

# NowDocsBPM Suite

## 4.5 White Paper

### A Technical Overview of NowDocsBPM Suite

*BPM Software changes the way companies do business. It allows organizations to manage and automate their processes, which increases efficiency, productivity, and operational visibility. Companies who adopt BPM technology are demonstrating that they have a plan to compete in the global marketplace.*

*This white paper addresses the technical advantages of BPM Suite 4.5.*

#### Introduction

##### Intended Audience

This white paper is intended for a technical audience. It assumes the reader has some business process or workflow knowledge and has an interest in Business Process Management Software (BPMS) applications. However, a very user-friendly appendix provides a quick reference to each out-of-the-box activity.

##### Document Purpose

The purpose of this white paper is to help readers understand BPMS, particularly from

**“BPM Suite provides deep process metrics that enable you to adapt quickly to changing business needs.”**

##### Executive Summary

What is a process? Simply put, a process is a series of steps intended to bring about a positive result. Your business is full of processes—some that are automated and some that involve people; some that use internal business systems and some that integrate with external systems. Because day-to-day business is made up of

processes, organizations that manage their processes using Business Process Management (BPM) technology are reaching unheard of industry-leading goals. They are reducing downtime, increasing data accuracy, and realizing substantial return on their investment.

Goal-oriented organizations are turning to BPM technology to drive out business costs, gain visibility, and improve responsiveness to the customer. Because BPM Suite is a goal-oriented BPM solution, it can help you manage your organization's processes and gain visibility into the people and systems involved in those processes. You can't enforce compliance or make intelligent business decisions without information, and BPM Suite provides deep process metrics that enable you to adapt quickly to changing business needs. With BPM Suite, your business is not trying to catch the competition, it's leading the competition.

**“Goal-oriented organizations are turning to BPM...to drive out business costs, gain visibility, and improve responsiveness to the customer.”**

BPM Suite does not require a traditional deployment: drawn out, overly-complex, over-budget, and heavily dependent on IT code development. Instead, BPM Suite's agility allows you to design and to configure

processes while gathering requirements. BPM Suite processes are designed for incremental, iterative deployments on a project-by-project basis.

BPM Suite is a complete package. Process owners can actively monitor their business processes (often referred to as Business Activity Monitoring or BAM). Executives can review business performance and monitor corporate controls, which are executed by BPM Suite and not people, so there are no errors or compliance concerns. Business Process Management is achieved using BPM Suite.

## **BPM Suite 4.5 Product Overview**

The following section discusses BPM Suite 4.5 and its ability to drive your organization forward.

### **Introduction to BPM Suite 4.5**

BPM provides a unique focus on the people in your process - speeding implementation and customization for your technical team with pre-built solutions for each unique role, creating intuitive task-based dashboards for your users that drive productivity, and delivering targeted reporting and business monitoring for managers and executives.

**“...one of the few BPMS applications built on the Microsoft .NET Framework...”**

NowDocs has focused its development on providing a set of powerful tools for automating and managing people-intensive

activities, while still offering the best of process automation and human worker interaction. BPM Suite is on its 4<sup>th</sup> release and was developed from the beginning to be a 3<sup>rd</sup> generation Business Process Management Software (BPMS) application. BPM Suite is not just a Workflow or EAI application repositioned as BPM technology.

BPM Suite integrates seamlessly with existing resources based on the following standards:

- FTP
- HTTP
- ODBC
- OLE/COM/COM+
- SMTP
- SOAP
- XML/XSD

Also, because BPM Suite is one of the few BPMS applications built on the Microsoft .NET Framework, it integrates seamlessly with the following Microsoft applications:

- Access 2003
- Access 2007
- Active Directory
- BizTalk Server
- CRM 1.2
- Dynamics CRM 3.0
- Excel 2003
- Excel 2007
- Exchange Server
- InfoPath 2003
- InfoPath 2007
- LiveMeeting 2005
- MOSS 2007

- Outlook 2003
- SharePoint Portal Server
- SQL Server 2000
- SQL Server 2005
- Visio 2003
- Windows SharePoint Services
- Word 2003
- Word 2007

BPM Suite includes solution accelerators that help you quickly implement processes that involve these Microsoft applications. BPM's interpretive XML approach enables you to make in-flight changes to processes.

BPM Suite is designed to be deployed incrementally. This means that hardware and software requirements can also be purchased incrementally to support processes running in BPM Suite.

