Web Services API Guide

AgilePoint BPMS v5.0 R2 SP1

Document Revision r5.6.1

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Contents

Web Services API

This document describes the AgilePoint remote API, which you can access using a web service or a Windows service (WCF).

The AgilePoint remote API is designed and implemented using the Microsoft .Net web service framework, but you can view the WSDL using Internet Explorer by connecting AgilePoint Server at a URL the format:

- **Workflow API** - http://[qualified machine name]:[port]/[AgilePoint virtual directory]/workflow.asmx?WSDL
- **Administration API** - http://[qualified machine name]:[port]/[AgilePoint virtual directory]/admin.asmx?WSDL

WSDL is a web service standard that allows any client application to consume the AgilePoint API. However with .NET, Visual Studio or a command line can help to generate a web service proxy class that is used to consume the AgilePoint web service using the .NET object model, rather than HTTP and XML. With AgilePoint Developer, AgilePoint provides a prebuilt web service proxy to simplify the process even further. Using the AgilePoint web service proxy also helps with upgrade and deployment because updates will occur using the AgilePoint upgrade kit.

Preface

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Virus-free software policy

AgilePoint recognizes that viruses are a significant security consideration for our customers. To date, we have had no report of AgilePoint BPMS carries any virus. AgilePoint takes the following measures to ensure our software is free of viruses upon delivery:

- AgilePoint is built on top of Microsoft .NET framework. The pre-compiled executable is a.NET Common Language Runtime (CLR) application, not a native machine binary. As far as is known at this time, there are no viruses that infect .NET CLR executables.
- The virtual environment for the product packaging process in is fully isolated and protected, and anti-virus software is installed and running during packaging.
- The deliverable package is scanned by anti-virus software before upload to our customer download site.

Document Revision Numbers

AgilePoint documentation uses the revision number format **r*X.Y.Z***. The letters and numbers in this revision number can be interpreted as follows:

- **r** - Indicates "revision." This helps to differentiate the document *version* numbers, which start with **v**.
- ***X*** - The major version number for AgilePoint BPMS to which this document refers. For example, AgilePoint releases 5.0, 5.0 SP1, and 5.5 would all have an ***X*** value of **5**.
- ***Y*** - The major document revision number. This number typically changes only when either there is a new AgilePoint release, or there are major changes to the document.
- ***Z*** - The minor document revision number. This number is incremented each time the document is republished.

AgilePoint Documentation in PDF and HTML

AgilePoint documentation is provided in both print-friendly (PDF) and web-based (HTML) formats.

Advantages of HTML Documentation

- HTML is the **primary delivery format** for AgilePoint documentation.
- Unified, global **search** across all documentation. PDF documents allow you to search only within the context of a given PDF file.
- **All hyperlinks supported**. Links in PDFs are only supported in certain contexts.
- "One-stop shopping" for all information related to AgilePoint BPMS.
- The HTML documentation is updated more frequently than the PDF documentation. Web-based documentation is updated periodically between AgilePoint releases to address errors and omissions, but the PDF documentation is updated only at the time of a software release.

Advantages of PDF Documentation

PDFs can be more easily **printed**, **archived**, and **transferred** (such as by FTP or email) than HTML documentation.

For more information, see Downloading Files and Sharing Links from the Documentation Library in the Documentation Library.

Opening the Documentation Library

To open the AgilePoint Documentation Library, do the following.

Prerequisites

You must have a valid account on the AgilePoint Support Portal.

Instructions

1. Log on to the AgilePoint Support Portal.
2. Click **Documentation**.
3. On the **Documentation** page, click the documentation library for your AgilePoint release.
    - For AgilePoint BPMS v5.0 SP1 and higher, the web-based documentation library opens in a new tab or window in your web browser.

- For releases prior to v5.0 SP1, a download starts for a Zip file with the PDF documentation for your release.

Finding Information in the Documentation Library

The information in this topic will help you to locate information in the AgilePoint Documentation Library.

Using the Table of Contents

The table of contents in the AgilePoint Documentation Library is divided by content areas. For example, the Installation section includes all the information you need to install AgilePoint BPMS. The AgilePoint API section includes information about the AgilePoint APIs.

You can use the Table of Contents to explore the AgilePoint documentation content and find the information you want.

Searching

The web-based documentation includes a centralized search for all documentation content. To search for information:

1. In the AgilePoint Documentation Library, click the **Search** tab. In the Search box, enter **1 search team**, and click **Search**.

   The search results display in alphabetical order by topic title.

   It is important to understand that the third-party software AgilePoint uses to generate web-based documentation allows only 1 search term. More than 1 search term will cause the search to fail.

   AgilePoint recommends using a relatively unique search term to find the information you need. For example, entering a common term, such as "process," will return a high percentage of the total documentation topics in the search results.

2. Browse the list of topic titles to find the information you want.

Printing

The PDF documentation is provided mainly for the purpose of printing and archiving. To print a set of information:

1. Navigate to the main page of the Documentation Library from which you want to print.
2. In the list of documents, click the document name in the **PDF** column.
3. From your PDF reader software, print the portion of the document you want.

Downloading Files and Sharing Links from the Documentation Library

You can download and share files AgilePoint's documentation library as you would in any other web page. Note that if you send links to recipients, they must have a Support Portal login to view the file.

These procedures are common examples based on Internet Explorer with the Adobe Reader plug-in. Exact procedures may vary depending on your web browser, PDF viewer, and email client configuration.

Share a Link to an HTML Topic

1. Navigate to the topic you want to share.
2. Copy the URL in the Location box in your web browser.
3. Paste the URL in an email, IM client, etc.

Share a Link to a PDF Document

1. In Internet Explorer, navigate to the Documentation Library home page.
2. In the **PDF** column, right-click the name of the PDF file you want to share.
3. In the quick menu, click **Copy shortcut**.
4. Paste the URL in an email, IM client, etc.

Save a Copy of a PDF Document

1. In Internet Explorer, open the Documentation Library home page.
2. In the **PDF** column, click the name of the PDF file you want to share.
3. In the Adobe Reader plug-in, click **Save** button.

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Basic Programming Tasks

This section describes the basic programming tasks that are required for the AgilePoint API:

- Authentication
- Adding a namespace and reference
- Catching exceptions
- Making calls

Code Examples

This section provides general code examples for the remote APIs. The code varies slightly depending upon whether AgilePoint Server is installed in IIS or Windows Service mode.

AgilePoint Server Running in IIS Mode

GetAdminService

```
public IWFAdminService GetAdminService()
{
    // initiated an object of proxy class of AgilePoint Web Service
    IWFAdminService svc = new AdminService("http://[machine]/[virtual
        directory]");
    // set URL
    svc.CookieContainer = new System.Net.CookieContainer();
    // set Credentials
    svc.Credentials = new System.Net.NetworkCredential(userName,
 password,
        domainName);
    // or take default credential
    // svc.Credentials = System.Net.CredentialCache.DefaultCredentials;

    try
    {
        // set client application name
        svc.SetClientAppName("Samples");
        // set locale
        svc.SetClientLocale("en-US"); // AgilePoint support 13
 languages
        // check authenticated and return qualified user name
        string qualifiedDomainUserName = svc.CheckAuthenticated();
    }

    catch(Exception ex)
    {
        string error = ShUtil.GetSoapMessage(ex)
        //log/throw the exception
    }
```

```
    Finally
    {
        return svc;
    }
}
```

GetWorkflowService

```
public IWFWorkflowService GetWorkflowService ()
{
    // initiated an object of proxy class of AgilePoint Web Service
    IWFWorkflowService svc = new WorkflowService("http://[machine]/
[virtual
        directory]");

    // set URL
    svc.CookieContainer = new System.Net.CookieContainer();

    // set Credentials
    svc.Credentials = new System.Net.NetworkCredential(userName,
 password,
        domainName);

    // or take default credential
    // svc.Credentials = System.Net.CredentialCache.DefaultCredentials;
    try
    {
        // set client application name
        svc.SetClientAppName("Samples");

        // set locale
        svc.SetClientLocale("en-US"); // AgilePoint supports 13
 languages

        // check authenticated and return qualified user name
        string qualifiedDomainUserName = svc.CheckAuthenticated();

    }

    catch(Exception ex)
    {
        string error = ShUtil.GetSoapMessage(ex)
        //log/throw the exception
    }

    Finally
    {
        return svc;
    }
}
```

AgilePoint Server Running in Windows Service Mode

GetAdminService

```
public IWFAdminService GetAdminService()
{
    string user = this.Context.User.Identity.Name;

    // Set Credentials - Windows Authentication
    System.Net.ICredentials credentials =
        System.Net.CredentialCache.DefaultCredentials;
    // In case of form authentication
    //System.Net.NetworkCredential credentials = new
        System.Net.NetworkCredential(userName, password, domain);

    string locale = "en-us";

    string adminBinding =
        (String)ConfigurationSettings.AppSettings["AdminBindingUsed"];
    IWFAdminService m_adm = new WCFAdminProxy("MyApplicationName",
        "", locale, user, credentials, adminBinding);

    Return m_adm;
}
```

GetWorkflowService

```
public IWFWorkflowService GetWorkflowService ()
{
    string user = this.Context.User.Identity.Name;

    // Set Credentials - Windows Authentication
    System.Net.ICredentials credentials =
        System.Net.CredentialCache.DefaultCredentials;
    // In case of form authentication
    //System.Net.NetworkCredential credentials = new
        System.Net.NetworkCredential(userName, password, domain);

    string locale = "en-us";

    string workFlowBinding =

 (String)ConfigurationSettings.AppSettings["WorkFlowBindingUsed"];
    IWFWorkflowService m_api = new
 WCFWorkflowProxy("MyApplicationName",
             "", locale, user, credentials, workFlowBinding);

    return m_api;
}
```

(Windows Service Installation Only) Run the Windows Service Client Utility Tool

If you are using AgilePoint Server in a Windows Service environment, you must run the Windows Service Client Utility Tool on your application configuration file to configure the binding with the AgilePoint Server.

Note: AgilePoint recommends creating a backup copy of the configuration file for the application you are configuring before using this utility.

Open the Client Utility Tool on Your Machine

On the AgilePoint Server machine, navigate to **[AgilePoint Server installation folder]\SVCUtilityTool \AgilePointWindowsServiceClientUtilityTool.exe**

This is only installed on the AgilePoint Server machine.

Open the Client Utility Tool from the AgilePoint Installation Program

Open the AgilePoint installation Setup.exe file, and click **AgilePoint Utilities and Other Support Files > AgilePoint Windows Service Client Utility Tool**.

More Information

- Run the Windows Service Client Utility Tool

Authentication

To communicate with the AgilePoint API, you must establish a session, which associates an authenticated user with a set of calls. The client must provide credentials to the AgilePoint Server using Windows authentication.

There are two main ways to provide credentials to the AgilePoint Server: Specify the user's credentials, or use the default credentials.

Specify the Credentials for a User

Specify the user name, password, and domain name for a user. The domain name could be a Windows Domain Name or a Local Host Name. The following example shows the syntax for establishing credentials in this way:

```
System.Net.ICredentials = new
    System.Net.NetworkCredential(userName, password, domainName);
```

Use the Default Credentials

Use the default credentials for a user. The default is the system credentials for the current security context in which the application is running. For a client-side application, these are usually the Windows credentials (user name, password, and domain) of the user running the application. For ASP.NET applications, the default credentials are the user credentials of the authenticated user, or the user being impersonated.

For more information, see Surrogate in the Documentation Library.

```
System.Net.ICredentials =
    System.Net.CredentialCache.DefaultCredentials;
```

Namespace Reference

With an out-of-the-box web service proxy included with AgilePoint, a reference to the namespace must be created. There are two methods to create a namespace reference:

1. Use the AgilePoint pre-compiled web service proxy. This method is recommended because it allows for easier upgrades. If you use AgilePoint proxy, you do not need to change your references to it when you upgrade the AgilePoint server because the new functions are included with the AgilePoint proxy.
   a. Add the following commands to your assembly file:
      - Ascentn.workflow.shared
      - Ascentn.workflow.WFBase
      - Ascentn.workflow.WFXML
      - Ascentn.AgilePoint.WCFClient

      Example:

      ```
      using Ascentn.Workflow.Base;
      using Ascentn.AgilePoint.WCFClient;
      ```

   b. Add a namespace using Ascentn.WorkflowBase
2. Use Microsoft Visual Studio to generate a web service proxy. The disadvantage to this method is that you must regenerate the proxy each time you upgrade the AgilePoint Server.

Catching Exceptions

The exception that a web service throws contains a lot of information, and most of it is not easy to read. AgilePoint Server tags the readable message for end-users.

Call the following function to extract the error message:

```
String error = ShUtil.GetSoapMessage(ex);
```

ex is the exception object that contains error message from AgilePoint Server

Making Calls

Calls within the AgilePoint API fall into two categories – synchronous or asynchronous.

Synchronous Call

Synchronous calls are used for short transactions. In a synchronous call, a request is sent to the AgilePoint Server, the server acknowledges the request, and then acts upon it immediately.

Asynchronous Call

Synchronous calls are used for short transactions. In a synchronous call, a request is sent to the AgilePoint Server, the server acknowledges the request, and then acts upon it immediately.

Asynchronous calls are used for longer transactions. In an asynchronous call, a request is sent to the AgilePoint Server, the server acknowledges the request, but it does not immediately act upon it immediately. The server creates a WFEvent object, which contains the call's status, and returns the WFEvent object to the client. The client can call GetEvent(EventID) to retrieve the WFEvent object with the updated status. The status can be:

- **Processed** – The transaction was completed successfully.
- **Failed** – The transaction failed, and was not completed.
- **Sent** – The call was received, but it has not been acted upon.

Completing an asynchronous call could take any amount of time, from one second to several days. As a best practice a user interface should handle GetEvent() calls to update end users or the application itself regarding the status of asynchronous calls. You might, for example, use Ajax to check status to display on an ASP.NET page in real time.

Methods

This section includes references for all methods within the AgilePoint Web Service API.

Common Methods

This section describes some commonly used methods for the Web Services API.

Check Authentication

API Type

Web Services

Description

This call is used to verify whether the specified user is a registered user on the AgilePoint Server.

Syntax

public virtual string CheckAuthenticated()

Parameters

Name	Description
None	Not Applicable

Output

If the user is a registered user, the qualified user name in the format of DomainName\UserName is returned. Otherwise, null is returned.

Example

```
//This example is for an ASP.net application.//
public static string Connect(
System.Web.SessionState.HttpSessionState session,
System.Net.ICredentials credential, string appName, string locale)
    {
    string url =
 System.Configuration.ConfigurationManager.AppSettings.Get("ServerUrl");

    WorkflowService svc = new WorkflowService(url);
    AdminService adm = new AdminService(url);
    System.Net.CookieContainer cookieContainer = new
    System.Net.CookieContainer();
    svc.Credentials = credential;
```

```
    svc.CookieContainer = cookieContainer;
    svc.SetClientAppName(appName);
    svc.SetClientLocale(locale);
    string userName = svc.CheckAuthenticated();
    adm.Credentials = credential;
    adm.CookieContainer = cookieContainer;
    adm.SetClientAppName(appName);
    adm.SetClientLocale(locale);

    //Assume the ASP.net is on session
    WFCommonPage.SetAdm(session, adm);
    WFCommonPage.SetAPI(session, api);

    //return fully qualified Domain username
    return userName;
    }
```

Supported Versions

3.2.0.4 and higher

Surrogate

API Type

Web Services

Description

IIS does not support users who do not use Windows Active Directory authentication. To address this issue, AgilePoint uses a special type of user called an impersonator. Impersonators enable client applications to authenticate end users who use Active Directory authentication, as well as those who do not.

Impersonators must meet the following requirements:

1. The impersonator must be a Windows Active Directory user to pass IIS authentication.
2. The impersonator must be registered on the AgilePoint Server. The registration can be done through Enterprise Manager.
3. The impersonator must be registered for the application under the Extension of AgilePoint Server Configuration. The application name is case sensitive.
4. The impersonator does not need to be the administrator for AgilePoint Server, or even have workflow execution rights on AgilePoint.

