



Business Process Management Platform: Build or Buy?

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Introduction

Interest in business process management (in all its forms: BPI, BPR, BPA) is growing, and for good reason. The ability to *understand* the intricacies of the processes that make a company a success — and to *see* how processes execute in real-time — makes it possible to quickly *modify* processes in response to changing market conditions and technology. Flexibility and responsiveness to change create market leaders; market followers slow to adapt drown in the wake of missed opportunity.

The business process management trend will continue to gain momentum as more companies recognize additional value that BPM can provide, including:

- **Competitiveness** through faster time to market of products at lower cost
- **Improved product quality** through the definition and refinement of best practices
- Overall **better business management** when day-to-day processes can be analyzed and improved on an ongoing basis
- **Improved collaboration** and communication within the company when internal processes and corporate directives are understood
- **Better customer service** and **improved relationship management** with suppliers and other business partners when people have the information and resources needed to answer questions or handle issues

As companies embrace BPM as a strategic initiative, the question for them becomes: Build or Buy? The choice can make or break the success of the initiative.

Build

Many of the companies that embraced business process management early were often forced to build their own solutions because of the meager selection of tools available on the market. They quickly learned that BPM tools are not like other business applications; BPM solutions require the development of a complete operational platform. Building a complete business process management solution involves, at a minimum, the development of a process execution engine, a process modeling tool, user and application interfaces for accessing work, management tools, and monitoring and reporting capabilities.

The process execution engine can take months — even years — to build. It will be a first-generation product, so expect to spend a large portion of time, money, and resources handling bug fixes and patches.

When business users are able to model business processes graphically, there is a greater chance that the end result will solve the business need it was meant to address. Without this involvement from the business experts, business process engineering efforts relying on IT departments to define effective business processes can last months, even years, with little to no ROI.

For this reason, it's imperative that developers creating a BPM solution include a graphical modeling tool. The tool must be able to model all facets of a business process, including manual and automated activities, transition rules, decision

points, parallel and alternative execution paths, and so forth. Ideally, the graphical model will also generate implementation code on-the-fly. Traditional modeling tools such as Visio, BP Win, or Rational Rose generate only design code; additional effort must be spent creating the code that brings the model to life. Building such a design environment will require a careful, extensive requirements analysis phase to incorporate ease-of-use features such as property editors, multi-activity parameter setting, electronic forms builder, and so forth.

If the solution will be deployed on a corporate-wide basis, it will need to be scalable, secure, and reliable. This will require exhaustive testing to ensure that critical business processes deployed on your solution remain operational and perform as expected. Training, documentation and support plans will need to be created. If the solution will be packaged and sold as a product to other companies, marketing materials and sales tools are another element of the development process.

Maintaining the process management solution can consume up to 70% of a product's total cost of ownership (TCO). Maintenance will require a staff dedicated to this task and ongoing communication with customers and partners.

In short, building, deploying, selling, and maintaining a Business Process Management platform requires a significant investment of time, money, and resources. If you need to develop BPM solutions quickly and time-to-market is important, then you will probably want to consider buying a complete business process management solution.

Buy

There are a growing number of process management tools available to help companies rapidly model or define business processes. Many of these products provide IT departments with system-level process management, but do not support manual activities. Other products are more workflow-oriented, supporting collaboration between people but providing weak integration of business applications and information systems.

When implementing a business process management solution, people and technology must be seamlessly integrated. BizFlow[®] is an example of a complete BPM platform that is distinctly positioned to help business areas formulate strategic, best-practice business processes that can result in improved customer service, improved product quality, faster time to market, cost reductions, and better risk management.

BizFlow is a mature, feature-rich, scalable, reliable business process management platform backed by 10 years of research and development. BizFlow is easily deployed within existing technical infrastructures, providing the ability to:

- Graphically define, deploy, monitor, and change processes and technology quickly, with minimal impact to the business.
- Define rules-based process execution paths
- Handle exceptions to the expected execution of a business process
- Integrate people into automated processes
- Minimize the latencies inherent in automated processes that include people

BizFlow offers companies the **REAL** business process advantage:

- **Ready to use and configurable**
 - Easy installation into any environment, including J2EE and .Net environments.
 - Intuitive, web-based user interfaces simplify deployment in environments with a large user base
 - Robust set of management tools provided, with wizards, property editors, and graphical tools to reduce training time and costs
- **Extensible now and into the future through support for Industry standards and adapters**
 - Support for Industry standards such as SOAP, XML, ebXML, WSDL, UDDI, and J2EE ensures business processes are portable, scalable, and adaptable to future interoperability requirements.
 - BizFlow's adapters and agents enable you to leverage existing mainframes, legacy systems, and enterprise applications.
 - Well-documented APIs enable you to extend the feature set of BizFlow to adapt to your needs
- **Accelerates productivity**
 - Graphical modeling tools generate code on-the-fly so process designs are easily and quickly implemented by business experts, with little to no programming required
 - Electronic forms designer provided to reduce process development time and eliminate "paper shuffling"
 - Advanced routing, deadline, load balancing, escalation and exception handling features ensure that work gets done on time
- **Lowers the cost of doing business**
 - BizFlow provides a platform for the integration of people and applications into streamlined, efficient processes.
 - Powerful exception handling capabilities ensure that unexpected events are handled appropriately before they cause significant delay or cost to the company.
 - Graphical monitoring tools provide rapid analysis of processes at runtime; detection of bottlenecks or areas in need of process improvement can be addressed immediately.

