



Business Optimization Suite

Solution Brief

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The Need for Process Intelligence

Organizations today are more “process aware” than ever before. Many, if not most, companies have active projects underway for improving their business processes. Often, technology is deployed to further the advancement of business process management and improvement. In recognizing the need to better manage processes, there are a number of common requirements that organizations articulate when discussing solutions. Frequently, the organization’s concerns include

- We need a better way to understand why business objectives are not being met.
- We need an end-to-end view of business processes and a greater ability to align all supporting activities.
- We need to improve process agility to better react when changes occur.
- We need to know the impact that the changes we make to our business process will have on business efficiency and productivity—before the change takes place.

While traditional approaches to Business Process Management (BPM) technology aspire to address these needs, they fall short in several areas. BPM Suite (BPMS) technology often does a good job of providing visibility and control; even optimizing the processes that it manages directly. However, most BPMS are not designed to address the aforementioned issues for the processes not directly within their control.

At their core, BPM Suites provide an infrastructure for applications, which, although an incredibly innovative way of delivering agile applications, are application infrastructures nonetheless. This is an inherently limiting approach. In most organizations, processes live in a variety of business systems within the enterprise, including Enterprise Resource Planning (ERP), Enterprise Content Management (ECM), and specialized Line of Business systems supporting everything from mortgage and policy processing to IT service requests. It is impractical to replace these systems with BPMS technology, and it is neither cost effective nor technologically effective to “wrap” each of these systems (hundreds of them in some cases) with a BPMS when there is BPM-like technology already inside many of them. In fact, as BPM technology becomes more accepted, it will become all the more pervasive, and will be built into application servers, portals, application suites, and development tool kits from the start. As a result, BPM silos are developing within organizations due to this technology proliferation

At this point, many organizations may consider leveraging Business Intelligence (BI) software to solve the issue of providing better process information. However, a quick evaluation finds traditional BI better suited for reporting on data (such as purchase orders, invoices, and so on) rather than processes (process cycle time, wait times, working times, resources, and process costs). BI systems were designed to provide largely historical information, with minimal real-time or proactive capabilities, and they are categorically lacking the predictive capabilities that would allow companies to anticipate problems rather than react to them. Additionally, BI is notoriously project-intensive, requiring significant effort to properly design the underlying data structure (often termed data warehouse) as well as the associated reports and dashboards typically required by most organizations.

These limiting factors have left most organizations with few options for addressing core BPM needs for true end-to-end visibility, control, and process agility.

The Global 360 Approach

Many organizations require visibility into cross-functional business processes in order to align operations with business objectives. Global 360 delivers predictive process intelligence solutions that facilitate real-time process adaptation, for the purpose of minimizing latency (work delays) and driving productivity.

Global 360 is the only software company that combines the ability to optimize the most complex and challenging business processes with best-in-class customer service, enabling the world’s leading organizations to create efficiencies, enhance revenue, and ensure long-term process competitiveness.

Global 360 developed its Business Optimization Suite, called *Insight360*, to overcome the traditional challenges of providing process information or intelligence to businesses and to help them achieve world-class process competitiveness.

In a nutshell, *Insight360* is Business Intelligence (BI) for BPM, providing bottom-line BPM benefits without the risk and cost of a BI project, and without relying on a competing application infrastructure that attempts to obviate existing investments. While most BPM Suites are not designed to address the management of processes that lie outside of their direct control, *Insight360* is unique because it offers as an independent layer that can integrate with BPM Suites and other applications for providing end-to-end process visibility and alignment.

Insight360 benefits are focused in four distinct areas:

- **Visibility**—Provides end-to-end visibility into processes that span multiple organizational functions and support system infrastructures.
- **Alignment**—Aligns operational processes, using strategic business goals and key performance indicators.

- **Efficiency**—Identifies optimal tradeoffs between time (service level) and cost, as well as opportunities to increase utilization of human resources.
- **Agility**—Reacts to changing business conditions in real time and ultimately predict and proactively address issues such as service level degradation.

With Insight360, the functionality required to provide information about the process (Process Intelligence) has been designed and developed as an independent layer, capable of integrating with any number of underlying BPM Suites and other applications in order to provide end-to-end process visibility and alignment. The capabilities within Insight360 enable organizations to obtain Process Intelligence in three distinct perspectives: historical, real time, and predictive.

