Microsoft Dynamics NAV 2009

Supply Chain Management

White Paper

This paper explains how Microsoft Dynamics® NAV 2009 can enhance visibility throughout the supply chain to improve execution, reduce costs, speed the flow of goods and information, and provide insight for smart decisions and enhanced profitability.

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www.microsoft.com/dynamics/nav
Introduction
This white paper is intended for small and midsized companies driven primarily by manufacturing or
distribution operations and in need of solutions to help improve the integration, visibility, and efficiency of
their supply chains. It reviews how Microsoft Dynamics NAV 2009 can connect trade partners, improve
collaboration, and ease the flow of business information within and between organizations to help
enhance the efficiency, speed, and profitability of the entire supply chain.

After reading this paper, you will understand:
• How increasingly complex supply networks are driving a need for better integration and
  synchronization of information and processes among supply chain partners.
• How technology can enhance the transparency and efficiency of supply chain processes both
  within an organization and throughout the supply chain.
• How Microsoft Dynamics NAV can help companies and their trade partners streamline interactions,
  improve collaboration, execute effectively, and enhance profitability for mutual success.

Executive Summary
As supply chains and goods distribution channels grow increasingly complex, efficient management of
extended supply chains becomes even more critical to profitability and customer satisfaction.
Manufacturers and distributors need an integrated business management solution that can connect
information from across the organization and increase visibility throughout the supply chain. The right
technology can help companies streamline processes, reduce costs, enhance communication and
 collaboration with trade partners, gain insight for confident business decisions, and increase agility for fast,
effective responses to changing conditions.

Microsoft Dynamics NAV is an integrated business management solution that can empower small and
midsized companies to increase supply chain transparency, improve execution, and achieve a low total cost
of ownership. Integration of procurement, inventory, warehouse, manufacturing, and distribution
functionality with financial management, customer relationship management (CRM), and other business
processes helps ensure that accurate, up-to-date information is accessible to people who need it
throughout the organization and among trade partners. The solution’s flexible, modular structure enables
the addition of new or custom functionality over time to match the growth and evolution of the business.
With Microsoft Dynamics NAV, companies can harness the power of an integrated supply chain to increase
customer satisfaction, improve profitability throughout the supply chain, and gain a competitive
advantage.

Current Supply Chain Management Challenges
In an increasingly global business environment and with a profusion of new distribution and supply
channels that extend across geographical and international boundaries, managing your supply chain has
never been so challenging. Intense global competition means that customers increasingly can demand
lower prices, faster turnaround, and higher service levels. At the same time, customers expect greater
choice and customization of products and packaging, adding complexity and cost to materials sourcing
and inventory management. And, customers and regulatory agencies demand compliance with an ever-
lengthening list of mandates, from material traceability to radio frequency identification (RFID) tags.
To respond to these pressures, organizations engaged in manufacturing and/or distribution increasingly focus on greater process efficiency, faster cycle times, cost reduction, and more agile operations. Many companies are implementing lean manufacturing strategies and/or forging closer relationships with supply partners to speed the flow of goods and information throughout the supply chain. Outsourcing is another common solution, but one that creates its own challenges by extending supply networks to involve many dispersed and disparate partners. Frequently, supply chain relationships involve doing business across multiple countries, languages, and currencies, further complicating communication, collaboration, and financial management.

Amid these challenges, manufacturing and distribution companies have an opportunity to build a competitive advantage with effective processes and systems that maximize operational efficiency, reduce costs, streamline information flows, and enhance collaboration. With increased insight to supply chain operations and performance, successful organizations can enhance customer satisfaction, boost profitability, and take advantage of new opportunities for growth.

**Solving the Challenges: How Technology Can Help**

An appropriate and integrated business management solution can help organizations optimize the entire supply chain and enhance efficiency by connecting people, processes, and information across departments, locations, and trade partners. Visibility into orders, goods movement, and processes is key—if you don’t know what’s going on, you can’t communicate it, plan for it, or make decisions about it.

The right solution can not only integrate customer, order, manufacturing, warehouse, and financial information but also extend critical business information to trade partners who need it. When you can easily transmit information such as order status or product design specifications to customers and suppliers, you can not only eliminate redundant data entry and increase information accuracy, but also speed transactions and promote efficiency and lower costs all along the supply chain. Changes can be telegraphed rapidly to every affected process so people can respond quickly and with clear insight to upstream and downstream impacts.