This Surrogate function allows the impersonator to act as a surrogate for the specified user to complete IIS authentication. Once the authentication has passed, the web service API will be called based on the rights granted to the specified user on AgilePoint Server.

This function is called before calling any other AgilePoint Web Service API.

Syntax

public virtual void Surrogate(string userName)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.

Output

None.

Example

```
public IWFWorkflowService GetWorkflowService(
System.Net.ICredentials credentials, string
username)
{
    IWFWorkflowService svc = GetAdm(credentials);
 svc.Surrogate(username);
 return svc;
}

//Web service using Impersonator credentials that is registered in the AgilePoint
 Server
//configuration with application name
public IWFWorkflowService GetWorkflowService(System.Net.ICredentials credentials)
{
 string url = … // AgilePoint Server web service Url
 System.Net.CookieContainer cookieContainer = new
 System.Net.CookieContainer();
 WFWorkflowService svc = new WFWorkflowService(url);
 svc.CookieContainer = cookieContainer;
 svc.Credentials = credentials;
 svc.SetClientAppName([your application name]);
 //Current Locale
 svc.SetClientLocale(Thread.CurrentThread.CurrentUICulture.Name);
 return svc;
}
```

Supported Versions

3.2.0.4 and higher

Surrogate With Application Name and Locale

API Type

Web Services

Description

This function is similar to Surrogate, with the ability to set the application name and locale at the same time.Calling the functions SetClientAppName and SetClientLocale is not needed if this function is called.

Syntax

public virtual void Surrogate(string userName, string AppName, string Locale)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.
AppName	Definition: Specifies the name of the application. Type string Allowed Values: A valid, case-sensitive application name.
Locale	Definition: Specifies the client locale. Type string Allowed Values: A valid locale in standardized format. Example:

Name	Description
	en-US

Output

None.

Example

```
public IWFWorkflowService GetWorkflowService(System.Net.ICredentials
credentials, string userName, string AppName, string Locale)
 {
    IWFWorkflowService svc = GetWorkflowService(credentials);
    svc.Surrogate(userName, surrogate AppName, surrogate Locale);
    return svc;
 }

public IWFAdminService GetWorkflowService(System.Net.ICredentials credentials)
 {
    //The body is the same as Surrogate
 }
```

Supported Versions

3.2.0.4 and higher

Set Client Application Name

API Type

Web Services

Description

This call is used to set the current application name. The application can be a web/Windows/Windows service application that calls the AgilePoint server for business process actions.

Syntax

public virtual void SetClientAppName(string AppName)

Parameters

Name	Description
AppName	Definition: Specifies the name of the application. Type string

Name	Description
	Allowed Values: A valid, case-sensitive application name.

Output

None.

Example

```
See previous example
```

Supported Versions

3.2.0.4 and higher

Set Client Locale

API Type

Web Services

Description

This call is used to set the locale for the client application that calls AgilePoint Server. A client application can be a web/Windows/Windows service application.

Syntax

public virtual void SetClientLocale(String Locale)

Parameters

Name	Type	Description
Locale	Definition: Specifies the client locale. Type string Allowed Values: A valid locale in standardized format. Example: en-US	

Output

None.

Example

```
None.
```

Supported Versions

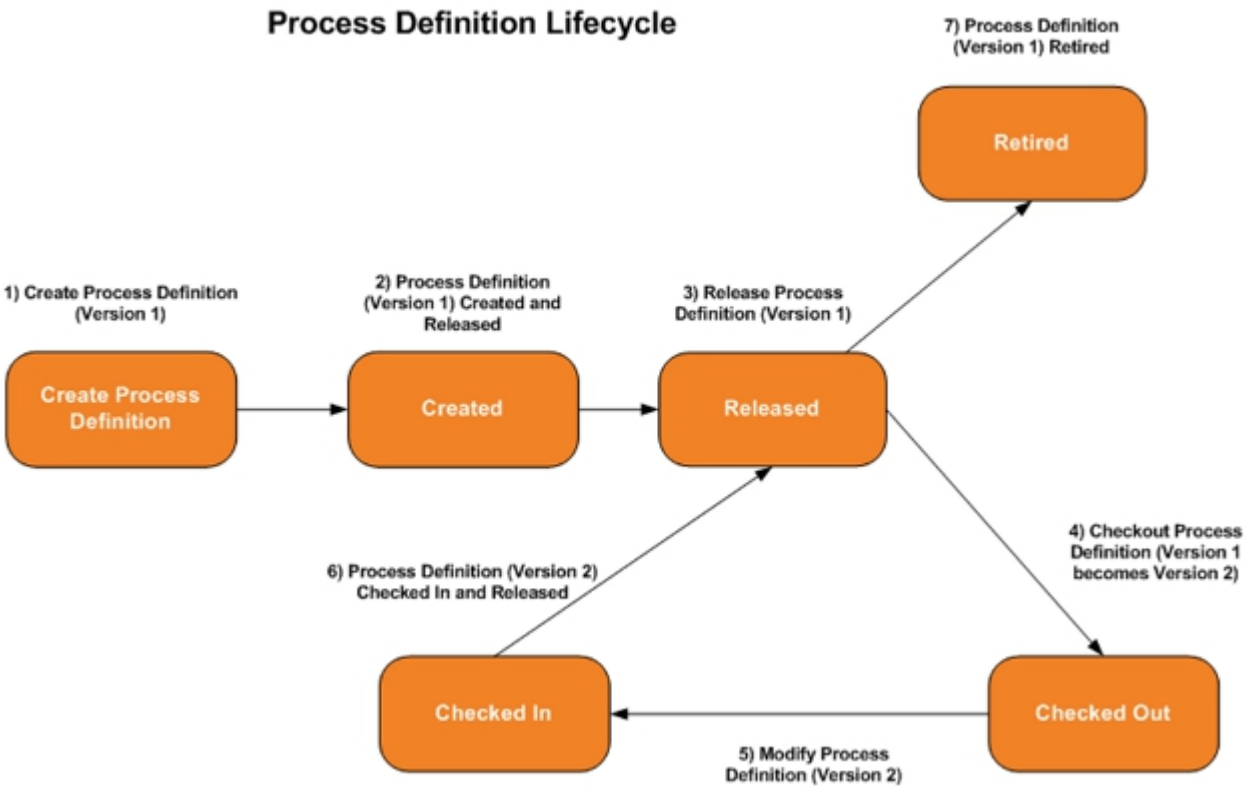
3.2.0.4 and higher

Process Definition Methods

This section describes how process definitions are managed. The AgilePoint server supports version control to ensure that process definitions are archived and maintained for later use. A process definition can spawn many process instances. Employing version controls allows the AgilePoint Server to store multiple versions of a single process definition.

The project lifecycle of a process definition can be defined by the following steps:

1. **Create Process Definition** – Create a process definition. The version for the initial process definition is version 1.
2. **Created** –Confirm that the process definition has been created.
3. **Release process definition** – Once a process definition has been created, it must be "released." This allows the process definition to be checked out and edited/modified.
4. **Check out process definition** – If changes or modifications are made, the process definition is "checked out." Changes can then be made to the process definition.
5. **Modify process definition** – After a process definition has been checked out, changes can be made to the process definition.
6. **Check in process definition** – Once all changes/modifications have been made, the process definition is checked in, so the changes are committed to the process definition. The process definition is now version 2.
7. **Retire process definition** – Once version 2 of the process definition has been checked in, the previous version 1 is retired. Retired process definitions can also be deleted.



CheckOut Process Definition

API Type

Web Services

Description

This method is used to manage process definition versioning by setting the process definition status to CheckedOut based on a given process definition ID. Only process definitions with the status of Released can transition into the CheckedOut status.

Syntax

public virtual string CheckoutProcDef(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The unique identifier for the process definition to be checked out for modification. Type

Name	Description
	string Allowed Values: A valid process template ID

Output

The process definition, in XML format, that has been checked out.

Example

```
IWFWorkflowService svc = GetWorkflowService();

try
 {
    string processTemplateID = … // process definition to be checked out
    stringprocessDefinitionXML =
    svc.CheckoutProcDef(processTemplateID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage( ex ) );
 }
```

Supported Versions

3.2.0.4 or higher

Check In Process Definition

API Type

Web Services

Description

Checks in the process definition to the AgilePoint Server and returns the process definition identifier. This method accepts a string with the updated process definition in XML format.

Syntax

public virtual string CheckinProcDef(string xml)

Parameters

Name	Description
xml	Definition: Specifies a process definition in XML format.

Name	Description
	To generate the process definition file in XML format, in AgilePoint Envision, click **File > Export & Import > Save As Deploying File(xml)**. You can also download the process definition XML from AgilePoint Enterprise Manager. Type string Allowed Values: A string that contains process definition in XML format.

Output

A new process definition ID.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string xml = …// Process definition XML as string
WFProcessDefinition pd = new WFProcessDefinition();
GraphicImage g = new GraphicImage();
ProcDefXmlParser parser = new ProcDefXmlParser(new
WFDefaultActivityInstantiator(), pd, g);
parser.Parse(xml);

if (release process definition immediately)
 {
    pd.ReleaseDate = DateTime.Now;
    pd.Version = .. // new version
    string procDefID = svc.CheckinProcDef( xml );
    svc.ReleaseProcDef(processDefinitionID);
 }

else if(release process definition at specific date in the future)
 {
    pd.ReleaseDate = …// a specific date in the future
    pd.Version = .. // new version
    string processDefinitionID = svc.CheckinProcDef( xml );
    svc.ReleaseProcDef(processDefinitionID);
    }

else // not release process definition
    {
    pd.ReleaseDate = Constants.NullDate;
    string processDefinitionID = svc.CheckinProcDef( xml );
 }
```

Supported Versions

3.2.0.4 or higher

Create Process Definition

API Type

Web Services

Description

Adds a new process definition to the AgilePoint Server.

Syntax

public virtual string CreateProcDef(string xml)

Parameters

Name	Description
xml	Definition: Specifies a process definition in XML format. To generate the process definition file in XML format, in AgilePoint Envision, click **File > Export & Import > Save As Deploying File(xml)**. You can also download the process definition XML from AgilePoint Enterprise Manager. Type string Allowed Values: A string that contains process definition in XML format.

Output

Unique ID of the process definition, which the AgilePoint system generates.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string xml = …// Process definition XML as string

if( set release date )
 {
    WFProcessDefinition pd = new WFProcessDefinition();
    GraphicImage g = new GraphicImage();
    ProcDefXmlParser parser = new ProcDefXmlParser(new
    WFDefaultActivityInstantiator(), pd, g);
    parser.Parse(xml);
```

```
    pd.ReleaseDate = DateTime.Now; //Set release date
    ProcDefXmlWriter w = new ProcDefXmlWriter(pd, g);
    xml = w.WriteTostring();
    string procDefID = svc.CreateProcDef(xml);
 }

else // not to release process template
 {
    string procDefID = svc.CreateProcDef(xml);
 }
```

Supported Versions

3.2.0.4 and higher

Delete Process Definition

API Type

Web Services

Description

Deletes the process definition and all of the process instances associated with the process definition. The process definition cannot be deleted if one or more process instances associated with the process definition is running or suspended. The function may take a long time to execute if there are many process instances associated with the process definition.

Syntax

public virtual void DeleteProcDef(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The unique identifier for the process definition to be checked out for modification. Type string Allowed Values: A valid process template ID

Output

None.

Example

```
IWFWorkflowService svc = GetWorkflowService();

string processTemplateID = ..// The unique identifier of the process definition to
 be deleted
svc.DeleteProcDef(processTemplateID);
```

Supported Versions

3.2.0.4 and higher

Get Base Process Definition ID

API Type

Web Services

Description

Retrieves the ID for the first version of the process definition, called the base process definition. All subsequent process definition versions have the same base process definition ID. This call retrieves the base process definition ID with the specified process definition name.

Syntax

public virtual string GetBaseProcDefID(string procDefName)

Parameters

Name	Description
procDefName	Definition: The name of the process definition. Type string Allowed Values: A single line of text.

Output

string that contains the base process definition ID.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string procDefName = "CreateRequest";
string baseProcessDefinitionID=
```

```
svc.GetBaseProcDefID(procDefName);
```

Supported Versions

3.2.0.4 and higher

Get Process Definition By Base Process Definition ID

API Type

Web Services

Description

Retrieves all process definitions by a specified base process definition ID.

Syntax

public virtual WFBaseProcessDefinition[] GetProcDefByBasePID(string baseprocessTemplateID)

Parameters

Name	Description
baseprocessTemplateID	Definition: The ID of the base process definition. Type string Allowed Values: A valid base process definition ID.

Output

Array of WFBaseProcessDefinition objects.

Example

```
// This is console application
IWFWorkflowService svc = GetWorkflowService();

//Base process definition ID.
string baseprocessTemplateID = … // for example "1e3d514d43d3465cae6ec3bbbd409168";

try
 {
    //Returns Array of WFBaseProcessDefinition for all versions of
    process definition WFBaseProcessDefinition[] processDefinitions =
    svc.GetProcDefByBasePID(baseprocessTemplateID);
    for (int i = 0; i < processDefinitions.Length; i++)
```

```
    {
       Console.WriteLine("Definition ID: '" + processDefinitions[i].DefID + "' ");
       Console.WriteLine("Definition Name: '" +
       processDefinitions[i].DefName + "' ");
    }
 }

catch (Exception ex)
 {
    Console.WriteLine(ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Process Definition Graphics

API Type

Web Services

Description

Retrieves graphical data for the process definition in XML format. The graphical representation of the process is XML-serialized by the class Graphic Image. The graphical data is used to display the process visually.

Syntax

public virtual string GetProcDefGraphics(string processID)

Parameters

Name	Description
processID	Definition: The process definition ID for a released process definition. Type string Allowed Values: A valid process definition ID.

Output

Graphics object in XML format.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();
//process definition ID or process instance ID
string processID = … // for example,
"42544811EC2D4FC18E6BA15CC9FE28DF";

try
 {
    //returns an image of a process definition as string.
    string procDefGraphicsXML = svc.GetProcDefGraphics(processID);
    GraphicImage g = new GraphicImage();
    g.FromXml(procDefGraphicsXML);
    byte[] images = g.Image // process image
    NamedRectangle[] shapes = g.Shapes;
 }

catch (Exception ex)
 {
    Console.WriteLine(ShUtil.GetSoapMessage(ex));
 }
/* This example produces the following results:
process definition Graphics:
<?xml version="1.0" encoding="utf-8"?><Graphics
left="3.33333333333333" right="5.76002857553708"
top="10.3848753378378" bottom="7"><Shapes><Shape
left="3.33333333333333" right="3.83333333333333"
top="10.3854166666667" bottom="9.88541666666667" name="Start"
/><Shape left="5.26041666666667"
right="5.76041666666667" top="7.5" bottom="7" name="Stop"
/><Shape left="4.30208333333333"
right="5.30208333333333" top="9.16666666666667"
bottom="8.66666666666667" name="Text File Writer.3"
/></Shapes><Image>@64R0lGODlh6QBFAXAAACwAAAAA6QB
FAYcAAAAMDAwkJCQsLCydAAClAACqAACuAACyAAC2AAC6AAC+\nAADCAADGAADK
AAA8PDzOAADSAA
.................\nTEGgS0+D2pKSHjUEWOzmRMPZljdstSBbQshYsxjRfu7xD
REAaV3vGgai7gAEaA3sj3bghhl2dbEN\nDAM5bsCFff6yI1uYAAZ8WtowAasI
wudCT76Yxw1tYQa9/W1ww8ADCmxp+/SHxwvUm4UYBGq02d2S\nWJwAf+brX/9H0ic
BCEbggcpuAAbuvO+YgBV8acwAwNO3PjK+j4EKZzhNwp1PZ4dvfBUAoMEjgHG
b\nBGNA0rYGa1W+cpazvMA32cOlMo6cgAAAOw==</Image></Graphics>
*/
```

Supported Versions

3.2.0.4 and higher

Get Process Definition Name and Version

API Type

Web Services

Description

Retrieves the process definition name and version.

Syntax

public virtual KeyValue GetProcDefNameVersion(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The process definition ID for a released process definition. Type string Allowed Values: A valid process definition ID.

Output

KeyValue object, where Key contains process definition name and Value contains version.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();

//process definition ID for a process.
string processTemplateID = … // for example "1e3d514d43d3465cae6ec3bbbd409168";

try
 {
    //Returns KeyValuepair, for example "process definition
    Name-process definition Version"
    KeyValue keyValue = _ svc.GetProcDefNameVersion(processTemplateID);
    Console.WriteLine("process definition Name: '" +
    keyValue.Key.Tostring() + "' ");
    Console.WriteLine("process definition Version: '" +
    keyValue.Value.Tostring() + "' ");
 }

catch (Exception ex)
 {
    Console.WriteLine( ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Process Definitions

API Type

Web Services

Description

Retrieves all of process definition objects.

Syntax

public virtual WFBaseProcessDefinition[] GetProcDefs()

Parameters

Name	Description
None	Not Applicable

Output

An array of WFBaseProcessDefinition objects.

Example

```
IWFWorkflowService svc = GetWorkflowService();

try
 {
    //Returns Array of WFBaseProcessDefinition type.
    WFBaseProcessDefinition[] processDefinitions = svc.GetProcDefs();
    for (int i = 0; i < processDefinitions.Length; i++)
        {
        Console.WriteLine("Definition ID: '" +
        processDefinitions[i].DefID + "' ");
        Console.WriteLine("Definition Name: '" +
        processDefinitions[i].DefName + "' ");
        }
 }

catch (Exception ex)
 {
    Console.WriteLine(ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Process Definition XML

API Type

Web Services

Description

Retrieves a process definition in XML format.