System requirements to start designing and deploying processes include the following:

- Windows Server 2000, 2003 Enterprise Edition or Standard Edition
- Pentium 1 GHz CPU

- 1 GB of RAM
- 5 GB of usable disk space
- .NET Framework 2.0
- SQL Server 2005 or Express
- IIS 5.0 or later
- MSMQ 2.0 or later

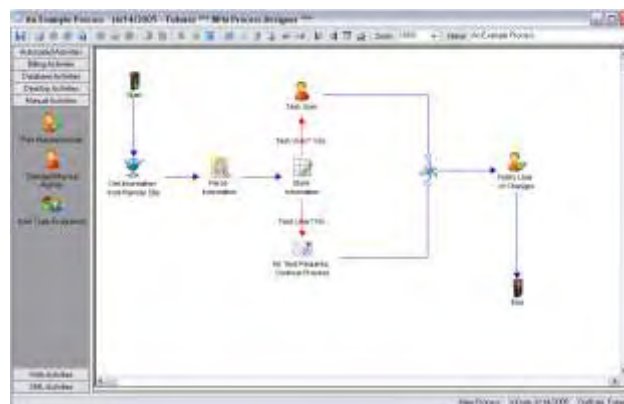
As discussed in later sections, BPM Suite supports load balancing and clustering to take maximum advantage of multiple-server environments.

## Product Features by Application

BPM Suite 4.5 is comprised of five applications—BPM Designer, BPM Web, BPM To Go, BPM Engine, and BPM Reporting. These applications are discussed on the following pages.

### BPM Designer

BPM Designer's intuitive user interface and agile process capability make it easy for process owners to design and manage business processes. Each of the more than 75 activities, which are Web services that allow the user to execute a specific action, has a unique user interface that makes it a matter of point-and-click for process owners to map information between activities.



In Designer, processes are configured and not coded; all process definition information you provide is stored in a database and not a compiled file. This means you can edit information during process execution, and the new XML content will be included with the existing execution's results. This approach results in an agile BPMS technology that cannot be replicated by code generating technologies.

Feature	Benefit
Drag-and-drop enabled user interface	Intuitive process designer intended for business analysts and process owners
Point-and-click configuration	Process and activity configuration without code
Granular user and role security model management	Define privileges by business role; includes graphical organizational chart modeling that enables tasks to escalate automatically
Visual process monitoring and reporting	Monitor process execution in real-time with restart, stop, and pause capabilities; troubleshoot configuration issues
Process level security permissions	Allow the necessary users only to change, view, start, manage, and use processes
Process import and export capability	Share processes between different environments
Business rule editor	Reuse business rules apart from business processes
Process scheduling	Schedule recurring processes like batch processes
Over 75 out-of-the-box process activities	Includes, out-of-the-box, 95% of the functionality any organization would need

<b>Feature</b>	<b>Benefit</b> <i>(Continued)</i>
Database connection management	Allows process owners to manage business processes and IT to manage databases
Interpretive XML approach	Change process information during execution without restarting process from the beginning
Self-documenting process definitions	Export processes as HTML, shared for documentation and compliance purposes
SharePoint site and content management	Create new site; create, delete, retrieve, and update existing SharePoint list items
Information list management	Manage lists of static and dynamic information that are specific to a business process, yet can be used by third-party programs
Task-based online help	Use step-by-step, goal-oriented procedures for designing processes, configuring activities, and more
Notification templates	Send standard or customized notifications to users when they are tasked to complete an activity
Business week and vacation calendars	Task users only when they are working; users aren't penalized for time not spent at work
Does not require expensive, large-footprint development tools	Results in low total cost of ownership

### **BPM Web**

BPM Web provides workers with a fully-customizable, Web-based task portal for managing their own tasks and the tasks of their subordinates. Workers can track the progress of their processes and access the Executive Dashboard to view business metrics.

<b>Feature</b>	<b>Benefit</b>
Intuitive Web-based user interface	View, complete, reassign, release, take, and escalate tasks easily; end-users have no software to install
Graphical, real-time process image	Track processes end-to-end in real-time while viewing process information
Access to Executive Dashboard	Use 15 standard process metric reports to provide instant and useful process information; customizable and extensible
Customizable task list hierarchies	Organize, sort, filter, and group tasks
User profile management	Allows users to manage their own contact information and passwords

<b>Feature</b>	<b>Benefit</b> <i>(Continued)</i>
Out-of-office functionality	When users are out of the office, they won't be tasked to complete an activity
Task-based online help	Provides step-by-step, goal-oriented procedures for completing tasks, viewing processes, and reports

### **BPM To Go**

BPM To Go provides workers with an on-the-go, mobile solution for managing manual tasks. Users can manage simple tasks via Web-enabled PDAs and mobile phones.



