Microsoft Dynamics™ GP

Why Now May Be Time to Move from MAS 90/200 to Microsoft Dynamics™ GP

Users that have made the change tell you why

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Microsoft Dynamics

Executive Overview

Your company is currently using MAS90 or MAS200 as its business system, and it's not going well. It may take many hours of effort to get the information you need to run the business – using spreadsheets, hand-written notes, and lots of digging. You have other 'outside' applications that aren't tied into your main system and it can be difficult to coordinate the two. The system may be slow, hangs up, and runs for hours to do updates. You are concerned about its ability to grow as your company grows.

But this is a bad time to be investing in a new system, isn't it?

The truth is, it's the perfect time to replace your inefficient, out-dated 'legacy' system with a new one that provides easier and better access to the critical information that will help your business jump ahead of the competition as the economy moves out of the current recession. Companies often upgrade to new software when they are busiest and feel the pain of limitations of their older system the most – but that is when they have the least time and resources available to make the change and learn how to take advantage of the new capabilities. Now, when business is less frenetic, is the time to prepare for the coming recovery. And it may be a lot more affordable than you think.

Companies change ERP systems because they are dissatisfied with their current system, or they understand that its limitations are hampering the effective, efficient operation of the business. They want a replacement system that better suits the company's needs, and their perception of what that might be is greatly influenced by the specific limitations they have encountered in the existing system. These limitations might be functional – applications that are not available or that fall short of what the company needs to support business needs, for example. The dissatisfaction with their incumbent system may be technological; they may be experiencing poor response times or frequent lock-ups or crashes, and the system cannot be expanded gracefully.

Whatever the reason, when a company sets out to replace an existing ERP system, it goes out to the marketplace with several major objectives in mind. They want the new system to provide all of the applications needed to run the company effectively today and into the foreseeable future (functionality). They want some assurance that they won't out-grow the system's capabilities (scalability). They want a state-of-the art system built on standard, open technology and a relational database compliant with modern data retrieval and analysis tools (business intelligence). The new system must incorporate current technologies for integration, communication and collaboration (connectivity and integration). The ideal system will be easy to learn and easy to use (productivity). This is best done by a design that looks and works like ubiquitous office software like Windows, Excel and Word. And the system must be built on solid, proven, yet up-to-date technology that assures performance and reliability (foundational technology).

This paper looks at these objectives from the perspective of a company with MAS90/200 that is looking at Microsoft Dynamics GP as a possible replacement system.

Introduction

An ERP system is a sizable investment in resources for any company, and not just in the initial purchase and implementation. Companies build their processes and procedures around the system's functionality and rely on the system to manage critical activities and provide the information that is essential to the effective management of the business. Thus, it makes a significant statement when an organization decides to discard an existing system and replace it with something different.

Over the last thirty years, Production Solutions has helped hundreds of companies select, implement and get benefits from ERP and related systems. We have seen companies struggle for years with ineffective systems, yet they are reluctant to make a change because they think it will cost too much, it will be too disruptive, or they are afraid the employees won't want to change. A year later, most of these same companies can't imagine how they were able to function without the new system, and how they could keep the business going in light of the difficulties they were living with on the old system.

Microsoft commissioned Production Solutions to gather information for this report from two sources: companies that migrated from MAS90/200 to Dynamics GP, and Dynamics business partners that work with companies moving from MAS90/200 to Dynamics GP. We were asked gather information about 'life with MAS90/200' in comparison to 'life with Dynamics GP' and consolidate the differences into specific categories to focus on the major benefits of making the change.

Beyond the specific benefits outlined below, the more important conclusion might be that there is a definite cost to not making the change. All of the companies interviewed went on at length about how much benefit they have gained from their new Dynamics GP system. They save many hours of effort each and every day in getting the information they need. The information is more current, more comprehensive and more relevant, leading to better business decisions. And they are enjoying more use of the system because it is truly easier to learn and use, and because it offers a broader application set that covers more of the business's activities and needs. And they are saving money in the process.

Reason 1 – Business Intelligence

The MAS users we spoke to told us that their biggest source of frustration is how cumbersome it is to gather the information they need to run the business. Preparing reports is a time-consuming chore. They must rely on an internal IT department or outside consultants to create new reports when they need them. Yet, they are still left wanting – lacking the level of insight they really need to understand and effectively manage the business. Static reporting does not allow them to analyze the data and fully understand relationships between departments, events, activities, and changing business environments. Because MAS90/200 is not built on a relational database, users do not have access to advanced analysis tools such as cubes, predictive modeling, etc.