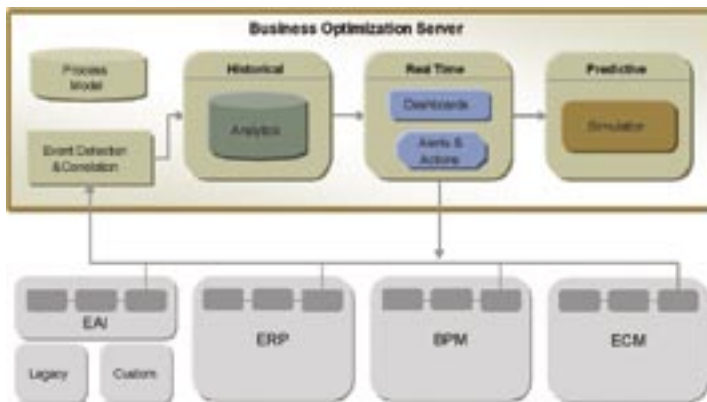


Figure 1. Global 360 Business Optimization Suite

Historical Process Intelligence

Insight360 provides historical process intelligence, enabling business professionals to gain end-to-end process visibility, even for processes that span multiple departments and are supported by different software applications.

The key to the historical perspective is the Analytics module. Analytics enables organizations to understand the duration or cycle time to complete the overall process, as well as give them the capability to analyze the activities that take the most time to perform. Visibility is extended within each activity, so that analysts and managers can understand how much time people spend performing work versus waiting on work.

Cost information is also available both at the process and activity level, enabling organizations to leverage process intelligence to improve efficiencies and, ultimately, to impact the bottom line. And, because Global 360's Analytics module is based on a multidimensional data repository, information can be filtered and "sliced" by any number of process-specific parameters (for example, loan amount, employee, region, and so on).

This architecture allows a single, consistent information source to be used as the basis for reporting and decision-making at all levels within the organization. This enables both process owners

and operations to align process measurement and behavior with corporate-level goals and their supporting technologies; including Balanced Scorecards and other Business Intelligence related initiatives.

Analytics The Insight360 Analytics engine provides drill down and cross-referencing from various perspectives, in order to provide for extensive process analysis and reporting. Historic and real-time data is organized in a multidimensional fashion, based on On Line Analytical Processing (OLAP) technology. Visualization products such as Cognos ® Powerplay ®, Tableau ®, Business Objects ®, and even Microsoft ® Excel ® may be used to present and explore process information.

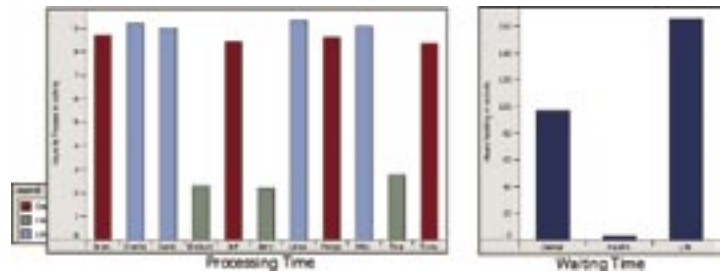


Figure 2. Out-of-the-box, time-based dimensions

The underlying, multidimensional repository for the Analytics engine is uniquely built to provide complete and robust business process information—including the time it takes to complete the process, find the most productive employees, and calculate the cost for performing each task. Figure 2 illustrates the out-of-the-box time-based dimensions. Additional information, such as resource costs, participants, and process specific variables (for example in the mortgage process, mortgage type, value, broker, and so on) may be overlaid upon this core structure.

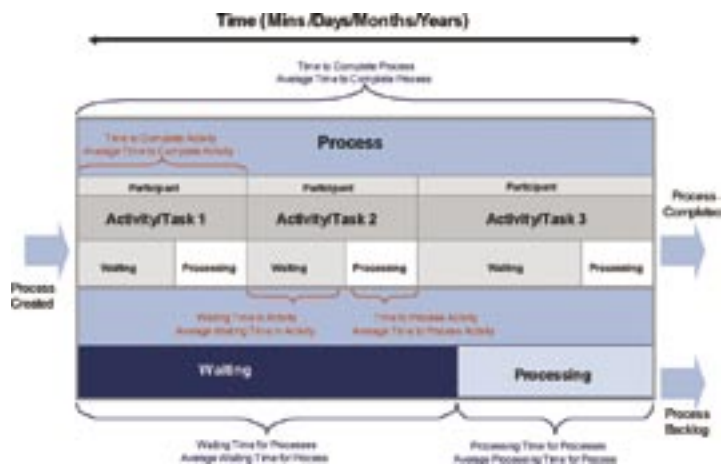


Figure 3. Time to complete process

Real-Time Process Intelligence

Insight360 provides real-time process intelligence for enabling business professionals to identify issues in real time and to adapt to changing business conditions. The primary Insight360

