



Microsoft Dynamics AX

Master Complexity with Apparel and Textile for Microsoft Dynamics AX 2012

White Paper

This paper discusses how the makers and distributors of apparel and textiles can integrate item and process information, improve efficiency, and enhance profitability using Apparel and Textile for Microsoft Dynamics AX.

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Introduction

Companies in the apparel and textile industry face a variety of challenges that are driven by increased globalization. Delocalized production and complex, expanding supply networks make it difficult to coordinate efficiently with trade partners and maintain product and material traceability while still making a profit. Price pressure, intense industry competition, and demanding customers erode margins and increase the urgency of cost control and fast time to market.

Apparel and Textile for Microsoft Dynamics® AX 2012 addresses these challenges by connecting complex item and order specifications with flexible process management through an integrated, cost-effective business management solution. With greater end-to-end control of item and process variables and information, apparel and textile companies gain the visibility and insight they need to enhance profitability and build a competitive advantage.

This white paper reviews the challenges and current trends of the apparel and textile industry, which represents businesses that produce a wide range of products including fiber and yarn, consumer and industrial fabric, carpet and other woven materials, and mass-market, designer, or luxury clothing and fashion accessories. This paper also addresses the role of technology in helping these companies turn challenges into opportunities that can drive business success, along with the specific features, benefits, and advantages of Apparel and Textile for Microsoft Dynamics AX.

Industry Trends and Challenges

The increasing geographic dispersal of production, supply networks, and markets intensifies competitive pressures and operating challenges for the apparel and textile industry. Materials or processes may be subcontracted or outsourced, while new distribution channels and markets continue to emerge. In addition to the difficulties of conducting business across borders, apparel and textile companies face other challenges, including:

- Upheaval from frequent acquisitions and mergers as companies increase their vertical integration, pursue new retail distribution options, or move into new markets.
- Bills of material (BOMs) and production routings complicated by a large number of item variables, from seasonal collections or brands to multiple color-way and size dimension matrices.
- The need to maintain traceability from finished goods back to raw materials and suppliers—despite complex supply networks and variable production routings.
- Competition-induced pressure to achieve higher quality at a lower cost.
- Increased retailer demands for fast time to market, enhanced high-performance materials, and customized products, put-up, and delivery.
- Existing stand-alone information systems that lack integration and technology solutions that are inadequate to handle the industry's complex item and process data.

Turning Challenges into Opportunities: How Technology Can Help

To excel in this dynamic environment, apparel and textile companies must be able to quickly access business information to make fast, informed decisions; collaborate effectively with trade partners; adapt rapidly to change; and compete profitably. When people, processes, and information are integrated, your entire organization can work effectively to improve business performance. The right business management solution can help you improve control of complex variables, automate tasks,

speed the flow of information, connect processes and partners, and deliver comprehensive business intelligence to support strong decision-making.

Manage complexity

Apparel and textile companies routinely juggle material performance characteristics and customers' item specifications with the product complexity of seasonal lines, brand or trade show collections, styles, quality grades, color-ways, size and color matrices, finishing variables, put-up, and delivery options. In addition, BOMs and manufacturing orders add complexity with size and color assortments for every item style. Technology is a critical necessity for keeping track of all these item variables, along with managing production routings, handling distribution, and helping ensure backward traceability to sources and suppliers. However, the right technology can also help you integrate multidimensional item coding with production, distribution, and accounting to streamline tracking and financial processes, speed production planning, increase supply chain visibility, and provide greater insight for effective item management.

Enhance flexibility

Aging and disconnected information systems hinder an organization's ability to respond to new market opportunities or last-minute customer changes by limiting access to the data people need to make decisions. With an integrated business management solution, you can expand the flow of information and increase organizational agility by adapting to shifts in operational conditions, customer orders, supply networks, and distribution channels. With technology that reduces manual tasks and synchronizes processes and information, you can gain the flexibility needed to quickly redirect materials and adjust production processes to help enhance profitability.

Connect with trade partners

To connect and empower the supply network, it is critical to gain information transparency, speed communications, and improve collaboration. By using a standards-based technology solution, you can easily share information and integrate key business processes with trade partners, regardless of their individual technologies or IT systems.