One company we interviewed talked about a report that they needed showing backlog, order status and projections of future business. This report, critical to the way they scheduled and ran the business, took a staffer 12 hours each week to pull together from their MAS90 system. They used this report in a weekly staff meeting that typically lasted from 60 to 90 minutes, hampered by questions about whether the data was all accurate and up-to-date. After their conversion to Dynamics GP, they have found that all of the information they need is available on-screen right in the meeting room. They no longer spend hours gathering data from multiple, unsynchronized sources. The weekly meetings now complete in about 20 minutes and are more productive from having current data available.

In addition to performing the day-to-day business functions (transactions), the real purpose of an ERP system is to facilitate the accumulation, management and distribution of business information. One of the biggest limitations of legacy ERP products like MAS90/200 is information access, or lack thereof. In the early 1990s, a data storage technology known as a relational database management systems (RDBMS) became the de-facto standard for modern information system design. A short definition of an RDBMS is one in which the relationship among data is stored along with the data itself. The important thing to understand is that the information within a RDBMS can be accessed through standard tools, particularly the Structured Query Language (SQL), making retrieval and analysis more flexible, open, and usable. The major RDBMS systems in the market today are Oracle, IBM and Microsoft SQL Server.

Older systems, like many versions of MAS90/200, built on a non-relational data management scheme, offer access through proprietary tools or hard-coded definitions within programs. That's why older systems only offer 'canned' reports and limited query tools tied only to that particular data system. Combining information from a non-relational system with information from another database is at the very least difficult and inconvenient, if not totally impractical.

Many versions of MAS 90/200 run on the (non-relational) ISAM database. MAS 200 can be implemented with either the b-tree client/server (non-relational) file system or Microsoft SQL Server. Arguably, a product designed to run on two distinctly different databases cannot be optimized for best performance on either one. This non-optimum design means, among other limitations, that updates of the product to take advantage of new technology in subsequent releases

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of SQL Server will lag significantly behind updates from a product dedicated to SQL Server alone. And although a system designed for a non-relational file system can be adapted to run on a SQL Server database, it does not take full advantage of the open SQL design and is not as efficient or as open as one designed for SQL Server.

With a proprietary database and access tool, MAS90/200 users are limited to data access through the proprietary tools (licensed users) and limited exports using Crystal reports or spreadsheet options. In addition to built-in reports and SQL, functions, Dynamics GP data is available through business portal, executive dashboard and analytic applications, SQL reporting services, and smart links – Excel reports that automatically update data from Dynamics very time the spreadsheet is opened. Accessing the database with open tools does not require the user to have a Dynamics GP licensed 'seat'.

The real benefit of all this is having ready access to the information you need to make good decisions and effectively run the business. Microsoft SQL-based Dynamics GP takes advantage of the latest and best data storage and retrieval technology to put the information you need right into your hands- if you can see it, you can get to it. Analysis tools that have complete access to all of the information in the system can help you gain real insight into the dynamics of the business and the markets. SQL reporting services (SRS) and SQL analytic services (SAS) are two of the leading reporting and data analysis tools on the market today, giving you capabilities like shopping cart analysis (Figure 1) right in the SQL analytic services package where you can analyze product sales interactions to help you understand product bundling opportunities. And all of these tools are compatible with Excel so you can work with the data in a familiar format.
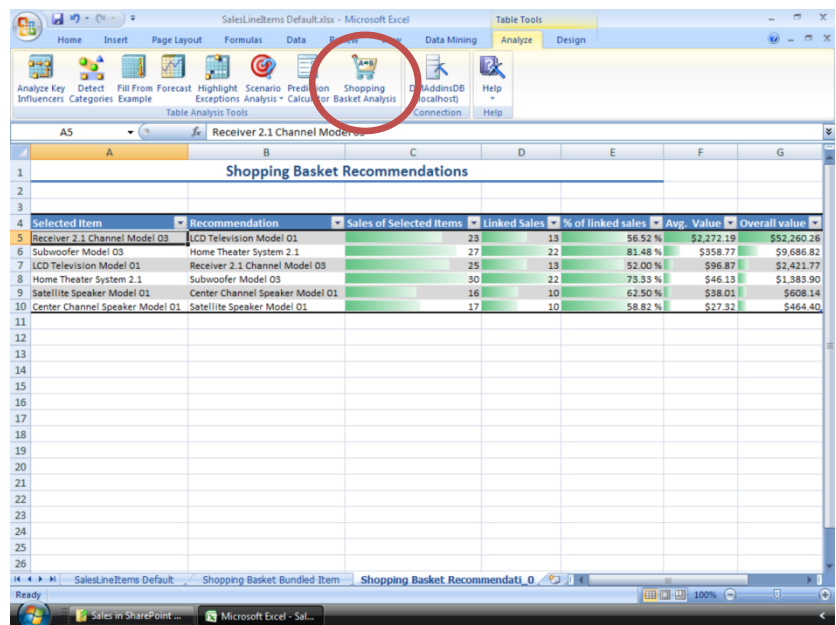

Figure 1

Note the "Shopping Cart" button in the top ribbon. By clicking this, MS Excel calls on the MS SQL Analytic Services (SAS) that call on the data from MS Dynamics GP. The resulting analysis shown in the MS Excel worksheet reveals the products that most often sell together and do not sell together. From here, you can begin to develop promotional strategies based on live data, not simply anecdotes and "gut feel".