Global 360 customers use Insight360 every day to ensure their processes and ultimately their businesses are operating at an optimum level. A large, US-based financial institution leverages Insight360 to provide historical and real-time visibility into their lending operations, ensuring that high value loan applications receive priority, and that processing costs are optimized relative to desired service levels. At this institution, Insight360 enables operational managers to focus on strategic issues by automating work reprioritization based on an up to the minute view of workloads and throughput trending. Furthermore, Insight360 enables an executive-level view of the process integrated with the corporate balanced scorecard initiative.

components delivering real-time process intelligence are Actions and Alerts and the Dashboard.

Actions and Alerts proactively monitors process objectives and metrics known as Key Performance Indicators (KPIs). The KPIs are defined by managers and executives through a web-based interface and can be dynamically adapted based on changing business conditions. By leveraging KPIs along with the proactive Actions and Alerts capabilities, organizations can be assured that business priorities and objectives control business outcomes. One of the strengths of the Global 360 architecture is that the same process information repository is leveraged for both real time and historical process performance information.

This capability allows organizations to factor in seasonality

and other long-term factors when considering KPI performance. When making decisions about corrective actions, organizations can work within the context of the KPI performance of the last hour—as well as in the context of the last week, month, or even year.

Dashboard The Insight360 Dashboard gives managers and executives real-time visibility into all aspects of the business process through an intuitive web-based user interface. The Insight360 Dashboard provides up-to-the-minute statistics on KPIs related to workloads, team and individual productivity, service level attainment, and cost goals. KPIs may be based on point-in-time thresholds, such as the amount of work in the system; or they may be trend based, such as with the processing time for a certain type of worked averaged over the last two days. In addition to viewing KPI information, business professionals can use the Insight360 Dashboard to configure new KPIs and update or delete existing measurements.

Architecturally, the Insight360 Dashboard has the advantage of being based on leading portal technology. This means Dashboard components may be shared across several different roles and users, providing a consistent set of information in a customized view based on individual requirement or preferences (as shown in Figure 4). This also allows the Insight360 Dashboard to be implemented on a stand-alone basis, or integrated with corporate portal and dashboard standards.

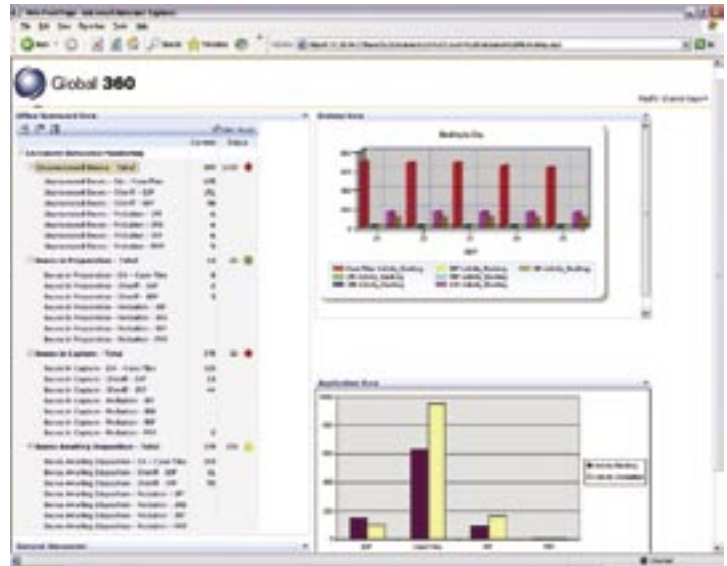


Figure 4. Shared view of Dashboard components

Alerts and Actions Insight360 allows any number of actions and alerts to be defined that may be triggered when certain events occur, such as a KPI not meeting a goal or a KPI exceeding a threshold (shown in Figure 5). These alerts and associated actions may be configured to directly affect the course of an “in flight” process or workflow managed or hosted by a Global 360 or 3rd-party BPM or workflow system. This interaction may be driven by leveraging Insight360 Service Oriented Architecture (SOA), which may invoke one or more web services, or it may be driven via user defined Java or VB scripting. Alternatively, Actions and Alerts may be set up to notify a person or group via e-mail, who would then be made aware of the problem and could then take corrective action as appropriate.

