



Introduction to AgilePoint BPMS

AgilePoint BPMS v5.0 SP2

Document Revision r5.2.2

November 2011

Contents

| | |
|---|-----------|
| AgilePoint BPMS..... | 3 |
| What Makes AgilePoint Unique?..... | 4 |
| How Does AgilePoint Enable Continuous Process Improvement?..... | 4 |
| How is Process Metadata Created From a Visio Image?..... | 4 |
| What is AgilePoint BPMS?..... | 5 |
| What is AgilePoint Server?..... | 5 |
| What is AgilePoint Envision?..... | 5 |
| What is Enterprise Manager?..... | 6 |
| What is AgilePoint Developer?..... | 7 |
| What is the AgilePoint Architecture?..... | 7 |
| What are the System Requirements?..... | 7 |
| What APIs does AgilePoint offer?..... | 8 |
| How Does AgilePoint BPMS Implement Business Process Concepts?..... | 9 |
| What is a Process?..... | 9 |
| What is a Process Model?..... | 9 |
| What is a Process Instance?..... | 9 |
| What is a Sub Process?..... | 9 |
| What is a Process-Driven Application?..... | 10 |
| What is an Activity?..... | 10 |
| What is a Manual Activity?..... | 10 |
| What is an Automatic Activity?..... | 10 |
| What is an Activity Instance?..... | 10 |
| What is a Business Rule?..... | 11 |
| What is an AgileShape?..... | 11 |
| What is an AgileWork?..... | 11 |
| What is an AgilePart?..... | 11 |
| What is a Participant?..... | 12 |
| Why Do I Need Forms for AgilePoint?..... | 13 |
| How Does AgilePoint Support Forms?..... | 13 |
| Can I Reuse Forms I Have Already Built?..... | 13 |
| What Form Technologies Does AgilePoint Support Out Of The Box?..... | 13 |
| What is AgileForms?..... | 13 |
| What are InfoPath Forms?..... | 14 |
| What are ASP.NET Forms?..... | 16 |
| What are SharePoint ListForms?..... | 16 |
| What Additional Form Technologies Does AgilePoint Support?..... | 17 |

AgilePoint BPMS

AgilePoint BPMS is a .NET-based, model-driven, Business Process Management (BPM) solution, aimed at building SOA-aligned, highly adaptive process-based applications through composition of process-enabled IT assets abstracted from and across existing applications, and messaging and productivity solutions, with a focus on leveraging common Microsoft technologies such as SharePoint, InfoPath, Exchange, Project Server, WF, Visual Studio, and the .NET platform.

The suite comprises a Visio-based process modeler which is, in fact, also an integrated composition environment for process-based SOA composition a Visual Studio-based development environment for creating encapsulated reusable process elements in XML enabled by metadata driven IT asset abstraction framework, and a XML-based process execution engine.

AgilePoint focuses on increased visibility and manageability into processes, both at design time and at run time, and on business user-driven process formulation and management.

AgilePoint BPMS redefines many traditional application development boundaries by changing the 'how to' and 'who can' leverage IT assets to create and continually improve end-to-end business process automation, integration, and dynamic process-driven applications. By utilizing AgilePoint BPMS, business users can leverage abstracted IT assets in the form of process-enabled services (i.e. in their familiar process language), and quickly assemble and further configure them on demand to create a directly executable process model.

The process model is a new generation, dynamic, process-based composite application. This unprecedented technological advancement enables business managers and subject matter experts (e.g. business process analysts, power users, or line-of-business managers) to respond to market changes in the front office without having to resort to the back office and burden IT with lengthy and costly engineering cycles that hinder business agility and competitiveness. AgilePoint BPMS yields unprecedented ROI for organizations with both bottom-line savings within the product marketplace, and top-line transformational business benefits by adopting this new paradigm - at up to a mere fifth of the Total Cost of Ownership (TCO) of its J2EE counterparts.

What Makes AgilePoint Unique?

This section describes several ways in which AgilePoint distinguishes ourself from our competitors.

How Does AgilePoint Enable Continuous Process Improvement?

AgilePoint's SOA architecture enables continuous process improvement without the need to ever stop a process from running. Process improvement continues through the four cyclical stages:

- Model
- Deploy
- Execute
- Improve

The AgilePoint BPMS engine executes processes on the fly based on XML metadata in the process definition. This means there is no code to write or compile.

