MICROSOFT BUSINESS SOLUTIONS FOR

Manufacturing

–GREAT PLAINS

Microsoft®
Business
Solutions

MICROSOFT BUSINESS SOLUTIONS–GREAT PLAINS

THE MANUFACTURING WORLD IS CHANGING AT A DRAMATIC PACE.

The lines between supplier, manufacturer, and customer are blurring as long-term, mutually beneficial partnerships are formed. Suppliers are taking more responsibility for their customers' bottom line by ensuring that raw materials arrive at the factory just as they're needed in the manufacturing process.

Many manufacturers have created Web sites and are implementing tools that allow their customers to place orders directly over the Internet. And although customers are demanding increased levels of flexibility and responsiveness, their unprecedented access to information makes them ideal consumers for the customer-centric manufacturer.

It's technology that has brought about these changes, and the right technology tools can help your firm stay ahead of the competition. Powerful, cost-effective resource planning and management tools should enable collaboration between trading partners, allow you to manage the entire life cycle of the manufacturing business process, and help you to build a sustainable competitive advantage in your industry.

Integrated Manufacturing Solutions

Microsoft® Business Solutions for Manufacturing–Great Plains® provides a comprehensive suite of applications designed for the make-to-stock, make-to-order, assemble-to-order, and hybrid manufacturing environments. Powerful and easy to use, the Manufacturing series gives you the tools you need to manage production and resource planning, helping you reduce costs, boost customer satisfaction, and improve profitability.

SOLUTIONS FOR **Pursuing** YOUR BUSINESS VISION

Designed for rapid time-to-benefit and low cost of ownership,

Microsoft Business Solutions–Great Plains offers integrated solutions for financials, business analytics, e-commerce, supply chain, manufacturing, project accounting, field service, customer relationship management, retail management, and human resource management. By delivering unparalleled access to decision-driving information, a rapid return on investment, and exceptional customer service, Microsoft Great Plains helps you grow and manage your business better.

LATEST AND BEST TECHNOLOGIES

No two companies are alike. Yours may be spread across multiple locations, or need multicurrency or multi-language capabilities. Microsoft Great Plains can be tailored to match these needs. All solutions are highly customizable and dozens of industry-specific solutions are readily available. Great Plains also provides a suite of powerful, industry-standard tools and technologies familiar to millions of developers. Using tools such as Microsoft Visual Basic® for Applications, data and processes can be shared with other applications and functionality can be added or changed, all without changing a single line of system code. From the ground up, your solution is adaptable to your needs.

WORLD-CLASS SUPPORT

Recognized as one of the most responsive and innovative service teams in the industry, Microsoft Business Solutions backs your investment in Great Plains by working with your local Microsoft Certified Business Solutions Partner to offer remarkable training and support services.

You also have access to a vast network of independent software vendors (ISVs) that can give you any additional support you need and tailor Great Plains to your specific requirements. At Microsoft Business Solutions, serving the customer for a lifetime is more than a commitment—it's a mission.

Components of the Manufacturing Series

PLANNING

- Sales Forecasting
- Master Production Scheduling
- Capacity Requirements Planning
- Material Requirements Planning
- Sales Configurator
- Bill of Materials
  - Item Engineering
  - Product Costing

MANAGING PRODUCTION

- Manufacturing Order Processing
  - Routings
  - Work Center Definition
  - Work in Process
  - Production Costing
- Engineering Change Management
- Quality Assurance
- Job Costing

" PRODUCTION NEEDS to know WHAT SALES EXPECTS TO SELL. "

SALES FORECASTING

Effective communication between sales teams and manufacturing managers is the first step to ensuring product delivery that's both efficient and effective. Sales Forecasting brings these two teams closer together.

With Sales Forecasting, sales managers can review prior years' sales and quickly revise projections based on their knowledge of customer needs. Forecasts can be easily changed, reflecting an upward or downward sales trend, and they can be tweaked to account for seasonal influences or promotional activities.

From these forecasts, a Master Production Schedule (MPS) can be easily created and reviewed by manufacturing managers, helping eliminate any reentry of information. From this MPS, manufacturing orders are easily created.

