OPC and Industrie 4.0

18 October 2016

kepware
TECHNOLOGIES

Prospectus

Established in
1995

📍 Located in
Portland, Maine

20+ YEARS
of developing connectivity
software for the **Industrial
Automation** Industry

Extending PTC's reach
in Manufacturing with
**industrial connectivity
solutions** for the IoT

120+
Employees

STRONG HISTORY OF GROWTH AND EXPANSION

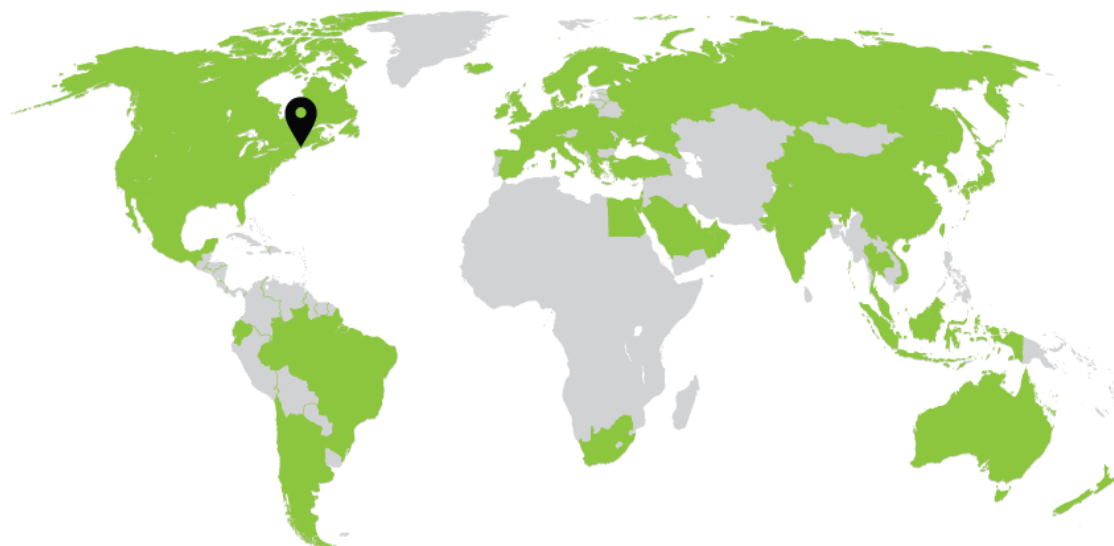**INDUSTRIES SERVED**

Manufacturing   Oil & Gas   Building Automation   Power   IT & Infrastructure

CONTROL ENGINEERING
2016 ENGINEERS' CHOICE AWARDS
WINNER

2015 10 YEARS **Best Places to Work in ME**

First Team
LEADERSHIP IN AUTOMATION
2015
PRESENTED BY AUTOMATION WORLD

Processing's
BREAKTHROUGH
PRODUCTS 2015

2016 BRONZE
STEVIE WINNER
FOR SALES & CUSTOMER SERVICE

2016 IoT
EVOLUTION
Product of The Year

2016 READERS'
CHOICE AWARDS
CONTROL

KEPServerEX Connectivity Platform

- Offers a library of 150+ device drivers, client drivers, and advanced plug-ins—supporting thousands of devices and other data sources

- Provides industrial operations data to traditional Industrial Automation clients (via OPC and proprietary protocols) and new IoT solutions (via MQTT and IT-centric protocols)

