The Wireless factory

Gilles Logeais
Research Director at SAP Research
gilleslogeais@sap.com

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SAP Manufacturing Today

Overview

SAP Manufacturing Integration & Intelligence (SAP MII)
SAP Plant Connectivity (SAP PCo)
SAP Manufacturing Execution (SAP ME)

SAP Manufacturing Future (SAP Research)

Integration platform
Remote Service Management
User Interfaces for Worker and Managers
Logistics cockpit
SAP is a key player in Manufacturing Execution!
Vertical Integration in Manufacturing
The Challenge

- Data errors
- Repetitious, manual processes
- Delayed reporting

- Business process delays
- Poor information visibility
- “Unfriendly interfaces”
SAP Manufacturing Today

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SAP MII extracts data from SAP ERP and provides real-time visibility and distribution to Plant Floor Systems of:

- Planned Orders
- Bills of Material
- Production & Process Orders
- Material Inventory Levels
- Inspection Lots Data
- Master Recipes
- Material Details
- Batch Details
- Resources & Functional Locations
- Maintenance Work Order & Notification details
- Material & Order Costs

SAP MII’s ability to perform transaction execution into SAP also enables automated, plant-level creation of:

- Production Confirmations
- Process Messages
- Material Receipts
- Material Consumptions
- Material transfers
- Inspection results recording
- Quality Notifications
- Batch Characteristic recording
- Work Orders & results recording
- Maintenance Notifications
Vertical Integration in Manufacturing
SAP MII in a Multi-Plant Context
SAP Manufacturing Today

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Vertical Integration in Manufacturing
SAP PCo (Plant Connectivity)

ME  MII  EWM

Connectivity

Plant Connectivity

Real-time event notification + High-performance query and command execution

Including Software Development Kit (SDK) for new custom-/partner-built connectors

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Agenda

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Functional Overview

Production & Process management
- Process modelling
- Data collection & process interlocking
- Worker terminal
- Event-driven alarm management

Quality Management & Traceability
- Tests & SPC
- Error reporting & Tracking & Tracing

Plant Data Collection
- Time recording
- Machine integration (via SAP PCo)
- Production monitor (WIP, OEE, yield, status)

Production Reporting

Enterprise Integration (ERP, PLM, etc.)
SAP Manufacturing Today

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SAP Manufacturing Future (SAP Research)
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- Remote Service Management
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- Logistics cockpit
Mission & Vision

Our vision is to create a unified, highly scalable, reliable and low-cost integration solution to seamlessly embed smart item technology into business processes across a variety of application domains and industries.
Future Manufacturing

**Integration platform**
- Device integration & management
- Energy monitoring & management
- Remote service management

**Innovative User Interaction**
- Flexible UIs
- Event-driven UIs
- Context Awareness

**Adaptive Manufacturing Software**
- Execution flexibility
- Supply network collaboration
- Communication & Collaboration

Enable & Evaluate

SAP Research
Future Factory Initiative
Integration Platform
- Unified platform for device-to-SAP integration
- Device management as Extension of SAP MII
- Cross-industry
Remote Service Management
- Create trouble ticket in SAP ERP or SAP CRM
- Remote access device for problem diagnosis
- Transfer of processing data (operation hours, parts produced, …)
Innovative User Interaction
Manufacturing Worker Interfaces

- UI library & framework for touch screen applications
- Flexible, event-driven user interfaces for worker
Innovative User Interaction
Logistics Cockpit

- **Logistics cockpit**
  - Integration of business data (orders, materials, workers…) & technical data (machine status…)
  - Real-time visualization for decision support
  - Focus on ease-of-use and productivity
Thank you!