Increase efficiency

With a technological solution that delivers tight systems integration and real-time data, you can streamline business processes throughout the supply chain. Reduce manual or redundant data entry, improve production planning, gain transparency into operations, and facilitate workflow processes with automated notifications. Managers can stay aware of operational conditions, goods and information can keep moving, and employees can respond promptly to order changes or other unexpected supply chain events.

Gain insight to improve decision-making

With accurate, real-time information about seasonal collections or brand lines, production or subcontractor performance, costs, profitability, and trends, managers can make timely and effective decisions. With integrated item and process information, you can easily assess costs and item, customer, or market profitability. You can also run "what-if" scenarios in production, product allocation, and distribution so you can manage change with confidence.

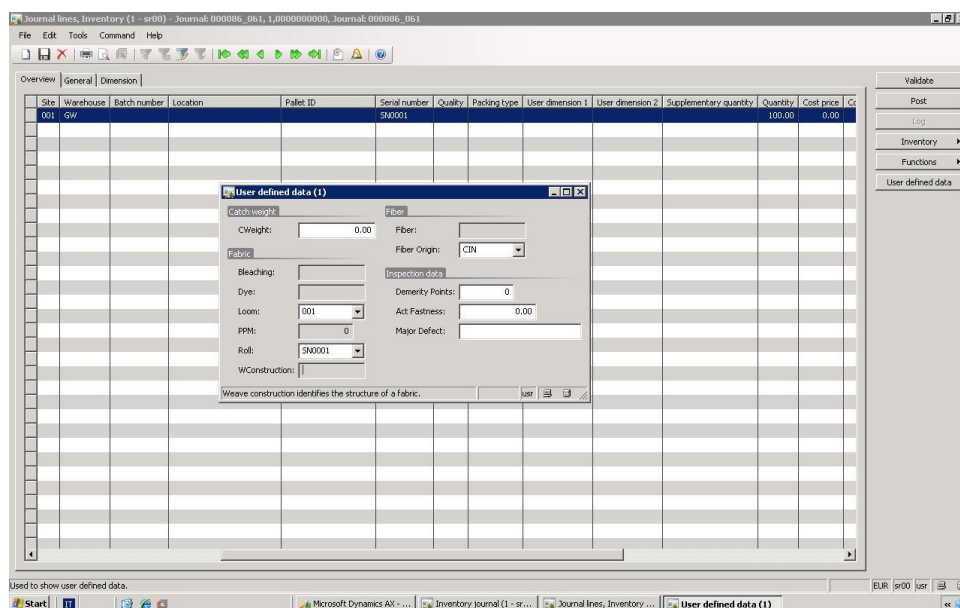


Figure 1. Specify user-defined data that can be managed at the item, customer, vendor, and work center levels with extended data set capabilities.

Apparel and Textile for Microsoft Dynamics AX 2012

Apparel and Textile for Microsoft Dynamics AX 2012 is a comprehensive business management solution that provides the flexibility, integration, and industry-specific functionality required by companies that manufacture and distribute apparel and textiles. This scalable solution is designed to meet the unique requirements of growing companies with robust item and production management capabilities and support for multiple sites, currencies, and languages that makes it easy to conduct business across borders.

Take control of multidimensional item variables

With support for advanced multidimensional item coding, your business can accommodate a wide range of item identifiers and traits, including:

- Lot, batch, dye bath, and serial number.
- Season, collection, brand, and style.
- Color-way, color, and size matrices.
- Decoration and finishing variables.
- Packaging and put-up.

Item coding is transaction-driven, which means that item codes can be automatically changed or appended as circumstances dictate; for example, the completion of the dyeing process may require item codes to change downstream. Integration with production planning and sales order processes makes it easier to plan sourcing and track materials and goods through various manufacturing processes, finishing phases, inventory, and logistics.