Finally, quick access to and analysis of key business information can increase a company’s success by empowering managers to plan effectively, make confident business decisions, and comply with regulatory or customer mandates ranging from Sarbanes-Oxley to product tracking and recall capabilities.

**Optimize Your Supply Chain with Microsoft Dynamics NAV**

Microsoft Dynamics NAV delivers integrated functionality to support all your sales, procurement, fulfillment, manufacturing, and financial management needs so you can accelerate goods through the supply chain to quickly and profitably satisfy customers. A flexible, attractively priced business solution, Microsoft Dynamics NAV offers organizations the ability to synchronize supply chain processes, automate for faster execution, reduce cycle time, increase customer satisfaction, enhance trade partner collaboration, and gain business insight.

Key solution areas include:
- Supply chain management
- Financial management
- Manufacturing
• Warehouse management
• Distribution
• Customer relationship management

The solution provides integrated, real-time data in open, standard formats that can be easily shared using common communication and collaboration tools to synchronize the entire supply chain. That means there’s transparency both within the organization and across organizational boundaries, so trade partners can work together effectively to satisfy customers, respond to changes, and profitably meet the challenges of competitive markets.

Microsoft Dynamics NAV is built on Microsoft technology and works smoothly with many other Microsoft products and technologies commonly in use by businesses everywhere—including Microsoft® SQL Server®, Windows Server®, Microsoft BizTalk® Server, and Microsoft Office. Your people can work productively with familiar tools and gain insight for informed decisions. Easy to customize, implement, use, and maintain, a Microsoft Dynamics NAV solution can help you:

• Connect people throughout the supply chain with the information they need to save time, reduce costs, and increase customer satisfaction.
• Enhance productivity by integrating, streamlining, and automating processes for faster fulfillment.
• Improve replenishment and inventory management.
• Gain insight for business and supply chain improvement.
• Achieve a fast return on investment and a low total cost of ownership.

Connect People with the Information They Need

When sales, CRM, order fulfillment, procurement, production planning, shipping, and accounting processes share the same real-time information at their fingertips, the work environment becomes highly productive. By centralizing information in a single database, Microsoft Dynamics NAV can help reduce redundant data entry, prevent rekeying errors, and help ensure accurate, timely information in every department. Easy drill-down capabilities mean details are never more than a few clicks away.

Especially designed to deliver comprehensive information in one business management system, Microsoft Dynamics NAV can help you link your sales team, office, and multiple warehouse or production facilities, giving you one set of dependable information your people can use to make reliable promises to customers, fulfill orders quickly and accurately, and boost customer satisfaction. Because the solution features full Microsoft integration, you can access business information at your fingertips even when working in familiar programs such as Microsoft Office Outlook®, Microsoft Office Word, or Microsoft Office Excel®. That means your people can rapidly access customer, product, order, or shipment information and put it to work satisfying customers and improving your business.

Increase supply chain transparency

Microsoft Dynamics NAV can increase order and inventory transparency not only within the organization, but up and down the supply chain. Easy access to current views of material and product specifications, inventory and order status, production plans, promotional programs and discounts, and receipt or delivery status can empower your people to work together effectively with suppliers, respond effectively to changes, and satisfy customer needs profitably.
Microsoft Dynamics NAV also can help you:

- Gain real-time insight into inventory with detailed, dimensional inventory data based on actual materials use and replenishment status.
- Look up available-to-promise and capable-to-promise quantities, inbound shipment timing, and production plans so you can make customer promises with confidence and help ensure realistic delivery commitments.
- Track items throughout receipt, production, and distribution using a variety of inventory attributes including lot and serial numbers and multiple SKUs.
- Reduce exposure to supply chain risks by increasing timely awareness of changes, delays, or unexpected events.
- Create resilient demand forecasts and production plans based on transparent and traceable information about demand, orders, and material supply.
- Keep processes on track and help avoid costly delays or missed deliveries by setting up notifications that alert the right people of transaction changes or supply chain events that require attention, such as missing purchase order confirmations or inbound shipments that don’t arrive as anticipated.
- Gain leverage for supplier negotiations and performance management with integrated, readily comparable information about procurement activities, costs, lead times, quality assurance, and delivery performance.
- Tailor the solution to your exact needs with the flexibility to grow as your operations become more complex with three levels of warehouse management functionality.
- Coordinate the efficient flow of goods through multiple warehouses and locations.