Process instances can be started, stopped, rolled forward or backward, or migrated to new or old versions on the fly, without interrupting the process flow.

Processes can be created, revised, and deployed in Microsoft Visio plug-in AgilePoint Envision.

In other BPM systems, continuous process improvement is not possible. Processes require compiled code, so it is typically necessary to stop and restart a process at some point during the lifecycle.

With AgilePoint, the control is in the hands of the business analyst, with no required intervention from IT.

How is Process Metadata Created From a Visio Image?

AgilePoint enables continuous process improvement by creating the metadata that runs the application from right within Microsoft Visio. Using AgilePoint Envision, a Visio plug-in, the XML metadata that runs AgilePoint-based processes is created and deployed from a Visio diagram. No coding is required. It all happens behind the scenes in Visio.

Other BPM systems create some process model code from a GUI, but some code must still be written and compiled before runtime.

What is AgilePoint BPMS?

The AgilePoint Business Process Management Suite (BPMS) is an integrated product suite that enables you to create and deploy processes. This section provides information about AgilePoint BPMS and its components.

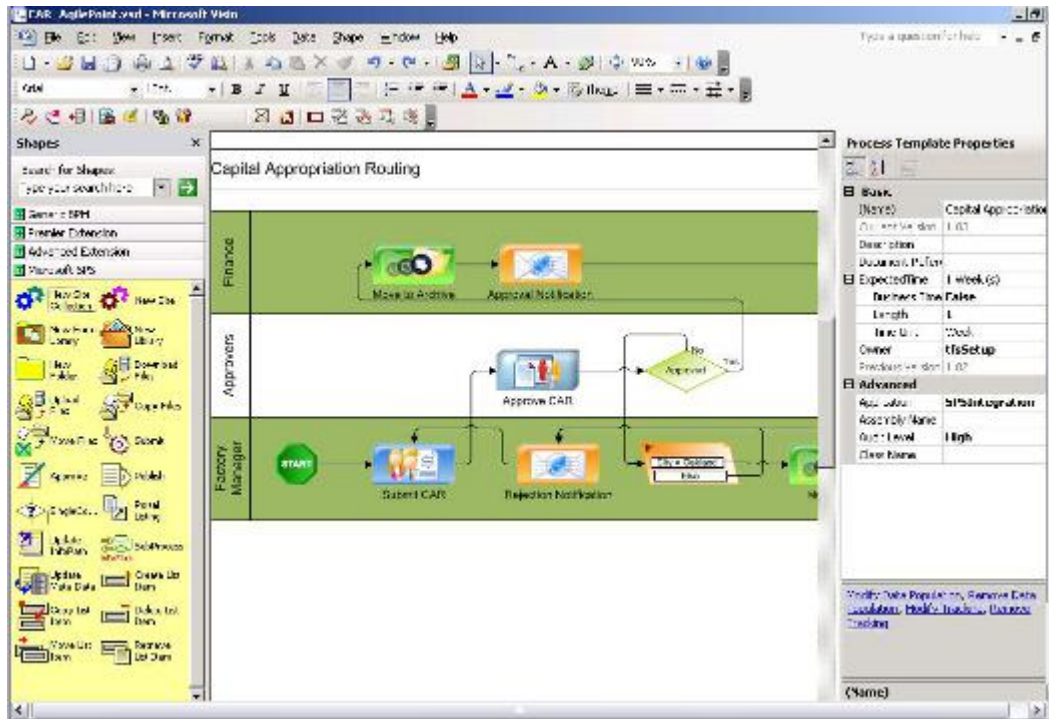
What is AgilePoint Server?

AgilePoint Server is the server-side software engine that runs your AgilePoint-based processes. AgilePoint Server interprets the XML schema associated with a process and programmatically executes the appropriate actions. AgilePoint Server's SOA-based software model is what enables you to create and run processes without writing software code.

What is AgilePoint Envision?