Syntax

public virtual string GetProcDefXml(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The process definition ID for a released process definition. Type string Allowed Values: A valid process definition ID.

Output

string that contains XML format of the process definition.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();
//process definition ID for a process.
string processTemplateID = ..// for example "42544811EC2D4FC18E6BA15CC9FE28DF";

try
 {
    //Returns process definition in XML format.
    string procDefXML = svc.GetProcDefXml(processTemplateID);
    Console.WriteLine("process definition XML: \n");
    Console.WriteLine(procDefXML);
 }

catch (Exception ex)
 {
    Console.WriteLine( ShUtil.GetSoapMessage(ex));
```

```
 }

/*
This example produces the following results:
process definition XML:
<?xml version="1.0" encoding="utf-8"
standalone="no"?>\n<?wfmc-xpdl xmlns="http://www.wfmc.org/2002/XPDL1.0"
xmlns:xpdl="http://www.wfmc.org/2002/XPDL1.0"
xsi:schemaLocation="http://www.wfmc.org/2002/XPDL1.0"?>\n<!--Process
Definition, Copyright 2003-2004 AgilePoint Inc., All
Rights Reserved.-->\n<ProcessDefinition
defName="TextFileWriterProcess" preVersion="" version="1.0"
description="" owner="Bipin.Shah" docRef=""
.................................\nTEGgS0+D2pKSHjUEWOzmRMPZljdstSBbQshYsxjRfu7
xDREAaV3vGgai7gAEaA3sj3bghhl2dbEN\nDAM5bsCFff6
yI1uYAAZ8WtowAasIwudCT76Yxw1tYQa9/W1ww8ADCmxp+/SHxwvUm4UYBGq02d2S\nWJwAf+brX/9H
0icBCEbggcpuAAbuvO+YgBV8acwAwNO3PjK+j4EKZzhNwp
1PZ4dvfBUAoMEjgHGb\nBGNA0rYGa1W+cpazvMA32cOlMo6cgAAAOw==</Image>\n
</Graphics>\n</ProcessDefinition>
*/
```

Supported Versions

3.2.0.4 and higher

Get Released Process Definition ID

API Type

Web Services

Description

Retrieves the released process definition ID by a specified process definition name.

Syntax

public virtual string GetReleasedPID(string procDefName)

Parameters

Name	Description
procDefName	Definition: The name of the process definition. Type string Allowed Values: A single line of text.

Output

The ID for the released process definition.

Example

```
//GetReleasedPID
IWFWorkflowService svc= GetWorkflowService();
string procDefName = "Budget Request Approval Process";
string processDefinitionID =
svc.GetReleasedPID(procDefName);
Console.WriteLine("Process definition ID=" + processDefinitionID);
```

Supported Versions

3.2.0.4 and higher

Get Released Process Definitions

API Type

Web Services

Description

Retrieves the names and IDs of all released process definitions.

Syntax

public virtual KeyValue[] GetReleasedProcDefs()

Parameters

Name	Description
None	Not Applicable

Output

KeyValue array for pairs of process definition IDs and process definition names.

Example

```
KeyValue[] defs = svc.GetReleasedProcDefs();
for (int i = 0; i < defs.Length; i++)
    {
    Console.WriteLine("Key=" + defs[i].Key.Tostring() + "************"+"Value=" +
 defs[i].Value.Tostring());
    }
```

Supported Versions

3.2.0.4 and higher

Release Process Definition

API Type

Web Services

Description

Releases a process definition from the AgilePoint Server.

Syntax

public virtual void ReleaseProcDef(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The unique identifier for the process definition to be checked out for modification. Type string Allowed Values: A valid process template ID

Output

None.

Example

```
//Sample for using Workflow.ReleaseProcDef using Console Application

try
 {
    IWFWorkflowService svc = GetWorkflowService();
    string processTemplateID = …
    svc.ReleaseProcDef(processTemplateID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage( ex ) );
```

```
 }
```

Supported Versions

3.2.0.4 and higher

Uncheckout Process Definition

API Type

Web Services

Description

Undoes a check-out for a process definition. This method returns the status of a process definition from CheckedOut to Released without making changes to the process definition, or changing the version number.

Syntax

public virtual void UnCheckOutProcDef(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The unique identifier for the process definition to be checked out for modification. Type string Allowed Values: A valid process template ID

Output

None.

Example

```
try
 {
 IWFWorkflowService svc = GetWorkflowService();
 string processTemplateID = …
 string processDefinitionXML =
svc.UncheckoutProcDef(processTemplateID);
 }

catch (Exception ex)
```

```
{
 Console.WriteLine("Message:\n" + ShUtil.GetSoapMessage( ex ) );
}
```

Supported Versions

3.2.0.4 and higher

Update Process Definition

API Type

Web Services

Description

Updates a process definition without using version control. This method is intended for minor changes only, such as typographical errors. Warning: Changes made using this method circumvent version control, meaning changes are not tracked, and versions cannot be managed. Do not use this call for making any major changes to the process definition.

Syntax

public virtual string UpdateProcDef(string xml)

Parameters

Name	Type	Description
xml	Definition: Specifies a process definition in XML format. To generate the process definition file in XML format, in AgilePoint Envision, click **File > Export & Import > Save As Deploying File(xml)**. You can also download the process definition XML from AgilePoint Enterprise Manager. Type string Allowed Values: A string that contains process definition in XML format.	

Output

Returns the unique identifier for the process definition that is updated.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();
string processDefinitionXML =..// see previous description of how to
get process definition XML

try
 {
    //Update Process definition using updated process xml string
    string processDefinitionID = svc.UpdateProcDef(xml);
 }

catch (Exception ex)
 {
    Console.WriteLine("Exception:" + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

4.0.1 and higher

Methods for Process Instances

This section describes service calls related to process instances.

Cancel Process Instance

API Type

Web Services

Description

Cancels the process instance based on a specified process instance identifier. This method cancels all automatic work items, manual work items, and child process instances.

Syntax

public virtual WFEvent CancelProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition:

Name	Description
	Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = ..// the ID of the process instance to be
canceled.

try
 {
    WFEvent evt = svc.CancelProcInst(processInstanceID);
 }

catch( Exception ex)
 {
    base.ShowMessage( base.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Create Process Instance

API Type

Web Services

Description

Creates a process instance for a specified process definition ID and parameters.

Syntax

public virtual WFEvent CreateProcInst(string ProcessID, string ProcessInstID, string ProcInstName, string WorkObjID, string SuperProcInstID, bool blnStartImmediately)

Parameters

Name	Description
ProcessID	Definition: The process definition ID for a released process definition. Type string Allowed Values: A valid process definition ID.
ProcessInstID	Definition: A process instance ID for the process instance you are creating. Type string Allowed Values: A unique, 32 character process instance ID. If you set this value to null, the AgilePoint Server generates the ID.
ProcInstName	Definition: A unique process name that is associated with the process definition. Type string Allowed Values: A unique process instance name up to 1024 characters.
WorkObjID	Definition: An ID for an object, such as a document, that is associated with the process instance. Type

Name	Description
	string Allowed Values: A valid, unique 256-character ID. Even though the field size is 256 characters, in common practice, this will usually return a 32-character GUID.
SuperProcInstID	Definition: A process instance ID that acts as a parent process instance of the process instance that is intended to create. In other words, this is the ID of the process instance on which you want to base your new process instance. Type string Allowed Values: A valid, unique 32-character process instance ID.
blnStartImmediately	Definition: An obsolete, legacy parameter that must be true. Type bool Allowed Values: True

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string processDefinitionName = "EmployeeOnboardProcess";

// get UUID of released process definition
string ProcessID = svc.GetReleasedPID(processDefinitionName);
```

```
// assign UUID of process instance
string ProcessInstID = UUID.GetID();

// process instance name that has to be unique within process definition ID
string ProcInstName = string.Format("{0}-{1}",
processDefinitionName DateTime.Now.Ticks );

// work object ID
string WorkObjID = UUID.GetID();

// create process instance
WFEvent event = svc.CreateProcInst(ProcessID, ProcessInstID, ProcInstName,
 WorkObjID, null, true);
```

Supported Versions

3.2.0.4 and higher

Create Process Instance (Extended with Initiator and Work Object Info)

API Type

Web Services

Description

Creates a process instance with a specified workObjtInfo value. The workObjInfo parameter provides additional information about a work object, such as a URL for a document.

Syntax

public virtual WFEvent CreateProcInstEx(string ProcessID, string ProcessInstID, string ProcInstName, string WorkObjID, string WorkObjInfo, string SuperProcInstID, string Initiator, string CustomID, NameValue[] Attributes, bool blnStartImmediately)

Parameters

Name	Description
ProcessID	Definition: The process definition ID or process template name for a released process definition. Type string Allowed Values: A valid process definition ID or process template name.

Name	Description
ProcessInstID	Definition: A process instance ID for the process instance you are creating. Type string Allowed Values: A unique, 32 character process instance ID. If you set this value to null, the AgilePoint Server generates the ID.
ProcInstName	Definition: A unique process name that is associated with the process definition. Type string Allowed Values: A unique process instance name up to 1024 characters.
WorkObjID	Definition: An ID for an object, such as a document, that is associated with the process instance. Type string Allowed Values: A valid, unique 256-character ID. Even though the field size is 256 characters, in common practice, this will usually return a 32-character GUID.
WorkObjInfo	Definition: Usually this parameter is used to hold supplemental information about the work object, such as a URL for a document, within the process instance. Type string Allowed Values:

Name	Description
	A string up to 1024 characters.
SuperProcInstID	Definition: A process instance ID that acts as a parent process instance of the process instance that is intended to create. In other words, this is the ID of the process instance on which you want to base your new process instance. Type string Allowed Values: A valid, unique 32-character process instance ID.
Initiator	Definition: Specifies the user who initiates a process. Type string Allowed Values: A valid user name.
CustomID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
Attributes	Definition: Name-value pairs associated with a custom ID. Type NameValue Allowed Values: A valid custom ID with an associated name.
blnStartImmediately	Definition: An obsolete, legacy parameter that must be true.

Name	Description
	Type bool Allowed Values: True

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
… see previous sample
string workObjectInfo = ..// for example, a XML-serialized of an object
WFEvent evt = svc.CreateProcInstEx(
                  ProcessID,
                  ProcessInstID,
                  ProcInstName,
                  WorkObjID,
                  WorkObjInfo,
                  parentProcessInstID,
                  Initiator,
                  WorkObjID,
                  ds.ToArray(),
                  true);
```

Supported Versions

4.0.1 and higher

Create Process Instance (Extended with Initiator)

API Type

Web Services

Description

Creates a process instance in which the user name for the user who initiates the process is specified.

Syntax

public virtual WFEvent CreateProcInstEx(string ProcessID, string ProcessInstID, string ProcInstName, string WorkObjID, string SuperProcInstID, string Initiator, string CustomID, NameValue[] Attributes, bool blnstartImmediately)

Parameters

Name	Description
ProcessID	Definition: The process definition ID or process template name for a released process definition. Type string Allowed Values: A valid process definition ID or process template name.
ProcessInstID	Definition: A process instance ID for the process instance you are creating. Type string Allowed Values: A unique, 32 character process instance ID. If you set this value to null, the AgilePoint Server generates the ID.
ProcInstName	Definition: A unique process name that is associated with the process definition. Type string Allowed Values: A unique process instance name up to 1024 characters.
WorkObjID	Definition: An ID for an object, such as a document, that is associated with the process instance.

Name	Description
	Type string Allowed Values: A valid, unique 256-character ID. Even though the field size is 256 characters, in common practice, this will usually return a 32-character GUID.
SuperProcInstID	Definition: A process instance ID that acts as a parent process instance of the process instance that is intended to create. In other words, this is the ID of the process instance on which you want to base your new process instance. Type string Allowed Values: A valid, unique 32-character process instance ID.
Initiator	Definition: Specifies the user who initiates a process. Type string Allowed Values: A valid user name.
CustomID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
Attributes	Definition: Name-value pairs associated with a custom ID. Type NameValue

Name	Description
	Allowed Values: A valid custom ID with an associated name.
blnStartImmediately	Definition: An obsolete, legacy parameter that must be true. Type bool Allowed Values: True

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
… see previous sample
string Initiator = ..// System.Environment.UserName
WFEvent evt = svc.CreateProcInstEx(
                  ProcessID,
                  ProcessInstID,
                  ProcInstName,
                  WorkObjID,
                  parentProcessInstID,
                  Initiator,
                  WorkObjID,
                  ds.ToArray(),
                  true);
```

Supported Versions

3.2.0.4 and higher

Create Process Instance (Extended Method)

API Type

Web Services

Description

Creates a process instance that can have additional input arguments added to the function.

Syntax

public virtual WFEvent CreateProcInstEx(string ProcessID, string ProcessInstID, string ProcInstName, string WorkObjID, string SuperProcInstID, string CustomID, NameValue[] Attributes, bool blnstartImmediately)

Parameters

Name	Description
ProcessID	Definition: The process definition ID or process template name for a released process definition. Type string Allowed Values: A valid process definition ID or process template name.
ProcessInstID	Definition: A process instance ID for the process instance you are creating. Type string Allowed Values: A unique, 32 character process instance ID. If you set this value to null, the AgilePoint Server generates the ID.
ProcInstName	Definition: A unique process name that is associated with the process definition. Type string Allowed Values: A unique process instance name up to 1024 characters.