If your business crosses international lines, the solution’s robust multilanguage and multicurrency support helps ease communication, financial transactions, and reporting across locations. Work with trade partners in their own languages and currencies to smooth relationships while maintaining straightforward and accurate financial reporting at home. By uniting the entire supply chain with consistent, timely, and easy-to-understand information, Microsoft Dynamics NAV can help you improve the performance of every link in the chain to increase on-time delivery rates, customer satisfaction, and profitability.
Set up custom alerts to keep supply chain processes on track and respond quickly to changes.

Enhance communication and collaboration

Tight integration between Microsoft Dynamics NAV and Microsoft Office system programs can help you interact quickly and accurately with supply chain partners so you can:

- Improve customer service when sales and customer service staff can promptly access customer account information and deliver fast, accurate information about pricing and discounts, quotes, availability, lead times, and order status.

- Take advantage of a companywide perspective on orders and shipment planning to effectively consolidate orders and select the best carrier.

- Reduce time-to-market for new products or services by efficiently sharing and collaborating on customer demand, product design and specifications, testing, production, marketing, and delivery information.

- Easily manage chains of control with comprehensive traceability of raw materials or components, products, and shipments, including serial numbers and lots.

- Improve compliance with regulatory and customer mandates for product and shipment identification, unitizing, and traceability.

Increase the efficiency of remote staff and collaborative teams

Microsoft Dynamics NAV can enhance the productivity of remote employees by extending access to critical business information and processes through the Internet. Employee Portal in Microsoft Dynamics NAV provides a Web-based interface that can help your people take care of business 24 hours a day using a
familiar Web browser. By defining roles and access rights, you can control access to sensitive business information while extending other information and processes to the people who need them, wherever they may work.

The solution’s integration also supports collaboration between departments and with suppliers and customers by providing a platform for sharing documents and other business information and enabling efficient interaction with Microsoft Office SharePoint® Server 2007.

**Streamline and Automate Processes for Enhanced Productivity**

The end-to-end integration of Microsoft Dynamics NAV can empower companies to streamline and automate processes throughout operations, from sales or purchase order approval and warehouse receiving to pick/pack/ship and invoicing activities. One-time data entry can minimize errors, focus the attention of your people on higher-value activities, and help ensure everyone is working from accurate, up-to-date information. When information flows directly from one process to the next, the completion of a task can automatically trigger the next without delay. This enables fast order cycle times and improved on-time delivery rates.

With Microsoft Dynamics NAV, businesses can:

- Streamline receiving processes, including cross-references to POs or other source documents, receipt posting, and automatic inventory crediting.
- Guide item put-away based on algorithms for preconfigured criteria such as item sales rates and utilization which helps steer the item to its correct location right from the start and avoids costly future internal movements.
- Pick items to stage or ship, and use cross-dock orders for enhanced efficiency or pick according to first-expired/first-out (FEFO), which uses expiration dates to determine the items to pick.
- Develop production and procurement plans based on actual demand, lead times, and manufacturing throughput rates to reduce inventories and cycle times and maximize labor and asset productivity.
- Increase production planning flexibility, quickly change capacity plans and manufacturing policies, and choose the optimum manufacturing process for rapidly changing conditions to maximize profitability.
- Link materials specifications, bills of materials (BOMs), sourcing processes, and product flows to help ensure the right goods are available in the right place at the right time.
- Improve service operations without increasing costs by registering all service items and parts, tracking service level agreements, and monitoring service item status and replacement history.
- Quickly assign the most cost-effective carrier, track shipments, and provide order status information to customers.
- Automatically create shipping labels and manifests.
- Handle sales returns to inventory, rework, damaged stock, or scrap.
- Reduce order-to-cash and procurement-to-cash cycles by eliminating manual procedures and data delays between supply chain activities and invoicing.
• Improve operational efficiency and goods tracking by integrating RFID, barcoding, or other Automated Data Collection Systems (ADCS) into your operations when your business is ready.