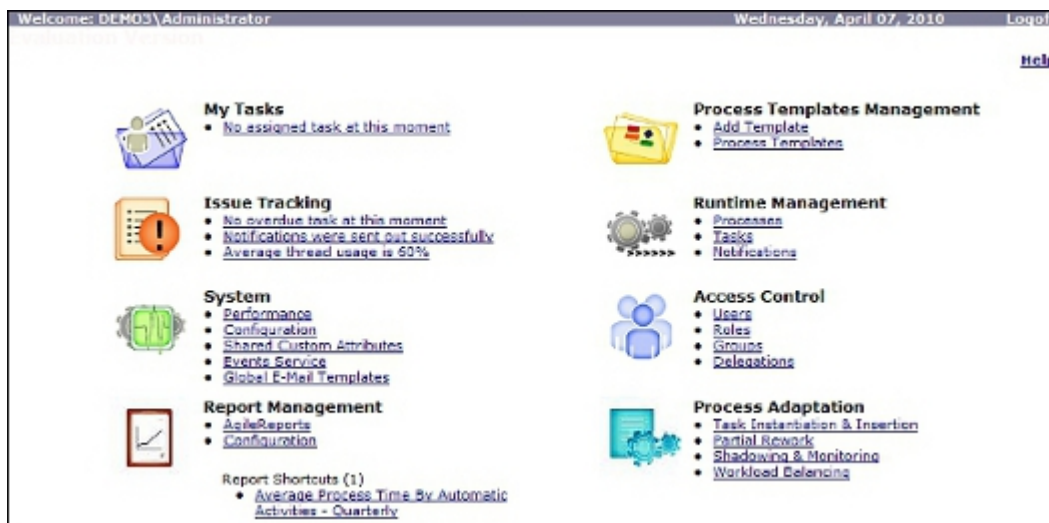
AgilePoint Envision is the Microsoft Visio-based business process modeling component of the AgilePoint Business Process Management (BPM) suite. Envision extends Visio into a powerful BPM tool that enables users to model and directly deploy end-to-end business processes that can encompass the full lifecycle of business operations including the system-to-system, human-to-system, and human-to-human activities.

In addition to the many customizable workflow activities that are built in, Envision provides an extensible framework that enables IT assets to be exposed as AgileShapes in Envision.



What is Enterprise Manager?

AgilePoint Enterprise Manager is an ASP.NET application that provides a web-based interface for power users or system administrators to manage, monitor, and audit AgilePoint BPMS and its runtime activities and processes.