- Excel Services—included in Office SharePoint Server 2007—offer a Web-based version of a spreadsheet or pivot table that can be reviewed without working in Office Excel. For deeper analysis, the pivot table can be opened in Office Excel, while maintaining its live link to the data. Decision makers can focus on analyzing information that makes sense to them and use standard Office Excel tools for analysis and reporting.

- Users can define dimensions to view financial information with Analysis Cubes, and then use pivot tables in Office Excel to analyze trends and improve decision-making processes.

Reason 2 – Functionality

It may be that knowledge is power, but lack of knowledge / information can kill your business. Walk around your office, plant or warehouse. Are employees using manually maintained spreadsheets, hand-written notes, stacks of paper forms and checklists? Are there too many surprises? Does it take days of sorting through paper and reports to prepare invoices, post receipts, match and validate payables, run payroll, close the books? These are all signs that the system does not have the functionality that you need to run your business.

Companies will go shopping for new software when they realize that their existing system does not provide the functionality they need. This often happens when a company has grown significantly from what they were when they first installed the incumbent system.

This need for additional functionality often occurs gradually – a few handwritten notes become a couple of spreadsheets and pretty soon, employees are spending hours every day working on these 'side systems'. In some cases, a business may select and implement a system like MAS90/200 to take care of basic accounting tasks – keeping the ledger, tracking receivables and payables, and perhaps a modest inventory. As the company grows, the business might become a lot more complex with multiple locations, more products and services, and broader aspects of the business beyond simple accounting. Manual systems and 'work arounds' evolve gradually to handle what the system does not do. Before you know it, you have built a complex set of inefficient, laborious procedures that barely support the business needs and require entirely too much time and effort to complete.

While a product like MAS90/200 has a reasonably comprehensive set of applications modules to choose from, many of the modules lack the very specific functionality needed by companies today. Those interviewed cited specific functional needs around electronic banking, multi-currency, project accounting, manufacturing, field service and inter-company processing either do not exist within the MAS90/200 family or are only available as third-party add-ons. Microsoft Dynamics GP offers the detailed functionality needed by mid-sized business today, including critical functions like electronic banking and funds transfer, cash flow management, intercompany processing, manufacturing, project accounting, field service, forecasting, web-based budgeting, advanced distribution, integrated CRM functionality, and more. More than one user company we interviewed

said that the biggest factor in their decision to change systems was an intense need to eliminate all the extra work required to make up for missing functionality and to 'work around' missing or inadequate functionality in MAS 90/200. "So many spreadsheets," one company complained, "and all the hours spent every week trying to keep them up to date."

The logical alternative is native functionality, designed and built to work seamlessly with the rest of the application suite. Microsoft Dynamics GP offers an impressive array of native applications – part of the Microsoft developed and supported suite – that cover a much broader range of business needs than Sage or most other vendors. And since Dynamics GP is written using 100% Microsoft technology – database, tools, integration technology – third-party applications are far more likely to be more compatible in look and feel, architecture, and integration.

Companies making the switch from MAS90/200 have found the broad Dynamics GP product suite provides deep functionality and a broad array of applications to support their needs as their businesses grow in size and complexity. Most often mentioned were extended financial functions like electronic banking, electronic fund transfer (EFT), lockbox processing, and project accounting, in addition to fully integrated CRM, manufacturing and field service capabilities.

Reason 3 - Scalability

When the number of users and activity level exceed a system's practical limits, system response times deteriorate, processes take unacceptably long to complete, and it is not uncommon for the system to 'lock', fail, or otherwise become unreliable. Report and update 'runs' can sometimes take hours to complete. Databases can become corrupted, requiring time-consuming re-build or restore operations.

All systems have an upper limit on the number of users and activities that can be supported at given transaction volumes. The underlying technology is the determining factor. Some versions of MAS90, for example, are designed to support a very limited number of users with reasonable response time. Beyond that, the problems listed above begin to appear. This can happen with any system that is pushed beyond its practical limits. At this point, the company has no choice but to migrate to another system.