New sales forecasts can be created from the old ones as new events arise that affect the demand for production resources. Managers can maintain an unlimited number of forecasts, making it easier for them to gauge the impact of a variety of economic and environmental forces on production. With Sales Forecasting, both sales and manufacturing managers can anticipate and prepare for virtually any outcome.

MASTER PRODUCTION SCHEDULING

Master Production Scheduling provides a flexible solution for managing high-level production requirements. Drawing information from sales forecasts, Master Production Scheduling nets them together to form a single, comprehensive production schedule. Sales forecasts can be refined and manufacturing orders automatically created to meet expected needs. Simply review the manufacturing orders, and you're ready to begin production.

The make-to-stock features offered by Master Production Scheduling dovetail with the sales order-driven functionality of other Manufacturing modules, providing a broad-based solution for a wide range of production environments.

CAPACITY REQUIREMENTS PLANNING

Capacity Requirements Planning offers an effective solution for addressing your capacity monitoring and planning needs. By displaying available capacity and load percentage information for all work centers in a single view, Capacity Requirements Planning makes it easy for you to manage your production and resources efficiently.

Capacity Requirements Planning provides the summary information you need to spot situations where capacity is short or long. This makes it easier for you to shift production smoothly as needed, with detailed information a single click away. You can view capacity information by day, week, or month, as far into the future as necessary.

Using Capacity Requirements Planning, you can view both firm and planned requirements, allowing side-by-side "what if" analysis of actual and projected capacity demands.

" I NEED TO HAVE MATERIALS available WHEN THEY ARE NEEDED. "

Identify

*material requirements
exceptions that need to be handled.*
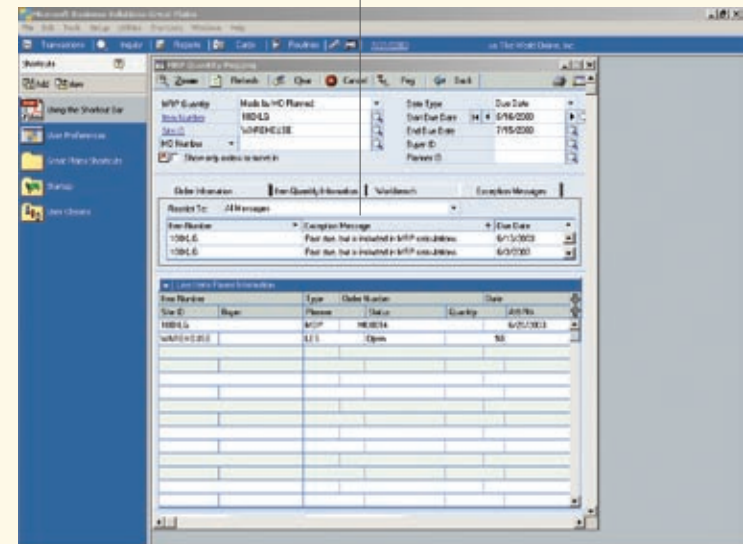
MATERIAL REQUIREMENTS PLANNING

Material Requirements Planning (MRP) allows you to plan your material needs easily and effectively using a graphical user interface. MRP becomes a virtually paperless activity when you use the spreadsheet-like view to analyze your inventory levels at any point in time.

You can view MRP information in the way that best meets your needs – by days, weeks or months, or in a bucketless format that shows your material requirements regardless of the time frame. There is no need to dig through piles of papers or separate order files to find out more about the resource requirements. MRP Quantity Pegging allows you to drill down on any of the MRP quantities to review the source of the demand.

You can also view your entire manufacturing process over time, giving you the information you need to meet planned and/or firmed demand. You can see all existing shortages and issue purchase orders or manufacturing orders to fill those shortages, helping ensure you have on hand any items that will be needed in production.

"I WANT TO DELIVER exactly WHAT MY CUSTOMERS ARE LOOKING FOR."

SALES CONFIGURATOR

When offering products with a variety of optional features, Sales Configurator can simplify the order process for your employees, and in turn improve your ability to deliver customized products to your clients that fulfill their business requirements.