Name	Description
WorkObjID	Definition: An ID for an object, such as a document, that is associated with the process instance. Type string Allowed Values: A valid, unique 256-character ID. Even though the field size is 256 characters, in common practice, this will usually return a 32-character GUID.
SuperProcInstID	Definition: A process instance ID that acts as a parent process instance of the process instance that is intended to create. In other words, this is the ID of the process instance on which you want to base your new process instance. Type string Allowed Values: A valid, unique 32-character process instance ID.
CustomID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
Attributes	Definition: Name-value pairs associated with a custom ID. Type NameValue Allowed Values: A valid custom ID with an associated name.
blnStartImmediately	Definition:

Name	Description
	An obsolete, legacy parameter that must be true. Type bool Allowed Values: True

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string processDefinitionName = "EmployeeOnboardProcess";

// get UUID of released process definition
string ProcessID =
svc.GetReleasedPID(processDefinitionName);

// assign UUID of process instance
string ProcessInstID = UUID.GetID();

// process instance name that has to be unique within process definition ID
string ProcInstName = string.Format("{0}-{1}",
processDefinitionName DateTime.Now.Ticks );

// work object ID
string WorkObjID = UUID.GetID();
//parent process instance ID is required if this is to create a sub
process. If not, just provide null
string SuperProcInstID = .. // for example,
"09315f0ae769429bbfb243f888bcb09f" or null
List<NameValue> ds = new List<NameValue>();
ds.Add(new NameValue("CustomAttrKey1", "CustomAttrValue1"));
ds.Add(new NameValue("CustomAttrKey2", true));
ds.Add(new NameValue("CustomAttrKey3", 12345));
WFEvent evt = svc.CreateProcInstEx(
                  ProcessID,
                  ProcessInstID,
                  ProcInstName,
                  WorkObjID,
                  SuperProcInstID,
                  WorkObjID,
                  ds.ToArray(),
                  true);
```

Supported Versions

3.2.0.4 and higher

Delete Process Instance

API Type

Web Services

Description

Deletes a process instance. This method removes the specified process instance and all the associated data from the database, such as work items, email, and activity instances associated with this process instance. It may take some time to complete this transaction.

Syntax

public void DeleteProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

None.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = ..// the ID of the process instance to be
canceled.

try
 {
    WFEvent evt = svc.DeleteProcInst(processInstanceID);
 }

catch( Exception ex)
 {
```

```
    base.ShowMessage( base.GetSoapMessage(ex));
 }
```

Supported Versions

4.0.1 and higher

Get Events By Process Instance ID

API Type

Web Services

Description

Retrieves all the events that have occurred for a specified process instance.

Syntax

public virtual WFEvent[] GetEventsByProcInstID(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

An array of WFEvent objects.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = … // process instance ID

try
 {
    WFEvent[] events = svc.GetEventsByProcInstID(processInstanceID);
    for (int i = 0; i < events.Length; i++)
        {
        Console.WriteLine("Event ID: '" + events[i].EventID + "' ");
        Console.WriteLine("Event Name: '" + events[i].EventName + "'");
        }
```

```
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Process Instance

API Type

Web Services

Description

Retrieves basic information about a specified process instance.

Syntax

public virtual WFBaseProcessInstance GetProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

WFBaseProcessInstance object that contains basic information about a process instance. It returns null if the process instance ID does not exist.

Example

```
// This is sample code for console application
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = …// process instance ID

try
 {
```

```
    //Returns an instance of WFBaseProcessInstance type.
    WFBaseProcessInstance processInstance =
    svc.GetProcInst(processInstanceID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Process Instance Attribute

API Type

Web Services

Description

Retrieves a single attribute for a specified process instance.

Syntax

public virtual KeyValue GetProcInstAttr(string processInstanceID, string attributeName)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID
attributeName	Definition: The name of the process instance attribute you want. Type string Allowed Values: • **DefID** - The ID of the process definition.

Name	Description
	• **DefName** - The name of the process definition. • **ProcInstName** - The name of the process instance. • **Status** - The current status of the process instance. • **SuperProcInstID** - The parent process instance ID. • **workObjectID** - The ID of the work object. • **StartDate** - The date and time when the process instance was started. • **DueDate** - The date that the process instance is expected to be complete. • **LastModifiedDate** - The date and time that the last modification was made to the process instance.

Output

Returns the KeyValue for the attribute associated with the process instance as a name-value" pair.

Example

```
//This is console application sample
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = …// for example,
"1e3d514d43d3465cae6ec3bbbd409168";
string attributeName = "DefName";

try
    {
    //Returns attribute associated with the Process Instance as
    "Name-Value" pair.
    KeyValue processInstanceAttribute =
    svc.GetProcInstAttr(processInstanceID, attributeName);
    Console.WriteLine("{0}={1}", processInstanceAttribute.Name,+
    processInstanceAttribute.Value);
    }

catch (Exception ex)
    {
    Console.WriteLine(ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Process Instance Attributes

API Type

Web Services

Description

Retrieves multiple attributes of a process instance.

Syntax

public virtual NameValue[] GetProcInstAttrs(String processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: A process instance ID for the process instance you are creating. Type string Allowed Values: A unique, 32 character process instance ID. If you set this value to null, the AgilePoint Server generates the ID.

Attributes

Name	Description
DefID	The ID of the process definition.
DefName	The name of the process definition.
ProcInstName	The name of the process instance.
Status	The current status of the process instance.
SuperProcInstID	The parent process instance ID.
workObjectID	The ID of the work object.
StartDate	The date and time when the process instance was started.

Name	Description
DueDate	The date that the process instance is expected to be complete
LastModifiedDate	The date and time that the last modification was made to the process instance.

Output

Array of NameValue objects that holds the values of all the requested attributes.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = …// process instance ID
NameValue[] attributes = svc.GetProcInstAttrs(processInstanceID);
for (int i = 0; i < attributes.Length; i++)
 {
    NameValue nv = attributes[i];
    Console.WriteLine("Process Instance Attribute, {0}={1}", nv.Name, nv.Value);
 }
```

Supported Versions

3.2.0.4 and higher

Merge Process Instances

API Type

Web Services

Description

Merges 2 or more process instances into one process instance.

These process instances should be based on the same process definition.

Syntax

public virtual string MergeProcInsts(WFProcessMergingInstruction instruction)

Parameters

Name	Description
instruction	Definition: Specifies the instructions for merging two process instances. Type

Name	Description
	WFProcessMergingInstruction Allowed Values: A WFProcessMergingInstruction object.

Output

The process instance ID of the merged process instance.

Example

```
string MergeProcessInstances(IWFWorkflowService svc, string[]
processInstanceIDs)
 {
    IWFWorkflowService svc = GetWorkflowService();

    // suspends all of process instances to be merged.
    foreach (string id in processInstanceIDs)
        {
        svc.SuspendProcInst(id);
        }

    // query process instances
    string inExpr = ShUtil.Merge(processInstanceIDs, true);
    WFQueryExpr queryExpr = new WFQueryExpr("PROC_INST_ID", SQLExpr.IN,
    WFAny.Create(inExpr), true);
    WFBaseProcessInstance[] pis = svc.QueryProcInsts(queryExpr);

    // merge custom attributes
    NameValue[] mergedCustomAttributes = GetMergeCustomAttributes(api, pis);
    string procInstID = UUID.GetID();
    string procInstName = pis[0].DefName + "_" + DateTime.Now.Tostring()
    + " - Merged";
    string workObjectID = procInstID + " - Merged";

    WFProcessMergingInstruction instruction = new
    WFProcessMergingInstruction();
    instruction.MergingProcessInstanceIDs = processInstanceIDs;
    instruction.MergedProcessInstance = new
    WFProcessMergingInstruction.MergedProcessParameter(
                  procInstID,
                  procInstName,
                  workObjectID,
                  null,
                  mergedCustomAttributes);
    instruction.Validate();
    return svc.MergeProcInsts(instruction);
 }

// sample code for merging custom attributes
private NameValue[] GetMergeCustomAttributes(IWFWorkflowService svc,
WFBaseProcessInstance[] pis)
 {
    List<string> workObjectIDs = new List<string>();
    foreach (WFBaseProcessInstance pi in pis)
        {
```

```
        workObjectIDs.Add(pi.WorkObjectID);
        }
    KeyValue[] items = svc.GetCustomAttrsEx(workObjectIDs.ToArray());
    Dictionary<string, System.Xml.XmlDocument> dss =
    new Dictionary<string, System.Xml.XmlDocument>();
    foreach (KeyValue item in items)
        {
        WFCustomAttributes ds = new WFCustomAttributes();
        ds.AttrXml = item.Value;
        System.Xml.XmlDocument xmlDoc = new System.Xml.XmlDocument();
        xmlDoc.LoadXml(ds["//"] as string);
        dss[item.Key] = xmlDoc;
        }
    // master processInstanceID and workObjectID
    string masterProcessInstanceID = pis[0].ProcInstID;
    string masterWorkObjectID = pis[0].WorkObjectID;
    System.Xml.XmlDocument masterXmlDoc = dss[masterWorkObjectID];
    System.Xml.XmlNamespaceManager nsm =
    ShUtil.GetNamespaces(masterXmlDoc);
    System.Xml.XmlNode titleNode =
    masterXmlDoc.SelectSingleNode("/pd:issueTracking/pd:issueTitle", nsm);
    titleNode.InnerText = "Title - Merged";
    System.Xml.XmlNode descriptionNode =

    masterXmlDoc.SelectSingleNode("/pd:issueTracking/pd:description", nsm);
    descriptionNode.InnerText = "Description - Merged";
    System.Xml.XmlNode parent =
    masterXmlDoc.SelectSingleNode("/pd:issueTracking/pd:Persons", nsm);

    // merge rest of children
    foreach (string key in dss.Keys)
        {
        if (key == masterWorkObjectID) continue;
        System.Xml.XmlDocument secondaryXmlDoc = dss[key];
        System.Xml.XmlNamespaceManager nsmgr =
        ShUtil.GetNamespaces(secondaryXmlDoc);
        System.Xml.XmlNode node =
        secondaryXmlDoc.SelectSingleNode("/pd:issueTracking/pd:Persons", nsmgr);
        parent.InnerXml += node.InnerXml;
        }
    return NameValue.Array("//", masterXmlDoc.OuterXml);
 }

#endregion
```

Supported Versions

4.5 and higher

Migrate Process Instances

API Type

Web Services

Description

Migrates a process definition from one version to another version.

Syntax

public virtual void MigrateProcInst(WFProcessMigrationInstruction instruction, string processInstanceID, string reserved)

Parameters

Name	Description
instruction	Definition: Specifies the instructions for migrating a process to a new version. Type WFProcessMigrationInstruction Allowed Values: A WFProcessMigrationInstruction object.
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID
reserved	Definition: Reserved for future use. Type string Allowed Values: The literal string **null**. You must pass this as a literal string at this time. This field will be used for other purposes in a later release.

Output

```
IWFWorkflowService svc = GetWorkflowService();
WFProcessMigrationInstruction pmi = new
WFProcessMigrationInstruction();

// some code...
```

```
svc.MigrateProcInst(pmi, currentProcessInstanceID, null);

// some more code...
```

Example

```
IWFWorkflowService svc = GetWorkflow();
string processInstanceID = "DB50CFEFDE464A78AAAA9BD7D6E6D9D0";
WFProcessMigrationInstruction pmi = new
WFProcessMigrationInstruction();

//add the correct CurrentActivityUniqueName
string currentActivityUniqueName = "BudgetRequest";

//add the correct TargetActivityUniqueName
string targetActivityUniqueName = "BudgetRequestNew";
bool bCurrentActivated = false;
pmi.AddMatchingActivity(currentActivityUniqueName,targetActivityUniqueName,
bCurrentActivated);
svc.MigrateProcInst(pmi, currentProcessInstanceID, null);
```

Supported Versions

4.0.1 and higher

Promote Process Instance

API Type

Web Services

Description

Promotes a process instance. This method is obsolete.

Syntax

public virtual WFEvent PromoteProcInst(String processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: A process instance ID for the process instance you are creating. Type string Allowed Values: A unique, 32 character process instance ID.

Name	Description
	If you set this value to null, the AgilePoint Server generates the ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
None.
```

Supported Versions

3.2.0.4 and higher

Query Process Instances

API Type

Web Services

Description

Retrieves a list of process instances that match a specified query expression. The WFQueryExpr string is used to generate a query expression, and the client application specifies the query terms.

Syntax

public virtual WFBaseProcessInstance[] QueryProcInsts(WFQueryExpr expr)

Parameters

Name	Description
expr	Definition: Specifies the where clause of a SQL query expression. Type WFQueryExpr

Name	Description
	Allowed Values: A valid WFQueryExpr object.

Output

An array of WFBaseProcessInstance objects. It returns null if nothing matches to the query expression.

Example

```
IWFWorkflowService svc = GetWorkflowService();

// query all running process instance
string status = WFProcessInstance.RUNNING;
WFAny any = WFAny.Create(status);
WFQueryExpr expr = new WFQueryExpr("STATUS", SQLExpr.EQ, any, true);

try
 {
    // Calling the QueryProcInsts WebMethod, passing the expression as the
 argument.
    WFBaseProcessInstance[] result = svc.QueryProcInsts(expr);

    if (result != null)
        {
        // Iterating through the list of the Process Instance
        foreach (WFBaseProcessInstance processInstance in result
            {
            //Displaying the Process Instance Details on Console.
            Console.WriteLine("ApplName-->" +
            processInstance.ApplName);
            Console.WriteLine("DefName-->" + processInstance.DefName);
            Console.WriteLine("DefID-->" + processInstance.DefID);
            Console.WriteLine("CompletedDate-->" +
            processInstance.CompletedDate);
            Console.WriteLine("LastModifiedBy-->" +
            processInstance.LastModifiedBy);
            }
        }
 }

catch(Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Query Process Instances (Extended Method)

API Type

Web Services

Description

Retrieves a list of process instances with a SQL query expression specified by the client application.

Syntax

public virtual WFBaseProcessInstance[] QueryProcInstsEx(string sqlWhereClause)

Parameters

Name	Description
sqlWhereClause	Definition: The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

An array ofWFBaseProcessInstance objects. It returns null if nothing matches the SQL query expression.

Example

```
// Console application sample code to illustrate QueryProcInstsEx API.
IWFWorkflowService svc = GetWorkflowService();

// SQL Expression
string sqlWhereClause = "STATUS in ('Running','Canceled')";

try
 {
    //Calling QueryProcInstsEx WebMethod with sql query expression as argument.
    WFBaseProcessInstance[] result = svc.QueryProcInstsEx(where);

    if (result != null)
        {
        // Iterating through the list of the Process Instance
        foreach (WFBaseProcessInstance processInstance in result
            {
```

```
            //Displaying the Process Instance Details on Console.
            Console.WriteLine("ApplName-->" + processInstance.ApplName
            Console.WriteLine("DefName-->" + processInstance.DefName);
            Console.WriteLine("DefID-->" + processInstance.DefID);
            Console.WriteLine("CompletedDate-->" +
            processInstance.CompletedDate);
            Console.WriteLine("LastModifiedBy-->" +
            processInstance.LastModifiedBy);
            }
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Resume Process Instance

API Type

Web Services

Description

Resumes a suspended process instance. The process instance status is changed to running, and the statuses of all the work items (tasks) become Active.

Syntax

public virtual WFEvent ResumeProcInst(String processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();

try
 {
    string processInstanceID = …// process instance to be suspended.
    WFEvent event = svc.ResumeProcInst(processInstanceID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed: " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Rollback Process Instance

API Type

Web Services

Description

Rolls a process instance back to a previous specified activity, or skips a specified activity if has not yet been completed. When this method is invoked, the current or skipped activity becomes canceled. When skipping, the process moves forward regardless of the activity's status.

Syntax

public virtual WFEvent RollbackProcInst(String activityInstanceID)

Parameters

Name	Description
activityInstanceID	Definition:

Name	Description
	The unique ID for an activity instance. Type string Allowed Values: A valid activity instance ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
//This is console application sample
IWFWorkflowService svc = GetWorkflowService();
string activityInstanceID = ..// target activity instance to roll back

try
 {
    WFEvent evt = workflowService.RollbackProcInst(activityInstanceID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Split Process Instance

API Type

Web Services

Description

Splits one process instance into 2 or more process instances. The original process is canceled.

Syntax

public virtual string[] SplitProcInst(WFProcessSplittingInstruction instruction)

Parameters

Name	Description
instruction	Definition: Specifies the instructions for splitting a process instance. Type WFProcessSplitting Allowed Values: A WFProcessSplitting object.

Output

A collection of strings that contain the process instance IDs for the process instances that were created from the split.