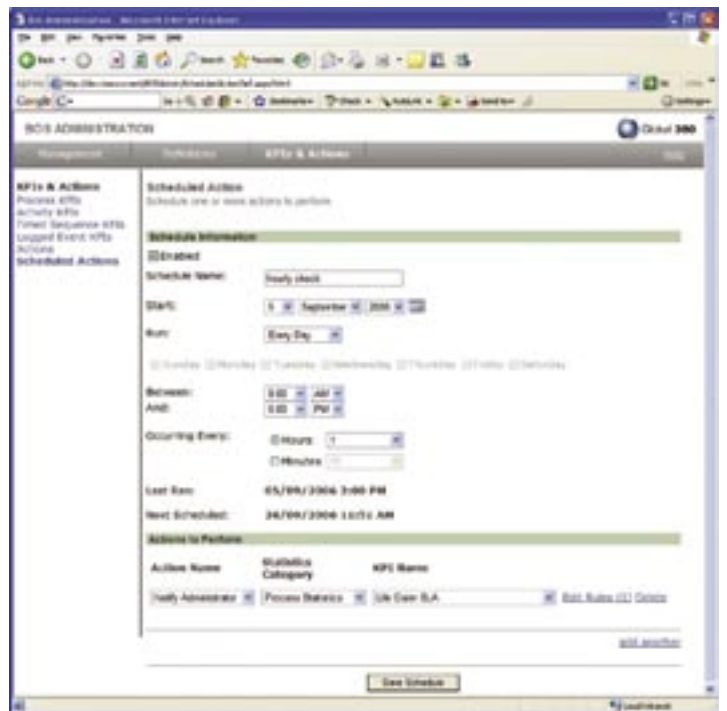


Figure 5. KPI scheduled action

A property, life, and casualty insurer has extended its use of Insight360 beyond historical and real time, to leverage the predictive capabilities to model the costs associated with new business promotions. Insight360 provides the insurer with process intelligence that they use to determine the optimal mix of new hiring, overtime pay, and temporary help to deploy in support of work-load spikes in new business generated from successful marketing campaigns. Insight360 predictive capabilities are also used for disaster recovery planning by a large regionally focused banking institution in the US.

Predictive Process Intelligence

In addition to historical and real-time perspectives, Insight360 provides predictive, process-intelligence capabilities that build agility directly into their processes and deliver improved process efficiencies. Insight360 Simulation capabilities are at the core of its predictive capabilities. The Process Simulator allows organizations to model various what-if scenarios based on existing process definitions, often referred to as the “as is” process. They can also model the proposed process, often known as the “to be” process. Business analysts may

leverage the simulator to identify process bottlenecks and improve process efficiency, or they may model external events that can impact business continuity or changes in resource availability.

The Process Simulator may also be used as a powerful solution for performing Return on Investment (ROI) analysis associated with BPM and other related projects, providing an increased level of assurance that expected benefits will be realized. The Process Simulator may also help organizations optimize its mix of skill sets and roles, as well as provide a validation and justification for changes in headcount.

Process Simulator The Process Simulator works by taking a definition of the process and its associated characteristics such as activities, work arrivals, participants and roles, and schedules (as shown in Figure 6). It also simulates the execution of the process using a combination of human and system performers.

Simulation scenarios may become quite sophisticated if the user wants them to be. For example, multiple scenarios can be defined and simulated and schedules can be defined for work shifts, lunches and breaks, and vacations. Activities have a robust set of definition properties for duration, performers, and pre-and post-conditions, in order to accurately simulate the realities of a business process. Participants have an associated simulation cost, performance, type, role, and quantity. Multiple scenarios can be defined for altering the resource characteristics to perform forecasting for staff requirements and organizational budgeting.

