

> MODERNIZING AND
PROCESS-ENABLING YOUR
PROGRESS® OPENEDGE®
BUSINESS APPLICATIONS

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INTRODUCTION

For the purposes of this paper application modernization, has a simple definition: it's the process of understanding and systematically evolving your applications. Given time, money, human resources, and intellectual property that go into an application, the application needs to evolve with your business and your customers' needs. The good news is that with today's technology there's an opportunity to preserve and renovate the business logic you've written without having to rip out or rewrite it.

Often, after an application has been in existence ten years or more, the cost of operating and maintaining that application starts to become significant. Consequently, a second component of application modernization is identifying ways in which you can reduce some of those costs.

Last, but not least, opening up your application to more capabilities is another crucial component of modernization. This means effectively taking an existing application with its existing business logic and improving the way in which you can operate that application and the way your users can employ it.

This paper will specifically address a new technology that Progress acquired in 2010 – business process management (BPM) from Savvion® and how it can be used by Progress® OpenEdge® customers. OpenEdge BPM has already been adopted by a number of Progress customers to modernize ERP and other applications.

SO, WHY SHOULD YOU MODERNIZE YOUR APPLICATION?

The short answer to this question is “to remain competitive.” For example, you need:

1. ***A more flexible, easily modifiable application.*** The days of making code changes every time a new business process happens or a new customer comes on board and has specific requirements have gone. That's the way of the past. This paper will talk about how you can incorporate new business processes

and new capabilities into new and existing applications so that your application is more easily modified.

2. **An integration strategy.** Increasingly, today you need to figure out how your application fits in or works with other applications, and it's absolutely critical that you've developed an open, flexible, integratable application.
3. **A compelling user interface.** Progress has talked about this a lot in the last year or so, especially with the introduction of the OpenEdge GUI for .NET. A compelling user interface is important because it's one of the top three ways in which people modernize their application.
4. **Visibility.** This is necessary to be responsive to your customers and to react to any business and/or regulatory requirements that come up. When you look at your existing business application, how well can you respond, and how well do you provide more agility or business visibility to your application?
5. **Deployment flexibility.** Looking at the number of your users and the types of users or delivery models (including software as a service and cloud computing), what is your ability to take your existing application and modernize it to the point where it can become more flexible in the way in which you deploy it? Step back and figure out how to modernize your application, especially how to improve on its capabilities without completely rewriting it.

COMPARING BUSINESS PROCESS APPLICATIONS TO TRADITIONAL APPLICATIONS

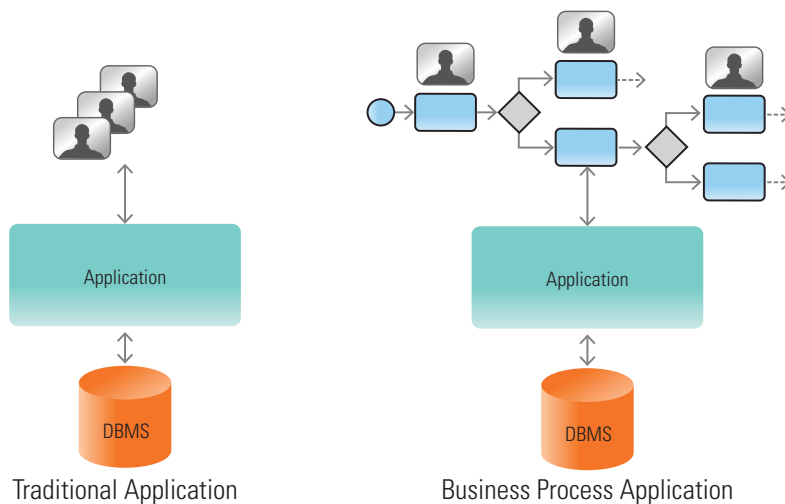


Figure 1 shows a business application. Like any application, it has application logic, often using a database management system, and, in addition, it has an explicit business process as shown in this diagram.

One difference between the two is that the application logic is more complex in a traditional application. That means you have to write more code. Why? Because the process that you see in the form of an explicit model in a traditional application has been hard-coded into the application; hence it is more complex and takes more time to develop. The other difference is that there is no explicit process, which means users of the application need to know when, where, and what to do, i.e., to be able to follow the rules, which are implied and not defined explicitly.

