Introduction to AgilePoint BPMS

AgilePoint BPMS v5.0 R2

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Contents

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 form 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.

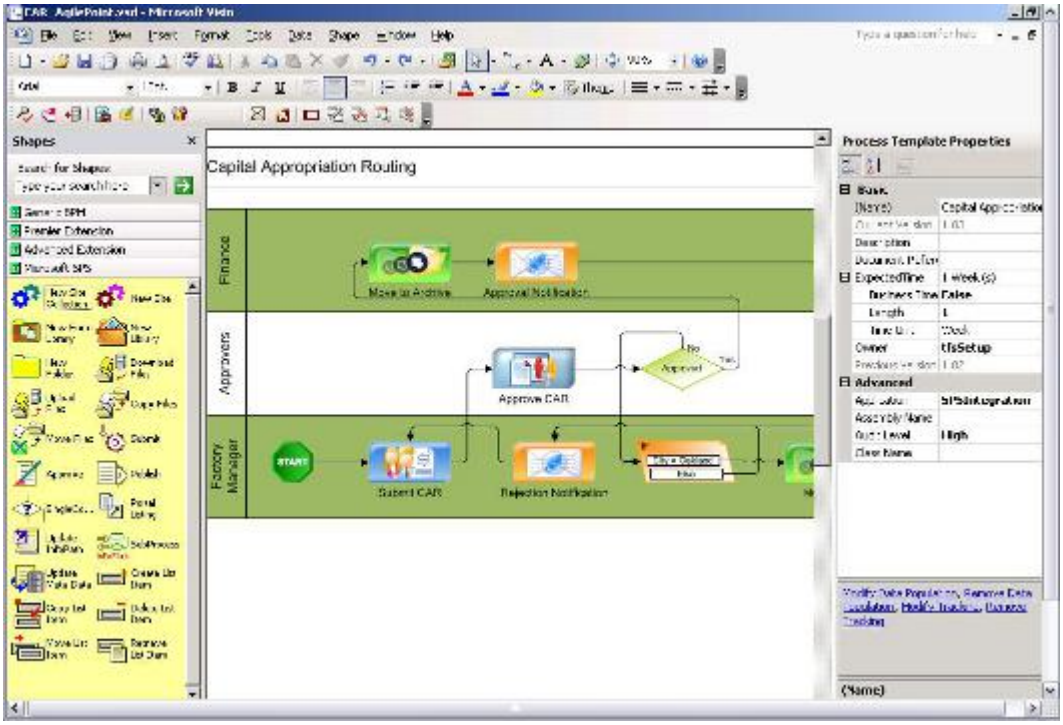
What is AgilePoint Server?

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?

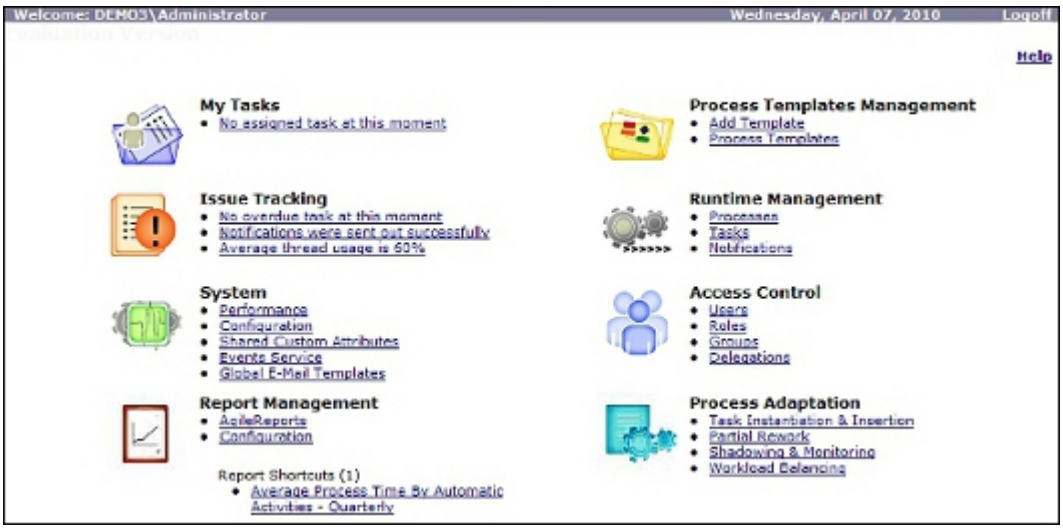
AgilePoint Envision is the Microsoft Visio-based business process modeling component of the AgilePoint Business Process Management (BPM) suite. Envision extends Visio into a powerful BPM tool that enables users to model and directly deploy end-to-end business processes that can encompass the full lifecycle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