With the Sales Configurator, you can set up a single bill of materials that includes all the options available for each product you manufacture. Separate bills of materials no longer need to be maintained for every possible combination of options you offer to customers. Salespeople work with a single bill of materials for the item they're selling and then choose the options that meet the customers' requirements, rather than trying to work with thousands of bills of materials and SKUs.

In addition, sales promotions can be configured for component items, with sale prices displayed when you create quotes using the Sales Configurator. This makes it easier to stay on top of promotions and to use them as you close sales. As you add and remove options from the configured bill of materials, Sales Configurator recalculates the finished goods' costs and provides you with an estimated manufacturing completion date.

BILL OF MATERIALS

For each item you manufacture, you can maintain an active bill of materials to track the components you currently use and manage those bills that you have in production.

Different types of bills allow you to manage products at different stages of their life cycle. The engineering bill allows you to see the effects of changes to your products on the cost of the item. You can use the super bill to manage all of the options available on the configurable products that you produce and set up configured bills for a customer's unique requirements.

You can also maintain an unlimited number of archived bills, tracking outdated assemblies. This flexibility allows you to plan for the future and maintain historical information you may need to refer to again. Finally, you can create phantom bills to track critical components of subassemblies that do not exist.

Satisfy
customer demand by configuring product options on the fly.
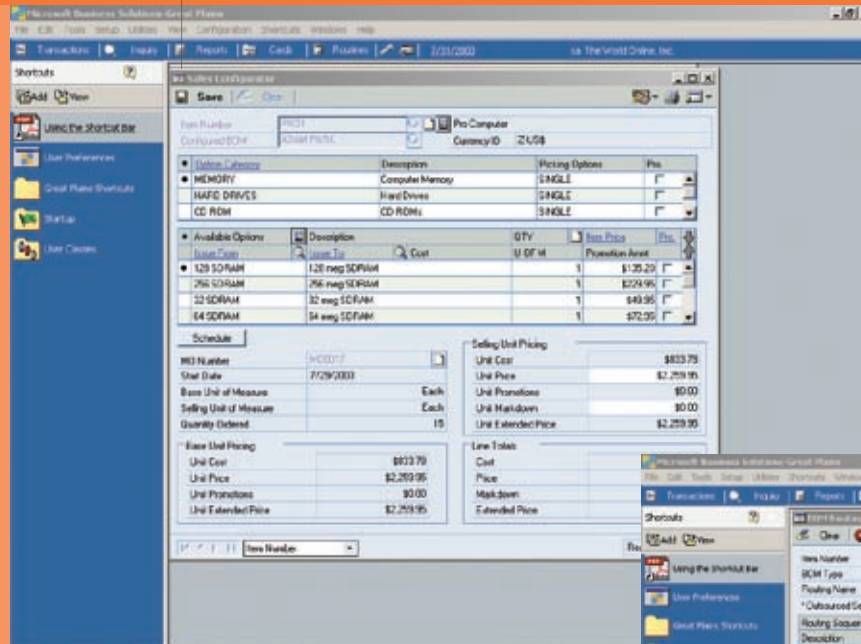
Deliver
materials where they are needed by linking components in BOM routings.
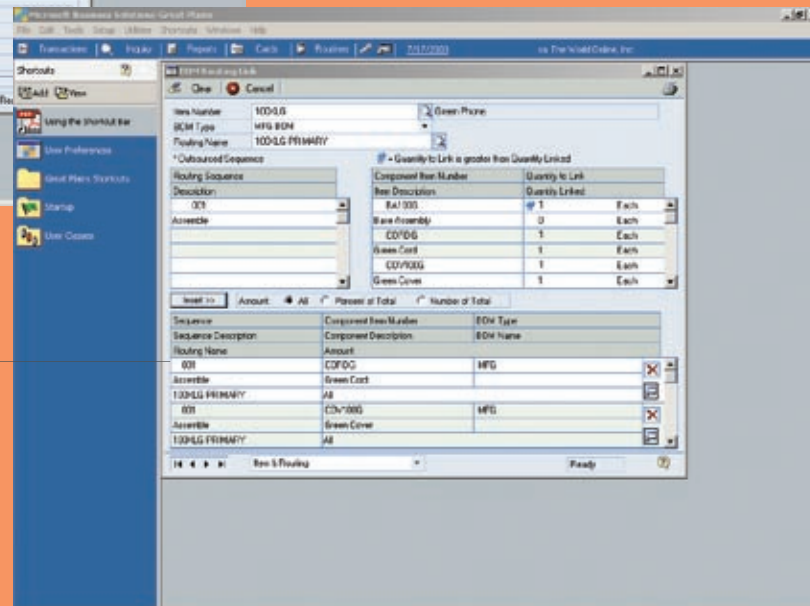
"WHEN MY NEEDS change, I WANT THE POWER TO CREATE AND CHANGE ITEMS QUICKLY."