Example

```
// This is console application sample
public string[] SplitProcessInstance(string processInstanceID)
 {
    IWFWorkflowService svc = GetWorkflowService();
    WFBaseProcessInstance processInstance =
    svc.GetProcInst(processInstanceID);
    WFCustomAttributes ds = ds = new
    WFCustomAttributes(processInstance.WorkObjectID);
    ds.AttrXml = svc.GetCustomAttrs(processInstance.WorkObjectID);
    string xml = ds["//"] as string;
    Console.WriteLine("Splitting custom attributes ...");
    List<NameValue[]> splittedCustomAttributes =
    GetSplittedCustomAttributes(xml);
    WFProcessSplittingInstruction instruction;
    instruction = new WFProcessSplittingInstruction();
    instruction.SplittingProcessInstanceID = procInstID;
    List<string> workObjectIDs = new List<string>();
    for (int i = 0; i < splittedCustomAttributes.Count; ++i)
        {
        string SplittingProcessInstanceID = UUID.GetID();
        string splittedProcInstName = string.Format("{0} - Splitted -
     {1}", pi.ProcInstName, i + 1);
        string splittedWorkObjectID = string.Format("{0} - Splitted -
     {1}", pi.WorkObjectID, i + 1);
        instruction.Add(
        SplittingProcessInstanceID,
        splittedProcInstName,
        splittedWorkObjectID,
```

```
        null,
        splittedCustomAttributes[i]);
        }
    instruction.Validate();
    Console.WriteLine("Suspending process instance...");
    svc.SuspendProcInst(procInstID);
    System.Threading.Thread.Sleep(1000);
    string[] ids = svc.SplitProcInst(instruction);
    return ids;
 }

// function to split custom attributes
private List<NameValue[]> GetSplittedCustomAttributes(string xml)
 {
    System.Xml.XmlDocument xmlDoc = new System.Xml.XmlDocument();
    xmlDoc.PreserveWhitespace = true; xmlDoc.LoadXml(xml);
    System.Xml.XmlNamespaceManager nsm = ShUtil.GetNamespaces(xmlDoc);
    System.Xml.XmlNode parent =
    xmlDoc.SelectSingleNode("/pd:issueTracking/pd:Persons", nsm);

    // split repeating notes - 'pd:issueTracking/pd:Persons/pd:Person'
    System.Xml.XmlNodeList nodes = parent.SelectNodes("pd:Person", nsm);

    if (nodes == null || nodes.Count < 2)
    {
       throw new InvalidOperationException("Failed to get splitted
       customAttributes,
             'pd:issueTracking/pd:Persons/pd:Person' does not have
       multiple node.");
    }

    // remove child nodes
    System.Xml.XmlNode titleNode =
    xmlDoc.SelectSingleNode("/pd:issueTracking/pd:issueTitle", nsm);
    string title = titleNode.InnerText;
    System.Xml.XmlNode descriptionNode =
    xmlDoc.SelectSingleNode("/pd:issueTracking/pd:description", nsm);
    string description = descriptionNode.InnerText;
    List<NameValue[]> splittedCustomAttributes = new
    List<NameValue[]>();
    for( int i = 0; i < nodes.Count; ++i)
    {
       //change title
       titleNode.InnerText = title + "-Splitted-" + i;
       descriptionNode.InnerText = description + "- Splitted-" + i;
       parent.RemoveAll();
       parent.AppendChild(nodes[i]);
       splittedCustomAttributes.Add( NameValue.Array("//",
       xmlDoc.OuterXml) );
    }
    return splittedCustomAttributes;
 }
```

Supported Versions

4.5 and higher

Start Process Instance

API Type

Web Services

Description

Starts a process instance that is not set to start immediately on creation. This method is obsolete.

Syntax

public virtual WFEvent StartProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
None.
```

Supported Versions

3.2.0.4 and higher

Suspend Process Instance

API Type

Web Services

Description

Suspends a process instance. The process instance status is changed to Suspended, and the statuses of all the work items (tasks) become Pending.

Syntax

public virtual WFEvent SuspendProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();

try
 {
    string processInstanceID = …// process instance to be suspended.
    WFEvent event = svc.SuspendProcInst(processInstanceID);
 }
```

```
catch (Exception ex)
 {
    Console.WriteLine("Failed: " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Process Instance

API Type

Web Services

Description

Updates attributes of a workflow process instance. The attributes that can be updated are listed in the attribute table.

Syntax

public void UpdateProcInst(string processInstanceID, NameValue[] attributes)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID
attributes	Definition: Name-value pairs associated with a custom ID. Type NameValue Allowed Values: A valid custom ID with an associated name.

Attributes

Name	Description
ProcInstName	The name of the process instance.
DueDate	The date that the process instance is expected to be complete
workObjectID	The ID of the work object.

Output

None.

Example

```
// This is console application sample to update process instance name
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = … // process instance ID
string newProccessInstanceName = "[new process instance name]";
DateTime newDueDate = DateTime.Now.AddDays(7.0);

try
 {
    WFBaseProcessInstance inst = svc.GetProcInst(processInstanceID);
    NameValue[] attributes = new NameValue[]
        {
       new NameValue("ProcInstName", newProccessInstanceName),
       new NameValue("DueDate", newDueDate)),
        };

    // update process instance
    svc.UpdateProcInst(processInstanceID, attributes);

    // check if it has been updated.
    string processInstanceName =
    svc.GetProcInst(processInstanceID).ProcInstName;
    Console.WriteLine("New Process Instance Name= '{0}",
    processInstanceName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Methods for Activity Instances

This section describes service calls related to activity instances.

Cancel Activity Instance

API Type

Web Services

Description

Cancels a manual activity instance along with all manual work items associated with the specified manual activity instance ID. Note that an activity instance can be associated with one or more manual work items. Once the manual activity instance is canceled, the process instance will move forward to the next activity.

Syntax

public virtual WFEvent CancelActivityInst(string activityInstanceID)

Parameters

Name	Description
activityInstanceID	Definition: The unique ID for an activity instance. Type string Allowed Values: A valid activity instance ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string activityInstanceID = …// activity instance needs to be
canceled.

try
    {
    WFEvent evt = svc.CancelActivityInst(activityInstanceID);
```

```
    }

catch(Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Activity Instance

API Type

Web Services

Description

Retrieves basic information for a specified activity instance.

Syntax

public virtual WFBaseActivityInstance GetActivityInst(string activityInstanceID)

Parameters

Name	Description
activityInstanceID	Definition: The unique ID for an activity instance. Type string Allowed Values: A valid activity instance ID.

Output

WFBaseActivityInstance object.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string activityInstanceID = ..// activity instance

try
 {
    WFBaseActivityInstance activityInstance =
    _svc.GetActivityInst(activityInstanceID);
```

```
    Console.WriteLine("DisplayName" + activityInstance.DisplayName);
    Console.WriteLine("ID" + activityInstance.ID);
    Console.WriteLine("CompletedDate" + activityInstance.CompletedDate);
    Console.WriteLine("DueDate" + activityInstance.DueDate);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Activity Instance Status

API Type

Web Services

Description

Retrieves all the status of all activity instances for a specified process instance.

Syntax

public virtual KeyValue[] GetActivityInstStatus(string procInstID)

Parameters

Name	Description
procInstID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

An array of KeyValue objects that holds pairs of activity definition names and statuses. The statuses can be Passed, Active, Pending, Activated, Canceled, or null.

Example

```
// This is console application sample.
IWFWorkflowService svc = GetWorkflowService();
```

```
string procInstID = ..// for example, "02C3FA88ADE04750A34B5B3168C25793";

try
 {
    KeyValue[] resultList = svc.GetActivityInstStatus(procInstID);
    foreach (KeyValue result in resultList)
    {
       System.Console.WriteLine("Activity Definition ID: '{0}'",result.Key);
       System.Console.WriteLine("Status: '{0}'",
       result.Value);
    }
 }

catch( Exception ex )
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Activity Instances By Process Instance ID

API Type

Web Services

Description

Retrieves the status of all activity instances for a specified process instance.

Syntax

public virtual WFBaseActivityInstance[] GetActivityInstsByPIID(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

An array of WFBaseActivityInstance objects.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = ..//"02C3FA88ADE04750A34B5B3168C25793";

try
 {
    WFBaseActivityInstance[] activityInstance =
    svc.GetActivityInstsByPIID(processInstanceID);
    foreach (WFBaseActivityInstance activity in activityInstance)
        {
        System.Console.WriteLine("Activity DispalyName: '{0}'",
 activity.DisplayName);
        System.Console.WriteLine("CompletedDate: '{0}'", activity.CompletedDate);
     }
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex) );
    }
```

Supported Versions

3.2.0.4 and higher

Query Activity Instances

API Type

Web Services

Description

Retrieves activity instances that match a query expression.

Syntax

public virtual WFBaseActivityInstance[] QueryActivityInsts(WFQueryExpr expr)

Parameters

Name	Description
expr	Definition: Specifies the where clause of a SQL query expression.

Name	Description
	Type WFQueryExpr Allowed Values: A valid WFQueryExpr object.

Output

An array of WFBaseActivityInstance objects.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = …
WFAny any = WFAny.Create(processInstanceID);
WFQueryExpr expr = new WFQueryExpr("PROC_INST_ID", SQLExpr.IN, any,
true);

try
 {
    WFBaseActivityInstance[] ais = svc.QueryActivityInsts(expr);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Rollback Activity Instance

API Type

Web Services

Description

Rolls back a manual activity instance to the token position EN – that is, the state where the activity is entered. All work items associated with the manual activity instance with the status of NEW, OVERDUE, or ASSIGNED are canceled.

Syntax

public virtual WFEvent RollbackActivityInst(string activityInstanceID)

Parameters

Name	Description
activityInstanceID	Definition: The unique ID for an activity instance. Type string Allowed Values: A valid activity instance ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();
string activityInstanceID = …

try
  {
  //Rolling back the activity instance
  WFEvent evt = svc.RollbackActivityInst(activityInstanceID);
  }

catch (Exception ex)
  {
  Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
  }
```

Supported Versions

3.2.0.4 and higher

Rollback Activity Instances

API Type

Web Services

Description

Rolls back a process instance according to a specified instruction. The class WFPartialRollbackInstructionis used to specify detailed information about the instruction.

Syntax

public virtual WFEvent RollbackActivityInsts(WFPartialRollbackInstruction instruction)

Parameters

Name	Description
instruction	Definition: Specifies the instructions for the partial rollback. Type WFPartialRollbackInstruction Allowed Values: A WFPartialRollbackInstruction object.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
//Sample for partial rollback
IWFWorkflowService svc = GetWorkflowService();

// PartialRollback unit
WFPartialRollbackInstruction.PartialRollbackUnit unit1 =
       new WFPartialRollbackInstruction.PartialRollbackUnit();
unit1.DestinationActivityInstanceID =
       ... // destination activity instance ID
```

```
unit1.SourceActivityInstanceIDs =
       new string[] { ... }; // array of source activity instance ID
WFPartialRollbackInstruction.PartialRollbackUnit unit2 =
       new WFPartialRollbackInstruction.PartialRollbackUnit();
unit2.DestinationActivityInstanceID =
        ... // destination activity instance ID
unit2.SourceActivityInstanceIDs =
       new string[] { … }; // array of source activity instance ID
WFPartialRollbackInstruction instruction =
       new WFPartialRollbackInstruction();
instruction.PartialRollbackUnits =
       new WFPartialRollbackInstruction.PartialRollbackUnit[]
       {unit1,unit2};

try
 {
    //Rolling back the activity instance
    WFEvent evt = workflowService. RollbackActivityInsts(instruction);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

4.6 and higher

Methods for Manual Work Items (Tasks)

This section describes service calls related to manual work items (tasks).

Assign Work Item

API Type

Web Services

Description

Assigns a work item to a user, which often means claiming a work item for oneself. This is often used with task pools where work items are created, and then multiple users are notified, but the work item is not immediately assigned to a user. A user then claims the work item, or his manager assigns it to him. The user must have privileges to claim or assign the work item.

Syntax

public virtual WFEvent AssignWorkItem(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFEvent class that represents the workflow event instance that is created when the task is assigned.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// work item ID

try
    {
    WFEvent evt = svc.AssignWorkItem(workItemID);
    }

catch( Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Assign Work Item (Extended Method)

API Type

Web Services

Description

Assigns a work item to a user, which often means claiming a work item for oneself. This is often used with task pools where work items are created, and then multiple users are notified, but the work item is not immediately assigned to a user. A user then claims the work item, or his manager assigns it to him. The user must have privileges to claim or assign the work item. This method extends AssignWorkItem() by allowing you to specify client data.

Syntax

public virtual WFEvent AssignWorkItemEx(string workItemID, string clientData)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
clientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object representing the workflow event instance raised by the invocation of the work assignment.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// work item ID
string clientData = null;

try
    {
    WFEvent evt = svc.AssignWorkItemEx(workItemID, clientData);
    }

catch( Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Cancel Work Item

API Type

Web Services

Description

Cancels a manual work item based on a specified manual work item identifier. Only the following manual work item status can transition to a Canceled status: Assigned, New, Pseudo, and Overdue.

Syntax

public virtual WFEvent CancelWorkItem(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = … //

try
```

```
 {
    WFEvent evt = svc.CancelWorkItem(workItemID);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Cancel Work Item (Extended Method)

API Type

Web Services

Description

Cancels a manual work item based on a specified manual work item identifier. This method also contains an added routine to track the method call duration. Only the following manual work item status can transition to a Canceled status: Assigned, New, Pseudo, and Overdue.

Syntax

public virtual WFEvent CancelWorkItemEx(string workItemID, string clientData)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
clientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values:

Name	Description
	A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// work item ID
string clientData = null;

try
 {
    WFEvent evt = svc. CancelWorkItemEx(workItemID, clientData);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Complete Work Item

API Type

Web Services

Description

Marks a work item as completed.

Syntax

public virtual WFEvent CompleteWorkItem(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// work item ID

try
 {
    WFEvent evt = svc.CompleteWorkItem(workItemID);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Complete Work Item (Extended Method)

API Type

Web Services

Description

Marks a work item as completed with client data.

Syntax

public virtual WFEvent CompleteWorkItemEx(string workItemID, string clientData)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
clientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
```

```
string workItemID = …// work item ID
string clientData = null;

try
 {
    WFEvent evt = svc. CompleteWorkItemEx(workItemID, clientData);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Create Linked Work Item

API Type

Web Services

Description

Creates a manual work item that is linked to another manual work item. The work item you create does not depend on the completion of the work item to which it is linked. In other words, the original (source) work item can be marked as completed before new work item is completed.

Syntax

public virtual WFEvent CreateLinkedWorkItem(string SourceWorkItemID, string WorkToPerform, string UserID, WFTimeDuration duration, string ClientData)

Parameters

Name	Description
SourceWorkItemID	Definition: An ID that represents the original, or source, work item. Type string Allowed Values: A valid, unique 32-character ID.
WorkToPerform	Definition: Represents the task that performed by the participants of the activity.

Name	Description
	Type string Allowed Values: A valid work to perform name.
UserID	Definition: Specifies the user ID. Type string Allowed Values: A valid user ID.
duration	Definition: Specifies the duration settings of a work item. Type WFTimeDuration Allowed Values: A valid WFTimeDuration object.
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

None.

Example

```
IWFWorkflowService svc = base.GetWorkflowService();
// get existing work item
string workItemID = ..// for example,
"90CF843AC57644058A391FBFA030F607"
```

```
try
 {
    // Get the source WFManualWorkItem object
    WFManualWorkItem SourceWorkItemID = svc.GetWorkItem(workItemID)
    string WorkToPerform = SourceWorkItemID.Name; //different
    WorkToPerform can be used if desired
    WFTimeDuration duration = new WFTimeDuration();
    duration.Length = "15"; //for example, 15 days
    duration.Unit = WFTimeUnit.DAY;
    string UserID = @"[DOMAIN NAME]\username"; //the participant of the
    linked work item
    WFEvent evt = svc.CreateLinkedWorkItem(
             SourceWorkItemID.WorkItemID,
             WorkToPerform,
             UserID,
             duration,
             null);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Create Linked Work Item (Extended Method)

API Type

Web Services

Description

Creates a manual work item that is linked to another manual work item. The extended parameter bDependent is used to specify the dependency between the original work item and the linked work item. If bDependent is false, the work items are independent, just like CreateLinkedWorkItem().If bDependent is true, the original (source) work item cannot be marked as completed before new work item has been completed.