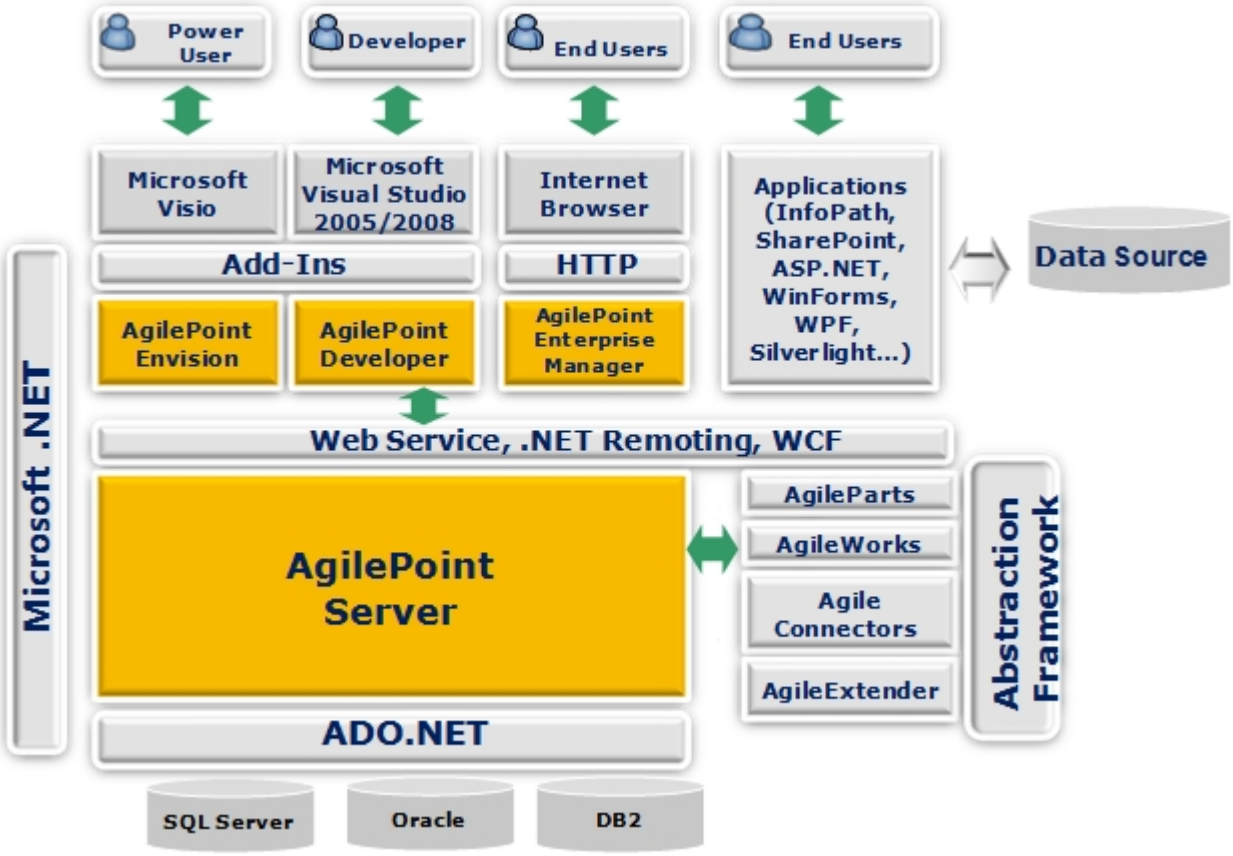


What is AgilePoint Developer?

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 in the Documentation Library.



What are the System Requirements?

For a complete list of system requirements for AgilePoint BPMS, see System Requirements for .NET 3.5 in the Documentation Library.