Sage offers MAS200 as the designated migration path for MAS90 users that require more horsepower. MAS200 is essentially the same system as MAS90, but uses a fundamentally different technology under the covers. While the users will see little difference in the appearance and operation of the applications, it is not a simple migration for the technical staff; and it is not free. The cost and technical conversion are on a par with the cost and conversion to another product from another vendor. The same is true for a conversion to MAS500, Sage's 'big company' solution. MAS500 does not share technology or design with MAS90/200, so companies that are looking beyond MAS90/200, MAS500 does not present any inherent advantage over switching to another

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system altogether. When companies realize this, they will typically look beyond MAS200 / MAS 500 and compare their needs to what is offered by other vendors, like Microsoft Dynamics.

Having been stung once by scalability limits, users look for a replacement system that they are unlikely to outgrow. While MAS200 can readily support significantly more than 10 users, technology experts agree that the all-Microsoft design, n-tier architecture and native use of the SQL Server database ensure impressive scalability for Dynamics GP. Both Sage and Microsoft can cite benchmark tests with transaction volumes per hour and user access. Benchmark tests are often more confusing than helpful. The only real proof is to talk to larger companies that use the system in an environment similar to the one you expect to have in future years and see how well the system performs in the real world. That being said, Dynamics GP has been benchmarked with 1,000 users and is currently performing without issue in companies with hundreds of users. And every year Dynamics GP is installed in companies with hundreds of users.

Reason 4- Connectivity / Interoperability

The world of MAS90/200 is typically one of many manual processes and much rekeying from one system to another. Extending the applications to partners and customers, such as a customer portal to allow trading partners to view orders, shipments, schedules, and invoices is difficult at best. Reports are distributed on paper or through e-mail. Connecting to analytical and decision support facilities like Excel is mainly a copy and paste function. And once information is gathered from disparate sources into the spreadsheet (or two or three), how confident are you that the data is timely and reflects different aspects of the business at the same point in time?

Interoperability is increasingly important in today's lean supply chain world. No man is an island[1], and the same is certainly true for a business. The supply chain / demand chain, interconnected business environment is increasingly more dependent on electronic connections for placing and acknowledging orders, tracking activity, checking inventory and sales, sharing forecasts and plans, collaboration of all sorts, web access, self-service, electronic invoicing and payments, and much more.

To a great extent, interoperability is enabled best by the use of a standards-based relational database. With externally described data (definitions stored along with the data itself), standard, open tools can readily gather and collate information from multiple systems. The use of standard or widely-used tools also facilitates the exchange of data with trading partners, data conversion at system implementation, and enablement of the laundry list of functions in the previous paragraph.

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[1] John Donne (1572-1631)

In the case of Dynamics GP, interoperability and connectivity is addressed through three primary subject areas: 1) At the database and tools level, 2) At the MS Office level, and 3) At the MS SharePoint level (Microsoft's collaboration platform). The use of standard tools and utilities, along with one of the most popular database systems around, makes it easy for third parties to link their applications to GP and offers similar look-and-feel for faster time-to-benefit and increased worker productivity. Thus, there is an impressive array of third-party extensions for GP that provide the functionality to meet the needs of a wide range of industries and situations, like a billing system specifically for the health care industry. eConnect and Integration Manager provide unlimited connectivity and the ability to create integrations using web services and other up-to-date protocols.

It is possible to export data from MAS90/200 to MS Excel, but only through Sage's visual integrator tool. GP is tightly linked through its all-Microsoft architecture for easy data transfer not only to Excel but also to Outlook, Word and the rest of the Office productivity tools. And these links can be dynamic – meaning that every time the spreadsheet is opened, for example, new data can be automatically brought in from the GP database, eliminating the proliferation of multiple versions of the same information – a huge problem in a non-connected environment. For example, without leaving the familiar "home" that Microsoft Dynamics GP offers, users can:

