



McGUFFIE BRUNTON EQUATOR

BUSINESS PROBLEM:

Increase market share by delivering leading edge ERP functionality within McGuffie Brunton Equator, a complete HR package solution, while reducing internal development costs to maintain competitive advantage. Retain and reuse existing proven business logic while delivering both an independent system and SYSPRO integrated solution on the Microsoft® .NET platform.

"We needed to bring our customers the latest technological advancements with the lowest cost and using valuable COBOL business logic. Partnering with Micro Focus has given us the agility needed to compete in today's world."

[Simon Hart, Senior Programmer, McGuffie Brunton]



McGUFFIE BRUNTON EQUATOR

URNS UP THE HEAT FOR HR ERP APPLICATIONS

Unlocking the Value of COBOL with Micro Focus Speeds Product Innovation in Competitive ERP Market

PRODUCT SOLUTION

- Net Express® with .NET
- Net Express with .NET Application Server

THE COMPANY

Founded in Manchester, England in 1981, McGuffie Brunton is the world's largest supplier of SYSPRO ERP systems – one of the most widely installed Enterprise Resource Planning (ERP) applications. Coupling robust, advanced functionality with first-class service and support, McGuffie Brunton's ERP solutions are designed to address manufacturing, supply-chain, distribution, financial, customer management, human resources and e-commerce needs. McGuffie Brunton is committed not only to meeting the demands of customers today but also to enable users to take advantage of new technologies that lower costs and increase business agility while minimizing risk.

McGuffie Brunton's HR product, Equator, comprised of a vast suite of integrated modules, started out life 10 years ago as a text-based product running under the control of SYSPRO's IMPACT AWARD administration module. Today it runs as an independent multi-tier Object Oriented (OO) system using much of its original, unchanged 10-year-old core COBOL business logic, with the

exception now that it runs under the Microsoft .NET Framework. By running independently of the third party module, McGuffie Brunton is realizing increased sales returns and is taking advantage of the more flexible, scalable architecture, without the costly and risky nature of rewriting the entire applications from scratch.

McGuffie Brunton's customers demand the latest technological innovations at the lowest cost. Equator delivers this by adopting new technology using Micro Focus Net Express with .NET to develop and deploy new functionality within the contemporary architecture of .NET. Moving to a .NET environment has enabled McGuffie Brunton to continue maintaining its already mature and proven business assets to solve its customers real business problems today, while achieving competitive advantage through the extension and reuse of existing business logic, which powers the application.

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A NEW ARCHITECTURE

In November 1999, McGuffie Brunton started to develop its own administration module using an OO programming model that promotes code reuse, enabling new business requirements to be added in a short period of time. Equator's latest version was finally complete in May 2001, totally independent of SYSPRO. It allowed McGuffie Brunton much more control over how the system works and different technologies that it could employ. It also had a new interface designed to be more inline with Microsoft Internet Explorer to represent a familiarity with the Windows operating system. Even though the administration module is now OO, it was able to seamlessly integrate with the existing procedural COBOL business logic. The need for optimal performance over a LAN or WAN environment drove the rapid development of a distributed version of Equator. McGuffie Brunton decided that Microsoft® Transaction Server (MTS)/COM+ with .NET offered the most cost effective solution while retaining the existing COBOL investment.

In order to fully develop a distributed system based on the COM+ architecture, it was necessary to clearly define the business interfaces within the existing procedural COBOL business logic. Using Net Express, McGuffie Brunton embarked on the key strategic architectural change separating the business logic from

the user interface. Every existing COBOL program was split into two, one program representing the GUI event handling with Net Express screen set, and the other being the business rules and file/database handling. By separating the presentation logic from the business logic, Equator is now ready for movement to a Service Oriented Architecture, thus unlocking the existing COBOL assets to be deployed as Web services, accessed from other .NET languages and reused to meet new business needs.

Equator has about 600 COBOL programs, so it was no small task for McGuffie Brunton to open up Equator's business logic to be used and reused as the need arises. Once the programs had been converted, a simple generic COM wrapper class was then created to interface with the existing procedural COBOL code. Since Net Express already allowed the separation of the screen definitions into screen sets, the original Dialog System screen sets were more or less untouched by the re-architecting and could be reused immediately. Other components such as a library component, print server and data parser were created as part of the administration module and the creation of COM classes for these facilities was made easy by the Net Express Class Wizard.