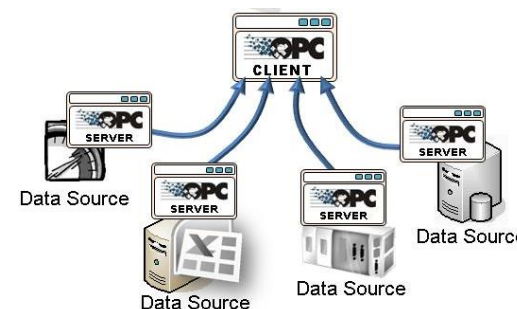- Meets the highest standards of quality through third-party validation
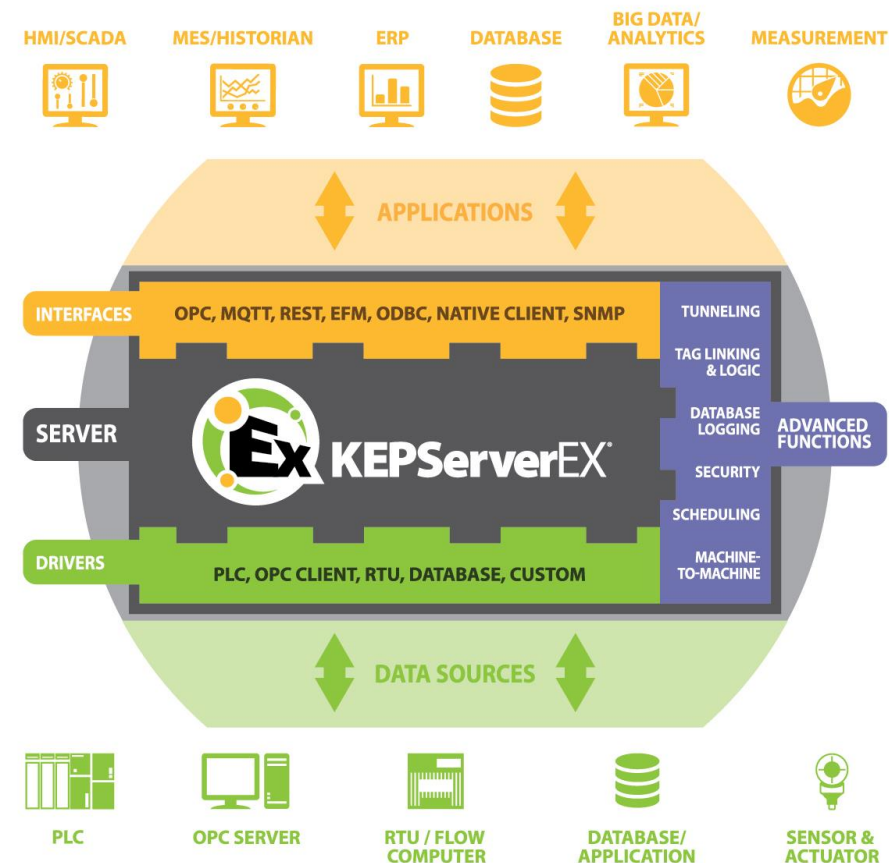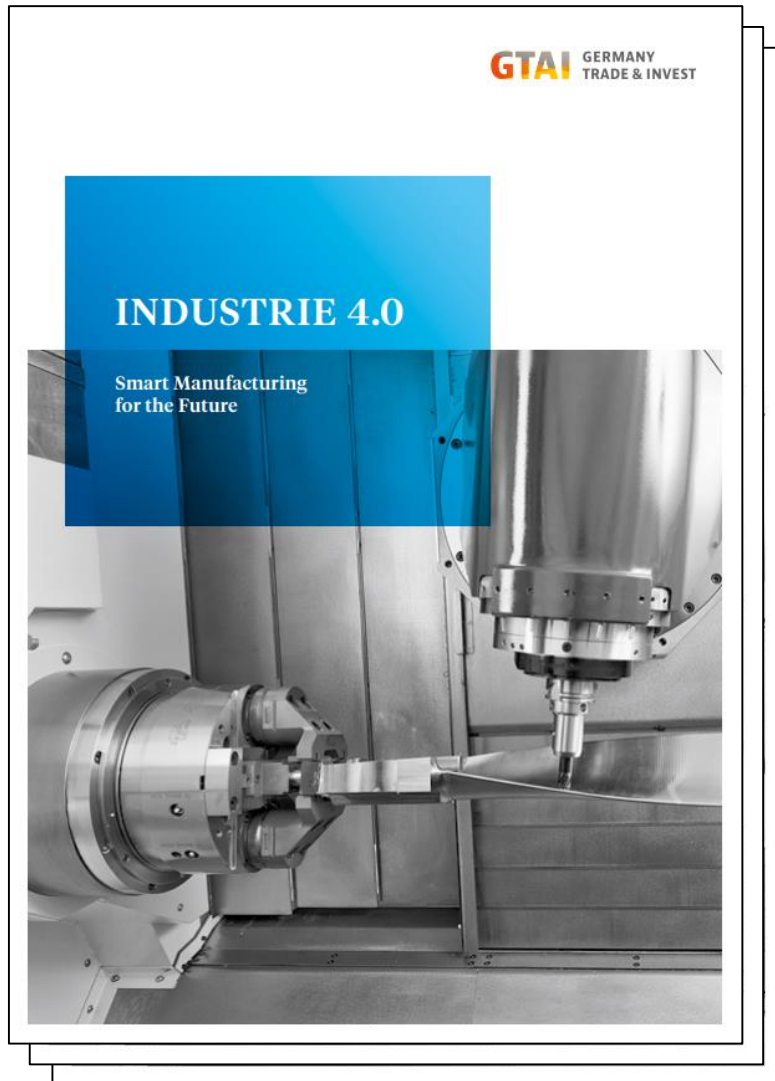
Kepware and OPC