- Use Smart Tags (Figure 2 below) to quickly access Dynamics GP data from Office Word, Office Excel, and Office Outlook—including customer, vendor, inventory, and general ledger account information. Click on a customer name in an e-mail, for example, and instantly see a summary of customer information.
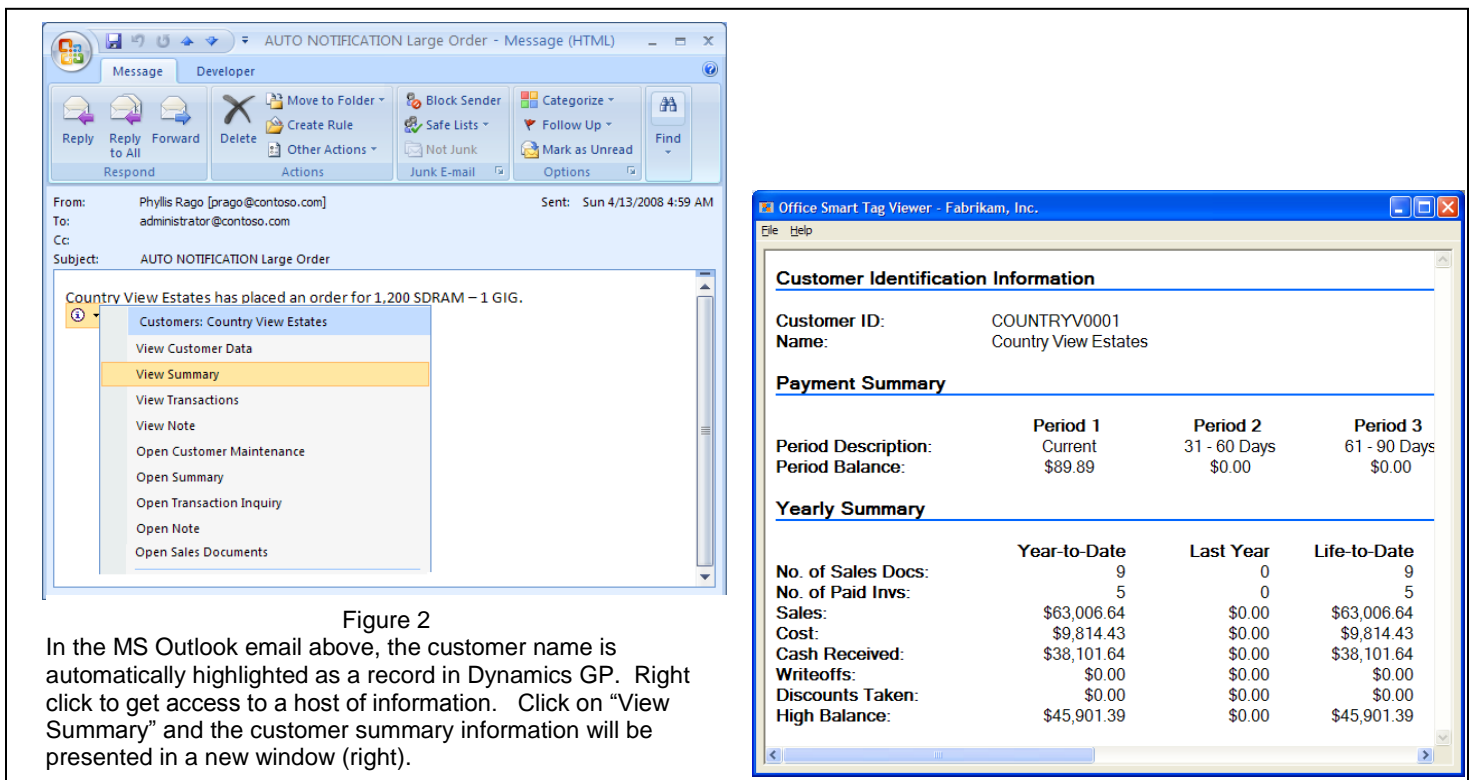

Figure 2
In the MS Outlook email above, the customer name is automatically highlighted as a record in Dynamics GP. Right click to get access to a host of information. Click on "View Summary" and the customer summary information will be presented in a new window (right).

- Send customer statements and invoices through Office Outlook.
- Quickly create customized letters that pull Microsoft Dynamics GP information into Office Word to ensure timely communications with customers and partners.
- Reporting libraries can be easily replicated to MS Outlook for on-line and off-line usage. And, of course, they can be automatically updated each time an employee logs onto the network to update their e-mail.

Finally, Microsoft SQL Reporting Services, Microsoft SharePoint and Microsoft Dynamics Business Portal make information distribution easy by storing it on highly secure websites.   And you can chose when report modifications are stored back to the website.

- SQL Reporting Services includes out of the box compatibility with Microsoft SharePoint. All reports that come with Dynamics GP out of the box, and those you create for custom reporting and analysis, can be easily replicated to on-line reporting libraries. The libraries use the security engines in MS SharePoint to help ensure that the right people see the right data. (Figure 3 below)
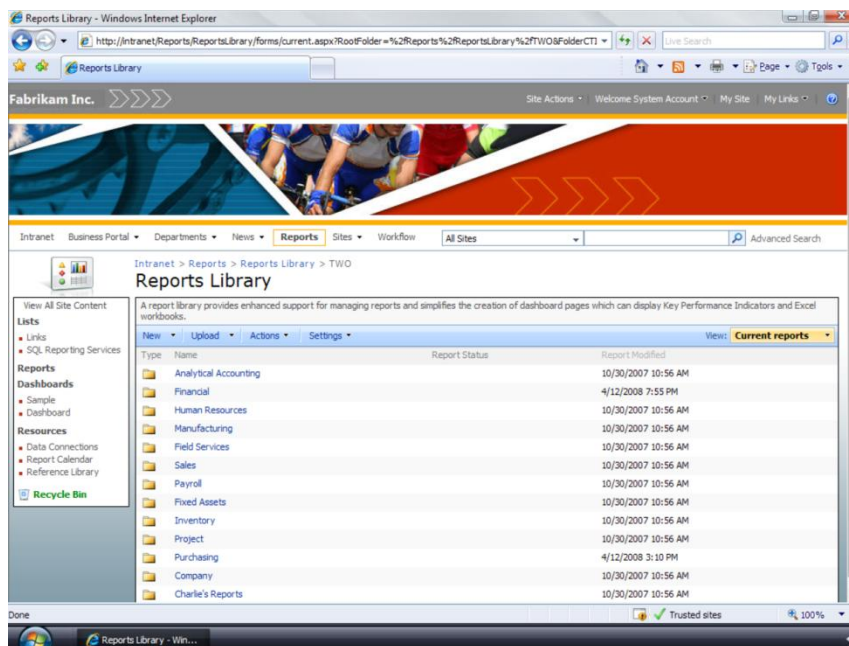