Streamline replenishment planning with proposals for procurement, production or transfer in one view.

Save time with self-service for customers and suppliers
Give trade partners self-service access to the information and business processes they need through the Internet without compromising information security. By extending business information to customers and suppliers through a familiar Web browser interface, Microsoft Dynamics NAV can help you trim the cost of transactions and free your people for more complex tasks while streamlining customer support, billing, and replenishment activities.

Self-service options can include:
• Quotes and quote requests
• Online catalogues
• Sales and purchase order initiation and confirmation
• Purchase requests
• Customer and supplier invoicing

Microsoft Dynamics NAV and communications solutions such as Microsoft BizTalk Server can help members of the supply chain interact with real-time data or initiate key business processes, regardless of those partners’ IT systems or technological sophistication. The solution also supports the exchange of important business documents such as order confirmations.

Improve Replenishment and Inventory Management
Microsoft Dynamics NAV provides manufacturing and distribution companies with specific tools for saving time on inventory management tasks and maximizing inventory investments. Comprehensive tracking of raw materials, work-in-process, and finished goods can help keep operations on track and provide information for improvements to speed the flow of goods throughout the supply chain. With the fully integrated inventory management functionality of a Microsoft Dynamics NAV solution, you can:
• Create multi-dimensional inventory records and assign multiple SKUs and cross-references as well as units of measure (UOMs), serial numbers, lot numbers, physical attributes, expiry dates, and catch weights.

• Help ensure smooth item traceability from supplier to customer to easily comply with source tracking and chain-of-control mandates.

• Reduce shrink and other carrying costs with accurate inventory tracking and up-to-date information for finely tuned replenishment and production planning decisions.

• Link inventory records for multiple locations to eliminate unnecessary stock-outs, coordinate safety stock and replenishment, and easily identify the most cost-efficient location from which to ship.

• Break down inventory costs according to categories such as materials, capacity, subcontracting, and overhead to understand cost of goods sold (COGS).

• Control the value of inventory over time and gain accurate views of inventory costs by defining shorter open inventory periods that can be closed for posting as the fiscal year progresses.

• Perform physical inventories and reconciliation easily, with the option to implement cycle counting for improved efficiency.

• Achieve clear visibility into inventory turn rates, costs, expiry dates, slow-moving stock, item margins, and the profitability of individual items or product lines.

Improve replenishment efficiency
Save time and money when you can streamline and automate replenishment processes and refine purchasing to reduce inventories and move toward more demand-driven operations. You can optimize replenishment decisions and timing by using robust tools for inventory planning and replenishment. These tools help you:

• Clearly understand item costs, cost components, and margins to determine profitable pricing.

• Understand item lead times, volumes, and sales cycles to gain leverage with suppliers.

• Integrate purchasing and sales information to support just-in-time replenishment.

• Identify non-stock candidates for special orders or drop-shipment.

A Microsoft Dynamics NAV solution eliminates inventory headaches while giving you the insight to boost inventory efficiency and improve the return on your inventory investments.

Gain Insight for Business and Supply Chain Improvement
Achieve a comprehensive understanding of your business performance, trends, and opportunities, and quickly turn data into actionable information. Because reporting and analytics are integrated with all other Microsoft Dynamics NAV functions and information, your people can quickly and easily click their way to summaries and details of everything from inventory levels to profitability.

With help from Microsoft Dynamics NAV, you can:

• Easily search for, access, and compare information—regardless of where it is generated or used—thanks to complete integration between the solution’s supply chain applications and other customer, manufacturing, inventory, and financial functionality.
• Analyze costs and supplier performance to identify potential savings or supply adjustments.
• Drill down to details driving revenues, trends, and profitability.
• Quickly manipulate and analyze information and share it with colleagues and trade partners using familiar productivity tools such as Outlook and Excel.
• Present information in intuitive charts and reports for accurate planning and informed decisions.
• Create key performance indicators (KPIs) and scorecards to manage productivity, select the highest-performing suppliers and carriers, hold effective negotiations, build partner relationships, and drive continuous improvement.
• Spot trends and market shifts to identify potential new products, markets, and customers.