Syntax

public virtual WFEvent CreateLinkedWorkItemEx(string SourceWorkItemID, string WorkToPerform, string UserID, WFTimeDuration duration, string ClientData, bool bDependent)

Parameters

Name	Description
SourceWorkItemID	Definition: An ID that represents the original, or source, work item.

Name	Description
	Type string Allowed Values: A valid, unique 32-character ID.
WorkToPerform	Definition: Represents the task that performed by the participants of the activity. Type string Allowed Values: A valid work to perform name.
UserID	Definition: Specifies the user ID. Type string Allowed Values: A valid user ID.
duration	Definition: Specifies the duration settings of a work item. Type WFTimeDuration Allowed Values: A valid WFTimeDuration object.
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data.

Name	Description
	If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.
bDependent	Definition: Specifies whether the target work item waits for a linked work item to be completed or canceled before moving forward. Type bool Allowed Values: • **True** - The source work item waits until the linked work item is either completed or canceled, before it can be completed or canceled. • **False** - The source work item can be completed or canceled regardless of whether the linked work item is completed or canceled.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = base.GetWorkflowService();

// get existing work item
string workItemID = ..// for example, "90CF843AC57644058A391FBFA030F607"

try
 {
    // Get the source WFManualWorkItem object
    WFManualWorkItem SourceWorkItem = svc.GetWorkItem(workItemID)
    string WorkToPerform = sourceWorkItem.Name; //different
    WorkToPerform can be used if desired
    WFTimeDuration duration = new WFTimeDuration("15", WFTimeUnit.DAY, false);
    string UserID = @"[DOMAIN NAME]\username"; //the participant of the
    linked work item
    WFEvent evt = svc.CreateLinkedWorkItem(
             SourceWorkItem.WorkItemID,
             WorkToPerform,
```

```
            UserID,
            duration,
            null,
            true);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

4.6 and above

Create Pseudo Work Item

API Type

Web Services

Description

Creates a task by a specific AgileWork or other module that has the following characteristics:

- It does not have to be completed in order for a process to advance to the next steps.
- Unless specifically canceled, it remains active through the duration of the entire process, not just the duration of the AgileWork or other module that created it.

This provides a way for tasks to be included in a user's or manager's task list purely for monitoring purposes.

Syntax

public virtual WFEvent CreatePseudoWorkItem(string SourceWorkItemID, string WorkToPerform, string UserID, WFTimeDuration duration, string ClientData, bool bReserved)

Parameters

Name	Description
SourceWorkItemID	Definition: An ID that represents the original, or source, work item. Type string Allowed Values: A valid, unique 32-character ID.
WorkToPerform	Definition:

Name	Description
	Represents the task that performed by the participants of the activity. Type string Allowed Values: A valid work to perform name.
UserID	Definition: Specifies the user associated with the work item. Type string Allowed Values: A valid user ID.
duration	Definition: Specifies the duration settings of a work item. Type WFTimeDuration Allowed Values: A valid WFTimeDuration object.
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.

- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = base.GetWorkflowService();

// get existing work item
string workItemID = ..// for example, "90CF843AC57644058A391FBFA030F607"

try
 {
    // Get the source WFManualWorkItem object
    WFManualWorkItem SourceWorkItem = svc.GetWorkItem(workItemID)
    string WorkToPerform = sourceWorkItem.Name; //different
    WorkToPerform can be used if desired
    WFTimeDuration duration = new WFTimeDuration("15", WFTimeUnit.DAY, false);
    string UserID = @"[DOMAIN NAME]\username"; //the participant of the linked work
 item
    WFEvent evt = svc.CreatePseudoWorkItem (
             SourceWorkItem.WorkItemID,
             WorkToPerform,
             UserID,
             duration,
             null,
             false);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Create Work Item

API Type

Web Services

Description

Creates a manual work item.

Syntax

public virtual WFEvent CreateWorkItem(string ActivityInstanceID, string WorkToPerform, string UserID, WFTimeDuration Length, string ClientData)

Parameters

Name	Description
ActivityInstanceID	Definition: The unique ID for an activity instance. Type string Allowed Values: A valid activity instance ID.
WorkToPerform	Definition: Represents the task that performed by the participants of the activity. Type string Allowed Values: A valid work to perform name.
UserID	Definition: Specifies the user associated with the work item. Type string Allowed Values: A valid user ID.
Length	Definition: Specifies the length of time duration. Type string Allowed Values: A valid time duration length.
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type

Name	Description
	string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string ActivityInstanceID = … // for example, "0172460E0AF943C6A6520044452BCAB3";
string WorkToPerform = … // for example, "SubmitRequest";
//different WorkToPerform can be used if desired

WFTimeDuration Length = new WFTimeDuration("15", WFTimeUnit.DAY, true );// business
 time
string UserID = @"[DOMAIN NAME]\username"; //the participant of the linked work
 item

try
 {
    WFEventevt = svc.CreateWorkItem(ActivityInstanceID,
    WorkToPerform, UserID, Length, null);
 }

catch(Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Work Item

API Type

Web Services

Description

Retrieves the manual work item object for a specified ID.

Syntax

public virtual WFManualWorkItem GetWorkItem(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFMaunalWorkItem object.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// for example, "54A648A0A3004A02981E7F0848820FE7";

try
 {
    WFAutomaticWorkItem workItem = svc.GetWorkItem(workItemID);
    Console.WriteLine("{0}", workItem.Name);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Work List By User ID

API Type

Web Services

Description

Retrieves a work item collection by specifying a user name and work item status.

Syntax

public virtual WFManualWorkItem[] GetWorkListByUserID(string UserName, string Status)

Parameters

Name	Description
UserName	Definition: Specifies a qualified user name of the instance. A qualified user name formats as [Domain Name]\[Logon Username] or [Local host name]\[Logon Username]. Type string Allowed Values: A valid user name for a registered AgilePoint user.
Status	Definition: The status of the work item. Type string Allowed Values: • **New** - The work item is in a pool, more than one participant shares the work item and needs to be assigned. • **Assigned** - The work item is assigned to a participant and needs to be performed. • **Removed** - The work item was originally in a pool (status is new), and didn't get assigned to the user. • **Completed** - The work item is completed. • **Reassigned** - The work item is re-assigned to the other user. • **Canceled** - The work item is canceled. • **Overdue** - The work item is overdue. • **Carbon** - The work item is a carbon copy that does not affect process instance running.

Output

Array of WFManualWorkItem objects.

Example

```
//Get all WFManualWorkItem assigned to user
IWFWorkflowService svc = GetWorkflowService();
string userID = …// for example, @"Demo3\Administrator";
string Status= string.format("{0};{1}",
WFManualWorkItem.ASSIGNED, WFManualWorkItem.OVERDUE);

try
 {
    WFManualWorkItem[] workItems = svc.GetWorkListByUserID(userID,
    Status);
    foreach (WFManualWorkItem workItem in workItems)
        {
        Console.WriteLine("{0}", workItem.ApplName);
        Console.WriteLine("{0}", workItem.AssignedDate);
        Console.WriteLine("{0}", workItem.DefName);
        Console.WriteLine("{0}", workItem.DueDate);
        }
 }

catch(Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Query Work List

API Type

Web Services

Description

Retrieves a list of manual work items that match a specified query expression.

Syntax

public virtual WFManualWorkItem[] QueryWorkList(WFQueryExpr expr)

Parameters

Name	Description
expr	Definition:

Name	Description
	Specifies the where clause of a SQL query expression. Type WFQueryExpr Allowed Values: A valid WFQueryExpr object.

Output

An array of WFManualWorkItem objects that contain the work item data.

Example

```
IWFWorkflowService svc = GetWorkflowService();
WFAny any = WFAny.Create(WFManualWorkItem.ASSIGNED);
WFQueryExpr expr = new WFQueryExpr("WF_MANUAL_WORKITEM.STATUS",
SQLExpr.EQ, any, true);

try
 {
    WFManualWorkItem[] workItems = svc.QueryWorkList(expr);

    // Iterating through the list of the ManualWorkItem
    foreach (WFManualWorkItem workItem in workItems)
        {
        Console.WriteLine("{0}", workItem.ApplName);
        Console.WriteLine("{0}", workItem.AssignedDate);
        Console.WriteLine("{0}", workItem.DefName);
        Console.WriteLine("{0}", workItem.DueDate);
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Query Work List (Extended Method)

API Type

Web Services

Description

Retrieves a list of manual work items that match a SQL statement.

Syntax

public virtual WFManualWorkItem[] QueryWorkListEx(string sqlWhereClause)

Parameters

Name	Description
sqlWhereClause	Definition: The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

An array of WFManualWorkItem objects.

Example

```
IWFWorkflowService svc = GetWorkflowService();

//Query Expression string for Comparison of the WORK_ITEM_ID
string sqlWhereClause = "WORK_ITEM_ID in ('0006EE0244ED431CB93F6253060DD21F', …)";

try
 {
    // Calling the QueryWorkListEx API with argument sql query expression string.
    WFManualWorkItem[] workItems = _svc.QueryWorkListEx(sqlWhereClause);

    // Iterating through the list of the ManualWorkItem
    foreach (WFManualWorkItem workItem in workItems)
        {
        Console.WriteLine("{0}", workItem.ApplName);
        Console.WriteLine("{0}", workItem.AssignedDate);
        Console.WriteLine("{0}", workItem.DefName);
        Console.WriteLine("{0}", workItem.DueDate);
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Reassign Update Work Item

API Type

Web Services

Description

Reassigns a manual work item to another participant.

Syntax

public virtual WFEvent ReassignUpdateWorkItem(string workItemID, string originalUserID, string newAssigneedUserID, string clientData)

Parameters

Name	Description
WorkItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
originalUserID	Definition: The user ID for the original user assigned the work item. Type string Allowed Values: A valid user ID.
newAssigneedUserID	Definition: The user name for a user to whom you want to assign a work item. Type string Allowed Values:

Name	Description
	A valid user name.
clientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string WorkItemID = …// "0006EE0244ED431CB93F6253060DD21F"; // Work item ID
string originalUserID = …// @"[DOMAIN NAME]\[user name]"; // new user ID
string newAssigneedUserID = …// @"[DOMAIN NAME]\[user name]"; // new user ID

try
 {
    WFEvent evt = ReassignUpdateWorkItem(WorkItemID, originalUserID,
 newAssigneedUserID, null);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

4.6 and higher

Reassign Work Item

API Type

Web Services

Description

Reassigns a work item to another participant, and update the user name.

Syntax

public virtual WFEvent ReassignWorkItem(string WorkItemID, string UserName)

Parameters

Name	Description
WorkItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
UserName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string WorkItemID = …// "0006EE0244ED431CB93F6253060DD21F"; // Work item ID
string UserName = …// @"[DOMAIN NAME]\[user name]"; // new user ID

try
 {
    WFEvent evt = svc.ReassignWorkItem(WorkItemID, UserName);
 }

catch(Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Reassign Work Item (Extended Method)

API Type

Web Services

Description

Reassigns a work item to another participant, and update the user name. The extended method includes client data.

Syntax

public virtual WFEvent ReassignWorkItemEx(string WorkItemID, string UserName, string ClientData)

Parameters

Name	Description
WorkItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
UserName	Definition: The user name for the user.

Name	Description
	Type string Allowed Values: A valid user name for a registered AgilePoint user.
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
string ClientData= "<?xml version="1.0" … …";
string WorkItemID = ...// for example, "0006EE0244ED431CB93F6253060DD21F"; // Work
 item ID
string UserName = …// for example @"[DOMAIN NAME]\[USER NAME]"; // new user ID

try
 {
    WFEvent evt = _svc.ReassignWorkItemEx(WorkItemID,
    UserName, ClientData);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Undo Assign Work Item

API Type

Web Services

Description

Unassigns a work item that was previously assigned to a user. This method applies to work items that can be assigned to members of task groups, where a work item can be assigned to or claimed by any of a group of users.

Syntax

public virtual WFEvent UndoAssignWorkItem(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// for example, "03ABD59A0EB74D7A8741709478E83877";
```

```
try
 {
    WFEvent evt = svc.UndoAssignWorkItem(workItemID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Undo Assign Work Item (Extended Method)

API Type

Web Services

Description

Unassigns a work item that was previously assigned to a user. This method applies to work items that can be assigned to members of task groups, where a work item can be assigned to or claimed by any of a group of users. The extended method includes client data.

Syntax

public virtual WFEvent UndoAssignWorkItemEx(string workItemID, string clientData)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
clientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string

Name	Description
	Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
string url = "http://[hostname]:[port]/AgilePointServer";
string workItemID = …// for example,
"03ABD59A0EB74D7A8741709478E83877";
string clientData = …///

try
 {
    WFEvent evt = svc.UndoAssignWorkItemEx(workItemID, clientData);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Work Item

API Type

Web Services

Description

Updates a manual work item or automatic work item.

Syntax

public virtual void UpdateWorkItem(string workItemID, NameValue[] attributes)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
attributes	Definition: A NameValue array that contains the attributes that needs to be updated in the work item. Type NameValue Allowed Values: For a manual work item, the following attributes can be updated: • NAME • ORIGINAL_USER_ID • CLIENT_DATA, POOL_ID • POOL_INFO • STATUS • USER_ID • PRIORITY • DUE_DATE For an automatic work item, the following attributes can be updated: • DUE_DATE • STATUS - if the value is Canceled, Completed, Overdue, Running, or Waiting.

Output

None.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …// work item ID of manual work item or automatic work item.

try
 {
    NameValue[] attributes = NameValue.Array(
    "NAME", "[New Name]",
    "DUE_DATE", [DateTime]); // for example, DateTime.Now.AddDays(3.0)
    svc.UpdateWorkItem(workItemID, attributes);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4and higher

Methods for Automatic Work Items (Procedures)

This section describes service calls related to automatic work items.

Cancel Procedure

API Type

Web Services

Description

Cancels an automatic work item based on supplied specified automatic work item identifier.

Syntax

public virtual WFEvent CancelProcedure(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task).

Name	Description
	Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = …//

try
 {
    WFEvent evt = svc.CancelProcedure(workItemID);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Complete Procedure

API Type

Web Services

Description

Marks an automatic work item as completed by an asynchronous activity.

Syntax

public virtual WFEvent CompleteProcedure(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFEvent object that provides the status of the transaction. The possible statuses are:

- **Sent** - Indicates event has been sent to engine for processing.
- **Failed** - Indicates event failed to process.
- **Processed** - Indicates event has been processed successfully.
- **Canceled** - Indicates event was canceled.
- **Deferred** - Indicates event does not need to be sent immediately.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string workItemID = ..//

try
 {
    svc.CompleteProcedure(workItemID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Procedure

API Type

Web Services

Description

Retrieves work item data by a specified work item ID.

Syntax

public virtual WFAutomaticWorkItem GetProcedure(string workItemID)

Parameters

Name	Description
workItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.

Output

WFAutomaticWorkItem object.

Example

```
IWFWorkflowService svc = GetWorkflowService()
string workItemID = ..// for example,
"54A648A0A3004A02981E7F0848820FE7";

try
 {
    WFAutomaticWorkItem wItem = svc.GetProcedure(workItemID);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Query Procedure List

API Type

Web Services

Description

Retrieves a list of automatic work items that match a specified query expression.

Syntax

public virtual WFAutomaticWorkItem[] QueryProcedureList(WFQueryExpr expr)

Parameters

Name	Description
expr	Definition: Specifies the where clause of a SQL query expression. Type WFQueryExpr Allowed Values: A valid WFQueryExpr object.

Output

An array of automatic work items.