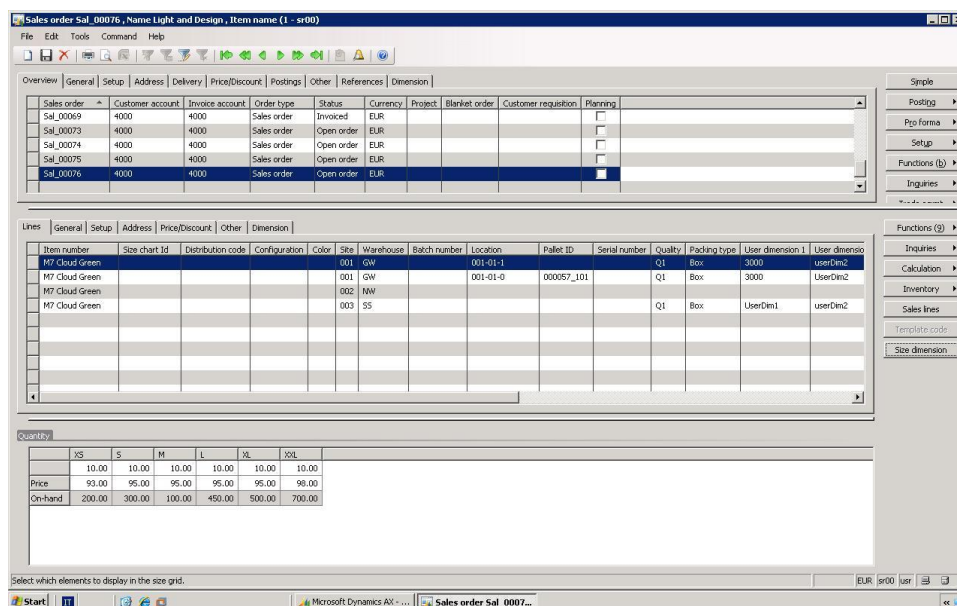


Figure 2. Simplify the order management process for garments with the ability to enter all sizes on one line.

Respond quickly and effectively to change

To adapt quickly to changes in the market, you need efficient processes in place to select alternatives for order entry, production planning, and fulfillment. With Apparel and Textile for Microsoft Dynamics AX, you can:

- Create multiple order types, including collection and showroom orders. Enter blanket orders that you can use to begin planning materials sourcing and production while deferring entry of details, such as color and size arrays or split-delivery specifications, until later. Save time by making mass modifications to existing orders.
- Generate neutral BOMs to plan materials and production resource requirements independent of product size, color, or color-way.
- Manage and automate complex measurement conversions based on algorithms for improved accuracy and consistency.
- Streamline work orders with multiple-line manufacturing orders for a given product, adding lines for various sizes or colors of the same style. You can link manufacturing orders to one or more sales orders or to track fulfillment and allocate finished goods and costs (see Figure 3).
- Incorporate subcontractors into variable or alternate routing plans based on the most cost-efficient approach for a given product and situation. Support either pull or push production strategies.
- Integrate quality assurance activities and grading results into pricing, distribution planning, item allocation, and accounting processes.
- Develop pricing based on integrated cost information and easily generate price lists that consider various product grades, sizes, quantities, promotional or trade-show discounts, or showroom rates.
- Run scenarios to assess the affect of outsourcing, new suppliers, or altered processes. Simulate allocation alternatives to help ensure optimal order fulfillment and customer satisfaction.