Figure 3
This is an example reports library. Note that reports are categorized in folders by functional areas for easy access. When a user opens a report, the data is automatically updated (if you choose) to ensure data timeliness.

- Office SharePoint Server 2007 and Business Portal make it easy to create scorecards that align daily activity with corporate strategic objectives, resulting in a broader and deeper understanding of the business. Scorecards can be defined to compare plans to actuals, or actual to strategic targets and forecasted values. (Figure 4 below)
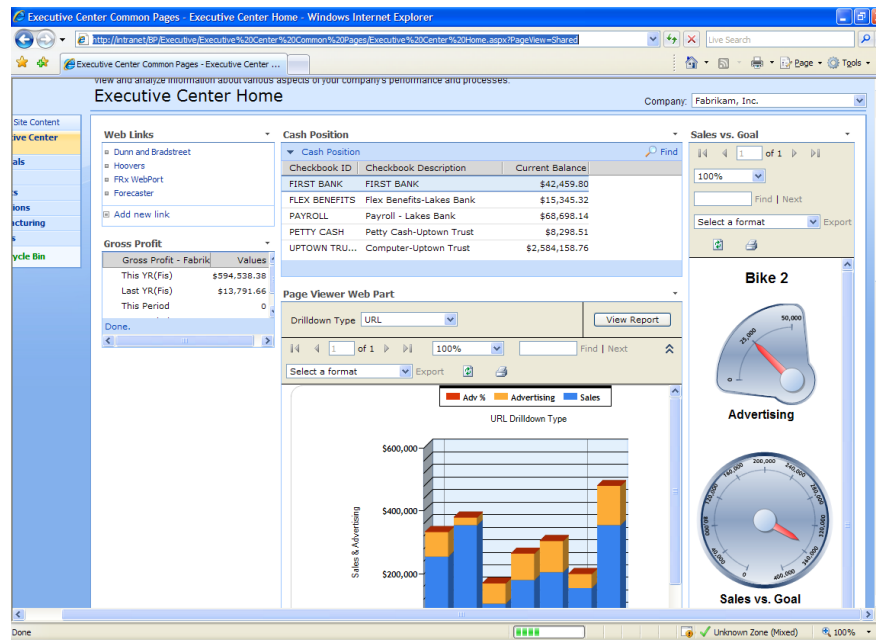

Figure 4
The Executive Center in Dynamics Business Portal is a web-based, fully customizable dashboard that puts your company's key metrics at everyone's fingertips.
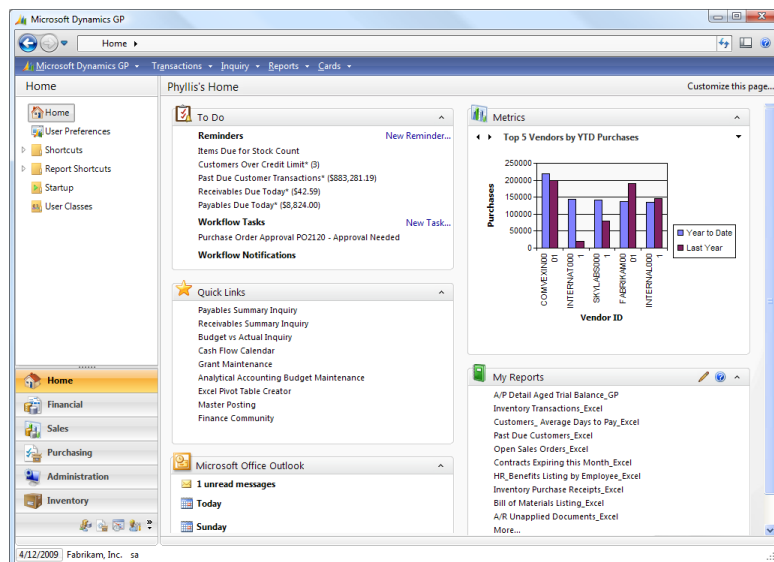
- Business Portal for Microsoft Dynamics GP delivers browser-based, role-appropriate access to Microsoft Dynamics GP information and processes. Eliminate the need to load Microsoft Dynamics GP on every user's desktop machine by delivering portal-based access to Microsoft Dynamics GP windows.