Example

```
IWFWorkflowService svc = GetWorkflowService();

try
 {
    //WebMethod with sql query expression as argument.
    WFAny any = WFAny.Create(WFAutomaticWorkItem.WAITING);
    WFQueryExpr expr = new WFQueryExpr("STATUS", SQLExpr.EQ, any, true);
    WFAutomaticWorkItem[] result = svc.QueryProcedureList(expr);

    if (result != null)
        {
        // Iterating through the list of the automatic work item
        foreach (WFAutomaticWorkItem re in result)
            {
            Console.WriteLine("ActivityInstID-->" +
                re.ActivityInstID);
            Console.WriteLine("ApplName-->" + re.ApplName);
            Console.WriteLine("ProcInstID-->" + re.ProcInstID);
            Console.WriteLine("CreatedDate-->" + re.CreatedDate);
            }
        }
 }

catch (Exception ex)
 {
```

```
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

User Delegation

This section describes service calls related to user delegation processes.

Activate Delegation

API Type

Web Services

Description

Activates a delegation.

Syntax

public virtual void ActivateDelegation(string delegationID)

Parameters

Name	Description
delegationID	Definition: The unique ID of a delegation object. Type string Allowed Values: A valid delegation ID.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string delegationID = ...;

try
    {
```

```
    svc.ActivateDelegation(delegationID);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0 and higher

Add Delegation

API Type

Web Services

Description

Creates a rule for delegating one user's tasks to another user. This method uses the WFDelegation class. For more information, see the AgilePoint Class Reference.

Syntax

public virtual WFDelegation AddDelegation(WFDelegation delegation)

Parameters

Name	Description
delegation	Definition: An object that specifies the details of the delegation rule, including the user whose tasks will be delegated and the designated user to whom to delegate the tasks. Type WFDelegation Allowed Values: A valid WFDelegation object.

Output

WFDelegation object.

Example

```
IWFAdminService svc = GetAdminService();
WFDelegation delegation = new WFDelegation();
```

```
//Set the object properties.
delegation.FromUser = "Demo3\\Andy";
delegation.ToUser = "Demo3\\Joe";
delegation.StartDate = DateTime.Now;
delegation.EndDate = DateTime.Parse("27/10/2009");
delegation.Description = "Delegating Andy's task to Joe";

try
    {
    WFDelegation delegation = adminService.AddDelegation(delegation);
    Console.WriteLine("Delegation ID: {0}", delegation.DelegationID);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Cancel Delegation

API Type

Web Services

Description

Cancels a currently operating delegation.

Syntax

public virtual void CancelDelegation(string delegationID)

Parameters

Name	Description
delegationID	Definition: The unique ID of a delegation object. Type string Allowed Values: A valid delegation ID.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string delegationID = ...;

try
    {
    svc.CancelDelegation(delegationID);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Delegation

API Type

Web Services

Description

Retrieves a delegation object.

Syntax

public virtual WFDelegation GetDelegation(string delegationID)

Parameters

Name	Description
delegationID	Definition: The unique ID of a delegation object. Type string Allowed Values: A valid delegation ID.

Output

WFDelegation object that specifies the user whose tasks will be delegated and the designated user to whom to delegate tasks.

Example

```
IWFAdminService svc = GetAdminService();
string delegationID = ...; // for example, "C9A40F4BDA26481FB822C398C4387901"

try
 {
    WFDelegation delegation = svc.GetDelegation(delegationID);
    Console.WriteLine("Delegation Id:{0}; From User:{1}; To User:{2};
    Status:{3}",
                   delegation.DelegationID,
                   delegation.FromUser,
                   delegation.ToUser,
                   delegation.Status);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/* Output
Delegation Id:C9A40F4BDA26481FB822C398C4387901; From
User:VITBDC\yuvarajn; To User:VITBDC\ravis; Status:Canceled
*/
```

Supported Versions

3.2.0.4 and higher

Get Delegations

API Type

Web Services

Description

Retrieves a list of delegation objects that match the specified parameters. You can leave the parameters null to indicate any.

Syntax

public virtual WFDelegation[] GetDelegations(string FromUser, string ToUser, string Status)

Parameters

Name	Description
FromUser	Definition: Specifies a user from whom to delegate tasks. Type string Allowed Values: A valid user name.
ToUser	Definition: Specifies the user who will receive the delegated tasks. Type string Allowed Values: A valid user name.
Status	Definition: The status of the associated item. Type string Allowed Values: A valid status.

Output

An array of WFDelegation objects.

Example

```
IWFAdminService svc = GetAdminService();
string FromUser = ...// for example, @"vitbdc\yuvarajn"
string ToUser = ...// for example, null for any
string Status = WFDelegation.ACTIVE;

try
 {
    WFDelegation[] delegations = svc.GetDelegations( FromUser, ToUser,
    Status);
    foreach(WFDelegation delegation in delegations)
```

```
    {
    Console.WriteLine("Delegation Id:{0}; From User:{1}; To User:{2};
       Status:{3}, {4}=>{5}",
                      delegation.DelegationID,
                      delegation.FromUser,
                      delegation.ToUser,
                      delegation.Status,
                      delegation.StartDate,
                      delegation.EndDate);
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Delegation

API Type

Web Services

Description

Removes a delegation from the AgilePoint system.

Syntax

public virtual void RemoveDelegation(string delegationID)

Parameters

Name	Description
delegationID	Definition: The unique ID of a delegation object. Type string Allowed Values: A valid delegation ID.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string delegationID = ...;

try
 {
    svc.RemoveDelegation(delegationID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Delegation

API Type

Web Services

Description

Updates a delegation object that has already been created.

Syntax

WFDelegation UpdateDelegation(WFDelegation delegation)

Parameters

Name	Description
delegation	Definition: An object that specifies the details of the delegation rule, including the user whose tasks will be delegated and the designated user to whom to delegate the tasks. Type WFDelegation Allowed Values: A valid WFDelegation object.

Output

Returns an updated instance of WFDelegation.

Example

```
IWFAdminService svc = GetAdminService();
WFDelegation delegation = new WFDelegation();
delegation.DelegationID = ...// unique ID
delegation.FromUser = ...// from user name
delegation.ToUser = ...// to user name
delegation.StartDate = ... // start date
delegation.EndDate = ...// end date

try
 {
WFDelegation updatedDelegation = svc.UpdateDelegation( delegation );
 }

catch (Exception ex)
 {
Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Methods for Notifications

This section describes service calls related to email notifications.

Cancel Mail Deliverable

API Type

Web Services

Description

Cancels the failed mail deliverable record based on a given message identifier. Note that canceling the failed mail deliverable record prevents it from being recycled or present on a given interval by the AgilePoint engine.

Syntax

public virtual void CancelMailDeliverable(string mailID)

Parameters

Name	Description
mailID	Definition: Specifies the unique ID for an email notification. Type string Allowed Values: A valid email notification ID.

Output

None.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string mailID = …

try
    {
    svc.CancelMailDeliverable(mailID);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get Expecting Send Mail Deliverable

API Type

Web Services

Description

Retrieves all the failed and scheduled to resend email notifications.

Syntax

public virtual WFMailDeliverable[] GetExpectingSendMailDeliverable()

Parameters

Name	Description
None	Not Applicable

Output

Array of WFMailDeliverable objects.

Example

```
IWFWorkflowService svc = GetWorkflowService();

try
 {
    //Returns Array of WFMailDeliverable type
    WFMailDeliverable[] mailDeliverables =
    svc.GetExpectingSendMailDeliverable();
    foreach(WFMailDeliverable m in mailDeliverables)
    {
       Console.WriteLine("Mail ID: '{0}'", m.ID);
       Console.WriteLine("Process Instance ID: '{0}'",m.ProcInstID);
       Console.WriteLine("E-Mail Subject: '{0}'", m.Mail.Subject);
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Mail Deliverables

API Type

Web Services

Description

Retrieves all the mail deliverables for a process instance.

Syntax

public virtual WFMailDeliverable[] GetMailDeliverables(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

Array of WFMailDeliverable objects.

Example

```
//Process Instance ID associated with the Process Instance.
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = …// for example, "1e3d514d43d3465cae6ec3bbbd409168";

try
 {
    WFMailDeliverable[]emailNotifications =
    svc.GetMailDeliverables(processInstanceID);
    foreach(WFMailDeliverable m in emailNotifications)
     {
        Console.WriteLine("Mail ID: '{0}'", m.ID);
        Console.WriteLine("Process Instance ID: '{0}'", m.ProcInstID);
        Console.WriteLine("E-Mail Subject: '{0}'", m.Mail.Subject);
     }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Resend Mail Deliverable

API Type

Web Services

Description

Resends the mail deliverable with a specified mail ID.

Syntax

public virtual void ResendMailDeliverable(string mailID)

Parameters

Name	Description
mailID	Definition: Specifies the unique ID for an email notification. Type string Allowed Values: A valid email notification ID.

Output

None.

Example

```
//Sample for using resendMailDeliverable
IWFWorkflowService svc = GetWorkflowService();
string mailID = … // for example,
"149C3974240F47D3B28EB6D4A3CDCD3F"

try
 {
    svc.ResendMailDeliverable(mailID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Methods for Events

This section describes service calls related to workflow events in the Web Service API.

Get Event

API Type

Web Services

Description

Retrieves an event object. This service call is usually used to check if a service call has been completed.

Syntax

public virtual WFEvent GetEvent(string eventID)

Parameters

Name	Description
eventID	Definition: Specifies a unique ID for an event. Type string Allowed Values: A unique, 32-character ID.

Output

WFEvent object.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string eventID = …// for example, "049C3974240F47D3BA8EB6D4A3CDCD3F";

try
 {
    WFEvent evt = _workflowAPI.GetEvent(eventID);
    Console.WriteLine("Event ID: '{0}'", evt.EventID);
    Console.WriteLine("Event Name: '{0}'",evt.EventName);
    Console.WriteLine("Event Status: '{0}'",evt.Status);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Send Mail

This section describes service calls related to sending email using AgilePoint.

Send Mail

API Type

Web Services

Description

Sends an email through AgilePoint Server.

Syntax

public virtual void SendMail(String To, String CC, String Subject, String Body)

Parameters

Name	Description
To	Definition: Specifies the To portion of an email. Type string Allowed Values: A string that includes one or more email addresses in SMTP format.
CC	Definition: Specifies the CC portion of an email. Type string Allowed Values: A string that includes one or more email addresses in SMTP format.

Name	Description
Subject	Definition: The subject of an email. Type string Allowed Values: A single line of text.
Body	Definition: Specifies the body portion of an email. Type string Allowed Values: Free text.

Output

None.

Example

```
//Sample for using Workflow.SendMail
IWFWorkflowService svc = GetWorkflowService();

try
 {
    // email recipients
    string To = "bill@tusca.com";

    // CC
    string CC = "bob@tusca.com";

    //Subject of the Mail
    string Subject = "This is email Subject";

    //Body of the Mail
    string Body = "This email Body";
    svc.SendMail(To, CC, Subject, Body);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Send Mail (Extended Method)

API Type

Web Services

Description

Sends an email through AgilePoint Server. The extended method enables you to send attachments.

Syntax

public virtual void SendMailEx(String From, String To, String CC, String Subject, String Body , String Attachments)

Parameters

Name	Description
From	Definition: Specifies the From portion of an email. Type string Allowed Values: A string that includes one or more email addresses in SMTP format.
To	Definition: Specifies the To portion of an email. Type string Allowed Values: A string that includes one or more email addresses in SMTP format.
CC	Definition: Specifies the CC portion of an email. Type string Allowed Values:

Name	Description
	A string that includes one or more email addresses in SMTP format.
Subject	Definition: The subject of an email. Type string Allowed Values: A single line of text.
Attachments	Definition: File attachments included with the email. Type string Allowed Values: A valid path and file name on the AgilePoint Server. This parameter must use a file path from the file system (for example, C:\file.txt) on the machine where AgilePoint Server is installed. If there is no attachment, you can pass **null** or **String.Empty**.

Output

None.

Example

```
//Sample for using Workflow.SendMailEx
IWFWorkflowService svc = GetWorkflowService();

try
 {
    string From = "john@tusca.com"; // or <Full Name>"email address"
    string To = "bill@tusca.com";
    string CC = "bob@tusca.com";
    string Subject = "Mail Subject";
    string Body = "Mail Body";
    string Attachments = "c:\\Temp\\Tempdoc.doc";

    //Send Mail
    svc.SendMailEx(From, To, CC, Subject, Body, Attachments);
 }

catch (Exception ex)
 {
```

```
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
}
```

Supported Versions

4.6 and higher

Send Mail (Extended Method with Priority)

API Type

Web Services

Description

Sends an email through AgilePoint Server. The extended method enables you to send attachments.

Syntax

public virtual void SendMailEx(String From, String To, String CC, String Subject, String Body , String Attachments, Enum priority)

Parameters

Name	Description
From	Definition: Specifies the From portion of an email. Type string Allowed Values: A string that includes one or more email addresses in SMTP format.
To	Definition: Specifies the To portion of an email. Type string Allowed Values: A string that includes one or more email addresses in SMTP format.
CC	Definition: Specifies the CC portion of an email.

Name	Description
	Type string Allowed Values: A string that includes one or more email addresses in SMTP format.
Subject	Definition: The subject of an email. Type string Allowed Values: A single line of text.
Attachments	Definition: File attachments included with the email. Type string Allowed Values: A valid path and file name on the AgilePoint Server. This parameter must use a file path from the file system (for example, C:\file.txt) on the machine where AgilePoint Server is installed. If there is no attachment, you can pass **null** or **String.Empty**.
priority	Definition: The email's priority. Type enum Allowed Values: • high • normal • low

Output

None.

Example

```
//Sample for using Workflow.SendMailEx
IWFWorkflowService svc = GetWorkflowService();

try
 {
    string From = "john@tusca.com"; // or <Full Name>"email address"
    string To = "bill@tusca.com";
    string CC = "bob@tusca.com";
    string Subject = "Mail Subject";
    string Body = "Mail Body";
    string Attachments = "c:\\Temp\\Tempdoc.doc";
    enum priority = "high";

    //Send Mail
    svc.SendMailEx(From, To, CC, Subject, Body, Attachments);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

5.0 and higher

Methods for Custom Attributes

This section describes service calls related to custom attributes.

Get Custom Attribute

API Type

Web Services

Description

Retrieves a single custom attribute.

Syntax

public virtual object GetCustomAttr(string customID, string attrName);

Parameters

Name	Description
customID	Definition:

Name	Description
	A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
attrName	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.

Output

Custom attribute value (can be string, integer, float, double, bool, and/or DateTime).

Example

```
IWFWorkflowService svc = GetWorkflowService();
string customID = …// for example, "013933F128C3415F81D6F545594D4CB6";
string attrName = …// for example,"/pd:myFields/pd:Name" or "Approval"

try
 {
    Object obj = svc.GetCustomAttr(customID,attrName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Custom Attributes

API Type

Web Services

Description

Retrieves a collection of custom attributes for a specified custom ID in XML format.

Syntax

public virtual string GetCustomAttrs(string customID)

Parameters

Name	Description
customID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.

Output

string that contains all the attributes for the custom ID in XML format.

Example

```
// get custom attributes in xml format
IWFWorkflowService svc = GetWorkflowService();
string customID = …// for example, "013933F128C3415F81D6F545594D4CB6";

try
 {
    string xml = svc.GetCustomAttrs(sessionID, string processInstanceID);
    Console.WriteLine("AttributeXMLstring={0}",resultAttrXML);
    WFCustomAttributes attrs = new WFCustomAttributes();
    attrs.AttrXml = xml; // de-serialize xml
    string[] attributeNames = attrs.GetNames();// get attribute names
    Object value = attrs["MyAttributeName"]; // retrieve attribute value
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Custom Attributes (Extended Method)

API Type

Web Services

Description

Retrieves all custom attributes for a specified a set of custom IDs.

Syntax

public virtual KeyValue[] GetCustomAttrsEx(string[] customIDs)

Parameters

Name	Description
customIDs	Definition: Multiple work object IDs specified within a process instance. Type string Allowed Values: An array of valid work object IDs.

Output

An array of KeyValue values. The key is a custom ID, and value is a string of custom attributes in XML format.

Example

```
IWFWorkflowService svc = GetWorkflowService();

//Array of custom ID
string[] customIDs = …// for example,
 {"InfoPath:011eaf6c46ac4723b25b4db5772d9912", ….};

try
 {
    KeyValue[] keyValues = svc.GetCustomAttrsEx(customIDs);
    foreach (KeyValue kv in keyValues)
        {
        Console.WriteLine("ID:'{0}'", kv.Key);
        Console.WriteLine("Custom Attributes XML: '{0}'", kv.Value);
        WFCustomAttributes attrs = new WFCustomAttributes();
        Attrs.AttrXml = kv.Value;
        }
```

```
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Custom Attribute

API Type

Web Services

Description

Removes a custom attribute from a custom ID.