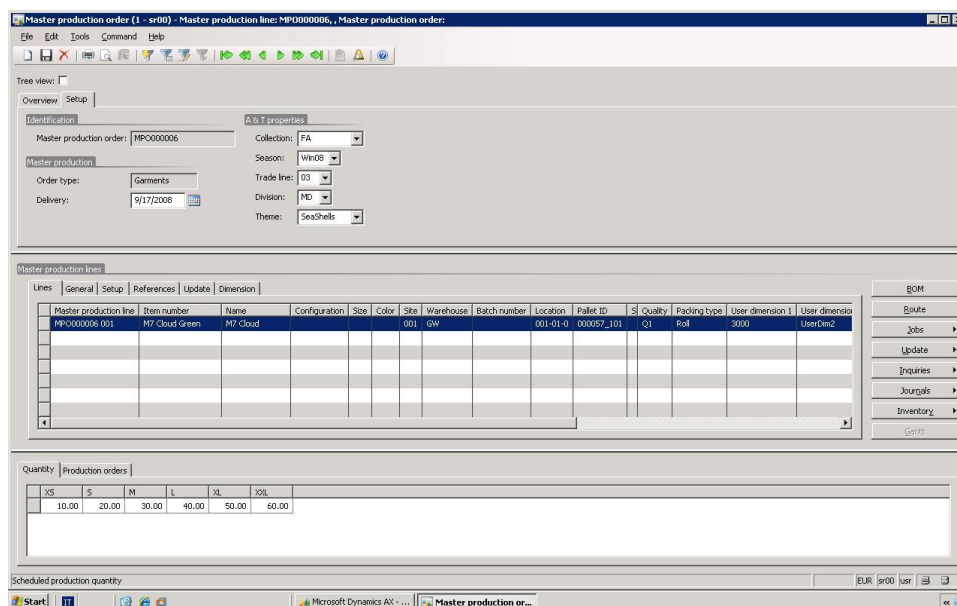


Figure 3. Use multiline production order functionality to set up a specific product with lines for color and size for each style once, and then automatically create production orders for each version.

Additionally, Apparel and Textile for Microsoft Dynamics AX has the long-term flexibility to grow with your business. You can easily tailor the solution to meet your company's current needs, and then scale up as your business expands for a low total cost of ownership (TCO).

Improve supply chain collaboration

Enhance supply chain collaboration with the ability to share real-time replenishment, order, and delivery information with people and partners both inside and outside the company. Achieve visibility throughout the supply chain, improve synchronization, speed communication, and respond effectively to unexpected situations. In addition, you can:

- Work with trade partners in the language and currency most convenient for them, thanks to multicurrency and multilanguage support.
- Share Microsoft® Office documents and key business information globally using familiar, standard formats. Communicate easily with corporate or trade partner ERP systems using XML and Web service technologies.
- Manage supplier records and subcontractor performance with integrated information about items, purchase orders, deliveries and receipts, costs, and quality assurance results.
- Save time by offering trade partners security-enhanced, Web-based access to information such as inventory levels, order entry or status, and product pricing to put resources at trade partners' fingertips.
- Speed transactions and communication with electronic data interchange (EDI) connectors and messages for business data ranging from advance shipping notices (ASNs) to invoices and purchase requisitions. With full integration of Microsoft BizTalk® Server or Commerce Gateway in Microsoft Dynamics AX, you can exchange electronic documents with trade partners to save time and improve accuracy.

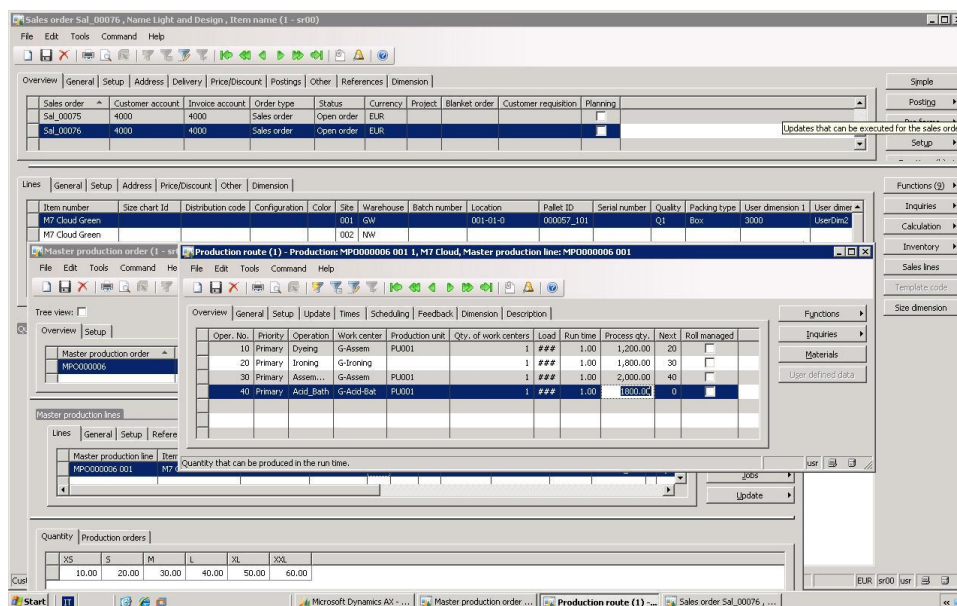


Figure 4. Generate one master production order from a sales order—this groups all the production orders of a single size and that have the same production route.