<b>Feature</b>	<b>Benefit</b>
Mobile task management	Allows users to complete tasks via Pocket PC-enabled devices
Simple user interface	Displays necessary task information on an interface designed for a small screens

### **BPM Engine**

The BPM Engine coordinates the transfer of information between business activities and the people that interact with a process. Process state, logic, execution of tasks, and invoked applications are all called by the scalable, business-rule driven, service oriented architecture of the BPM Engine.

<b>Feature</b>	<b>Benefit</b>
Centralized server management	Monitor multiple BPM Suite environments from a single point of reference
Manages multiple concurrent, parallel, or sequential paths of process execution	Branch processes any number of times, sending the process down paths simultaneously or only down the correct path; processes do not have to be linear
Supports synchronous and asynchronous execution of child processes	Allows parent process to either wait for child process to finish before continuing or continue without waiting

<b>Feature</b>	<b>Benefit (Continued)</b>
Activity Web service management	Add, remove, enable, disable, start, and stop activity Web services
Multi-threaded	Optimize activity performance through configurable thread count per activity
Uses Microsoft Load Balancing	Optimize server performance by monitoring server demand
Uses Microsoft Clustering Technology	Optimize scalability to n-levels
Intelligent task assignment	Task users based on work load, task weight, skill level, and geography
Scalability and Fault tolerance	Recover fully with Persisted Process state; ensures full recoverability; multi-threaded, multi-server model scales dynamically

Additional information about the BPM Engine and its architecture can be found in the *BPM Suite Architecture* section of this document.



## BPM Reporting

BPM Suite 4.5 has two levels of reporting. On the micro level, process owners can view in real-time information at each step of their process. On the macro level, executives can view process metrics to see where processes can be improved. BPM Reporting answers the question *Where are the process bottlenecks?*



Feature	Benefit
Real-time business activity monitoring (BAM)	Monitor and modify processes in real-time (single or multiple instances); cancel, pause, and restart processes from any point
Customizable Web-based report interface	Configure the report dashboard to display favorite reports when they sign in

<b>Feature</b>	<b>Benefit</b> <i>(Continued)</i>
Built on SQL Reporting Services	Customize reports and create organization-specific reports
Role-based report security	Hide/display reports from users based on security permissions
Fifty-three standard process metric reports with drill-down capabilities	View complete process information; locate activities that hinder process performance

## **BPM Suite 4.5 and Microsoft Office SharePoint Server 2007**

New to BPM Suite 4.5 are the Microsoft Word 2007, Excel 2007, and InfoPath 2007 activities for retrieving and updating information in those files. The activities are closely integrated with the Microsoft Office SharePoint Server 2007.

### **Microsoft Word 2007**

The BPM Suite 4.5 activities for Word 2007 leverage Microsoft's new document format (\*.docx). BPM Suite makes use of the new document format in two ways. First, it eliminates the need to have Microsoft Office installed on the BPM Engine server. Second, to form controls in Word, you can now automatically read information from and write information to the program. There are no proprietary NowDocs tags to include in the document.

**“...load a workbook, calculate values in the workbook, call custom code, and refresh data...”**

Reading information from a Microsoft Word document was not an out-of-the-box capability prior to BPM Suite 4.5. However, BPM Suite 4.5 allows you to read from and write to a Word document, whether it is stored on a server, on SharePoint, selected as a template file, or just being passed through the process. Also, you can retrieve and update the document's properties—title, subject, author, category, and more.

You can retrieve and update these same properties in Excel 2007 workbooks using BPM Suite 4.5.

### **Microsoft Excel 2007**

Building on Microsoft's new Excel workbook format (\*.xlsx), are BPM Suite 4.5's Excel 2007 activities. The Excel activities allow flexible, point-and-click integration with Microsoft Excel 2007 documents. Businesses that use Excel will realize how quickly they can accomplish information management and compliance by automating the process of passing of workbooks and the information they contain to the necessary audiences.

**“...retrieve and update the document's properties—title, subject, author, category, and more.”**

Building on SharePoint Services 3.0 and the Excel Services Architecture, the Excel 2007 activities allow a process to load a workbook, calculate values in the workbook, call custom code, and refresh data external to the process. All of that functionality can be obtained without having to make a copy of the workbook for the BPM Engine to use when managing a process.

### **Microsoft InfoPath 2007**

As discussed in the following section, you can start a process by submitting an InfoPath form. And now with BPM Suite 4.5, you can retrieve information from forms and save information to forms.

InfoPath forms can be pre-populated and then used to task an Information Worker to validate, update, and complete. When complete, BPM Suite can retrieve information from the form and pass it to the next step in the process.

## Solution Accelerators

In addition to the Office 2007 activities mentioned in the previous section, BPM Suite includes the following out-of-the-box Solution Accelerators.