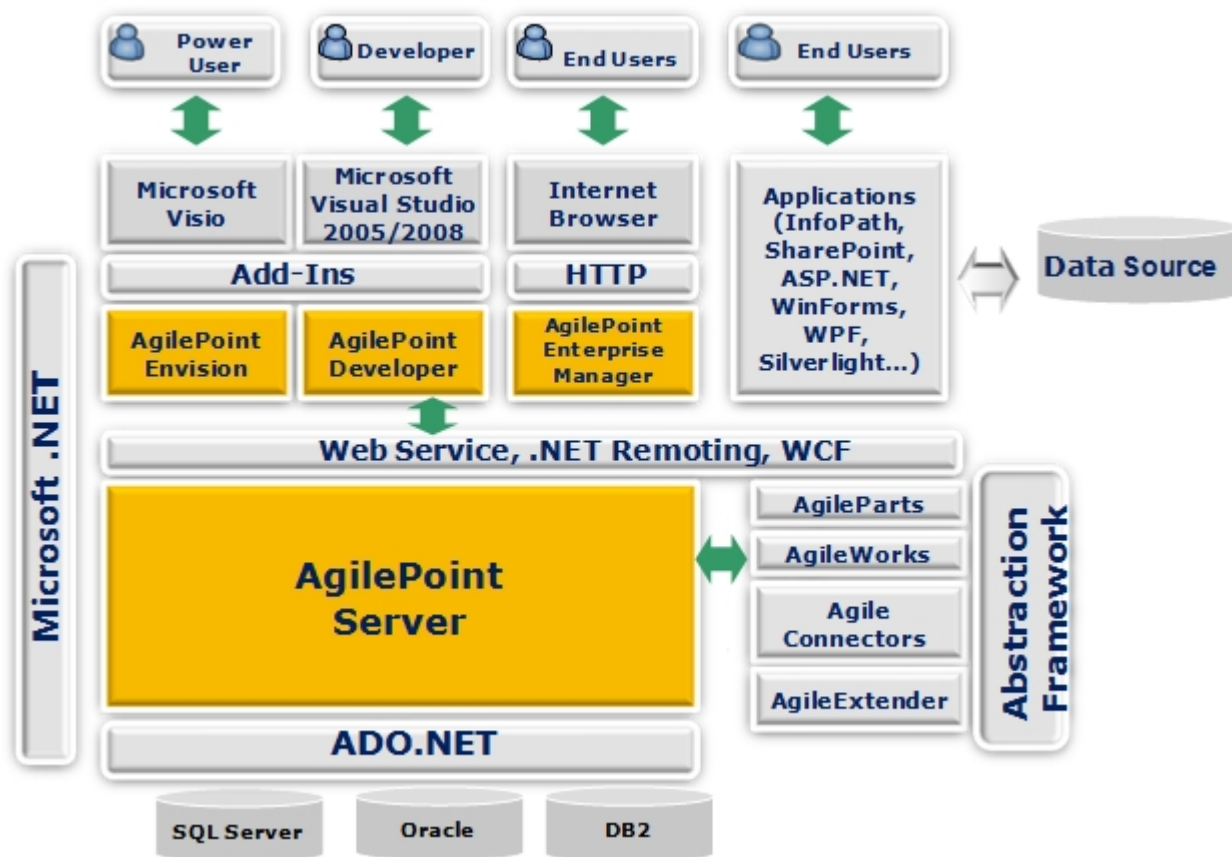


What is AgilePoint Developer?

AgilePoint Developer is a component of AgilePoint BPMS used by software developers to create reusable modules and extensions to develop highly complex and customized workflow management solutions. In short, AgilePoint Developer enables you to create any process management customizations you want that aren't included with AgilePoint BPMS out of the box. It is a Microsoft Visual Studio.NET add-in.

What is the AgilePoint Architecture?

An overview of the AgilePoint software architecture is displayed in the following diagram. For more information, see [Architecture](#) on the [AgilePoint Support Portal](#).



What are the System Requirements?

For a complete list of system requirements for AgilePoint BPMS, see [System Requirements for .NET 3.5](#) on the [AgilePoint Support Portal](#).

What APIs does AgilePoint offer?

AgilePoint offers a complete set of .NET APIs. For more information, see [AgilePoint API](#) on the [AgilePoint Support Portal](#).

How Does AgilePoint BPMS Implement Business Process Concepts?

AgilePoint BPMS enables you to create and execute business processes. AgilePoint uses concepts and terminology that are standard in business process management, but some terms have special meanings within the context of the AgilePoint BPMS system.

This section describes how AgilePoint BPMS implements, or operationalizes, common BPM concepts to create a highly automated and efficient BPM software system.

What is a Process?

A process is a collection of activities that has been defined, documented, or modeled. Most business processes produce some form of output, such as data or notifications, that are used by external persons and/or automated systems.

AgilePoint BPMS is a software system that enables business processes to be automated.

What is a Process Model?

A process model is a graphical representation of a business process. This representation can include such information as the relationships between activities, the sequence of activities, responsibility for various activities, and time allowed to complete the activities.

AgilePoint BPMS uses diagrams created using the Microsoft Visio add-on AgilePoint Envision to create process models. When the process model is created, Envision also automatically creates an XML file (called a process definition) that includes all the data that is required to run the process on demand. No further coding is required to get the process up and running beyond the process model created in Visio.

What is a Process Instance?

A process instance is a specific occurrence or execution of a business process. For example, if making a cake is a process, the recipe is the process model. A process instance occurs each time a person makes a cake using this recipe.

In AgilePoint BPMS, process instances can be started using events such as submitting a form, sending an email, or creating or uploading files in SharePoint. Each process instance can be independently monitored and managed.

What is a Sub Process?

A sub process is a process that is used within another process. Sub processes are used to separate large, complex processes into smaller, more manageable pieces.

In AgilePoint BPMS, any process model can be a sub process of another process model. This helps to create a component-based process architecture, where individual parts of a larger process can be managed independently and with minimal impact.

What is a Process-Driven Application?

A process-driven application is any software application that enables users and data to interact within the context of a business process. In other words, a process-driven application is the software that runs the business process.

AgilePoint BPMS enables you to build process-driven applications that use AgilePoint Server as the primary software engine.

What is a Process Engine?