ITEM ENGINEERING

Item Engineering builds on Microsoft Great Plains Inventory Control to provide critical functionality for manufacturers. With Item Engineering, information about the way an item is manufactured is easy to manage and flexible enough to meet the changing needs of most manufacturing organizations. New items can be created quickly by copying information from existing items. Graphics, including CAD drawings and even video, can be attached to item records and viewed throughout the Great Plains system. Companies using Standard Costing can assign material overhead values, revalue their inventory, and roll up the changes with a few mouse clicks.

The type assigned to items—Made, Bought, or Either—determines whether manufacturing orders, bills of materials, and routings can be created for them. Manufactured items can be identified further as made-to-stock or made-to-order.

Effective date and item status information can be used to control an item's availability throughout the system. Other information captured in Item Engineering, such as minimum and maximum quantities to make, shrinkage factors, and fulfillment methods, is used throughout the manufacturing process to reduce data entry and simplify tasks.

"We have taken an environment that was management by chaos and moved to an orderly, organized, and streamlined business process where everyone's life is much simpler than it used to be."

KEVIN LEHOULLIER

VICE PRESIDENT OF FINANCE

ARTHUR SCHUMAN INC.

Control

production more effectively by tracking vital engineering data on finished goods and subassemblies.

Easily

define replenishment methods and order policies.

"I NEED THE flexibility TO MANAGE THE UNEXPECTED WITHIN MY OPERATIONS."

BY DIRECTING THE ENTIRE CYCLE OF ORDER PROCESSING, you can build a business that is both customer–driven and profitable.

In addition to work orders, Manufacturing Order Processing enables you to manage:

- Routings
- Outsourcing
- Work Center Definition
- Work in Process
- Production Costing

ROUTINGS

As the blueprint for your manufacturing process, Routings provides critical support to employees on the production floor. You can define the production process for each item you build, using detailed routes for complex operations, including outsourced operations, or simplified routes for leaner environments.

Each routing sequence you create contains the vital details of the production process for the item. You can create unlimited routings for each item. These can address changes in the process or be used to analyze the effectiveness of alternative production processes.

Parallel sequences can be incorporated as needed, allowing multiple production steps to occur at the same time and shortening the overall cycle time for the routing. Phased sequences also can be used.

Routings provide detailed records of the time and expenses associated with each sequence. Advanced querying tools make it easy to analyze the information you gather and to identify routings that meet the criteria you specify.

WORK CENTER DEFINITION

Work Center Definition enables you to manage capabilities at the level of the individual worksite. Labor and machine capacity, worker skills, scheduled work hours and shifts, and fixed and variable overhead can all be tracked. You can subdivide your organization's manufacturing capabilities into discrete areas, each with unique characteristics that reflect your production environment.

Using Work Center Definition, you can build a library of definitions that can be matched to specific routings, enabling you to capture vital information, streamline data entry, and help improve the accuracy of your working information.

Companies with seasonal demand or that are experiencing rapid growth can set up a series of definitions for each work center that reflect the variations in resource requirements at that center over time. This allows you to plan appropriately and to manage bottlenecks or excess capacity in production despite rapid fluctuations in demand.