### Microsoft Office SharePoint Services and SharePoint Portal Server

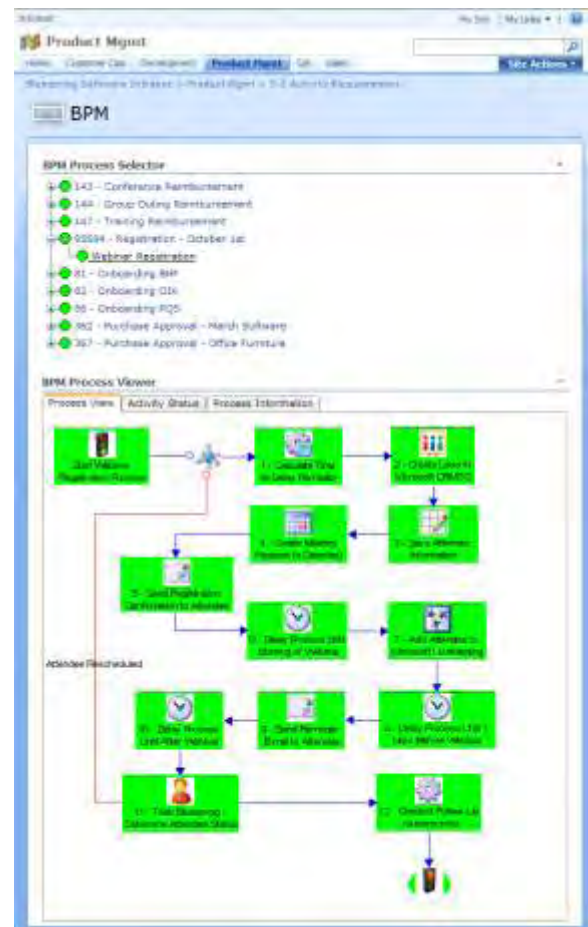
You can interact with SharePoint sites by using the Web parts, the initiator, and the activities. The SharePoint initiator can monitor sites and start processes. The SharePoint Web Parts can be added to a site to integrate BPM process monitoring and task completion. The SharePoint activities can be used in Designer to develop processes which manage SharePoint content.

“...SharePoint document library events can be configured to start processes...”

#### Web Parts

You can use NowDocs' SharePoint Server Web Parts to enable workers to complete tasks and view the status of processes within SharePoint. The Web Parts provide the same functionality available in BPM Web, relieving users of having to learn BPM

Web if they are already familiar with SharePoint. Plus, users can complete tasks or monitor processes in SharePoint. In the following graphic, two web parts display BPM Process Selector and BPM Process Viewer. This view is similar to what you would see in the Process Management window of BPM Designer.



#### Initiator

By registering the built-in, BPM Suite .NET initiator with SharePoint, events from document libraries, sites, lists, wikis, and more can be configured to start processes managed by BPM Suite. For example, you can start a process based on any one of SharePoint's eight document library event handlers. This solution accelerates

document management, which might include change management and document approval processes. Once configured—not coded—BPM Suite handles the process of moving a document through the appropriate steps.

## “BPM Suite adds back-end process management functionality.”

### *Activities*

You can even manage SharePoint Web sites using BPM Suite activities. Through easy to use, unique user interfaces, process designers can develop processes that create SharePoint sites as well as create, delete retrieve, and update SharePoint list items while operating in Designer. This functionality streamlines business processes by automating site content management.

### **Microsoft Office 2003**

Because BPM Suite is built on the Microsoft .NET Framework, which is discussed more in the *BPM Suite Architecture* section, it integrates completely and seamlessly with Microsoft Office applications. BPM Suite can read information from BizTalk and CRM, which can then be used to populate Excel and Word templates. Re-keying information—and the mistakes commonly associated with manually re-keying information—into spreadsheets and form letters is eliminated. You can use activities like the Excel Reader to read specific cells of information or rows of information from Excel files. These activities accelerate common office tasks and unite

organizations that work in different applications.

### **Microsoft InfoPath 2003**

With BPM Suite’s close ties to Microsoft InfoPath 2003, organizations can accelerate the move from paper-based documents to digital knowledge management. When process owners create a form using InfoPath, they can add a reference to a Web service that starts a process in BPM Suite. Then, when users view the form, the information they enter in the InfoPath fields becomes information in a business process. When users submit the InfoPath form, the Web services passes information to the process in the BPM Suite. Form development takes only minutes thanks to InfoPath’s drag-and-drop, point-and-click interface.