- Enable users to easily access the Dynamics GP windows they use most often by creating quick links within Business Portal pages. Tailor Business Portal to your business. By identifying which tasks and information you wish to share by role and add reports, queries, and tasks to each role-tailored page.

Reason 5 – Productivity

MAS90/200 is designed in the traditional style with standard menus and limited ability to customize the screens that people work from every day. And because they are unique to MAS, users require considerable training and orientation to know where to find the functions they need, amongst the full array of everything the system has to offer.

The Dynamics GP user interface is role-based (for example, accounts payable clerk, accounting manager, supply chain manager, etc) meaning each user has a home screen that is tailored to provide easy access to the activities and functions that they use every day (Figure 5 below).   In traditional user interface such as the one found in MAS90/200, the screens are generic – all users start at the same screen and use only a fraction of the options and choices that are presented. Role-based screens are far more efficient for the user, easier to use, and typically result in greater adoption of system functionality for more benefit to the company. Workers get right to the functions they use most without having to work their way through generic menus and screens.

Figure 5
The role-based home page for an accounting employee puts all the information at their fingertips. Note the chart showing top 5 vendors by purchase volumes. Note the "My Reports" section with links to all relevant reports. Users can set up "Quick Links" to get to commonly used Dynamics GP screens.

In addition, users get a familiar look and feel. Information categories are listed to the right of the home page, just like one sees in Microsoft Outlook. And the data input screens have the familiar "Ribbon" at the top of the screen that allows for easy and quick access to relevant functions. (Figure 6 below).
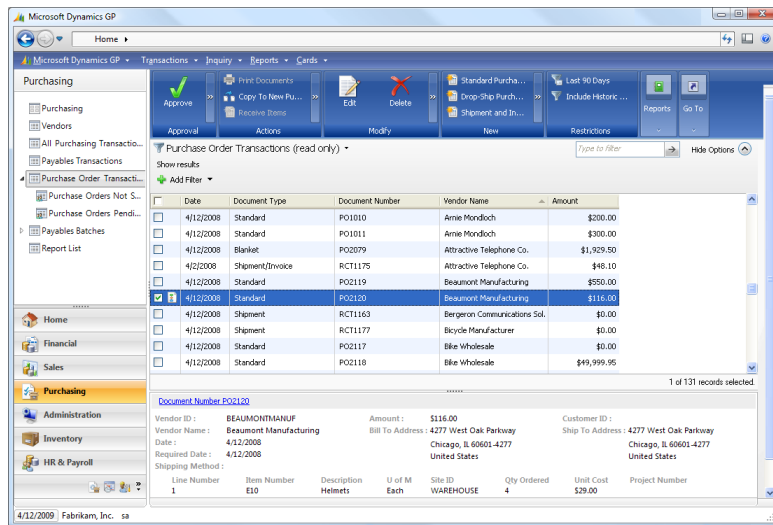
Figure 6
This screen shows functionality relevant to Purchase Orders. Note the "Ribbon" in blue toward the top of the screen. It is very similar to that of Microsoft Office 2007. Relevant functionality is enabled and non relevant functionality is grayed out to guide users through the relevant processes.

The users interviewed for this report all talked at length about the increase in productivity resulting from better access to information and a familiar interface. They cited many hours of time savings compared to the effort needed to pull together management reports from their old system. They talked about the impact of having real-time access to activities rather than long-delayed summaries. They raved about the benefits of being able to simply go into the system and dig for those details that clearly identify a problem or point to a solution that keeps the customers happy and the business running smoothly. It is difficult to put a dollar value on access to information but isn't this why you buy and implement an ERP system?

Reason 6 – Foundational Technology and Product Roadmap

Sage North America's Chief Technology Officer Motasim Najeeb made the following statement during his keynote address at Insights, Sage's vendor channel partner conference in Nashville in May 2009[2]: "Some of our products have fallen behind the technology curve and need increased R&D investment." It should be obvious from the previous discussions that MAS90/200 may not be considered examples of today's technology and, even though Sage is apparently committed to upgrading the products, this process will take quite some time and there's no telling how successful the company will be in its efforts.