When Work Center Definition is coupled with Microsoft Great Plains Human Resources, your human resources staff can identify the skills needed for each worksite, uncover areas of exposure, and direct hiring efforts to address those needs.

Manage operations

flexibly and efficiently by defining primary and alternate routings.
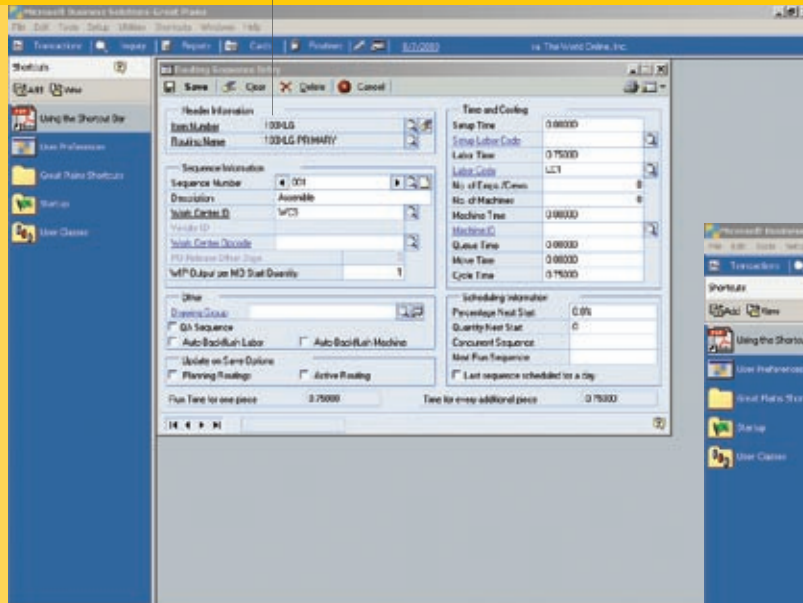
Take advantage

of cellular factory layouts and reflect resource requirements through work center definition.
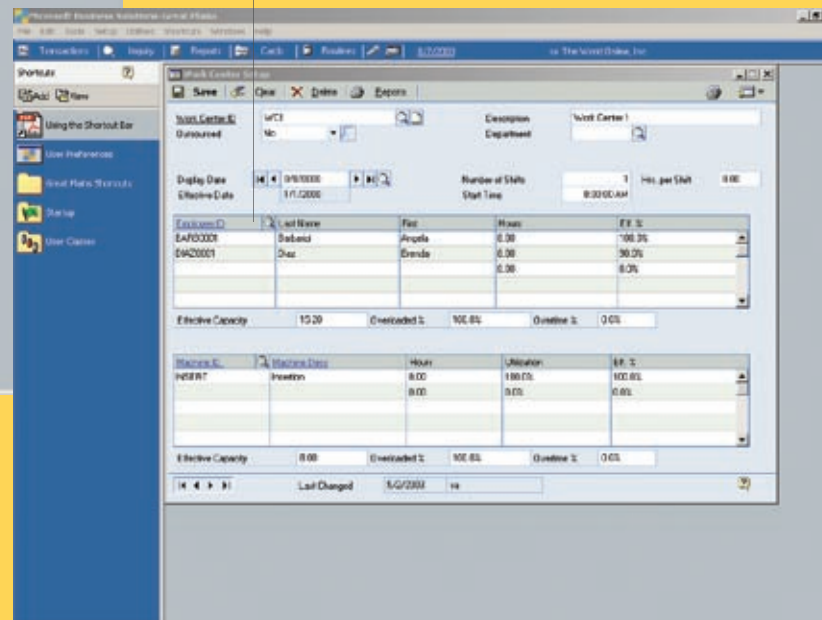
"I WANT TO KNOW HOW I'M DOING, IN real time, ON THE ORDERS IN MY FACTORY."

WORK IN PROCESS

Work in Process provides insight into each committed manufacturing order that is still in the manufacturing process. It allows you to spot trends that may need to be addressed—and costs that may be out of line—before production is complete.