THE BENEFITS OF BUSINESS PROCESS APPLICATIONS TO END USERS

There are many benefits for companies and their users:

1. **Visibility**—Users of a business process application will have visibility into the business process because the model is defined explicitly.
2. **Agility**—As you know, application customization is difficult, but almost always required. Because the business process has been modeled, not coded, in a business process application, subsequently

modifying a process model is a lot easier than changing application code, leading to greater agility.

3. **Efficiency**—With increased visibility into the business process and the ability to change, customers will be able to achieve higher degrees of efficiency by utilizing their resources better.
4. **Continuous Process Improvement**—Unlike methodologies such as business reengineering, which is a one-off event, a business process application will enable your customers to improve their business processes continuously.

Of course, all these--visibility into business process, agility, achieving higher degrees of efficiency, and process improvement—are of interest to business users. By providing them, you are empowering the business people within your customer organizations to run their business better and improve their performance on an ongoing basis.

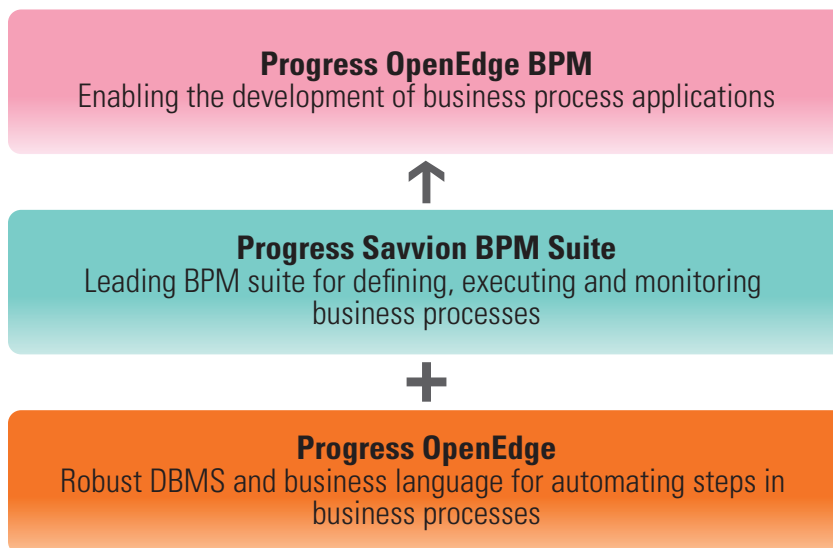
THE BENEFITS OF BUSINESS PROCESS APPLICATIONS TO APPLICATION DEVELOPERS

It is not just your customers who are going to benefit from business process applications; you, as the application developer and vendor, will also benefit in the following ways:

1. **Reduced cost of development** of business process applications compared to a traditional application because business process applications are modeled, not coded. In fact, Progress users are able to define their business processes, even if they are complex and sophisticated, in a short period of time, in the order of hours or days, not months.
2. **Easier customization of applications** for different customers because most customizations are changes to business processes, which, again, are modeled not coded.
3. **Modernization of applications**—Existing applications can be BPM-enabled, allowing for easier application modernization.

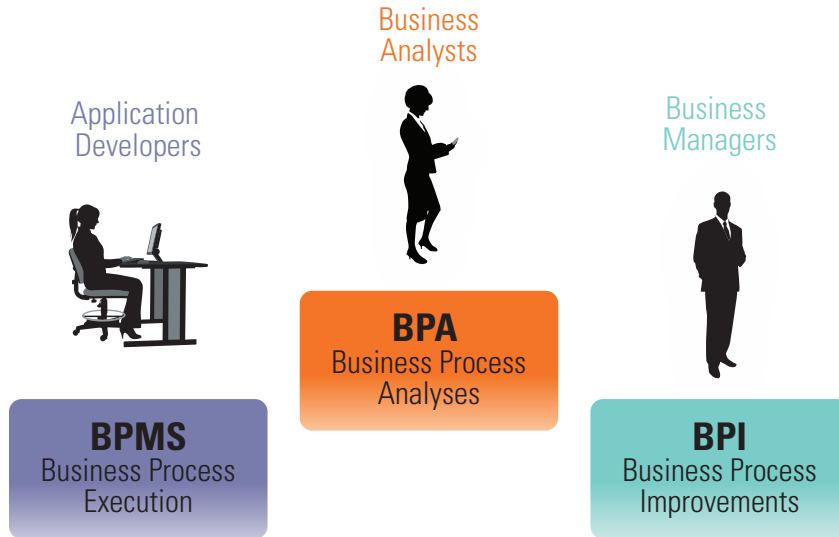
4. **Increased business value**—Through add-on and new applications and easier customizations you can deliver increased value to your customers by meeting their requirements faster and better.
5. **Increased competitiveness**—Through a combination of the above benefits, you gain a competitive edge.

