS and Android. Users can now easily log in to the VantagePoint system and automatically view web-based KPI content that is responsive to the device they are using – from smartphones to tablets to PCs.

FactoryTalk VantagePoint EMI provides optional connectors for virtually all manufacturing systems to provide a single, data source for all your analysis and reporting needs, including:

- OPC DA connectivity for adding non-Rockwell Automation real-time data sources
- OPC HDA connectivity for non-Rockwell Automation historians, such as Wonderware IndustrialSQL Server

This means your information is always current. You have "one version of the truth" because all data remains in the original source locations and no separate data warehouse is created. And this all happens automatically, in real time, when users request information they need to do their jobs.

The Power of Database Integration

Your time is valuable. FactoryTalk VantagePoint EMI can provide up to date reports that used to have to be assembled manually from multiple sources. Through integrated access to what's been previously buried in your production control systems, you can start generating other reports and dashboards, without having to waste time learning complicated tools and programming languages. As you recognize opportunities for insight and improvement, you can drill-down and gather more detailed information.
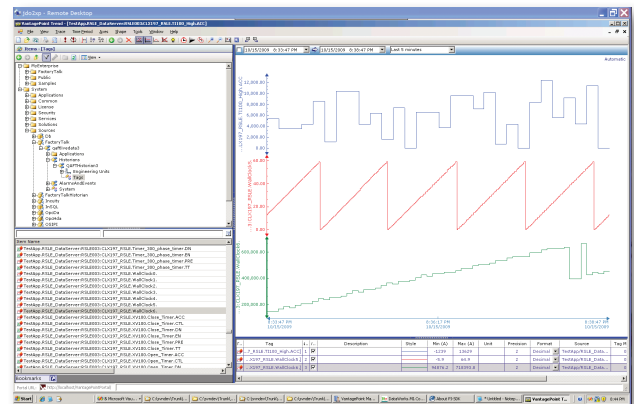

Trend Report Accessing Tags from FactoryTalk Historian

Sometimes you already have your control system information logged into a database or your business system information is already there, but you need to see that information in context of other production information, well that's where FactoryTalk VantagePoint EMI connectivity to databases as well as control systems can help. FactoryTalk VantagePoint EMI allows you to connect to these important sources of information in your databases, virtually any database, and put it in context using the Unified Production Model, so it has relavance to the task at hand.

Once you have installed FactoryTalk VantagePoint EMI, you will quickly be able to view and use the included, pre-configured web reports, trends and dashboards, such as:

- Key performance indicator (KPI) monitoring
- Alarm and event reports
- Control loop reports
- Device and equipment reports
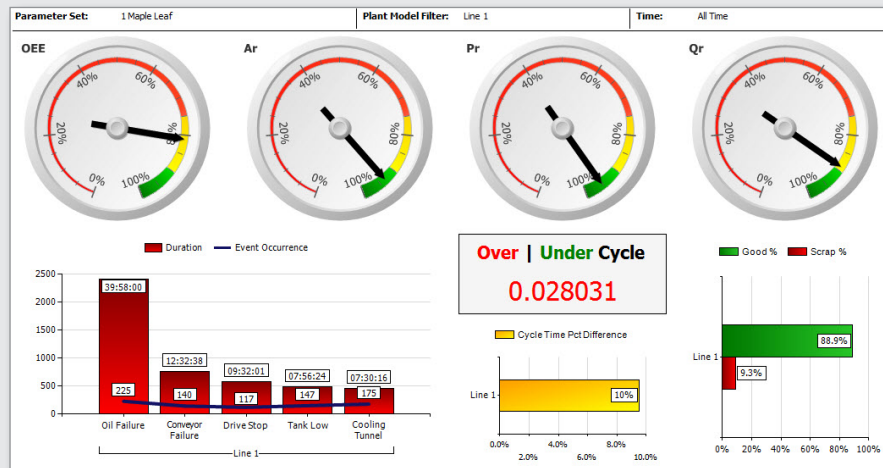
Performance Dashboard with Key Performance Indicators for OEE and other underlying factors affecting production such as down time causes, cycle time, and scrap rate.

> *The best thing about FactoryTalkVantagePoint EMI is, if there's data out there, I know I can connect to it.*
>
> *Large, multi-site user*

Mobile Capabilities

FactoryTalk VantagePoint EMI is enabling frictionless productivity by providing out of the box web-enabled content browsing and display creation. Your users will have the ability to browse the Unified Production Model as well as view displays from their PC, tablet, or mobile phone. Through simple drag and drop gestures, your users will have the ability to create displays and save them as favorites from any device. Once they log in, they will have access to content that has been organized and created just for them.

Change Happens

FactoryTalk VantagePoint EMI makes it easier to handle changes to your data sources. As you add new components and systems to your existing operations, simply connect the new data sources and re-synchronize the model. You do not need to change the reports themselves, so you can more easily accommodate changes to your mix of equipment and systems.