## “...[BPM] streamlines business processes by automating site content management.”

### **Microsoft CRM 1.2 and CRM 3.0**

You can enhance your implementation of Microsoft CRM 1.2 and 3.0 by using BPM Suite to add back-end process management functionality. You can configure—not code—a .NET assembly that starts a process in BPM Suite following an event in Microsoft CRM, such as the creation of a new account. Information stored in CRM can then be passed through a process that connects users who do not have access to CRM.

Processes managed by BPM Suite can also contain steps that create, retrieve, update, and delete CRM entities. For example, you could use data in an Excel document to create a new CRM entity—a task that users had manually perform before.

### **Microsoft BizTalk Server 2006**

BizTalk Server represents the best-of-breed .NET platform for developing integration centric applications, and BPM Suite represents the best-of-breed, pure-play human worker and desktop application process management tool on the .NET platform.

“...[BPM Suite]  
integrates easily with the  
office applications that  
workers use most.”

You can start processes in BPM Suite following a BizTalk orchestration event. Additionally, BPM Suite extends BizTalk Human Workflow Services (HWS) with task assignment models that consider role, workload, and geography. Used together, BPM Suite and BizTalk can rapidly produce compelling solutions that allow IT to focus on complex system-to-system integrations while process owners focus on human workflow and business rule modeling. In the end, BPM Suite and BizTalk deliver more results for the business.

### **Microsoft Live Meeting 2005**

Automate your company's demo sign-ups. Manage meeting reminders. Get more out of Microsoft Live Meeting by using the Live Meeting 2005 solution accelerator activities. The Live Meeting activities allow you to

create, retrieve, update, and delete Microsoft Live Meetings. If Microsoft Live Meeting is not your preferred Web conferencing service, then custom activities can be developed to automate the creation of meetings in WebEx, GoToMeeting, and others. Solution and activity development is accelerated thanks to NowDocs' architecture, discussed in the following section.

### **BPM Suite Architecture**

The following section discusses BPM Suite's architecture and how that architecture can support any business type and any business process size.

“...start processes  
following a BizTalk  
orchestration event.”

### **Service-Oriented Architecture Built on Microsoft .NET Framework**

BPM Suite, with its Service-Oriented Architecture (SOA), enables organizations to integrate easily with existing business systems without worrying about the dominant corporate platform. Greater than 95% of desktop computers use Microsoft applications, and because BPM Suite is built on the Microsoft .NET Framework, it integrates easily with the office applications that workers use most, like Microsoft Office Excel. The .NET Framework enhances interoperability, simplifies integration and support efforts, and lowers the total cost of ownership.

### **Enterprise-Grade, Highly-Scalable, Multi-Threaded, Distributed Architecture**

BPM Suite has been proven reliable thanks to its true enterprise-grade, scalable, multi-threaded, and distributed architecture. What does this mean to an organization? It means that BPM Suite can support from small businesses to Fortune 50 businesses. The distributed architecture is fault tolerant and can recover from failures automatically. The multi-threaded architecture supports optimized load balancing to increase performance for the most demanding processes.

“...process designs are save as XML, giving process agility capabilities that cannot be replicated by code-generated technologies.”

### **Stand-Alone and/or Microsoft Active Directory Integrated Role-Based Security**

BPM Suite supports three models of authentication. First, BPM Suite provides its own granular security and authentication model for users and roles. Second, BPM Suite can integrate with Active Directory for Single Sign-on (SSO) capabilities. Third, BPM Suite can support a hybrid model that supports both BPM Suite's integrated security and Active Directory. The hybrid model is useful when processes incorporate users outside an organization who do not or

should not belong in the organization's directory.

### **Fully XML-Compliant Web Services**

BPM Suite's Web services maximize interoperability by using XML, a standard language, to communicate data and messages. Additionally, process designs are saved as XML, giving process agility capabilities that cannot be replicated by code-generating technologies.

### **Extensible Business Activity Toolbox**

Organizations can develop custom activity Web services for their business users to configure in their processes. In addition to the 75 out-of-the-box activities, custom activities can be created by consuming existing, third-party Web services.

“...multi-threaded architecture supports optimized load balancing...”

Configuring these organization-specific activities becomes a point-and-click operation for business users.

### **Includes NowDocs Web Services SDK**

BPM Suite exposes its integration-ready Web services to organizations for simplified and rapid solution development.

NowDocs 75 plus Web service methods can be used to manage processes, tasks, users, geographies, and more.



## Summary

This white paper has provided you with a technical introduction to NowDocs Software's BPM Suite 4.5.

BPM Suite is a dynamic business process management application that solves business needs. Businesses do not have to mold themselves to fit another business application to achieve results.