WHAT IS THE PROGRESS BPM-ENABLED APPLICATION DEVELOPMENT PLATFORM?



The answer is Progress® OpenEdge®, a robust DBMS and transactional application development platform, plus the Progress® Savvion® BPM Suite, a leading BPM suite for defining, executing, and monitoring business processes. Together they are the key element of OpenEdge BPM, the world's first BPM-enabled application development platform that will allow you to develop business process applications and achieve the benefits discussed here.

KEY CAPABILITIES OF PROGRESS SAVVION BPM SUITE



The Savvion BPM Suite incorporates **business process analysis**—the ability to easily and quickly define business processes as a model, define information and rules, and specify interfaces and requirements around that business process. The system will allow you to assimilate the business process based on assumptions as to the frequency of the process execution and resources required to execute different steps of the process, and it will also automatically generate comprehensive documentation of the process.

Once you go through business process analysis, your business process has been made explicit, and you can then enrich that business process model for execution, which is referred to as a “business process management system” or **“BPMS”**—the ability to execute business process models. The enrichment of business models to make a process executable is the task of application developers. And once the application is executing, business managers, i.e., operation managers who are responsible for the performance of the process, will be able to **monitor and improve the performance of the process.**

MODERNIZING YOUR APPLICATIONS WITH OPENEDGE BPM

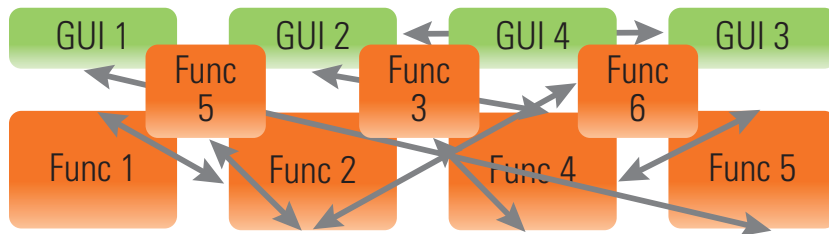


Figure 2

Most probably your application today looks like Figure 2. This application includes three things: code for implementing user interfaces; code for implementing business logic; and arrows representing an invocation from one piece of code to another. Most traditional application code looks complex like this because the process of the application is encoded into the application. In other words, the application, in addition to the GUI and business logic, also includes the business process. With OpenEdge BPM you can “extract” the process out of the code. This means that the application code will look like Figure 3—a lot cleaner and a lot simpler. There are code segments for GUIs as well as for implementing business logic. Because the