This information can be accessed from a single window, helping manufacturing managers monitor production more effectively and making it easy for salespeople to answer customer questions about orders that are on the shop floor.

Transfer timecard
information to payroll whether it is collected manually or through data collection devices.
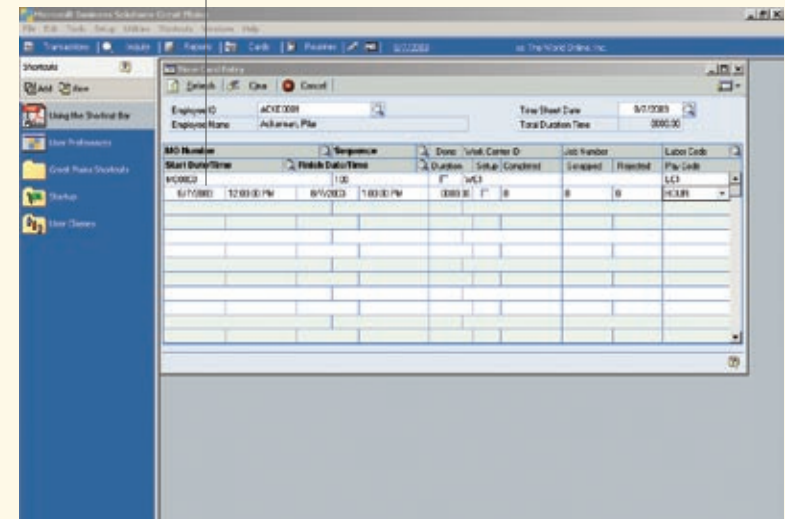
"The visibility and easy access to data throughout the system has dramatically improved the speed at which I—and others in our organization—can make not only decisions, but informed decisions."

Bill Statham

Operations Manager
Mascot Truck Parts Ltd.

" I WANT TO KNOW WHAT IT'S costing MY BUSINESS TO MAKE A PRODUCT. "

PRODUCTION COSTING

With Microsoft Great Plains Manufacturing, you can choose to use actual (perpetual valuation method) or standard (periodic valuation method) costing practices to establish inventory value. When Standard Costing is used, all items are processed at their standard cost, and variances are reported whenever actual costs differ from the standard.

With Standard Costing, you can track labor, machine, and material costs using either fixed or variable overhead amounts for each. As well, costs for these cost areas can be rolled up as you perform "what-if" analysis. Revaluing inventory based on a scenario you've created can be done with a single click to update the standard cost for all affected items.

Future cost changes can be managed using effective dates; changes won't be allowed until the date you specify. As with all tasks in Microsoft Great Plains, you can easily limit this sensitive activity to those employees who are authorized to perform it.

Evaluate and manage

proposed cost changes for machine, material and labor.

Define scenarios

to see how changes to standard costs affect bills of materials.

" I WANT TO PROMOTE innovation AND RESPONSIVENESS TO OUR CHANGING MARKET. "

ENGINEERING CHANGE MANAGEMENT

Using Engineering Change Management, you can manage customers' changing needs while keeping those changes from disrupting your production efforts.

Engineering Change Management provides an easy method for collecting, reviewing, and authorizing proposed changes to products and production methods. Engineering Change Requests are used to log all proposed changes, automatically assigning these documents to authorized individuals for review before implementation. This allows you to avoid making changes to your production process before the implications have been considered.

Once accepted, Engineering Change Requests are converted to Engineering Change Orders, which are used to document and control the process of updating inventory records, bills of materials, routings—even current manufacturing orders.

Engineering Change Management incorporates revision levels and effective dates. User-defined disposition information can be used to specify the expected outcome of each engineering change notice, and engineering change statistics help track the volume of change requests being processed and identify those that are out of date.

Encourage innovation

by allowing users to easily enter recommendation for changes to products and processes.

Maintain control

over processes by identifying items affected by proposed engineering changes.

"TO STAY competitive, I NEED TIGHT CONTROL OVER QUALITY AND COSTS."

QUALITY ASSURANCE

Using Quality Assurance, you can track raw material quality issues and take the necessary steps to ensure suppliers are providing the grade of goods you've requested.