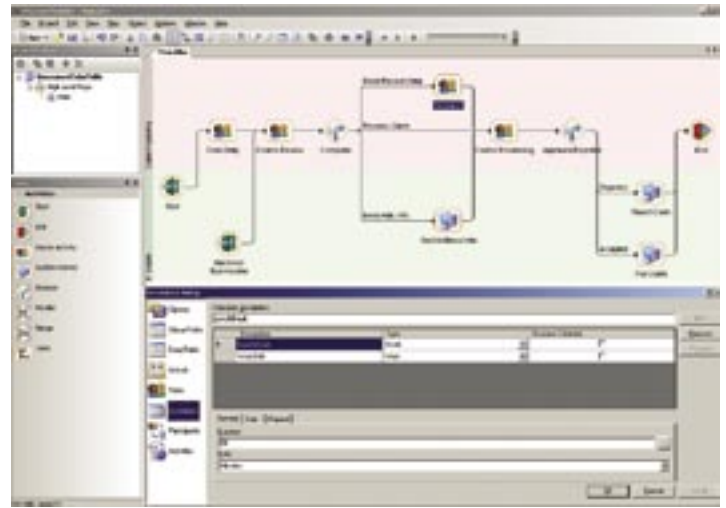


Figure 6. Process Simulator

Work arrivals define the way that incoming work is introduced to the business process. With the Process Simulator, arrivals may be defined with a significant level of detail and flexibility in order to be able to simulate real-life business scenarios for a what-if analysis (Figure 7). This capability allows the simulation of peak and erratic business periods—in a given day, season, or year. If desired, the analyst may go so far as to import historical arrival rates from the production system, which are available via the Analytics capabilities. The flexibility of the Simulator allows a Business Analyst to use real production arrival data for one scenario and then perform a what-if simulation by increasing the arrival patterns by a given percentage for a second scenario. Using this capability, organizations can analyze the effect that an increase in business volumes will have on cost, resource utilization, and the ability to meet business objectives.

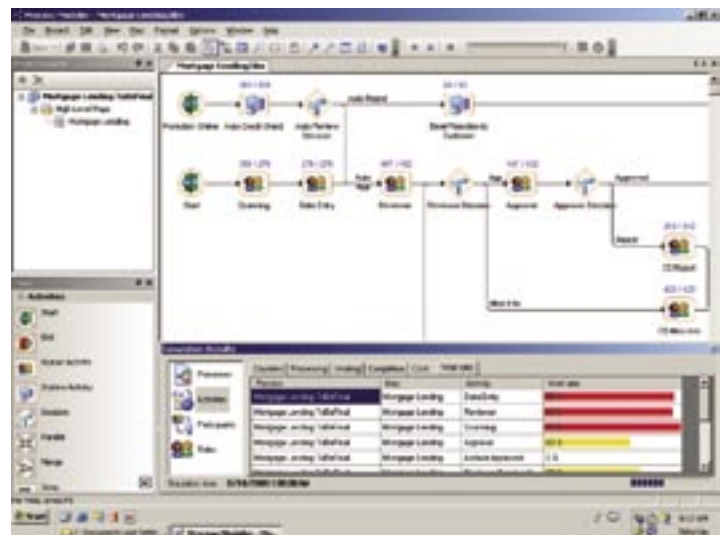


Figure 7. Example of Process Simulator scenario

The simulated scenario data (Figure 7) can be published to the Global 360 Analytics repository for detailed analysis of the simulated scenarios. This provides the Business Analyst with immediate data to determine the cost, efficiency, and resource requirements of the proposed process flow.

A large U.S. federal agency leveraged the Modeling component of Insight360 to ensure IT and business alignment for a major process improvement project. By agreeing to both the “as is” and “to be” process definitions up front, project implementation time was decreased, while enabling the new process-based software application to meet the agency’s needs upon delivery without rework and retrofit.

Enabling Components

Modeling a Process

The Process Modeler (Figure 8) provides an easy-to-use environment for modeling a business process that is readily understandable by all business users. This includes the business analysts that create the initial drafts of the processes and the technical developers responsible for implementing the technology and for performing those

processes, as well as the business people who manage and monitor those processes.

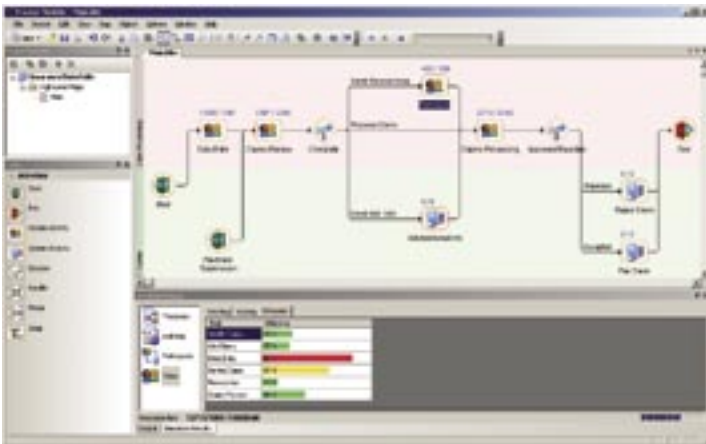


Figure 8. The Process Modeler

Highlights of the Process Modeler include

- A Tasks Pane that lists the Activities used to model the business process. These activities, such as Start and End Event, Human Activity, and Decision, can be dragged onto the Process Map and connected together to create the workflow for the process.
- A Process Model is organized within a Project. Each Project can contain one or many Process Maps. The Map can be organized by Lanes. Lanes can be used to organize activities within a map, and are often used to designate the activities of a participant. Each Lane can be custom color coded and labeled.
- Participants can be assigned to specific activity worksteps. Participants can be human, part of the system, an organizational unit, or a role.