A process engine is a software application that manages the processing, storage, and distribution of the data and information relating to business processes. One common function of process engines is tracking the completion of process instances so that users can determine which process instances are running and/or completed.

AgilePoint Server is the process engine for AgilePoint BPMS.

What is an Activity?

An activity is a unit of work within a business process.

AgileShapes are used to represent activities within AgilePoint Envision.

What is a Manual Activity?

A manual activity is an activity that cannot be completed without some degree of human interaction, input, or intervention. The tasks associated with a manual activity are typically assigned to one or more participants, who are responsible for performing the work required to complete the tasks.

AgileWorks are used to represent manual activities within AgilePoint Envision.

What is an Automatic Activity?

An automatic activity is an activity that is completed by automated systems without any human input, interaction or intervention.

AgileParts are used to represent automatic activities within AgilePoint Envision.

What is an Activity Instance?

An activity instance is a specific occurrence of an activity within a process instance.

What is a Business Rule?

Business rules are logical constructs that determine the behavior of a system. In a software application, a business rule determines the software's behavior based on interactions with human users, as well as other automated systems.

Within an automated process, AgilePoint BPMS employs business rules both within the context of a software application and a business process. Like automatic activities, business rules can be defined using AgileParts.

What is an AgileShape?

AgileShape is any Visio shape that can be used in an AgilePoint process. Each AgileShape includes a unique set of design-time and runtime functionality that is useful in modeling and automating activities within a process.

In short, an AgileShape is the representation of an activity within AgilePoint Envision.

What is an AgileWork?

An AgileWork is an AgileShape that represents a specific manual activity. An AgileWork implements specific design-time features and run time functionality that allow AgilePoint Server to properly handle the work represented by the AgileShape. For example, if the task involves completing an online form, the AgileWork includes the form and the processing instructions for the form. AgilePoint Server can use this information to assign the task, display the form, monitor the progress of the task, and so on.

In short, an AgileWork is the representation of a manual activity within AgilePoint Envision.

AgilePoint provides many built-in AgileParts, or you can use the templates available in AgilePoint Developer to build your own.

What is an AgilePart?

An AgilePart is an AgileShape that represents an automatic activity or a business rule. An AgilePart implements specific design-time features and runtime functionality that allows AgilePoint Server to perform the work or implement the rules represented by the AgileShape, either directly or through interaction with another server or system.

Note that while AgileWorks map directly to manual activities, AgileParts can include both automatic activities and business rules. In short, an AgilePart represents any automated behavior within a process model.

AgilePoint provides many built-in AgileParts, or you can use the templates available in AgilePoint Developer to build your own.

What is a Participant?

A participant is a person associated with a specific activity - typically the person responsible for completing the work required for the activity.

Why Do I Need Forms for AgilePoint?

Forms provide the human interface for AgilePoint. People use forms to input information about your AgilePoint-based, process-driven applications.

How Does AgilePoint Support Forms?

AgilePoint-based, process-driven applications use a service-oriented (SOA), schema-driven, n-tier architecture. Forms represent the UI tier, but this is loosely coupled with the business logic tier using a schema. A form simply needs to bind to the schema to enable data exchange with the application.

AgilePoint provides built-in tools to support several form technologies out of the box, but you can use whatever form technology best suits your business requirements.

Can I Reuse Forms I Have Already Built?

Yes. To connect an existing form to an AgilePoint process, you need only to bind the fields in your existing forms to the XML schema for your AgilePoint process.

What Form Technologies Does AgilePoint Support Out Of The Box?

You can use any forms technology that can interface with a web service, but AgilePoint includes built-in support for the following form technologies out of the box:

- AgileForms
- InfoPath
- ASP.NET
- SharePoint ListForm

What is AgileForms?

AgileForms is AgilePoint's integrated, no-code web form solution. Business users can use AgileForms to create simple or sophisticated forms that run from any web location in a browser. Visual form design is integrated seamlessly with the AgilePoint Envision process modeling environment. AgileForms are rendered as ASP.NET pages at runtime.

What are the Advantages of AgileForms?