Reduce costs and improve productivity

Role Centers, new to Microsoft Dynamics AX 2012, help improve productivity by presenting job-specific information on a personalized home page. You can use your Role Center to access the information, business intelligence tools, and tasks you need according to your role within the organization. For example, a Purchasing Agent can monitor real-time inventory levels, and the Order Processor can gain rapid access to current customer data to create customer invoices.

In addition to Role Centers, Apparel and Textile in Microsoft Dynamics AX helps simplify business processes with the ability to:

- Eliminate redundant data entry between information systems or operations areas.
- Streamline replenishment, enable suppliers to monitor inventory levels and initiate purchase requests, or shift to vendor-managed inventory so your people can stay focused on strategic activities that align with business goals.
- Improve the accuracy of inventory records across multiple showrooms, sample stock, off-site deposits, wholesale or distributor inventories, and physical or virtual warehouse locations. Obtain a comprehensive inventory view to help source goods from the most efficient location, and consolidate records for purchasing management and financial analysis.
- Improve your ability to control fabric rolls or any kind of entity that identifies quantities created between one production operation and the following one.
- Speed fulfillment and accounting with item, put-up, and delivery information that is fully integrated with packaging, unitizing, labeling, and invoicing processes.
- Reduce time to market on new products with improved communication among design, sales, production, and wholesale and/or retail distribution resources.

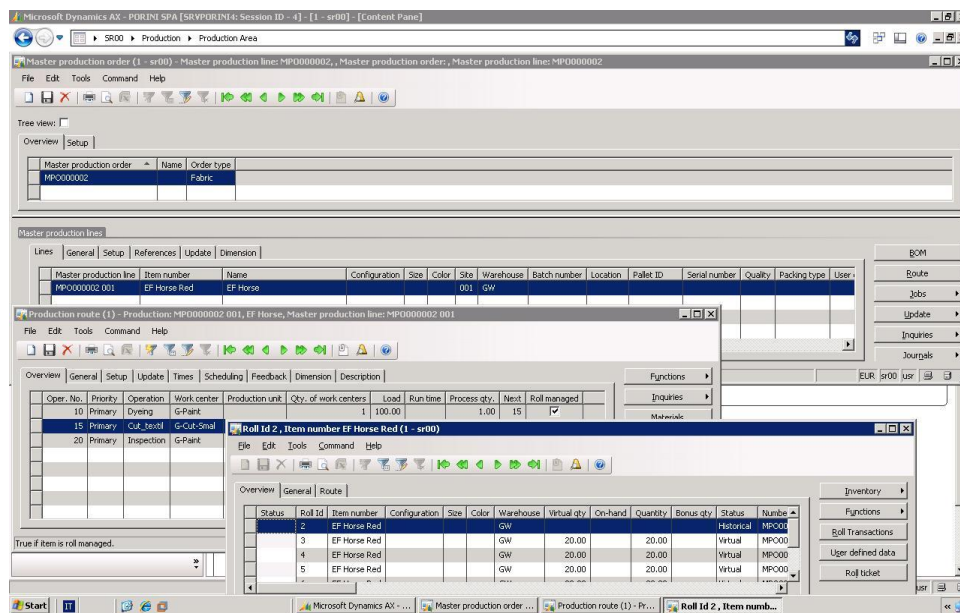


Figure 5. Manage rolls or other entities generated in the production process between an operation and the following one, and then manage them subsequently in the upper level of a BOM (if applicable).

Make confident decisions

With access to real-time business intelligence information, you can get the insight you need to make smart decisions and drive business success. With Apparel and Textile for Microsoft Dynamics AX, you can:

- Easily access critical data about customers, suppliers, products, processes, and profitability across the organization.
- Extend information to remote employees with Web-based access so sales and distribution teams have the data they need at their fingertips, regardless of location.
- Create and track key performance indicators (KPIs), share real-time results, and monitor trends.
- Use familiar tools such as Microsoft Office Excel® to analyze critical performance and profitability information, and present it to others in visual formats and reports.
- Run "what-if" scenarios on item, production, and distribution alternatives and assess market trends.