BPM Suite has successfully delivered results for the following processes:

- Complex "Quote-to-Cash" Sales Management
- IT Asset Management
- eProcurement Services
- Security Clearance Case Management
- Business Process Optimization
- Supplement Education Services (SES)
- Regulatory Compliance Management
- Information Technology Infrastructure Library/Trouble Ticket Management
- Six Sigma
- And many more

For additional information on BPM Suite 4.5 or to schedule a product demo, please contact Omar Ayala at 888.669.3627 x 102 or via email at [oayala@nowdocs.com](mailto:oayala@nowdocs.com)










## Appendix









### Activity Reference Guide

This guide provides descriptions of the Activities in BPM Designer. Activities, used in a drag-and-drop interface, are Web services that allow the user to execute a specific action. BPM Suite comes with over 75 activities that are grouped into 10 categories. In each activity, you can edit the activity title, the icon display, the font, the text size, and much more. Also, each activity has a unique user interface that allows you to configure the activity to your personal business needs. Our user-friendly software allows you to develop custom activities to fulfill a specific purpose in your business processes.





#### AUTOMATED ACTIVITIES

	Connection Node	The Connection Node allows you to join two or more links in any one process. The Connection Node can evaluate the incoming links for certain conditions, and then it continues along only one link. Connection Nodes are often used with Logical Branch Expressions
	Calendar Delay	The Calendar Delay activity allows you to account for holidays, events, and time zones when delaying a process. You can delay the process relative to a specified time, and choose a time zone using a time value or time zone ID stored in a Data Item.
	Command-line	The Command-line activity allows you to execute commands that can only run through the Windows Command Prompt application. You can also use the Command-line activity to run executables and store the result of the executable in a Data Item.
	Delay	The Delay activity allows you to pause processes for a period of time or until a specific time. The Delay activity can also pause a process relative to a time value stored in a Data Item.
	GeoCoder	The GeoCoder activity allows you to find a Geography based on a GeoCode or a partial address, and then output that Geography to a Data Item. You then can use the Data Item in a Manual Activity to assign a task based on the geographical location of a user.
	Get File	The Get File activity allows you to retrieve a file from any location accessible to BPM Suite and put that file in the BPM Suite file repository. The Get File activity can read files from the Web or a networked computer.
	Get User Profile	The Get User Profile activity allows you to retrieve specific pieces of information from a User's profile and store the information in a Data Items.





### AUTOMATED ACTIVITIES *(continued)*

	InRule	The InRule activity allows you to use a third-party application called InRule to evaluate information in Data Items against business rules contained in the InRule logical expression repository. The InRule activity is similar to the Logical Expression Rules available in BPM Designer.
	Logical Expression Rules	The Logical Expression Rules activity allows users to use pre-defined business rules (see Edit Logical Expressions in Online Help) to evaluate data and Data Items and return new Data Item values in addition to True or False values. Values returned by the Logical Expression Rules activity are often used to determine the correct process path(s) or in conjunction with the Multi-Instance Sub-Process activity.
	Multi-Instance Sub-Process	The Multi-Instance Sub-Process activity starts multiple instances of the same sub- (child) process from a single step in the main (parent) process. The Logical Expression Rules activity is often used earlier in the process to collect information about the number of sub-processes to start as well as what information should be passed to each process instance.
	Null Activity	The Null activity is a placeholder activity that may help you design processes. This activity has no executable functions, and often appears when importing Visio diagrams that contain shapes other than those present in BPM Designer.
	PDF Converter	The PDF Converter activity converts Word, Excel, Rich Text, and .CSV files to PDF. This activity requires Active PDF be installed on the server running BPM Engine.
	Scripting	The Scripting activity allows you to create custom scripts, using VBScript or JavaScript, within a process. Scripts can use Data Items as parameters enabling the scripts to pull and push process information.
	Set Data Items	The Set Data Item activity sets (or changes) the value of Data Items to either a constant value or an equated value.
	Sub-Process	The Sub-Process starts a sub- (child) process within a main (parent) process. Users can map Data Items between main and sub-processes enabling processes to share information.




### ACTIVE DIRECTORY ACTIVITIES

	Create Active Directory	The Create Active Directory activity allows you to create users, groups and computers in domains running Windows Active Directory (2000 or 2003).
	Delete Active Directory	The Delete Active Directory activity allows you to delete users, groups and computers in domains running Windows Active Directory (2000 or 2003).
	Retrieve Active Directory	The Retrieve Active Directory activity allows you to get information about users, groups and computers in domains running Windows Active Directory (2000 or 2003).
	Update Active Directory	The Update Active Directory activity allows you to update information about users, groups and computers in domains running Windows Active Directory (2000 or 2003).