Eventing/Notification System

The Eventing/Notification system triggers actions including generating one or more published reports on a schedule, and sending emails with attached reports, based on intelligent filtering of event streams from FactoryTalk VantagePoint EMI sources. So now you don't even have to be watching a particular report or dashboard, FactoryTalk VantagePoint EMI can watch for a specific change for you and let you know!

Powerful Reporting Components

FactoryTalk VantagePoint EMI includes some of the most powerful reporting components in the industry. You may begin by creating an ad hoc report, then when you have it set up the way you want, you can publish it with a simple click of the mouse. The objects are immediately a part of the model

and are accessible from the reports list by anyone with a web browser and user permission. You may view the reports directly or via the FactoryTalk VantagePoint EMI Portal.

Reporting Limits

You can use pre-configured reports as is or as examples to follow for creating your own. Report creation is simple: drag-and-drop, get it the way you want it, and then publish it with just one click. You can create individual ad hoc reports or publish them for other users to see.

Reports, trends, dashboards and applications are usable across all lines, work cells and plants, providing information in the context requested by each user.

The bottom line is you have extensive application power you never thought possible for doing:

- Multiple time periods, batch management, horizontal stacking
- Zoom, pan, live data, statistics, and so forth
- Informative and appealing graphics viewable anywhere in the enterprise

Unified Production Model: The Heart of FactoryTalk VantagePoint EMI

The Unified Production Model (UPM) allows plants, equipment, and other resources to be logically represented along with their real-time and historical data. The UPM provides the context by associating relevant data from numerous sources, and removes the need to care where the data physically resides. This information can then be populated into analysis layers that can be accessed via a browser. The model is also flexible enough so users that have different roles within an organization can see the model differently, or see it in multiple ways so users at every level of an enterprise to better manage their operation in real time.

- High-performance links for data-on-demand
- Easy resizing and use of pictures
- Time-series data management with live updates
- Extraordinary transactional data management for items and properties

Trending and Plotting

FactoryTalk VantagePoint EMI incorporates two of the most versatile and powerful trending and plotting applications in the world. With drag-and-drop simplicity, you can drop simple tags or complete objects onto the plot. Change time periods, stack traces, switch between historian and real-time data.

Microsoft Excel® Add-In

You can leverage all the capabilities in Excel through VantagePoint EMI and Excel Services in SharePoint to pull information from the Unified Production Model in FactoryTalk VantagePoint EMI to build highly effective reports. Touch it up, format cells and regions to your liking, even create some graphs and charts from the data. Once you have published the report, you no longer need the spreadsheet. It is perfectly preserved for you in the model. And, it is not necessary to have Excel installed on any client to be able to view the report.

Dashboard Builder (Optional)

If you can envision it, you can create a data object with the dashboard builder. To create dashboards, you will need to install both Microsoft Excel and the Dashboard Builder. To view a published dashboard, users do not need either one. Animated scales, dials, tables and so much more are easily configured using this powerful tool.

FactoryTalk VantagePoint EMI Portal

View individual published reports by clicking on them in the report list, or invoke the powerful FactoryTalk VantagePoint EMI Portal and view composite reports configured by
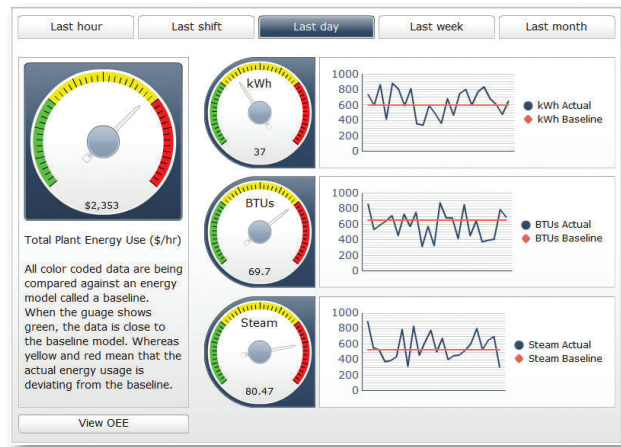
This energy dashboard is an example the clear and easy-to-understand that FactoryTalk VantagePoint EMI provides.

dragging elements into zones on a portal page. Linking elements to other reports allows you to drill down to get more detail from any given report. Select parameters to reuse a particular report for multiple, similar manufacturing elements and access all these features of the VantagePoint portal from your web browser.

Advanced Reporting

- Power to create a wide range of enterprise reports from dashboards to tabular reports
- Create new reports and use report examples via the Unified Production Model (UPM)
- Access a growing library of reports for FactoryTalk VantagePoint EMI
- Author and publish reports into the FactoryTalk VantagePoint EMI Portal
- Configure full reporting layout control, pagination, headers/footers

Get More Information

Contact your local Rockwell Automation sales office or Allen-Bradley distributor.
Visit **www.rockwellsoftware.com/mi**

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