Microsoft, by contrast, spent over $8 Billion on R&D in its fiscal year 2009 across all products. Microsoft has invested heavily in all of the Dynamics products to incorporate the latest technology and current thinking in the realm of application design, usability, and connectivity. In a recent

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[2] As reported on ChanelWeb May 12, 2009. www.crn.com

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report[3], AMR Research says: "ERP (is) a crucial component to Microsoft Business Solutions' People Ready positioning,(and) also presents revenue opportunities for other Microsoft businesses. And we all know how Microsoft feels about revenue opportunities for its other businesses."

In addition to a world-class database system, SQL Server, Microsoft also authors one of the world's most widely used operating environments (Windows), and excellent productivity tools like Excel and Word. Add in the Microsoft Business Portal, SharePoint, Exchange, and SQL reporting services, and you have an excellent array of open tools for interoperability, communication, and collaboration.

Microsoft Dynamics GP has a reputation for consistently rolling out new features and functionalities; both specific ERP related functionalities (e.g. project management accounting) and integrations to the Microsoft platform that helps you do more with less (e.g. SharePoint Server interoperability that allows for off-line replication of report libraries into Microsoft Outlook). The last major release of Dynamics GP was June, 2007, and the next major release will be in Q2 of 2010. In the interim, there were a number of feature packs that all delivered value for Dynamics GP customers. (Figure 7 below).
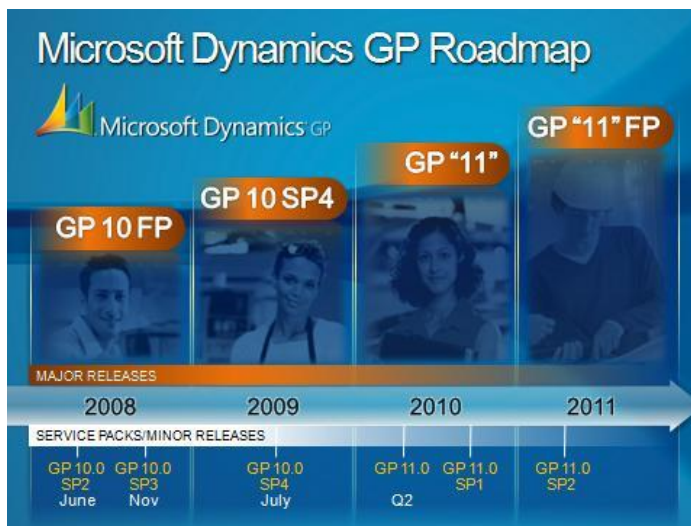

Figure 7
Since the release of GP 10.0 in June, 2007, Microsoft has consistently delivered interim feature packs that provide new functionality.

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[3] Awakening a Sleeping Giant: Inside Microsoft Business Solutions' ERP Strategy, AMR Research August 2008

Summary

It's easy to find fault with any application system – each has its own particular strengths and weaknesses. It's also easy to praise the strengths of any given system and down-play weaknesses. The real value of any system, however, is in how well the user company is able to use the tools to more effectively run the business.

This report relies strictly on the comments of users who have chosen to convert from MAS90/200 to Dynamics GP and business partners that have assisted in such conversions. No attempt has been made to compare feature-for-feature or assess the quality of the software, completeness of the solution, or vendor support.

User company comments indicate that these companies have been able to gain significant benefit from the Dynamics GP when compared to MAS90/200. It is said that the proof is in the pudding and user evaluations present the real bottom line on this software comparison.

END NOTES

1. **Disclosures –** This report was prepared at the request of Microsoft Corporation, and the author was compensated for this effort. Therefore please be duly advised that the author was not independent in the preparation of this document.

2. **Disclaimers –** This paper is presented as the author's opinion, and not as fact. While it is believed to be accurate, the products discussed in this report are complex systems containing thousands of features, the presence or absence of which can be open to subjective interpretation. The author concedes that there may be features and functionality that were overlooked or not fully considered in this report. We strongly recommend that you confirm any and all data contained herein with another source before relying on it.

3. **Nicknames –** For expediency, we referred to some of the products in this report using their nicknames, and not the full product names. For example, Dynamics GP, SharePoint, SQL Server, SQL Reporting Services, SQL Analytical Services, Excel, Word, Outlook, and Access are all products of Microsoft Corporation, Redmond, WA.

4. **About the Author –** Dave Turbide, CFPIM, CMfgE, CIRM, is an independent consultant and freelance writer based in New Hampshire. He has 30 years of experience helping companies select, implement and gain benefits from ERP and related technologies. Author of 6 books, hundreds of magazine articles, numerous white papers and case studies, Dave is certified by APICS at the fellow level in production and inventory management, Certified in Integrated Resource Management (APICS), and is a certified Manufacturing Engineer (Society of Manufacturing Engineers).