OPC Foundation member since 1998

OPC Specifications:
- OPC Data Access (DA)
- OPC Alarms and Events (AE)
- OPC Historical Data Access (HDA)
- OPC XML Data Access (XML-DA)
- OPC .NET
- OPC Unified Architecture (UA)

Industrie 4.0 and the Smart Factory

Key advantages of smart factory production:

- Self-aware factory units

- Manufacturing optimized for an individual customer

- Resource efficient production

- Machine adaptability to human work cycle
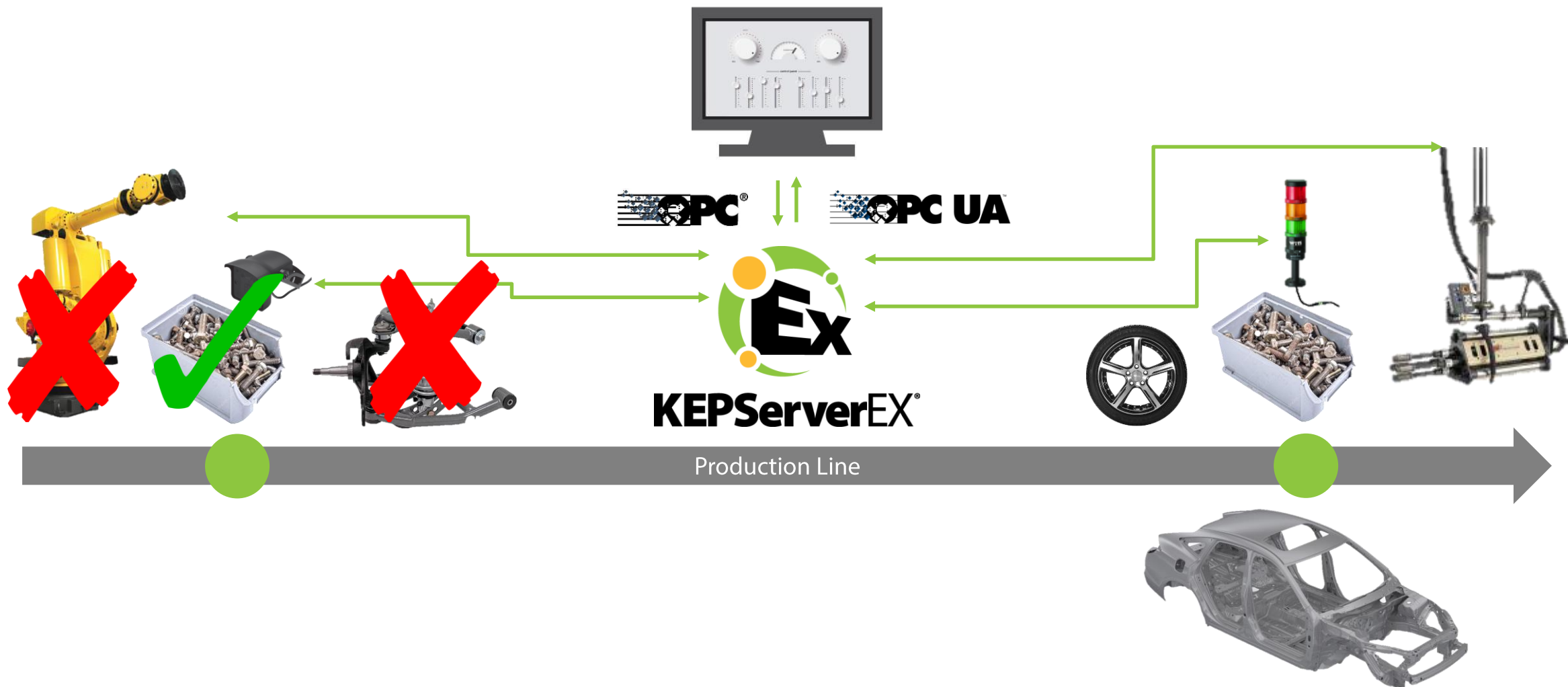
Source: DFKI/GTAI