BizFlow is in its seventh version. It is scalable, reliable, and secure. As the market matures, BizFlow matures with it. We take care of the maintenance and upgrades so you don't have to. Additionally, HandySoft provides beginner and advanced training courses, full documentation suite (including a completely documented API set and programmer's guide), and technical support.

Comparison: Build vs. Buy

Although the risks involved in building rather than buying a BPM solution are great, the risks involved in *using* a home-grown solution, rather than using a commercially proven solution such as BizFlow, are perhaps even greater. The tables below show the benefits and risks of each option as they apply to the re-engineering or automation of a process throughout the systems development cycle.

Concept Phase	
<i>Assessment: Either approach in the concept phase will achieve the goal of sketching out the vision; with BizFlow, more information can be communicated and the model is more visually intuitive</i>	
Internal Development	BizFlow Solution
<p>Tools used: Visio or PowerPoint to create a visual model of a business process.</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ Software probably already in-house; little to no learning curve <p>Risks:</p> <ul style="list-style-type: none"> ↓ Do not generate code on the fly; shapes not as intuitive as graphical icons; limited information about activities can be communicated 	<p>Tool used: BizFlow graphical modeling tool (Process Development Environment) to create a visual model of a business process.</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ Easier to use than Visio or PowerPoint (drag and drop graphical icons; easy to draw transition arrows) ↑ Generates code on the fly ↑ Property editors communicate information such as actor, deadline, routing rules, etc.

Requirements Phase	
<i>Assessment: Either approach in the requirements phase will achieve the goal of defining requirements; however, BizFlow is easier to use, promoting collaboration between IT and business professionals for faster, more accurate requirements definition. BizFlow also provides the ability to simulate and continually modify requirements; BizFlow's model always reflects the implementation.</i>	
Internal Development	BizFlow Solution
<p>Tools used: Visio, BPWin, Rational Rose</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ Software probably already in-house; technical users already trained to use tools <p>Risks:</p> <ul style="list-style-type: none"> ↓ Do not generate code on the fly; the process modeled is only a picture ↓ Typically not updated as requirements change during development 	<p>Tools used: BizFlow graphical modeling tool (Process Development Environment) to create a visual model of a business process.</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ Simulates and builds code on the fly, saving time (the design <i>IS</i> the implementation) ↑ Requirements can be continually tested and revised; model always accurate with actual implementation ↑ Built-in logic review of information such as actor, deadline, routing rules, etc.

<p>↓ Tools cannot be used by the business experts without extensive training</p>	<p>↑ Graphical, drag-and-drop modeling tool is easily used by business experts; collaboration between IT and business areas results in faster, more accurate requirements definition & early buy-in</p> <p>↑ Integrates with organizational managers for easy assessment of task assignments</p>
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Development Phase	
<p><i>Assessment: This is where developers will realize the value of BizFlow as a rapid process development and deployment platform; BizFlow generates code on the fly during the requirements phase, eliminating the time and cost associated with building the process execution engine, rules engine, integration adapters, and user and application interfaces. During the Development Phase, IT and Business users can continue to collaborate to configure process details such as routing rules, deadlines, exception handling procedures, etc.</i></p>	
Internal Development	BizFlow Solution
<p>Tools used: Familiar IDE such as Jbuilder or Visual Studio to create the code that implements the model.</p> <p>Benefits:</p> <p>↑ Developers trained and comfortable using chosen IDE</p> <p>Risks:</p> <p>↓ Labor, time, resource, cost intensive</p> <p>↓ Fixed code; process is hard coded and not easily modified</p> <p>↓ Errors in code more prevalent</p> <p>↓ Debugging tools look only at the code; does not evaluate the overall process</p> <p>↓ Integration with external systems built from scratch</p> <p>↓ Must build in scalability, security, and performance</p> <p>↓ Reports and process analysis tools must be pre-configured (“canned”) or user will have to use third party tool</p>	<p>Tools used: BizFlow graphical modeling tool (Process Development Environment) generates code on the fly from the design; BizFlow Administrator to set up organization, security model, etc.; BizFlow forms designer to create electronic versions of paper-based documents (BizFlow can also use existing forms in Word, Excel, PDF, etc.)</p> <p>Benefits:</p> <p>↑ Significantly reduced development time because model is already coded and clients already built</p> <p>↑ Routing engine & business rules editor provided, eliminating need to code transition logic</p> <p>↑ Decreased number of errors in code; visual debugging and process verification tool looks at the process holistically to identify potential errors in process logic</p> <p>↑ Documentation tool creates documents from the code</p> <p>↑ API set provides extensibility; developers can code additional functionality into BizFlow; developers can easily leverage existing applications and systems</p>