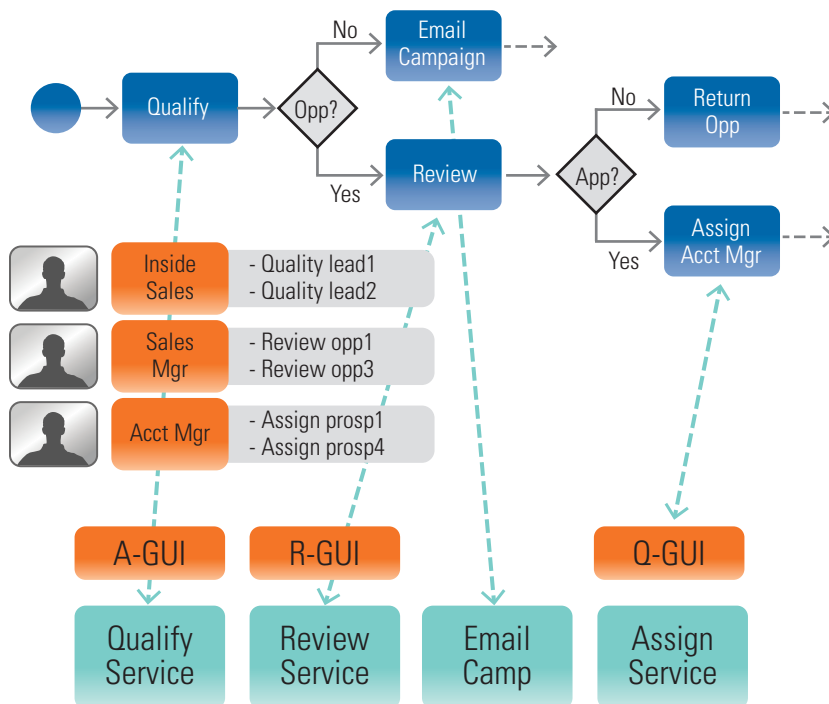


Figure 3

process has been extracted out and modeled using Progress Savvion BPM Process Modeler, now there are explicit processes, as you see in the diagram, where there is a relationship between steps of the process and segments of the code. Simply put, the GUI and application logic code, in fact, implement the steps in the process.

When the first step of the process needs to be executed, a task is created in the user's task box. This means they don't have to remember what to do. They just click on a task and get all the necessary information to perform that task, including the priority of that task, deadlines, delegation or collaboration.

THE RELATIONSHIP BETWEEN MODERNIZING AND SOA-ENABLING YOUR APPLICATION

There is a strong relationship between modernizing your existing application into a business process application and SOA-enabling your application. Steps in a business process are executed by segments of your code. If you put segments of code together, in effect you have a business service that executes the step in the process. If the application was SOA-enabled already, turning it into a business process application is greatly simplified because once you define the process, you already know what services are there, and you can easily associate those services with proper steps in the process. However, if the application is not SOA-enabled yet, then some code reengineering will become necessary. It is an opportune time to SOA-enable the application while process-enabling it so that maintaining the application going forward will take a lot less time and effort.

METHODOLOGY AND TOOLS FOR MODERNIZING APPLICATIONS INTO BUSINESS PROCESS APPLICATIONS

Here are the basic steps for BPM-enabling your application:

Step #1: Define the process of the application, using the Progress Savvion BPA tool.

Step #2: Identify code segments in your existing application, which acts as external source (often external sources of data information). If those code segments are not Web services yet, consider converting them to Web services at the same time. This will be the first step in SOA-enabling your application.

Step #3: Map code segments that implement interfaces to steps in the process, i.e. interfaces to tasks. If those interfaces are not Web-based yet, this is a good time to re-implement those interfaces using Progress Savvion BPM Web Form Designer. This will also be the first step to SaaS-enable your application.

Step #4: Identify code segments that implement business logic associated with the steps in the process, for example, calculate reimbursement for a claim if your application is for insurance claims processing.

Step #5: Identify exception-handling and error-processing code segments.

Step #6: Consider combining code segments in the above three steps into services that implement steps in the process. Once you do this for every step in the process, not only will you have process-enabled your application, but you will have SOA-enabled your application as well.

Step #7: Eliminate dead code. Often you will end up with some code that you do not need and doesn't form part of any of the business services you have. Those segments of code are dead code. They are not necessary, and you can eliminate them, further simplifying your application.

DO OPENEDGE DEVELOPERS NEED ADDITIONAL SKILLS TO IMPLEMENT OPENEDGE BPM?

OpenEdge developers can utilize their existing skills and will need to acquire very few new skills. Building business process applications is mostly a question of approach rather than skills. Rather than jumping into coding the application right away, as OpenEdge developers have done in the past, they will first need to model the process to quickly capture the requirements and logic of the application at the high level. By doing so, the business process model will enable them to actually explain the logic to their customers to ensure the application they are going to build will meet the exact requirements of their customers. This is very important. Once the process is defined, they will use the same skills they use in building GUIs.

SUMMARY

Whether small or large, in manufacturing, telecom, construction, or financial services, companies of all kinds need business process applications—to achieve visibility, agility, efficiency, and business empowerment. Progress delivers OpenEdge BPM to enable companies to build those business process applications. Progress customers and partners who have developed applications will be able to modernize existing applications with OpenEdge BPM in addition to building new and add-on business process applications.

NEXT STEPS!

Try out the Savvion Business Process Modeler Today! Download it from our website at: web.progress.com/savvion/process-modeler.html



PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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