### DATABASE ACTIVITIES

	SQL Executor	The SQL Executor activity allows you to write SQL statements that update the information stored in database tables. You can also call stored procedures and perform more complex queries like table joins.
	SQL Query	The SQL Query activity allows you to write SQL statements that read information from a database and then copy that information into Data Items or save it to an XML file.
	Table Reader	The Table Reader activity allows you to read data from existing database tables and save the data to Data Items.
	Table Writer	The Table Writer activity allows you to insert, update or delete database table information. Users are able to write Data Item values to specified database tables.





### DESKTOP ACTIVITIES

	E-mail	The Email activity allows you to send emails to internal or external recipients. Emails can contain Data Item values in their text, and the email can include attachments (as FilePointer Data Items).
	Excel 2007 Reader	The Excel 2007 Reader activity allows you to copy information, including file properties, from a Microsoft Excel 2007 document into Data Items.
	Excel 2007 Writer	The Excel 2007 Writer activity allows you to write information, including file properties, to a Microsoft Excel 2007 document from Data Items.







### DESKTOP ACTIVITIES *(continued)*

	Excel Calculate	The Excel 2007 Calculate activity performs the same functions as the Excel 2007 Reader and Writer, but it also allows you to update formulas in a Microsoft Excel 2007 workbook stored in a SharePoint repository.
	Excel Reader	The Excel Reader activity allows you to copy information from a Microsoft Excel document into Data Items
	Excel Writer	The Excel Writer activity allows you to copy Data Item values to new or existing Microsoft Excel spreadsheet. The Excel Writer activity can also use pre-defined Excel templates when creating new spreadsheets
	File Writer	The File Writer activity allows you to create and modify delimited and fixed-width text (.txt) files.
	InfoPath 2007 Form Reader	The InfoPath 2007 Form Reader activity allows you to copy information from a Microsoft InfoPath 2007 form into Data Items.
	InfoPath 2007 Form Writer	The InfoPath 2007 Form Writer activity allows you to write information from Data Items to a Microsoft InfoPath 2007 Form.
	PDF Form Reader	The PDF Form Reader activity allows you to copy information from a PDF Form into Data Items. The activity is also able to open PDF documents that are password protected, and it can export the PDF values to an XML file.
	PDF Form Writer	The PDF Form Writer activity allows you to write information from Data Items to a PDF Form. The activity is also able to apply password protection to a PDF and write information to the PDF based on values in an XML file.
	Word	The Word activity allows you to write Data Item values to Microsoft Word documents. The Word activity can also use pre-defined Word templates when creating new documents.
	Word 2007 Form Reader	The Word 2007 Form Reader activity allows you to copy information, including file properties, from a Microsoft Word 2007 document into Data Items.
	Word 2007 Writer	The Word 2007 Writer activity allows you to write information, including file properties, from Data Items to a Microsoft Word 2007 document.






### LIVE MEETING ACTIVITIES

	Create Live Meeting	The Create Live Meeting activity allows you to create a scheduled meeting, define a subject for a meeting, invite meeting attendees, and select a meeting start time. Additional meeting options are also configurable.
	Delete Live Meeting	The Delete Live Meeting activity allows you to delete existing meetings.
	Retrieve Live Meeting	The Retrieve Live Meeting activity allows you to retrieve information about existing Live Meetings, deleted meetings or request of list of meetings within a specified date range.
	Update Live Meeting	The Update Live Meeting activity allows you to update meeting options for existing Live Meetings.






### MANUAL ACTIVITIES

	Dynamic Role Assignment	The Dynamic Role Assignment activity allows you to assign a task to a Role based on a Data Item value.
	Group Assign	The Group Assign activity allows you to assign the same task to multiple users. You can define which users or roles are required to complete the task and which ones only receive notifications. You can also define how many people (by total number or by percentage) must complete the activity before the process continues. Users complete manual tasks through BPM Web or a custom interface that uses the NowDocs Web Services API.
	Prior Manual Activity	The Prior Manual activity allows you to assign a task to the same user that completed a specific task earlier in the process. You can also assign tasks using a Data Item that contains a user's ID. Users complete manual tasks through BPM Web or a custom interface that uses the NowDocs Web Services API.
	Standard Manual Activity	The Standard Manual activity allows you to assign a task to a User or Role. Users complete manual tasks through BPM Web or a custom interface that uses the NowDocs Web Services API.
	Task Completion Activity	The Task Completion Activity allows you to complete a manual activity (mark as complete, force timeout, or force cancellation) in any process.
	User Type Assignment	The User Type Assignment activity allows you to assign a task to the process initiator, the process owner, a user's manager or a user whose ID is in a Data Item. Users complete manual tasks using BPM Web or a custom interface that uses the NowDocs Web Services API.









