

# ThingWorx® Manufacturing Apps

Remotely monitor KEPServerEX<sup>®</sup> for integrated factory floor visibility, proactive issue resolution, and data-driven decision-making.







# ThingWorx<sup>®</sup> Manufacturing Apps provide real-time data visualization for improved performance across the factory.

ThingWorx Manufacturing Apps are role-based starter apps that connect disparate factory devices and machines for real-time visibility into production status, data connectivity, maintenance issues, operational efficiency, product quality, and other critical performance indicators. Built on ThingWorx, PTC's industry-leading IoT platform, the apps seamlessly connect to all instances of KEPServerEX<sup>®</sup> and other OPC servers to provide the right information to the right person at the right time enabling collaborative data-driven decisions across the factory, without data overload.

#### **Role-Based Insights for Real-Time Decisions**

With ThingWorx Manufacturing Apps, **controls engineers** are instantly notified when a PLC or device stops communicating—and can use trending tools, event logs, and alerts to troubleshoot the problem remotely. **Production managers** can monitor the real-time state of the production floor, including line and machine performance and make proactive adjustments to achieve daily production goals. And **maintenance engineers** have visibility into all assets across the factory floor on a single screen—and can proactively prevent machine downtime.



ThingWorx Manufacturing Apps consists of three rolebased apps: Controls Advisor, Production Advisor, and Asset Advisor. These user-friendly apps were built to overcome the unique challenges of different roles across the factory.





## Controls Advisor

Built for controls engineers, Controls Advisor is designed to overcome the challenges of connectivity errors and critical data loss. It enables controls engineers to remotely visualize, monitor, and troubleshoot industrial data and machine connectivity in real-time, and provides instant notification of data communication errors. With real-time alerts and rapid tag trending, controls engineers can improve data quality and reliability, while reducing unplanned downtime.

#### Capabilities

- Visibility into all KEPServerEX and all other OPC server instances—including server status, device status, client count, and tag count—on one integrated interface
- Instant text and email notifications for any server, device, PLC, or tag issue
- Visibility into the KEPServerEX Event Log for realtime information on error sources, warnings, and security events
- Simple tag trending in minutes
- Remote access via any browser or mobile device



Remotely monitor device and PLC connectivity and proactively resolve issues to safeguard from critical data loss and unplanned downtime.

#### **Benefits**

- Efficient root-cause analysis for faster issue traceability, troubleshooting, and resolution
- Enhanced insights into connectivity errors
- Reduced unplanned downtime
- Increased flexibility through enhanced remote capabilties







## Production Advisor

Built for plant managers, Production Advisor is designed to overcome the challenges of performance data latency and low visibility into line and machine status. It provides plant managers with real-time visibility into critical key performance indicators such as availability, quality, and OEE. With integrated realtime machine and business data, plant managers can make more proactive, informed decisions and drive continuous improvement.

#### Capabilities

- Real-time visualization of key performance indicators
- Comprehensive visibility into machine operations, including historical trending
- Configurable performance indicators to match business needs
- Integration of disparate operational and business data sources

Access real-time production line and machine data for immediate root-cause analysis and proactive resolution of performance issues.

#### **Benefits**

- Improved data-driven decision-making for optimized performance
- Efficient and accurate root-cause analysis of performance issues
- Increased responsiveness to problems in production lines and assets
- Streamlined high-level benchmarking of lines and assets
- Improved communication and performance awareness between the shop floor and the top floor









### Asset Advisor

Built for maintenance professionals, Asset Advisor is designed to overcome the challenges of low visibility into the health and status of critical assets. It provides maintenance professionals with real-time anomaly detection and condition-based monitoring, so they can make more informed decisions and proactively correct potential issues before they impact production.

#### Capabilities

- Real-time alerts based on threshold or anomalous conditions
- Unified real-time monitoring of all industrial assets, their status, and alarms
- Automatic remote notification when a machine signal or key performance indicator deviates from normal behavior
- Brief history of asset alerts and anomalous states available with one-click
- Instant text and email notifications for any server, tag, device, or machine issue

Remotely monitor assets in real-time, automatically detect anomalies, and correct potential issues before they impact production.

#### **Benefits**

- Faster and more informed maintenance planning, decision-making, and execution
- Proactive issue identification for reduced unplanned downtime
- · Real-time visibility into patterns and trends
- Reduced scrap and rework
- · Improved process efficiency and product quality





#### About ThingWorx<sup>®</sup> Manufacturing Apps

ThingWorx Manufacturing Apps are role-based apps that seamlessly connect to KEPServerEX and other OPC servers to provide instant real-time visibility into plant floor operations. The apps are built on PTC's industry-leading ThingWorx IoT Platform and can be extended using ThingWorx Industrial Connectivity, Analytics, and Studio capabilities. ThingWorx Manufacturing Apps provide accelerated time-to-value and help kick-start your smart manufacturing initiatives.

ThingWorx Manufacturing Apps can be installed and configured in under an hour, with no impact on production. They are fully web-enabled and accessible via any browser—so you and your team members can monitor, analyze, and act on industrial data in real-time.

Learn more at <a href="http://www.ptc.com/thingworx/manufacturing-apps">www.ptc.com/thingworx/manufacturing-apps</a>

#### About ThingWorx IoT Platform

ThingWorx is the only enterprise-ready technology platform that enables innovators to rapidly develop and deploy smart, connected solutions for the Internet of Things. The ThingWorx Technology Platform was built from the ground up for the Internet of Things. It contains the most complete set of integrated IoT-specific development tools and capabilities available, offering the industry's deepest functional capabilities. ThingWorx makes it easy to develop and deliver powerful IoT solutions that deliver transformative business value.

#### About KEPServerEX

KEPServerEX<sup>®</sup> is the industry's leading connectivity platform that leverages OPC and IT-centric communication protocols to provide a single source of industrial automation data to all of your applications. The platform design allows users to connect, manage, monitor, and control diverse automation devices and software applications through one intuitive user interface.

#### **Contact Kepware**

Sales +1-888-KEPWARE x208 sales@kepware.com

Support +1-888-KEPWARE x211 technical.support@kepware.com

Training +1-888-KEPWARE x155 training@kepware.com





© 2017, PTC Inc. All rights reserved. Information described herein is furnished for informational use only, is subject to change without notice, and should not be taken as a guarantee, commitment, condition or offer by PTC. PTC, the PTC logo, Kepware, KEPServerEX, ThingWorx, and all other PTC product names and logos are trademarks or registered trademarks of PTC and/or its subsidiaries in the United States and other countries. All other product or company names are property of their respective owners.