	<ul style="list-style-type: none"> ↑ Pre-built adapters reduce system integration efforts to databases, EDMs, messaging systems, and email. ↑ Ad-hoc report builder and graphical process monitoring tool already built <p>Risks:</p> <ul style="list-style-type: none"> ↓ Developers will need to be trained in the use of BizFlow; HandySoft provides beginner and advanced level training courses that will have developers ramped up in less than 2 weeks.
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QA Testing and Acceptance	
<i>Assessment: Again, the value of buying BizFlow shines in this area through reduced testing time and faster acceptance by the Business areas (who have been consistently involved throughout the project).</i>	
Internal Development	BizFlow Solution
<p>Tools used: Internally developed or third-party testing tools to test the performance and scalability; debuggers to verify the code; test environment set up to test process logic.</p> <p>Benefits: <i>No benefits through the Internally developed method.</i> Intensive testing will be required at significant cost; duration of testing phase will be significant.</p> <p>Risks:</p> <ul style="list-style-type: none"> ↓ Must test scalability and performance of the engine ↓ Must verify code ↓ Must test business process logic ↓ Must test user interface functionality ↓ Extensive debugging due to first-generation product ↓ Acceptance by business users may not be immediate as they have not been involved since the sign-off of requirements; requirements tend to change throughout duration of the project 	<p>Tools used: BizFlow's process verification tool; test environment set up to test process logic.</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ Simulation and ongoing testing throughout reqs and development phases reduces Testing time ↑ Visual debugging and process verification tools identify potential business-logic errors ↑ Performance and scalability already tested by HandySoft and independent testers

Long Term Maintenance	
<p><i>Assessment: With internally developed applications, maintenance becomes a costly burden and feature development stagnates as development priorities shift. Processes built on an internally developed BPM platform may be difficult or impossible to modify at runtime. Buying a product like BizFlow means that you don't have to maintain the BPM platform code, build features to accommodate changing BPM requirements, or continually test scalability and performance. BizFlow's PDE makes it possible to change processes on the fly.</i></p>	
Internal Development	BizFlow Solution
<p>Tools used: changes are typically requested through screen shots (e.g.: Add these fields to this form); technology changes require architecture and product review.</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ All code is in-house and can be modified out of development cycle; not dependent on third party. <p>Risks:</p> <ul style="list-style-type: none"> ↓ Customer responsiveness is limited; changes are not easily made ↓ Visio diagrams originally used to model process typically obsolete because actual implementation was modified; communication of changes is thus more difficult ↓ Technology changes are difficult to accommodate (e.g.: BPM solution originally created using Visual Studio; now need to support J2EE environment or port to a Unix platform). ↓ Internally developed business process solutions are not easy to change on-the-fly in response to changing market conditions or user requirements. 	<p>Tools used: BizFlow PDE and BizFlow Forms Designer to rapidly modify processes on-the-fly; BizFlow is standards-based, so changing underlying technology is typically not a problem.</p> <p>Benefits:</p> <ul style="list-style-type: none"> ↑ BizFlow supports changes to process design or application changes on-the-fly; because the model IS the implemented solution, process designs are always accurate. ↑ BizFlow is completely standards-based, supporting SOAP, XML, UDDI, WSDL, J2EE, ebXML, and other specifications designed for maximum portability and interoperability. BizFlow was designed for extensibility now and into the future ↑ HandySoft has a full development and services staff dedicated to product improvement and customer satisfaction. HandySoft makes every effort to accommodate customer requests made outside of the product development lifecycle; HandySoft involves the customers during the requirements phase to ensure that BizFlow continually addresses customer needs.

Summary

Just as e-mail and the Internet have changed the way we communicate and gather information, process management and collaboration will change the way your company manages operations, both internally and externally. The value you derive from process management will be your level of commitment to incorporating this essential technology.

About HandySoft

HandySoft's BizFlow software is leading-edge technology that has been in production for more than 10 years. BizFlow is the most feature-rich process management/workflow software available on the market today. Strengths of HandySoft and BizFlow include:

- **Market leader.** HandySoft has 380 installations of software in the United States and Asia. U.S. Customers include Johnson & Johnson, NIST, the State of Illinois, the U.S. Dept. of Transportation, Aria Systems, and others.
- **Profitable company.** HandySoft has been profitable for a number of years and has a strong balance sheet including a \$200M market cap.
- **Innovative product offering.** BizFlow is a standards-based technology using XML and SOAP; the current product is in Version 8, having its roots from development in the early 1990s and having been launched in 1996.
- **Reliability and scalability.** HandySoft has over 2.5 million users leveraging their technology and is being implemented in some of the largest companies in the world.
- **Superior solution set.** The BizFlow solution is unmatched in the combination of human and system business process capabilities.

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