What APIs does AgilePoint offer?

AgilePoint offers a complete set of .NET APIs. For more information, see Web Services API in the Documentation Library.

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.

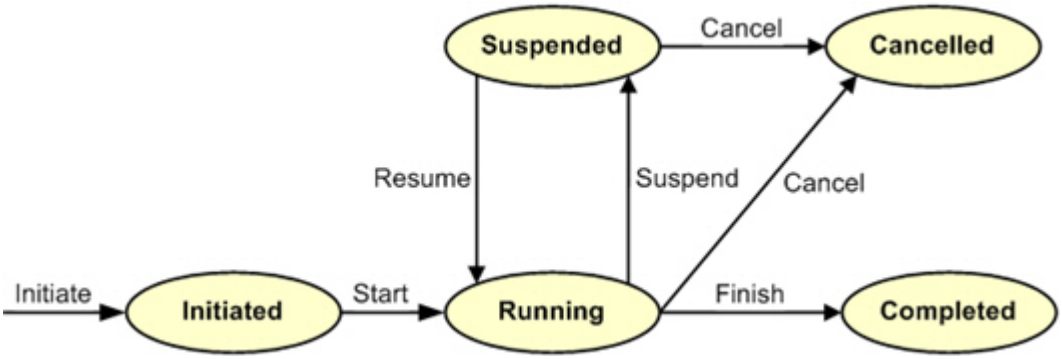
Process Lifecycle

In AgilePoint, a process will go through few different states throughout the life-cycle. A process lifecycle includes the following states:

Field Definitions

Field Name	Definition
Initiated	The initial state of the process. A process instance has been created, including any associated process state date and process relevant data, but the process has not yet fulfilled the conditions to cause it to start execution.
Running	The process instance has started execution and any of its activities may be started (once any appropriate activity conditions have been met).
Suspended	The process instance is temporary put on halt and no activities are started not until the process is resumed and returned to the running state.
Completed	The process instance has fulfilled the conditions for completion either by normal completion or mark as completed through AgilePoint Enterprise Manager. The process instance will be destroyed after any post-completion operations such as logging the audit data.
Cancelled	The execution of the process instance has been terminated before its normal completion. The process instance will be destroyed after the internal operations such as error logging.

The following figure illustrates the process lifecycle:



In AgilePoint Enterprise Manager, users can search for processes that are in one of the above states which provide a higher level of manageability.

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.

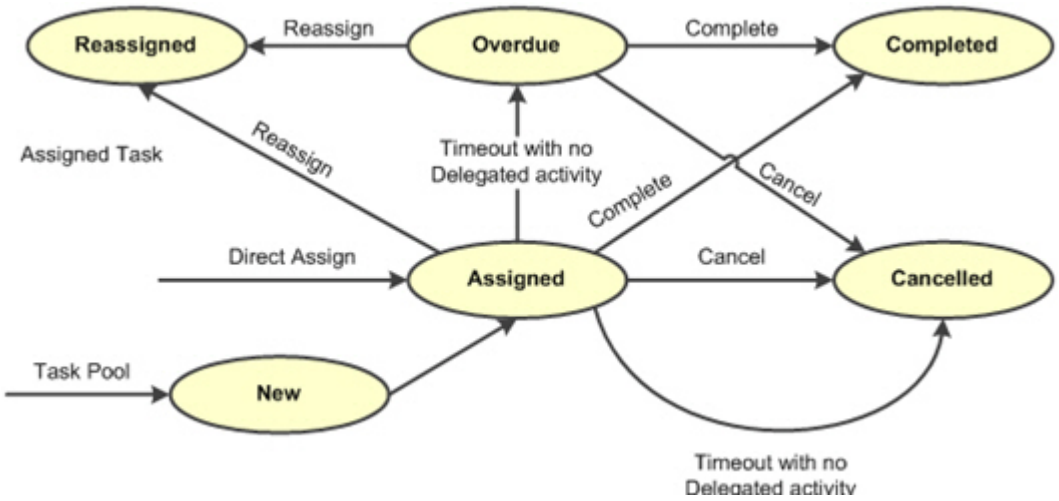
Task Lifecycle

A task is a work item that associated with manual activity. A manual activity can contain multiple work items (tasks) and each task will be assigned to a specific participant as defined in the process template. Similar to a process, a task will also go through several states throughout a task lifecycle. A task lifecycle includes the following states:

Field Definitions

Field Name	Definition
New	A new work item (task) is created with associated data. It is not been assigned to its participant.
Assigned	The work item is assigned to its specified participant and is now ready to perform.
Completed	The work item is completed by the participant. The work item will be marked as "Completed".
Overdue	The work item has passed its scheduled duration and has not been completed. The work item is still considered as active but special action may be needed to handle overdue work item.
Cancelled	The work item has been terminated before its normal completion. The work item will be marked as "Cancelled".
Reassigned	The work item has been reassigned to another participant. The work item will be marked as "Reassigned" and a new work item is created and assigned to another participant.

The following figure illustrates the task lifecycle:



In AgilePoint Enterprise Manager, users can search for tasks that are in one of the above states which provide a higher level of manageability.

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 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.

How Can I Extend AgilePoint to Meet My Needs?

AgilePoint BPMS provides a flexible framework you can use to extend the system to meet the needs of your organization. AgilePoint offers several types of extensibility:

- AgilePoint custom development tools
- Integration with third-party systems
- APIs

What Third-Party Systems does AgilePoint Integrate With?

AgilePoint BPMS integrates with third-party systems in the following ways:

Microsoft Products and Technologies

AgilePoint integrates with the following Microsoft products out of the box:

- SharePoint
- Active Directory
- Exchange Server
- ASP.NET
- C#
- Visual Basic
- WCF
- SQL Server
- Visio
- Visual Studio
- Word
- Excel
- PowerPoint
- Outlook

Third-Party Products and Technologies

AgilePoint provides out of the box integrations with the following non-Microsoft products:

- Oracle database
- SAP
- XML

- Java
- HTTP
- PDF

Custom Integration

Using AgilePoint's built-in custom integration and development tools, you can integrate with any system that can communicate with a web service. Examples include:

- Java applications
- LDAP data stores
- ERP systems
- CRM systems

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

What is an AgileExtender?

An AgileExtender is a type of AgileShape that allows users to overlay the AgilePoint process model with custom behavior. An AgileExtender is a kind of "meta shape" that runs on top of or in parallel to the process, rather than running inline within the process flow. This provides increased extensibility and allows layers of powerful functionality to be added to the process without making the core process model unnecessarily complex.

You can create custom AgileExtenders using the AgileExtender Framework. The AgileExtender Framework provides a module that captures process-level events and activity-level events. It can also use APIs to interact with the AgilePoint Server engine.

For more information, see AgileExtender Framework.

When Should I Create a Custom AgileShape?

AgilePoint customers frequently make the mistake of creating custom AgileShapes when the built-in AgileShapes would be a better choice. In most cases, you can configure the existing AgileShapes to meet the needs of your process or organization. Custom AgileShapes are often created for a specific, ad hoc purpose, when a configuration of an existing shape would serve the same function.

Built-in AgileShapes have the following advantages:

- They do not require time and resources from IT to create them.
- They do not require additional time and resources for documentation and training.
- They are included in AgilePoint Customer Support plans.
- They often have greater flexibility than custom-built AgileShapes, and can be used for a greater number of functions.

AgilePoint recommends creating custom AgileShapes only when you are sure that a built-in AgileShape cannot accomplish the task you want. The following are common examples:

- You require integration with a third-party system that AgilePoint does not support out of the box.
- You require AgileExtender functionality that is not supported through the out-of-the-box AgileExtenders.

What is an AgileConnector?

An AgileConnector is a custom module that extends AgilePoint Server. An AgileConnector is registered as a service extension to AgilePoint Server that starts and stops along with the Server. AgileConnectors can be used for the following purposes:

- **Event management** - Manage AgilePoint Events based on changes in a designated environment. Common examples include message queues, exception handlers, custom user management, file system monitors and database monitors.
- **External system integration** - Communicate with external systems through a web service.

This section provides a list of AgileConnectors are provided out of the box. You can create additional AgileConnectors using the templates provided with AgileDeveloper.