Technology Overview

Apparel and Textile for Microsoft Dynamics AX leverages the core functionality of Microsoft Dynamics AX and is designed to take advantage of a foundation of integrated technologies, including the Windows® operating system, Microsoft Office system applications, and Microsoft SQL Server® for a security-enhanced, reliable, and easy-to-manage IT infrastructure.

The following diagram shows the capabilities in Apparel and Textile for Microsoft Dynamics AX 2012 and how those capabilities integrate with core Microsoft Dynamics AX functionality, including business analytics, sales and marketing, financial management, and human resource management.

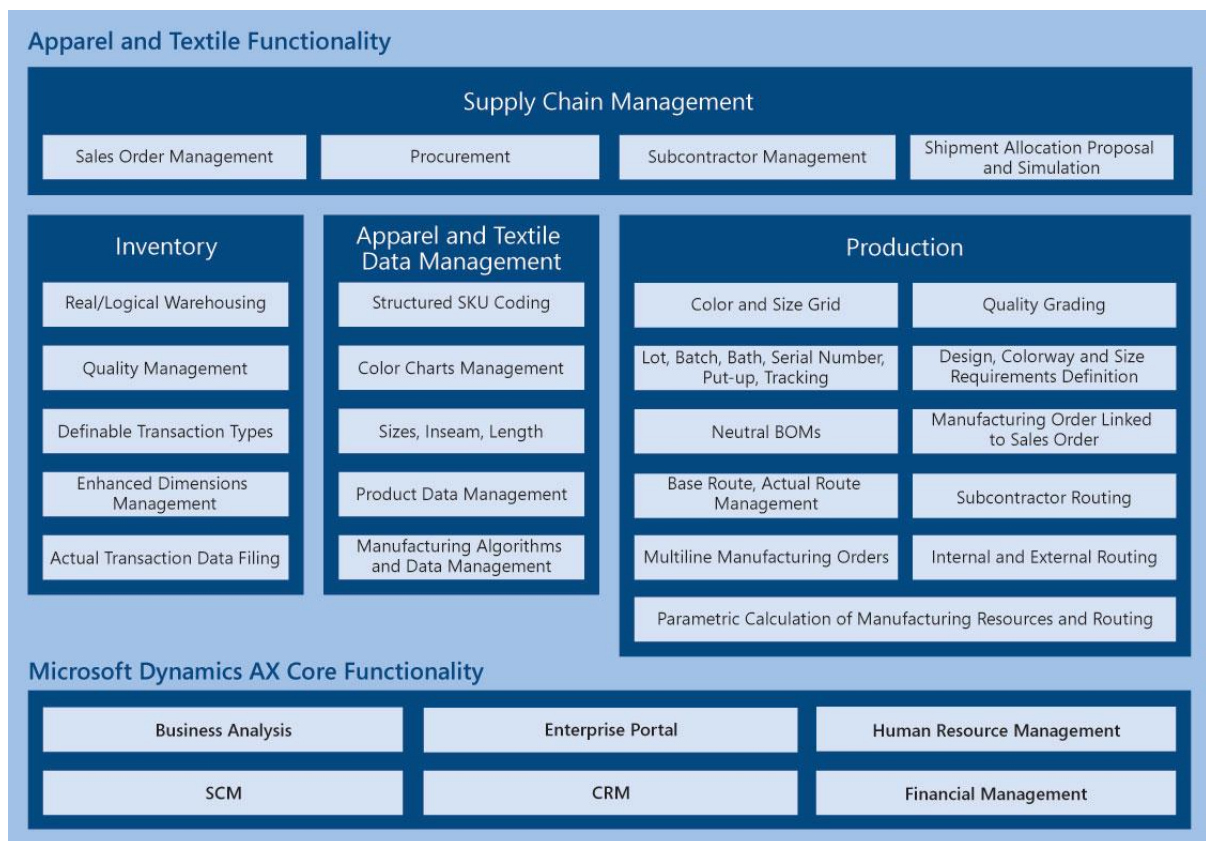


Figure 6. Access industry-specific functionality that integrates complex item and product data to help streamline global supply chain, inventory, and production management processes.