Self-aware Factory Units
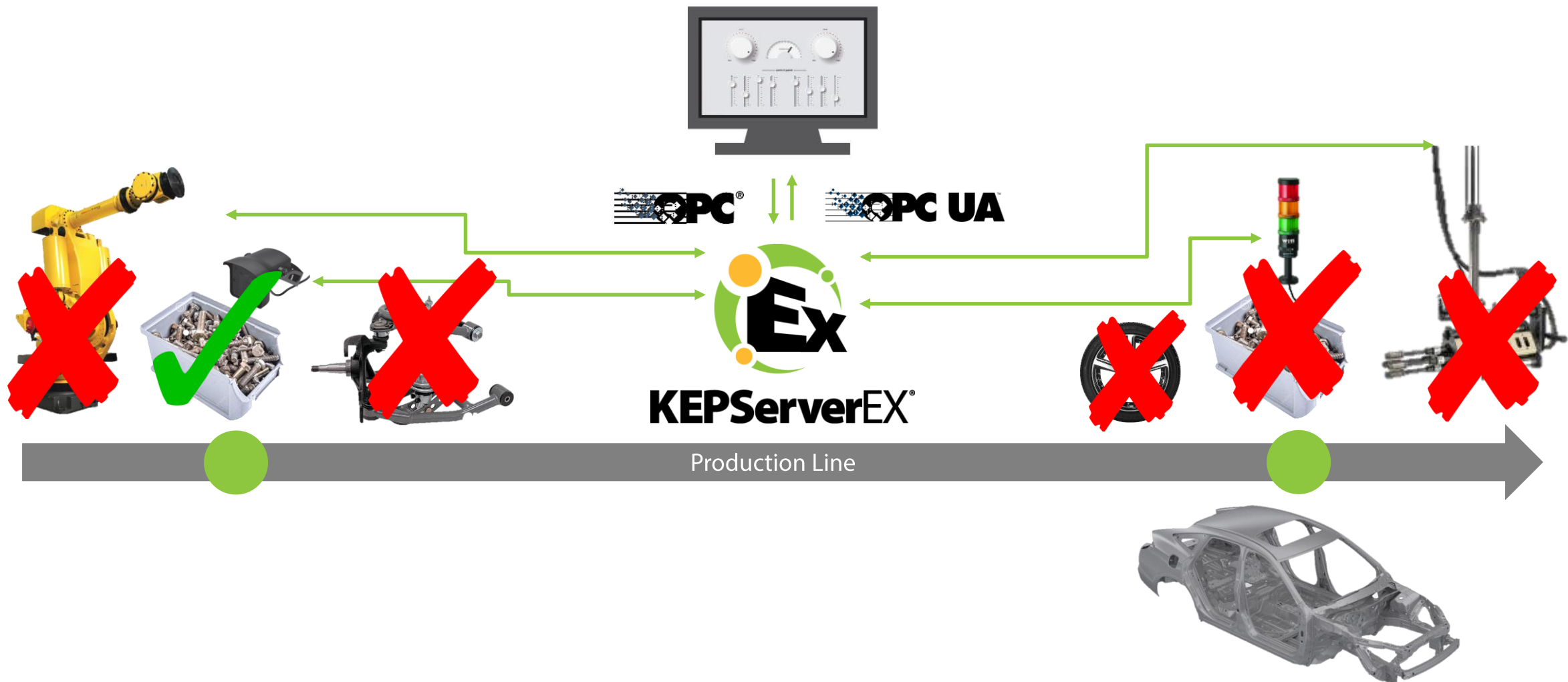
Manufacturing Execution System