ADSyncModule Extension

For most enterprises, Active Directories are changing continuously with users added or removed frequently. For enterprises with large numbers of groups and users, a mechanism to automate the synchronization of the member association in Active Directory plays an important role for any Active Directory integration.

In addition to the built-in Active Directory integration with products such as: Envision and Enterprise Manager, AgilePoint also provides an out-of-the-box Active Directory synchronization module which can be plugged into AgilePoint through the Global Server Control Module framework. This synchronization module provides the synchronization capability between Active Directory groups and AgilePoint groups automatically.

This synchronization module can be added to the AgilePoint system through the AgilePoint Global Server Control Extended Module. This server extension allows you to enable and configure automated synchronization of the AgilePoint authentication data with Active Directory. It will automate the member synchronization between Active Directory users and groups and AgilePoint users and groups.

ContentListener AgileConnector

The Content Listener AgileConnector extension enables you to initiate processes on items in a SharePoint list or library based on conditions you specify. The Content Listener AgileConnector runs a CAML query based on a schedule you specify to evaluate the items in the SharePoint list and initiate the appropriate processes.

For example, you could initiate an escalation processes for all items in a SharePoint list that are designated high priority or past due.

DataService AgileConnector

This AgilePoint Server extension (AgileConnector) allows you to enable application data services to collect and track application data. The Data Services includes two core components:

- Data Population
- Data Tracking

Data Population allows you to write to a database the desired application data values. The data can then be used for reporting purposes. The configuration is done via AgilePoint Envision. For more information, see Data Services in the Documentation Library.

Data Tracking provides the functionality to set up fields in AgilePoint Envision to be monitored for changes to application data, for example you can see for a specific field on a form, the "Old Value" and if the data changes, the "New Value". This viewpoint is provided via the AgilePoint Enterprise Manager Data Tracking tab.

DBSyncModule Extension

The DBSyncModule AgileConnector extension allows you to synchronize custom user and group database tables with AgilePoint groups automatically.

Email Approval Extension

Using email approval, process participants can approve documents or requests through email, without accessing their task lists. The MailApproval AgileConnector supports the following functionality:

- Approve or reject tasks using a simple email reply
- Multiple AgileConnector configurations
- Network load balancing

EventService AgileConnector

This AgilePoint Server extension (AgileConnector) allows you to initiate processes automatically via scheduling, email, database, or file dropping.

MSMQ AgileConnector

This AgilePoint Server extension (AgileConnector) allows you to run Microsoft Message Queuing.

MSWFRuntime AgileConnector

This AgilePoint Server extension (AgileConnector) allows you to enable AgilePoint Server to host and execute Microsoft Windows Workflow Foundation activities at run time. AgilePoint provides the Sequential Workflow AgilePart that can be initiated from an AgilePoint process as a sub-process to facilitate the data-exchange between AgilePoint and Windows Workflow Foundation. The Sequential Workflow AgilePart can be customized by leveraging this AgileConnector for Windows Workflow Foundation.

Note: This AgileConnector requires the .NET Framework 3.0 or later.

This AgileConnector is implemented as a class named **Ascentn.AgileConnector.MSWFRuntime** in the **Ascentn.AgileConnector.MSWFRuntime** assembly. The assembly is located by default in the **... \AgilePointServer\bin** folder under your AgilePoint Server installation location.

Once you have enabled and configured the AgileConnector from the AgilePoint Server Configuration utility's Extensions window (as shown below), then you can create AgilePoint workflow applications that execute Windows Workflow Foundation activities and workflow applications.

RemotingService AgileConnector

This AgilePoint Server extension (AgileConnector) allows you to enable and configure AgilePoint Server to use Remoting to interact with AgilePoint Server. This extension opens up a port that can be used to connect (via Remoting) to the AgilePoint Server Process Engine and API. This AgileConnector is implemented as a class named **Ascentn.Workflow.Extension.RemotingService** in the **Ascentn.AgileConnector.RemotingService.dll** assembly. The assembly is located by default in the **... \AgilePointServer\bin** folder under your AgilePoint Server installation location.

Once you have enabled and configured the AgileConnector from the AgilePoint Server Configuration utility's Extensions window (as shown below), then you can create client applications that use Remoting to interact with AgilePoint Server.