- The process can be annotated with textual notes to facilitate communication of the process description.
- Simulation information, such as cost, duration, wait time, and working time, can be defined for each activity and participant.
- After completing the process design, the information can be saved locally or to a central process repository that can be accessed by additional Process Modeler users. The option to save the process as XPD 2.0 allows the saved process design to be exported for execution by the Global 360 Process Execution Engine.

Event Detection and Correlation

Insight360 Event Detection and Correlation is an enabling infrastructure component that takes discrete events or activities and then enables them to be viewed within the context of a business process through the Analysis module. This module guarantees the integrity of Insight360 process intelligence by ensuring that events are recorded once and only once. It also guarantees that even if events are sent to Insight360 out of order, they are scrubbed and assembled in order before being stored in Insight360 multi-dimensional repository.

Event Detection and Correlation is the interface point for events for Global 360 BPM systems as well as third-party BPM, workflow and transactional systems. Global 360 BPM solutions are available preintegrated with Insight360, while a number of out-of-the-box connectors for third-party process management and workflow systems are also available.

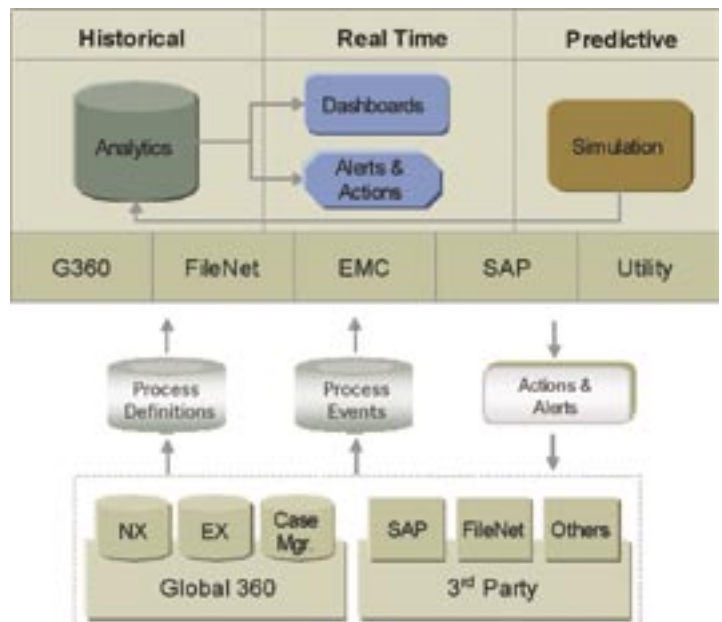


Figure 9. Event Detection and Correlation

The Most Comprehensive Process Intelligence Platform System Requirements

Insight360 bridges the gap between process intelligence and BPM, providing your organization with the tools you need to model, analyze, forecast, and manage business processes, even if they span multiple systems and user communities.

With Insight360, you get a single, flexible system capable of integrating with any number of underlying BPM Suite and other applications, providing end-to-end process visibility and alignment to all of the transactional systems necessary to run your business.

Insight360 is the only solution that enables true business optimization for organizations wanting to transcend reactive tactics and engage in strategic, analytical, and proactive management. Using Insight360, your organization can focus on the continuous optimization of the processes that most directly affect your corporate performance goals.

Leverage Insight360 to optimize your most complex and challenging business processes, create efficiencies, enhance revenue, and ensure that your processes, and ultimately your business, are operating at an optimum level.

PIP	SYSTEM REQUIREMENT
Insight360 Process Modeler and Simulator	Windows XP Professional (any system that supports J2SE 1.4)
Insight360 Analysis Engine	Windows Server 2003 with IIS SQL Server 2005 Enterprise Edition—with 2005 Analysis Services (SSAS) Analysis Tool-Excel 2003 with Microsoft Query
Insight360 Administration	Windows Server 2003 with IIS SQL Server 2005 Client Components Dual processor with 2GB of RAM (min), 80GB hard drive (Sizing guide to determine exact server configuration)
Insight360 Dashboard	Delivered with Microsoft Business Scorecard samples