A single, security-enhanced database, common definitions, and support for online analytical processing (OLAP) services make it easy to quickly extract the data you want with confidence in its accuracy and relevance. The solution’s built-in reporting and analytic functionalities include standard and predefined reports, a report wizard for ad hoc reports (including customer-specific reports), and multi-dimensional analysis.

By uniting the entire supply chain with consistent, transparent, and easy-to-understand information, Microsoft Dynamics NAV can help you improve the performance of every link to increase on-time delivery rates, customer satisfaction, and profitability.

**Achieve a Low Total Cost of Ownership**

Research shows that companies who use Microsoft Dynamics NAV earn a fast payback and gain other benefits in areas of productivity, business intelligence, and lower costs. An independent July 2006 study of 34 companies by Nucleus Research, a leader in the return-on-investment analysis of technology, found that 77 percent of Microsoft Dynamics NAV customers achieved a positive ROI, with an average payback period of 23 months.¹

**Tailor the solution to your unique needs**

The flexibility of Microsoft Dynamics NAV means you can implement just what you need to fit your current operational requirements without getting bogged down in complicated configurations or an overbuilt installation. Specific functionality such as e-business modules can be purchased separately, now or in the future.

It’s easy to adapt fields and screens to work with your terminology and practices and to integrate the solution with existing applications and systems. You can also tailor the solution with custom functionality. Hundreds of existing add-ons are available and catalogued in a tool called Solution Finder. With help from a Microsoft Certified Partner with deep vertical experience, you can customize the solution to reflect the specific technologies and regulatory requirements of your business and industry.

**Implement quickly**

Microsoft Dynamics NAV is quick and cost-effective to implement with the support of a Microsoft Certified Partner. The global network of Microsoft partners includes experts who specialize in supply chain

management solutions, so they speak your language, understand your concerns, and can answer your questions and guide decisions. They also have the experience to maximize the value of the solution’s open development environment, toolkits, and industry templates, all of which speed customization and implementation.

You can also benefit from Rapid Implementation Methodology (RIM)—a proven approach to fast, successful implementations. RIM includes data templates, industry data files, questionnaires for getting at key business information and processes, and other implementation tools.

Finally, the solution’s close integration with popular Microsoft tools and its familiar and intuitive user experience make it easy for your people to begin using it quickly and with minimal training. Full integration with Microsoft Office system programs, including Outlook, helps ensure users can work with and share business information in familiar formats and using comfortable tools. That means your people remain focused on customer satisfaction and adding value for business success.

Maximize your IT investments
Microsoft Dynamics NAV integrates smoothly with other Microsoft products to help you maximize existing technology investments in servers, database systems, and office productivity applications. This tight integration and shared technology also simplify the process of upgrading to newer versions of any individual element.

Microsoft Dynamics NAV solutions are easy to maintain and upgrade, so your management system can grow with your success. This scalability delivers a solution that works for you now and in the long term so you can achieve a fast return on investment and a low total cost of ownership over time.

Technology Overview
Microsoft Dynamics NAV is designed as part of the Microsoft offering, an integrated approach to creating a cohesive technological ecosystem supporting comprehensive business management solutions. It works with the following Microsoft products and technologies that you may already be using:

- Windows Vista®
- Windows® 2000 and XP
- Windows Server
- Microsoft Office SharePoint Server 2007
- Microsoft Windows SharePoint Services
- Windows Installer and Active Directory®
- Microsoft SQL Server and Microsoft SQL Server 2005 Reporting Services
- Microsoft BizTalk Server
- Microsoft Office system
- Windows Live™ Local Search

The solution may be run on either SQL Server or the Database Server for Microsoft Dynamics NAV. Both options are designed for, and tightly integrated with, the application database.
The open development environment of Microsoft Dynamics NAV provides an integrated platform and tools that make it easy to quickly develop quality business applications and exchange data with specialized external applications. The foundation for all the business management functionality of Microsoft Dynamics NAV is in the Client/Server Integrated Development Environment (C/SIDE®), which was designed to make development of business applications simple and enable additional features such as OLAP, electronic exchange of business information, and role-based portals.