SharePoint AgileConnector

This AgilePoint Server extension (AgileConnector) allows for the communication between AgilePoint Server and SharePoint. This extension is only applicable for the AgilePoint SharePoint Integration v2.

SPSIntegration Extension

This server extension allows you to configure the authentication behavior between AgilePoint Server and AgilePoint SharePoint Integration.

The impersonator you specify below must be a valid registered AgilePoint user. This is done to grant the AgilePoint SharePoint Integration process sufficient security privileges on the workflow server. It is recommended to use the same user account that is used as the Identity of the Application Pool used by the AgilePoint Server and/or SharePoint Web sites. However, the impersonator you must choose must meet the following criteria at a minimum:

- The impersonator must be the same user account that was specified in the **SPS Sample Installation** dialog during the AgilePoint SharePoint Integration installation.
- The impersonator must be a registered user in AgilePoint Server. (This can be done using AgilePoint Enterprise Manager, if necessary).
- The impersonator must be a valid user who can access SharePoint.

Configuring the SPSyncModule Extension

This AgilePoint Server extension (AgileConnector) allows you to synchronize SharePoint site collection groups with AgilePoint groups automatically.

This extension is optional.

Prerequisites

- The AgilePoint System User (as defined in the AgilePoint Server Configuration utility) should be a SharePoint user.
- AgilePoint Server's Application Pool's Identity user account (as configured in IIS) needs to have read permissions to the SharePoint data.

Navigation

1. On the AgilePoint Server machine, click **Start > All Programs > AgilePoint > AgilePoint Configuration**.
2. On the **AgilePoint Server Configuration Tool** window, click the **Extensions** tab.

Instructions

1. On the **Extension** tab, click on **Add**.
2. Browse one of the following locations to open the file **SPSyncModule.dll**:
   - For IIS installations, this file is located in the **bin** folder under the AgilePoint Server installation folder.
   - For Windows Service installations, this file is located in the **bin** folder under the path provided in the **Location** field in Windows Server Manager for the Windows Service instance you want to configure.
3. Leave the **Impersonator** field blank.
4. Click **OK**.

   Now you will need to configure the module to schedule the synchronization.
5. Click the **Configure** button, and specify the desired configuration settings.

In the configuration interface, you can specify the SharePoint site for which you want to synchronize the groups; you can also optionally provide the site prefix and group prefix. You can also specify the synchronization with the frequency of every day, week, or month and at a particular time of day starting with the day you set the schedule. The synchronization module also provides the option of registering the users automatically or sending an alert email to AgilePoint system user if there are members in the SharePoint groups that have yet to be registered in AgilePoint.

6. Provide a valid SharePoint Site URL, for example http://[hostname]:[port]/sites/MySite.
7. The **Site Prefix** field is optional.

   In a case where two site collections are configured, then groups with a common name can be distinguished using this property. For example Site "A" has a group called "Employees" and Site "B" also has a group called "Employees". In AgilePoint, you can create two groups "SiteA_Employees" corresponding to Employees group in site A and "SiteB_Employees" corresponding to siteB's Employees. So while configuring Site A mention "SiteA_" in site prefix so that it will sync with "SiteA_Employees" during the synchronization process and for site B mention "SiteB_" in site prefix so that it sync's with "SiteB_Employees".
8. The "Group Prefix" field is optional.

   This property is used in case a new group is created in SharePoint and you want that group to be created in AgilePoint. If a group prefix is not empty, then all the groups created in SharePoint starting with a Group prefix value will be created in AgilePoint during the Synchronization process. For example, the group prefix value is set as "GR_" then all the new groups in SharePoint starting with GR_ will be created and synced during the synchronization process.
9. The **Schedule** section is used to schedule the frequency of synchronization.

   You can configure Synchronization frequency to sync daily (Every Day) at a particular time, or Weekly (Every Week), or Monthly (Every Month).
10. The **Option** section provides an option to select what action needs to be taken when a SharePoint group member is not an AgilePoint user. Either one can select to register user to AgilePoint automatically or send a notification to AgilePoint System user.

What APIs does AgilePoint offer?

AgilePoint offers a complete set of .NET APIs. For more information, see Web Services API in the Documentation Library.