Apparel and Textile for Microsoft Dynamics AX 2012 helps you incorporate industry-specific business processes, such as BOM and routing management; quality grading and management; and tracking for lots, batches, dye baths, serial numbers, and put-up. The solution delivers tailored supply chain management functionality, including the ability to run shipment allocation simulations and model new processes to adapt effectively to changes in product lines, manufacturing capabilities, supply partners, production geographies, vertical integration, and distribution. With support for multicurrency, multilanguage, and multisite, you can speed transactions, improve transparency, and consolidate financial reporting.

Reduce implementation time for a fast return on investment

Apparel and Textile for Microsoft Dynamics AX includes out-of-the-box industry-specific tools, such as questionnaires and templates that simplify implementation and make it easy to configure the solution to your processes and data. Smooth integration with the full range of Microsoft products helps maximize your overall IT investment, and the familiar, easy-to-use interface helps people get up and running quickly with minimal training to help speed return on investment (ROI). Furthermore, you can choose from a network of Microsoft Partners to help you tailor the system to your business without having to make extensive customizations.

Maximize business opportunities and accelerate growth

Built on the foundation of Microsoft Dynamics AX, Apparel and Textile for Microsoft Dynamics AX offers a flexible, service-oriented architecture (SOA), easy exchange of business documents, and Web

services—all of which make it faster and easier to adapt to new business models and expanded partner relationships. The systems architecture helps ensure a long-term solution that will grow with your business, while Web services use XML standards to simplify data sharing. Built-in tools provide everything you need to extend business processes on the Internet, giving trade partners access to key information and tasks through familiar Web browsers.

By using BizTalk Server 2006 R2, you can further extend automated business processes, increase visibility, and enhance communication between systems and people. BizTalk Server streamlines data transformation and workflow among multiple systems to deliver a real-time view of the business and expand shared processes with suppliers, customers, and vendors. It also enhances security by encrypting information exchanged across the network.

Integration with SQL Server can provide maximum database performance and easy maintenance. Records and information for multiple sites, warehouses, deposits, show rooms, or companies exist within one centralized database on a common server, helping you to save on hardware expenditures and operational costs while supporting consolidation of information across sites.

Gain dependable support

As part of the Microsoft product family, Apparel and Textile for Microsoft Dynamics AX is reviewed according to the same high standard of quality as other Microsoft products. Technical reviews are performed prior to launch and throughout the product lifecycle to help ensure overall quality, performance management, and stability. With support and services for Microsoft Dynamics, you can choose from a variety of support and service options to select the plan that best fits your business needs.

Conclusion

Apparel and Textile for Microsoft Dynamics AX 2012 delivers industry-specific functionality to help you overcome the challenges of managing complexity, globalization, and change. Whether you work in a fiber-based or fashion-based industry, you can use this flexible, integrated solution to create a competitive advantage by:

- Integrating information and processes to streamline operations and boost efficiency.
- Managing and tracking complex item and process variables.
- Improving production, sourcing, order fulfillment, and organizational agility.
- Increasing supply chain visibility and collaboration effectiveness.
- Implementing an integrated business management solution that delivers a positive return on investment and a low total cost of ownership.

To find out more about Apparel and Textile for Microsoft Dynamics AX and how it can help you meet the challenges of your growing global business, visit

www.microsoft.com/dynamics/ax/product/industrysolutions.mspx.

About the Apparel and Textile Solution for Dynamics AX

Porini developed the Apparel and Textile solution for Microsoft Dynamics as a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with confidence. Microsoft Dynamics works like and with familiar Microsoft software, automating and streamlining financial, customer relationship and supply chain processes in a way that helps you drive business success.

PORINI is a global business consulting and solution provider renowned for its deep Apparel and Textile industry experience. From its launch in 1968 right down to today, PORINI has operated exclusively in the Apparel and Textile market with one clear mission and that is to provide valuable services and strategic solutions to production and distribution companies. The services and solutions that we provide include:

- 1) Management consulting and business process transformation;
- 2) Leadership and process re-engineering;
- 3) Software solutions for supply chain management, production planning and control, costs analysis and customer service.

PORINI, with its over 40 years of experience allows its clients to compete on a global scale with highly valued consulting services, and globally known software solutions. The solutions, which are all integrated and in a standardized manner, easily adapted based on organization structure, terms of production model, product mix and methods of distribution.

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