AgileForms offers the following advantages as a form technology for AgilePoint-based, process-driven applications:

- Created using a GUI. No code is required.
- Easy to use and business user friendly.
- Rapid form creation.
- Dynamic lookups from most any external data source, including SharePoint.
- Simple integration with SharePoint, web services, and databases.
- Repeating tables.
- Dynamic validation.
- Conditional formatting.
- Tabular sections
- Sub-forms.
- Wizard-driven forms typically used for large forms having 10-20 pages.
- Reusable forms.
- AJAX-enabled.
- Large variety of field types and controls.
- Custom branding.
- Custom style sheets.
- Multi-lingual form capabilities.
- Offers a compromise between InfoPath and ASP.NET.

What are the Disadvantages of AgileForms?

AgileForms includes the following disadvantages as a form technology for AgilePoint-based, process-driven applications:

- No support for custom code.
- No support for custom controls.
- Add-on component that requires a separate license.
- IT resources required to set up connections for complex forms that use multiple interactions with back end systems.
- Does not support Network Load Balancing. This is scheduled for future release.

What are InfoPath Forms?

InfoPath forms are XML-based data entry forms created using the Microsoft InfoPath application. InfoPath provides a Microsoft Office based graphical form designer with tight SharePoint integration. InfoPath is a business user-friendly form technology, but InfoPath client and Form Server licenses can be cost prohibitive for some organizations.

What are the Advantages of InfoPath Forms?

InfoPath offers the following advantages as a form technology for AgilePoint-based, process-driven applications:

- Created using a GUI. No code is required.
- Easy to use and business user friendly.
- Rapid form creation.
- Close integration with SharePoint.
- Dynamic lookups from most any external data source, including SharePoint.
- Simple integration with SharePoint, web services, and databases.
- Multiple views for single form.
- Repeating tables.
- Dynamic validation.
- Conditional formatting.
- Multiple attachments.
- Multi-lingual form capabilities.
- Custom branding.
- Web-based or client-based data entry mode.

What are the Disadvantages of InfoPath Forms?

InfoPath includes the following disadvantages as a form technology for AgilePoint-based, process-driven applications:

- Difficult to integrate with process-driven applications outside of SharePoint
- Difficult to secure sensitive data.
- Both web-based and client-based forms require the InfoPath client license.
- InfoPath Forms Server license is required for web-based forms.
- Limited standard controls.
- No support for custom controls.
- No support for AJAX.
- No multilingual support.
- Performance reduction on large or complex forms. Post back to form is slow, and performance is not good.
- Custom, managed code is difficult to maintain.

What are ASP.NET Forms?

ASP.NET is Microsoft's web application framework, which allows programmers to build dynamic web sites, web applications and web services. ASP.NET forms offer the greatest flexibility for creating forms in AgilePoint, but they require technical IT resources to create and maintain.

What are the Advantages of ASP.NET Forms?

ASP.NET offers the following advantages as a form technology for AgilePoint-based, process-driven applications:

- Anything that is possible with an ASP.NET form, you can do with AgilePoint BPMS.
- AgilePoint provides the basic web pages as starting points within a process.

What are the Disadvantages of ASP.NET Forms?

ASP.NET includes the following disadvantages as a form technology for AgilePoint-based, process-driven applications:

- Coding required, even though the basic web pages are provided as starting points.
- IT resources required to create and maintain the forms.
- Visual Studio .NET required.

What are SharePoint ListForms?

SharePoint ListForm is a form technology included within SharePoint that automatically creates a form based on a SharePoint list. SharePoint ListForms are easy to create, and SharePoint users do not require additional software. However, functionality and customizability are limited.

What are the Advantages of SharePoint ListForms?

SharePoint ListForm offers the following advantages as a form technology for AgilePoint-based, process-driven applications:

- Created using a GUI. No code is required.
- Easy to use and business user friendly.
- Rapid form creation.
- Close integration with SharePoint.

What are the Disadvantages of SharePoint ListForms?

SharePoint ListForms includes the following disadvantages as a form technology for AgilePoint-based, process-driven applications:

- No multilingual support.

- No support for custom code.
- Branding requires IT resources.
- It is only possible to look up data from SharePoint. No lookups from external data sources, such as databases or web services.
- No UI customization, such as AJAX, dynamic or repeating tables, tabs, custom controls, etc.

What Additional Form Technologies Does AgilePoint Support?

AgilePoint supports any form technology that can interface with a web service. Examples include: Windows Forms and JSP.