**Conclusion**

Microsoft Dynamics NAV 2009 provides small and midsized manufacturing and distribution companies with an end-to-end, integrated business management solution that can empower the organization to increase supply chain transparency and efficiency and improve profitability for a competitive advantage. Integration with financial management, CRM, and other business processes helps ensure efficient communication and collaboration throughout the organization and with trade partners. The solution’s flexible, modular structure enables the addition of new or custom functionality over time to match the growth and evolution of the business and extended supply network. In a global environment of increasing supply chain complexity, Microsoft Dynamics NAV can help you and your trade partners connect to create a cohesive, efficient, and agile organization that can respond to change, enhance customer satisfaction, increase profitability, and grow.
Appendix: New and Enhanced Supply Chain Management Features and Functionality in Microsoft Dynamics NAV 2009

Microsoft Dynamics NAV 2009 includes a number of new features, functions, and other enhancements. The following are of particular interest to supply chain managers.

Item Tracking
More robust item tracking functionality makes it easier to view, track, and trace items throughout production and handling processes—from raw materials to shipping of finished goods. Enhancements include:

- The ability to correct improperly handled items.
- Insight into item availability conflicts with concurrent users.
- Multi-line item selection to help people work faster and maintain a consistent flow of stock.
- Support for FEFO picking to help reduce waste from expired goods.
- Compliance with legislative requirements, including the European Union regulation EC 178/2002.
- Potential for more focused recall activities with two-directional tracing, plus a faster way to search by serial and lot number, and through improved integration with Warehouse in Microsoft Dynamics NAV 2009.

Inventory Costing
Improved inventory costing functionality helps ensure relevant costing information is available to accounting staff and other users.

- Gain transparency of cost flows and resulting inventory valuations with:
  - Improved average unit cost dynamics (available for all costing methods) that apply a unit cost per average costing period to all outbound entries within the specified period. Problems can be easily scrutinized by direct navigation to the entry.
  - Cost traceability between the general ledger, including the origins of inventory-related amounts, and lookup from general ledger entries to value entries (and vice versa).
  - An inventory-general ledger reconciliation tool that maps cost amounts in the inventory ledger to corresponding inventory-related accounts in the general ledger according to posting setup.
  - A new Cost Breakdown Report that shares the breakdown of inventory cost outflow for inventory, work in process (WIP), and COGS; and breaks down the cost contribution according to material, capacity, subcontracting, overhead, and other shares.
- Help ensure costing data trustworthiness with less time and worry wasted on verifying results.
  - Inventory period closing aligns with accounting periods and prevents inventory value change by disallowing transaction and system postings.
  - Cost update on sales statistics shows profit and cost amounts on the statistics form and relevant standard reports are shown as original and adjusted.
− New principles in Cost Adjustment Batch Job prevent inventory valuation report showing “zero” quantity and “xx” value across periods. Adjustments are posted on the invoice date, and if a period is closed, the adjustments post on the first date of the open period.
− Improved inventory posting structure in general ledger enables the general ledger and inventory to always reconcile.
− Average unit costs are now calculated by day, week, month, and accounting periods.

- Enhance simplicity and help reduce data entry errors with improved cost reversal (returns) support, usability and resiliency improvements in costing-related batch jobs, undo item entry capability, and simplified costing setup on item cards.

Prepayments
Create and track a prepayment invoice on a sales order until the order is fully invoiced to significantly reduce manual updates.

Sales and Purchasing Document Approval
New functionality, including the ability to approve, reject with comments, or delegate approval to another, notification of new or overdue approval requests, and e-mail notification with links to documents.

Integration with Windows Live Local Search
New functionality integrates Windows Live Local Search and other online map services, which enables people to view locations on a map and get directions from one location to another.

Ecma Office Open XML Formats
With Open XML Formats data can be exported in any format, making it easier to move data from Microsoft Dynamics NAV 2009 to other applications, including trade partners’ systems.

Record Links
The new Records Links feature enables users to link unstructured documents such as contracts, technical documents, or reports to any relevant record in Microsoft Dynamics NAV 2009, including customer histories, vendor profiles, and item cards.

About Microsoft Dynamics
Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater 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.

U.S. and Canada Toll Free 1-888-477-7989
Worldwide +1-701-281-6500
www.microsoft.com/dynamics

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