KEPServerEX®

Production Line

Self-aware Factory Units

Manufacturing Execution System

Production Line

Self-aware Factory Units

Manufacturing Execution System

OPC | OPC UA

KEPServerEX

Production Line

Self-aware Factory Units

ERP

Plant MES

Big Data/Analytics

Ex

KEPServerEX®

Production Line

Self-aware Factory Units

ERP

Plant MES

Big Data/Analytics

OPC UA

OPC UA

KEPServerEX®

Production Line

Self-aware Factory Units

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OPC UA

OPC UA

KEPServerEX®

Production Line
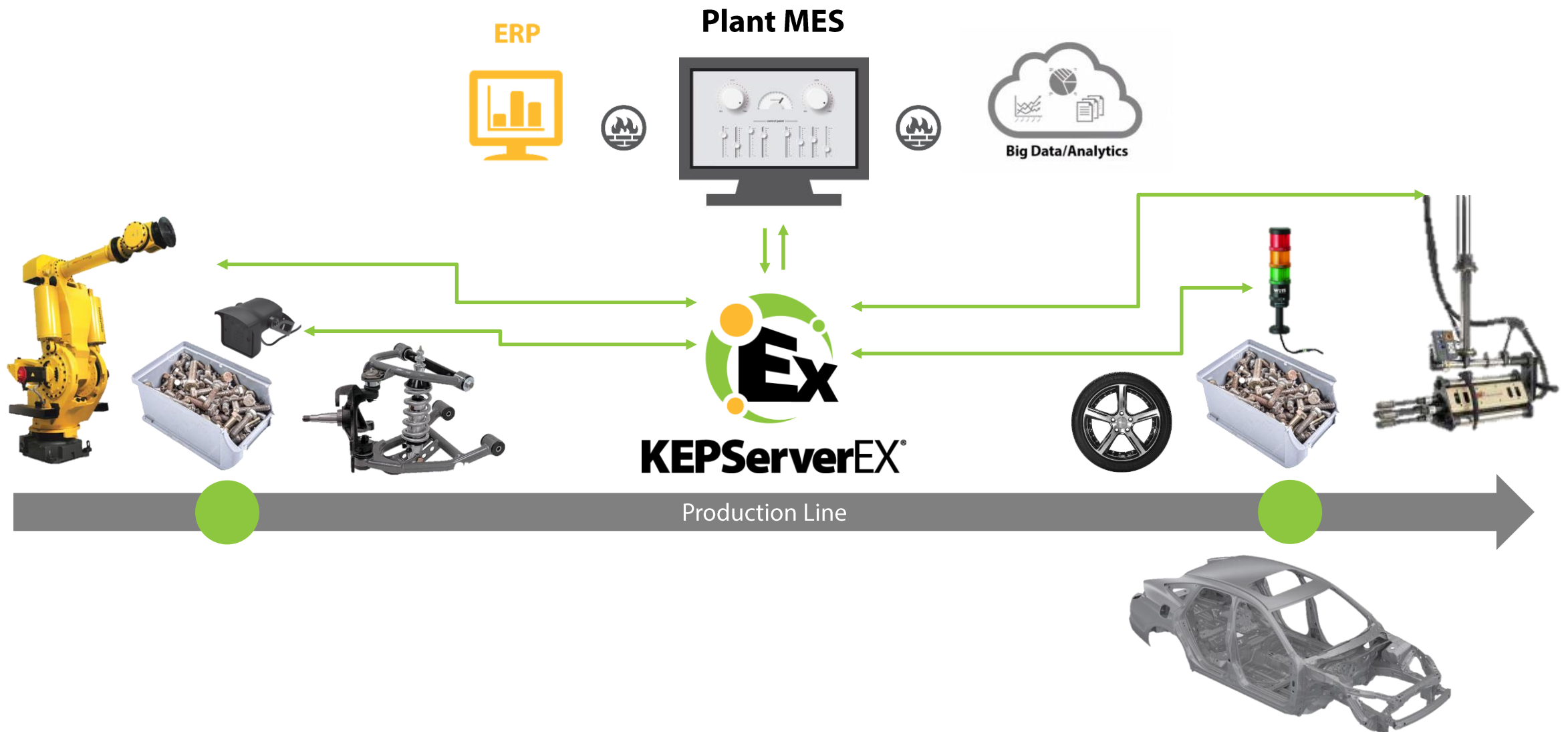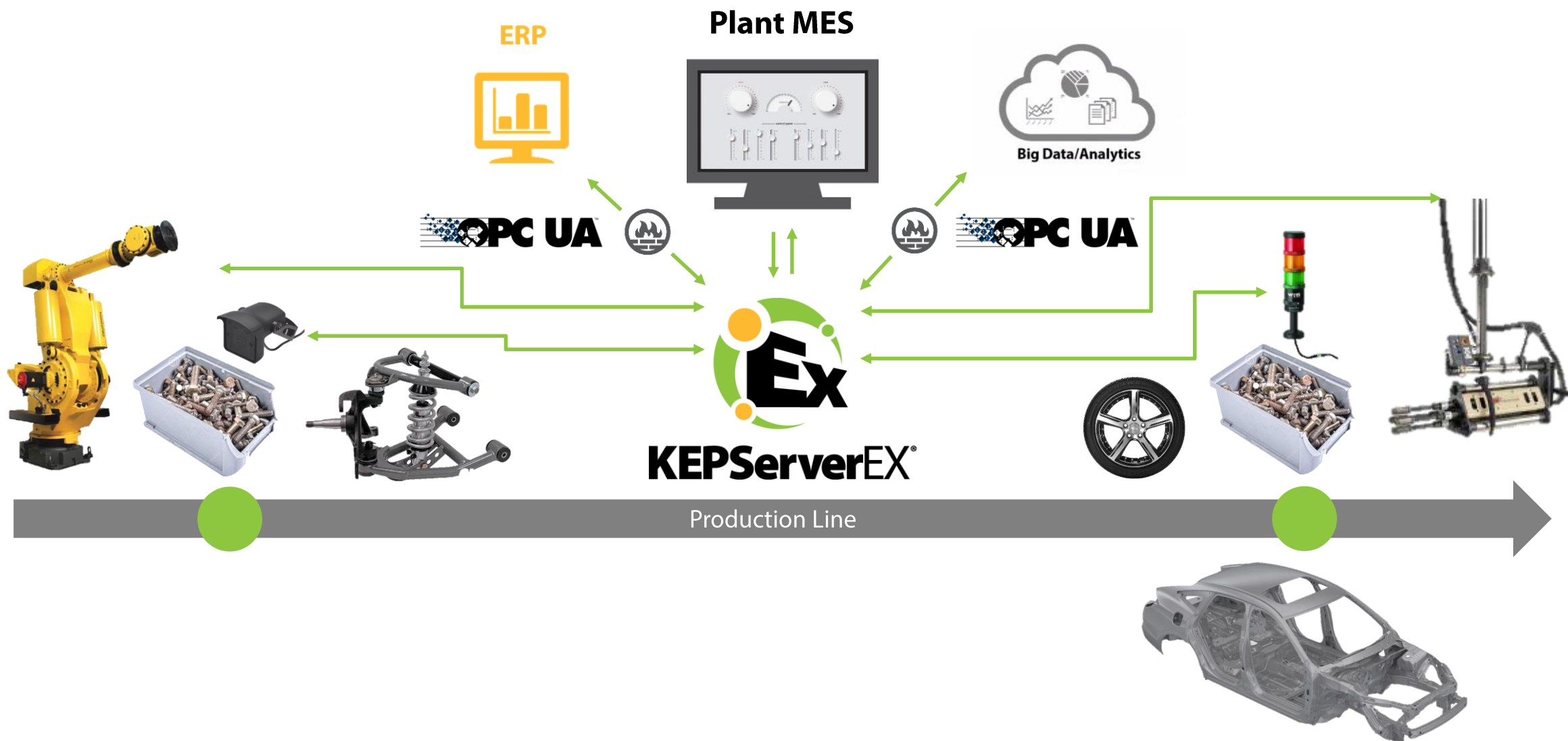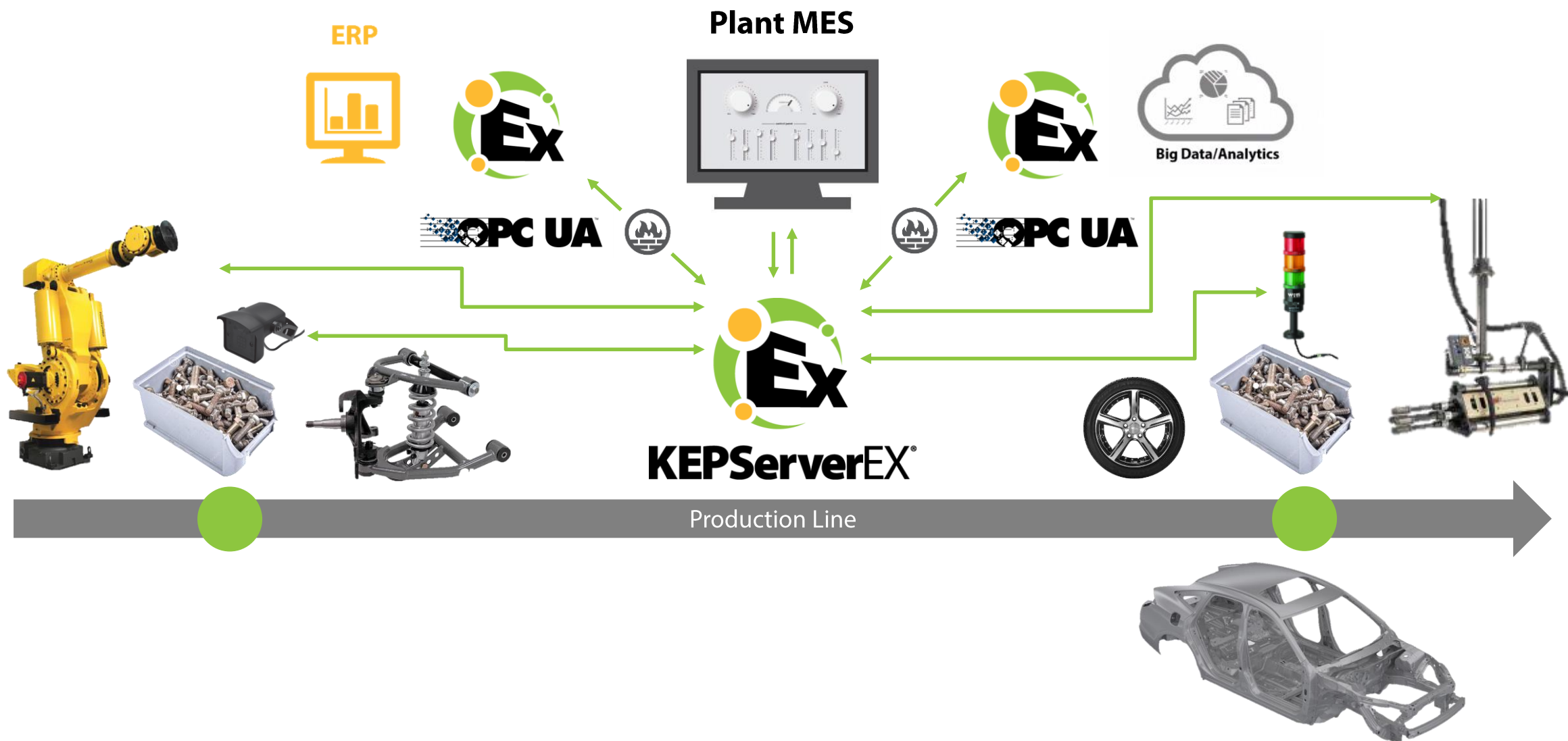
KEPServerEX Roadmap

- **OPC UA:** Native development of core OPC UA technology
  - Improved performance, stability, and diagnostics
  - Creates a foundation for support of higher level OPC UA features, including:
    - Nano Profile
    - Discovery
    - Complex Data
    - Methods
    - Historical Data
    - Alarms & Conditions

- **Localization:** German and Japanese translation for core functions and key drivers
- **Configuration API:** REST-based API for the configuration of channels, devices, and tags
- **Licensing:** Improved experience for online servers, annual support, and demo trials
- **User Interface:** Unified project browser, standardized property model grid, improved wizard, and more

Kepware

Q&A