You can define the Quality Assurance procedures you need, including step-by-step processes, acceptable quality level tables, and disposition codes. Sampling procedures are flexible, allowing testing of a single item used in several tests, one test used on several items, or any combination of the two. Quality Assurance integrates with the receivings components for Microsoft Great Plains, helping ensure that only high-quality raw materials are being brought into your plant.

Forms for non-standard reports and supplier corrective action requests are provided as well, helping you further streamline the quality assurance process.

JOB COSTING

Even firms that don't consider themselves job shops often have special projects or contracts that may last several months and involve multiple sales, manufacturing, and purchase orders. Job Costing gives project managers the ability to closely monitor the overall profitability, along with detailed cost components, for any project.

Job Costing provides extensive analysis tools that help managers spot variances and unreasonable cost contributors before they become unmanageable. Streamlined data entry makes it easy for personnel to assign transactions to jobs when the transactions are first entered in the Microsoft Great Plains, helping eliminate error-prone duplicate entries.

Improve vendor management
by testing and recording results for incoming materials.

Monitor overall profitability
as well as detailed cost components for each job.

" I WANT TO connect INFORMATION ACROSS MY BUSINESS. "

SUCCESSFUL MANUFACTURING ORGANIZATIONS know that they must integrate information from disparate groups that normally don't work closely together. Sales, purchasing, production, service operations, customers, and suppliers must work as a team to design, develop, deliver, and service the best possible products. They must also find new and innovative ways to collaborate with all members of the supply and demand chain.

ACCESS TO INFORMATION

Creating an interconnected enterprise starts with providing your decision makers at every level with real-time access to consistent, accurate, and timely information. Microsoft Great Plains delivers a full complement of information access tools to help you drive business decisions throughout the organization.

From complex financial analyses for multi-entity organizations, to presentation-quality reports that provide instant access to detailed information, Microsoft Great Plains improves the quality and speed of the decision-making process, enhances productivity, and increases customer satisfaction throughout your interconnected enterprise.

SHARING INFORMATION AND PROCESSES

Beyond simply buying and selling on the Web, the Internet is transforming the way businesses cultivate relationships with prospects, customers, and vendors. Businesses are sharing information and even applications via the Web, not just with internal employees, but with everyone in their interconnected organization.

The Manufacturing series is fully integrated with other Microsoft Great Plains applications and designed to use the Internet to share information, so your organization works together as one interconnected whole rather than many separate units.

This saves valuable time that would otherwise be spent with redundant data-entry tasks, repetitive searches, and laborious report creation. You enhance your workers' productivity, allowing them to work effectively. And you can be certain that the project information you see in front of you is current, accurate information from across your entire organization.

MICROSOFT BUSINESS PORTAL

Give your employees and business partners an avenue for accessing customer data, inventory queries, purchasing reports, and other information and processes.

From a central location, Microsoft Business Solutions Business Portal allows you to use a standard Internet connection and Microsoft Windows® Terminal Server Advanced Client to access Great Plains business applications over the Web. All information and processes are installed and maintained at the server end, centralizing administration and deployment.

By providing role-based, immediate access to Great Plains applications and information, you can extend the reach of your business to employees, customers, and partners around the globe.

"With Microsoft Great Plains we have the potential to be great.
We are not only going to revolutionize our company but revolutionize our industry, by offering information to our dealers that allows them to be more competitive and to make the sales that they need to make with the consumer base."

Bill Conati

Manager of Information Systems
MAAX Spas, Inc.

Microsoft Business Solutions, which includes the businesses of Great Plains, FRx® Software Corporation, and Microsoft bCentral™, offers a wide range of business applications designed to help small and midmarket businesses become more connected with customers, employees, partners, and suppliers. Microsoft Business Solutions applications automate end-to-end business processes across financials, distribution, project accounting, electronic commerce, human resource management, manufacturing, supply chain management, business intelligence, sales and marketing management, and customer service and support.

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A solid foundation for building business success.

More information about Microsoft Business Solutions can be found at
http://www.microsoft.com/BusinessSolutions

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