### MICROSOFT CRM ACTIVITIES

	Create CRM 3.0 Entity	The Create CRM 3.0 Entity allows you to create almost anything in Microsoft CRM 3.0. For example, you could create any of the following entities, plus many more: an account, a case, a contract, a lead, an opportunity, or a quote.
	Delete CRM 3.0 Entity	The Delete CRM 3.0 Entity allows you to delete almost anything that exists in Microsoft CRM 3.0. For example, you could delete any of the following entities, plus many more: an account, a case, a contract, a lead, an opportunity, or a quote.
	Microsoft CRM 1.2	Microsoft CRM can create, remove, update, and delete "entities" in Microsoft CRM 1.2.
	Retrieve CRM 3.0 Entity	The Retrieve CRM 3.0 Entity allows you to retrieve almost anything that exists in Microsoft CRM 3.0. For example, you could retrieve any of the following entities, plus many more: an account, a case, a contract, a lead, an opportunity, or a quote.
	Update CRM 3.0 Entity	The Update CRM 3.0 Entity allows you to update almost anything that exists in Microsoft CRM 3.0. For example, you could update any of the following entities, plus many more: an account, a case, a contract, a lead, an opportunity, or a quote.






### MICROSOFT SHAREPOINT

	Create SharePoint Site	The Create SharePoint Site activity allows you to create SharePoint sites through BPM Designer. Increase work efficiency and productivity by automating the task in Designer.
	Create SharePoint List Items	The Create SharePoint List Items activity allows you to add SharePoint 2007 list items through BPM Designer. For example, you could add items such as a calendar entry, a task, or a document.
	Delete SharePoint List Items	The Delete SharePoint List Items activity allows you to delete SharePoint 2007 list items through BPM Designer. For example, you could delete a document, a calendar entry, or a task.
	Retrieve SharePoint List Items	The Retrieve SharePoint List Items activity allows you to retrieve SharePoint 2007 list items through BPM Designer. For example, you could retrieve a calendar entry or a task.
	Update SharePoint List Items	The Update SharePoint List Items activity allows you to update SharePoint 2007 list items through BPM Designer. For example, you could update calendar entries, tasks, or document meta data.

## WEB ACTIVITIES

	FTP	The FTP activity allows you to send files to and retrieve files from an FTP server. The FTP file and server information is specified using Data Items.
	HTTP Post	The HTTP Post activity allows you to post information to a Web resource and, if desired, receive information back from that file. The HTTP Post activity uses Data Items to refer to an XML document or individual XML tags.
	Web Service	The Web Service activity allows you to send information to and request information from a Web service. You can also create Web Service templates and add them to the Activity Toolbox. These templates enable users with limited Web Services knowledge to configure and execute the Web Service Activity.
	WebDAV Copy or Move File	The WebDAV Copy or Move File activity allows you to copy or move files that are stored on a WebDAV repository. You can use a combination of Data Items to build the WebDAV URL.
	WebDAV Delete File	The WebDAV Delete File activity allows you to delete a file or directory. You can use a combination of Data Items to build the WebDAV URL.
	WebDAV Get File	The WebDAV Get File activity allows you to retrieve a file or directory of files. You can also retrieve the file properties and store them in a Data Item. You can build the WebDAV URL with a combination of Data Items.
	WebDAV Get File Structure	The WebDAV Get File Structure activity allows you to retrieve a list of files and directories in a WebDAV repository. The list can be limited using wildcard characters as part of the file name or file extension. You can use a combination of Data Items to build the WebDAV URL.
	WebDAV Put File	The WebDAV Put File activity allows you to save one or more files to a WebDAV repository. You can also upload the properties for a file separately. You can use a combination of Data Items to build the WebDAV URL.

## XML ACTIVITIES

	Document Generator	The Document Generator activity allows you to design documents that display information from an XML source (such as the results of a SQL query). You can then save the report in a variety of formats including Rich Text and PDF. This activity does not require a third-party PDF application.
	Merge XML	The Merge XML activity allows you to merge two separate XML documents into one XML document. Merged XML document contents, depending on size, can also be stored in Data Items.
	Query By Example	The Query By Example activity allows you to retrieve information from a database table and use the information with either the Document Generator or Merge XML activities.
	XML Reader	The XML Reader activity allows you to extract information from an XML document and store the information in Data Items. The XML Reader activity uses an XPath Query against XML stored in a file or Data Item.
	XML Writer	The XML Writer activity allows you to modify existing or create new XML files. The activity uses XPath queries to identify elements in an XML file and write Data Item values as attributes or sub-elements of those elements.