Summary

Complete your “Manufacturing Supply Chain” by holistically inking Manufacturing systems and Business applications to:

- Enable faster time to market
- Deliver greater returns on production assets
- Enable transparency across all operations

Business Value

Achieve timely and accurate exchange of consistent information between Business Management and Manufacturing Operations solutions, supporting strategic and tactical business goals.

Gain real-time visibility into plant operations, to respond to operational issues that may impact financials & business performance.

Microsoft Dynamics ERP Integration

Dedicated Interface For Wonderware MES Brings Real-Time Operations Data to Your Business Systems

CURRENT STATE OF MANUFACTURING SYSTEMS: AN IMPEDIMENT TO OPERATIONAL EXCELLENCE

The division between manufacturing systems and business systems go far beyond suppliers. In order to effectively respond to changes in your operations, you need systems that can deliver the real-time, asset-driven information that narrows the horizon of data into seconds/minutes, not batched hours/days or a week’s worth of data whose latency effectively negates the ability to react with any effectiveness.

What is needed is a “Real-Time Enterprise” —a state where the organization can have the flexibility to reconfigure operations in response to events, such as unplanned downtime, order reconfigurations, unexpected yield or throughput issues. Microsoft Dynamics, in conjunction with the Wonderware Manufacturing Execution System (MES) software, have that answer. A prebuilt integration that gives you the “as planned” state from your ERP, combined with the “as built” data coming from the MES. Together, building and reinforcing Operational Excellence.

Dedicated Interface For Wonderware MES Brings Real-Time Operations Data to Your Business Systems

INVENSYS
COMPLETE THE MANUFACTURING SUPPLY CHAIN
Today, manufacturing is not just within the 4 walls of an organization. Whether you have suppliers that also serve as OEMs, or whether you have manufacturing plants distributed across the globe, it’s challenging to get information when you need it. Compounded with a plethora of disconnected or disparate business and manufacturing systems, that goal of having one view into separate operations becomes challenging. How can you achieve one view? How can you overcome global distributed manufacturing? With a solution that provides strong integrated capabilities for accessing real-time operational activities and bringing them, as needed, into the planning and business environment.

WONDERWARE AND DYNAMICS AX INTEGRATION
The solution is an integrated offering from two of the leading providers of industrial software. A breakthrough solution that provides you with timely, accurate exchanges of consistent information between Business Management and Manufacturing Operations systems to support both your strategic and tactical business goals.

Using the combination of Wonderware MES with Dynamics AX, the real-time data generated by operations is available for storage, transformation (into information, not data), visualization and analysis.

Wonderware MES provides real-time Operations information and the tools to manage, analyze and integrate into your business applications.
WONDERWARE AND DYNAMICS AX INTEGRATION

This integration provides you with real-time visibility into your plant operations, enhancing your agility and flexibility to respond to operational issues that can impact your business performance and financials. Typical information flows include BOMs, Operations, and Production Orders from Dynamics to Wonderware MES. In return, Production Order Status, Inspection or Labor Results, Asset Status and Inventory Movement are some of the data sent back to Dynamics AX. Your complete picture of material movement and transformation—from consumption through yields through quality—are all available, in real-time.

How? Using the Wonderware Enterprise Integrator, a proven middleware, that has capabilities including message routing, confirmations, escalations, and dedicated delivery.

Data Downloaded from Dynamics AX to Wonderware MES:
- Items and Item Classes (Master Data)
- Production Orders with BOMs and Routings (Demand & Execution Data)
- Inventory Items (Inventory Data)

Data Downloaded from Wonderware MES to Dynamics AX:
- Production Order Status
- Production Confirmations
- Material Consumptions
- Inspection Results
- Material Quality Status
- Labor Results
- Rework Activities
- Asset Status
- Inventory Movement
INTEGRATION HIGHLIGHTS

• Production orders can be created within Dynamics AX and sent to Wonderware MES for execution. These production orders can include BOMs, routing instructions (for example operations, work centers).
• Inventory data synchronized between Dynamics AX and Wonderware MES can support track and trace capabilities, as well as enable real-time tracking of inventory and BOM item validation.
• Production order status changes, material consumption transactions and production transactions can be submitted to Dynamics AX from the Wonderware MES.

EXAMPLE INTEGRATION SCENARIO

Customer is a premier processor of fresh frozen poultry products.

Objectives included:
• Implementing a paperless plant floor environment
• Managing Work in Process (WIP) and raw materials on the production floor
• Improving yield, labor variances
• Integration to business planning & scheduling system

Integration provided:
• Full integration to ERP: Master Data, Order/Demand, Production, Consumption Totals, Inventory Movements, Labor Totals
• Production execution across multiple process areas
• Order management, WIP management, Inventory management, Labor Management and Genealogy (“as-built”)

For more information on the Microsoft Dynamics AX and Wonderware MES Integration, please contact your local Wonderware Distributor, or visit iom.invensys.com.