"The thought of throwing away the 10 year investment we had in our existing applications was just not realistic or desirable," said Simon Hart, senior programmer for McGuffie Brunton. "We needed to bring our customers the latest technological advancements with the

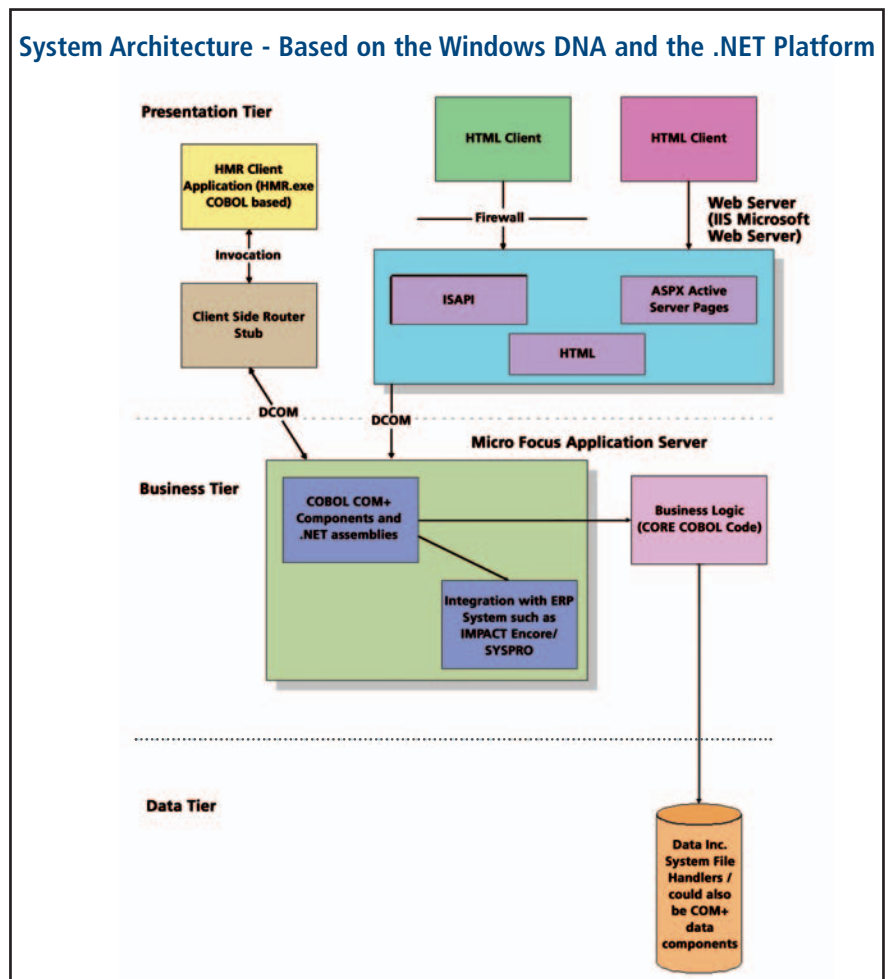
lowest cost and using valuable COBOL business logic. Partnering with Micro Focus has given us the agility needed to compete in today's world."

UTILIZING MICROSOFT .NET

With the advent of the .NET Framework provided by Microsoft, Micro Focus has been right behind them delivering Net Express with .NET. Not only can McGuffie Brunton now enable their 10-year-old COBOL business logic to run as a .NET application, it is possible to make use

of the Microsoft Visual Studio® .NET 2003 development environment for COBOL as well as other Microsoft languages.

Now with Visual Studio .NET as a single IDE it has become faster and more convenient to develop composite applications including both Microsoft .NET languages and existing or new COBOL programs. So typically creating a front-end such as Visual C#® running as ASP.NET calling a COBOL.NET back-end assembly couldn't be easier, not only to develop but to debug.



McGuffie Brunton's future strategy is Microsoft .NET and so they have been working on testing and converting their Real Time COM+ server to run under the .NET Framework. "The initial transition to .NET is on the server side, and we have found Net Express with .NET easy to use and focused on helping us reuse what we have within the .NET Framework," said Hart. "The only challenge is where we have made use of OO base class libraries such as ordered collections as these are not managed code, we will take this opportunity to implement these as .NET classes instead. However, since Net Express with .NET provides COM interoperability support, this can be evolutionary rather than revolutionary, saving the need to completely re-write certain components that rely on Micro Focus OO base class library," Hart added.

But .NET for McGuffie Brunton is about opening up Equator to new users and new technologies such as Web services. "Micro Focus have made it really easy to create XML Web services through Visual Studio .NET. For example, simple programming choices allow different types of assemblies you might want

to create, which then use a flexible template to create skeleton code," said Hart.

HOT RESULTS

Migrating existing code to the .NET Framework now allows Equator from running under a third-party vendor's administration module to run independently, resulting in a 20 percent savings on every new sale. That means no third-party interface and less complexity to the customer, while higher returns for potential future investments. McGuffie Brunton effectively reused and extended business and GUI logic to save the time and expense of a complete rewrite, all while moving to the latest technology from Microsoft in .NET.

As for the future, McGuffie Brunton has developed a standard for distributed application architecture, enabling the use of state-of-the-art devices to be used for data input such as PDA's and tablet PCs.

With the advantage of Micro Focus and Microsoft technologies, Equator is one hot ERP package for organizations seeking low-cost and high return on their investments.

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