Syntax

public virtual void RemoveCustomAttr(string customID, string attributeName)

Parameters

Name	Description
customID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
attributeName	Definition: The name of the process instance attribute you want. Type string Allowed Values: A valid process instance attribute.

Output

None.

Example

```
//Sample for using Workflow.RemoveCustomAttr
IWFWorkflowService svc = GetWorkflowService();
string customID = ..// for example, "InfoPath:011eaf6c46ac4723b25b4db5772d9912"
string attributeName = ...// for example, "//pd:purchaseOrder/pd:secondApproval"

try
 {
    svc.RemoveCustomAttr(customID, attributeName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Custom Attributes

API Type

Web Services

Description

Removes multiple custom attributes from a custom ID.

Syntax

public virtual void RemoveCustomAttrs(string customID, string[] namesArray)

Parameters

Name	Description
customID	Definition: A work object ID specified within a process instance. Type string Allowed Values:

Name	Description
	One valid work object ID.
namesArray	Definition: The the names of one or more items, such as a properties or attributes. Type string Allowed Values: An array of valid names.

Output

None.

Example

```
//Sample for using Workflow.RemoveCustomAttr
IWFWorkflowService svc = GetWorkflowService();
string customID = ...// for example,
"InfoPath:011eaf6c46ac4723b25b4db5772d9912"

// array of attribute name, for example,
// new string[] { // "//pd:purchaseOrder/pd:secondApproval", ... };
string[] namesArray = ...

try
 {
    svc.RemoveCustomAttrs(customID, namesArray);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Set Custom Attribute

API Type

Web Services

Description

Sets the name and value for a custom attribute for a specified custom ID.

Syntax

public virtual SetCustomAttr(String customID, String attributeName, object val)

Parameters

Name	Description
customID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
attributeName	Definition: The name of the process instance attribute you want. Type string Allowed Values: A valid process instance attribute.
val	Definition: The value of the custom attribute. Type object Allowed Values: A valid Types object.

Output

None.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string customID = ..// for example,
"InfoPath:011eaf6c46ac4723b25b4db5772d9912"
string attributeName = ...// for example,
"//pd:purchaseOrder/pd:secondApproval"
```

```
bool val = true;

try
 {
    svc.SetCustomAttr(customID, attributeName, val);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Set Custom Attributes

API Type

Web Services

Description

Sets names and values for multiple custom attributes for a specified custom ID.

Syntax

public virtual void SetCustomAttrs(string customID, NameValue[] nameValues)

Parameters

Name	Description
customID	Definition: A work object ID specified within a process instance. Type string Allowed Values: One valid work object ID.
attributes	Definition: Name-value pairs associated with a custom ID. Type NameValue Allowed Values:

Name	Description
	A valid custom ID with an associated name.

Output

None.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string customID = ..// for example, "InfoPath:011eaf6c46ac4723b25b4db5772d9912"

NameValue[] attributes = new NameValue[]
    {
    new NameValue("CustomAttributeName1","CustomAttributevalue1"),
    new NameValue("CustomAttributeName2",false),
    new NameValue("CustomAttributeName3", 10.0)
 };

try
 {
    svc.SetCustomAttrs(customID, attributes);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Methods for Archiving and Restoring Processes

This section describes service calls related to archiving and restoration of processes.

Archive Process Instance

API Type

Web Services

Description

Archives a process instance based on a specified process instance identifier by moving the set of process instance records from the current AgilePoint Database into the AgilePoint Archive Database. The process instance records and all of the associated data are then deleted from the AgilePoint Database. The process instance to be archived must be completed or canceled.

Syntax

public virtual void ArchiveProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

None.

Example

```
// this is console application sample
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = ..// the ID of process instance to be
     archived

try
    {
    svc.ArchiveProcInst(processInstanceID);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed!, {0}", ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Restore Process Instance

API Type

Web Services

Description

Restores a process instance and associated data from the ArchiveDatabase to the AgilePoint Server. The process instance records are written to the AgilePoint Database deleted from the AgilePoint Archive Database.

Syntax

public virtual void RestoreProcInst(string processInstanceID)

Parameters

Name	Description
processInstanceID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID

Output

None.

Example

```
// this is console application sample code
IWFWorkflowService svc = GetWorkflowService();
string processInstanceID = ..// the ID of process instance to be
restored.

try
 {
    svc.RestoreProcInst(processInstanceID);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex) );
 }
```

Supported Versions

3.2.0.4 and higher

Query Archived Process Instances

API Type

Web Services

Description

Retrieves process instances that match a SQL query.

Syntax

public virtual WFBaseProcessInstance[] QueryArchivedProcInsts(string sqlWhereClause)

Parameters

Name	Description
sqlWhereClause	Definition: The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

An array of WFBaseProcessInstance objects.

Example

```
// Build SQL Statement
string processDefinitionName = "Budget Request Approval Process";
string sqlWhereClause = string.Format("DEF_NAME ='{0}'",
processDefinitionName);

try
 {
    WFBaseProcessInstance[] archivedProcessInstances =
    svc.QueryArchivedProcInsts(sqlWhereClause)
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Group, Role, and Rights

This section describes service calls related to the groups, roles, and rights.

Add Group

API Type

Web Services

Description

Adds a group to the AgilePoint system.

Syntax

public virtual WFGroup AddGroup(string GroupName, string Description, string ResponsibleUser, bool Enabled)

Parameters

Name	Description
GroupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.
Description	Definition: A free text description of an entity. Type string Allowed Values: A string that can contain spaces and special characters.
ResponsibleUser	Definition:

Name	Description
	The user name for the responsible user of this group. The responsible user must be a registered AgilePoint user. Type string Allowed Values: A valid user name.
Enabled	Definition: Enables or disables an entity. Type bool Allowed Values: • **True** - Enables the entity. • **False** - Disables the entity.

Output

WFGroup object represented the group that is added.

Example

```
IWFAdminService svc = GetAdminService();
string GroupName = ...;
string Description = ...;
string ResponsibleUser = @"[Domain Name]\[Account Name]", // Group
Lead User Name
bool Enabled = true;

try
    {
    WFGroup group = svc.AddGroup(GroupName, Description,
    ResponsibleUser, Enabled);
    }

catch( Exception ex )
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Add Group Member

API Type

Web Services

Description

Adds a user as a member of a group.

Syntax

public virtual WFGroupMember AddGroupMember(string GroupName, string UserName, string Description, string ClientData, bool Enabled)

Parameters

Name	Description
GroupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.
UserName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.
Description	Definition: A free text description of an entity. Type string Allowed Values: A string that can contain spaces and special characters.

Name	Description
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.
Enabled	Definition: Enables or disables an entity. Type bool Allowed Values: • **True** - Enables the entity. • **False** - Disables the entity.

Output

WFGroupMember object that contains the data for the new group member.

Example

```
IWFAdminService svc = GetAdminService();
string GroupName = ...;
string Description = ...;
string UserName = @"[Domain Name]\[Account Name]", // Group Lead User Name
string ClientData = null;
bool Enabled = true;

try
    {
    WFGroup group = svc.AddGroupMember(GroupName, UserName, Description,
    ClientData, Enabled);
    }

catch( Exception ex )
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Add Role

API Type

Web Services

Description

Adds a role to the AgilePoint system.

Syntax

public virtual WFRole AddRole(String RoleName, String Description, int[] Rights, bool Enabled)

Parameters

Name	Description
RoleName	Definition: The name of a role. Type string Allowed Values: A valid role name.
Description	Definition: A free text description of an entity. Type string Allowed Values: A string that can contain spaces and special characters.
Rights	Definition: Specifies the rights that are assigned to the Role. Type WFAccessRights

Name	Description
	Allowed Values: An array of index values. See the table for appropriate indexes. WFAccessRights provides the enums for rights. See the sample code for more information.
Enabled	Definition: Enables or disables an entity. Type bool Allowed Values: • **True** - Enables the entity. • **False** - Disables the entity.

Access Rights

Index	Rights
0	Register and modify the user information
1	Unregister a user
2	Add and modify role information
3	Remove a role
4	Add and modify group information
5	Remove a group
6	Modify and view system information
7	Add a process definition
8	Check in and check out a process definition
9	Delete or disable a process definition
10	Release a process definition
11	Initiate a process
12	Suspend and resume a process
13	Resend and cancel an email notification
14	Cancel a process
15	Rollback a process
16	Reassign a task

Index	Rights
17	Cancel a task
18	Create a task
19	Add, remove and modify delegation
20	Add, remove and modify report configuration
21	Achieve and restore processes
22	Add, remove and modify shared custom attributes
23	View process details

Output

WFRole object for the role that is added.

Example

```
IWFAdminService svc = GetAdminService();
string RoleName = ...// for example, "Process Manager";
string Description = ...;
/*integer array specifying the access rights for this role.
* 11 - Initiate a process
* 14 - Cancel a process
* 23 - view process details
*/
int[] Rights =
    {
    WFAccessRights.InitiateProcessInstance,
    WFAccessRights.CancelProcessInstance,
    WFAccessRights.ViewProcessDetails
 };

try
 {
    WFRole role = svc.AddRole(RoleName, Description, Rights, True);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Add Role Member

API Type

Web Services

Description

Adds a user or a group to a role.

Syntax

public virtual WFRoleMember AddRoleMember(string RoleName, string Assignee, string AssigneeType, string ClientData, string ObjectID, string ObjectType);

Parameters

Name	Description
RoleName	Definition: The name of a role. Type string Allowed Values: A valid role name.
Assignee	Definition: The name of the assignee. Type string Allowed Values: A valid user name or group name, depending upon the assignee type.
AssigneeType	Definition: The type for the assignee for the task. Type string Allowed Values: • **User** - Assigns the task to a user. • **Group** - Assigns the task to a group.
ClientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type

Name	Description
	string Allowed Values: A string that contains the client data. If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.
ObjectID	Definition: Reserved for future use. Type string Allowed Values: A null value.
ObjectType	Definition: Reserved for future use. Type string Allowed Values: A null value.

Output

WFRoleMember object.

Example

```
IWFAdminService svc = GetAdminService();

string RoleName = "Administrative";
string Assignee = @"Demo3\Administrator";
string AssigneeType = "User";

try
    {
    WFRoleMember member = svc.AddRoleMember(RoleName, Assignee,
    AssigneeType, "", null, null);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Enabled Group Member

API Type

Web Services

Description

Enables or disables a user as a member of a group.

Syntax

public virtual WFGroupMember EnabledGroupMember(string GroupName, string userName, bool Enabled)

Parameters

Name	Description
GroupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.
Enabled	Definition: Enables or disables an entity. Type bool Allowed Values:

Name	Description
	• **True** - Enables the entity. • **False** - Disables the entity.

Output

WFGroupMember object.

Example

```
IWFAdminService svc = GetAdminService();

string GroupName = "Administrative";
string userName = @"Demo3\Administrator";
bool Enabled =false;

try
 {
    svc.EnabledGroupMember(GroupName, userName, Enabled);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Access Right Names

API Type

Web Services

Description

Retrieves the names of all the access rights in the AgilePoint system.

Syntax

public virtual string[] GetAccessRightNames()

Parameters

Name	Description
None	Not Applicable

Output

An array of strings that contain the names of all the access rights for the system.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    string[] permissionNames = svc. GetAccessRightNames();
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Access Rights

API Type

Web Services

Description

Retrieves the access rights for a specified user.

Syntax

public virtual int[] GetAccessRights(string userName)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.

Output

An array of integers that represent the access rights of the user.

Example

```
IWFAdminService svc = GetAdminService();
string userName = ...// for example, "Demo3\\ap_svc"

try
 {
    string[] accessNames = svc.GetAccessRightNames();
    int[] userRights = svc.GetAccessRights(userName);
    Console.WriteLine("The user has the following rights:");
    foreach (int rightCode in userRights)
        {
        Console.WriteLine(accessNames[rightCode]);
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
/*
This example produces the following results:
The user has the following rights:
Register and modify the user information
Unregister a user
Add and modify the role information
Remove a role
Add and modify the group information
Remove a group
Modify/View the system configuration
Add a process definition
Checkin and checkout a process definition
Delete and disable a process definition
...
*/
```

Supported Versions

3.2.0.4 and higher

Get Group

API Type

Web Services

Description

Retrieves a group object with the specified group name.

Syntax

public virtual WFGroup GetGroup(string groupName)

Parameters

Name	Description
groupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.

Output

WFGroup object. If the specified group does not exist, the output is null.

Example

```
IWFAdminService svc = GetAdminService();
string groupName = ...// for example, "Administrators";

try
 {
    WFGroup grpInfo = svc.GetGroup(groupName);
    Console.WriteLine("Group Name:{0}; Group Lead:{1}", grpInfo.Name,
    grpInfo.ResponsibleUser);
 }

catch (Exception ex)
 {
 Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
/*
This example produces the following results:
Group Name:Administrators; Group Lead:\Administrator
*/
```

Supported Versions

3.2.0.4 and higher

Get Group Members

API Type

Web Services

Description

Retrieves the members of a specified group.

Syntax

public virtual WFGroupMember[] GetGroupMembers(string groupName)

Parameters

Name	Description
groupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.

Output

An array of WFGroupMember objects.

Example

```
IWFAdminService svc = GetAdminService();
string groupName = ...// for example, "Administrators";

try
 {
    WFGroupMember[] grpMembers = adminService.GetGroupMembers(groupName);
    Console.WriteLine("AgilePoint Group {0} has {1} members:",
    groupName, grpMembers.Length);
    foreach (WFGroupMember grpMember in grpMembers)
        {
        Console.WriteLine("Member Name:{0}", grpMember.Member);
        }
 }

catch (Exception ex)
 {
 Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
```

```
 }

/*
This example produces the following results:
AgilePoint Group Administrators has 3 members:
Member Name:\Administrator
Member Name:VITBDC\yuvarajn
Member Name:Demo3\manager
*/
```

Supported Versions

3.2.0.4 and higher

Get Groups

API Type

Web Services

Description

Retrieves all the group objects in the system.

Syntax

public virtual WFGroup[] GetGroups()

Parameters

Name	Description
None	Not Applicable

Output

An Array of WFGroup objects.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    WFGroup[] apGroups = svc.GetGroups();
    Console.WriteLine("AgilePoint Group {0} has {1} members:",
    groupName, grpMembers.Length);
    Console.WriteLine("AgilePoint Groups:");
    foreach(WFGroup grp in apGroups)
        {
        System.Console.WriteLine("Name:{0};Group Lead:{1} ", grp.Name,
 grp.ResponsibleUser);
        }
 }
```

```
catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/*
This example produces the following results:
AgilePoint Groups:
Name:Administrators;Group Lead:\Administrator
Name:Domain Users;Group Lead:VITBDC\amarnv
*/
```

Supported Versions

3.2.0.4 and higher

Get Role

API Type

Web Services

Description

Retrieves a role object by name.

Syntax

public virtual WFRole GetRole(string roleName);

Parameters

Name	Description
roleName	Definition: The name of a role. Type string Allowed Values: A valid role name.

Output

WFRole object with the specified role name.

Example

```
IWFAdminService svc = GetAdminService();
```

```
string rolName = ...// for example, "Administrators"

try
 {
    WFRole role = adminService.GetRole(rolName);
    Console.WriteLine("Name = '" + role.Name + "' Description = '" +
    role.Description + "'");
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/* This example produces the following results:
Name = 'Administrators' Description = 'Administrators have complete access to
 maintain system' */
```

Supported Versions

3.2.0.4 and higher

Get Roles

API Type

Web Services

Description

Retrieves a list of all roles in the system.

Syntax

public virtual WFRole[] GetRoles()

Parameters

Name	Description
None	Not Applicable

Output

An array of WFRole objects that includes all roles.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    WFRole[] roles = adminService.GetRoles();
    foreach (WFRole role in roles)
```

```
        {
        Console.WriteLine("Name = '{0}', Description = '{1}'",role.Name,
        role.Description);
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/* This example produces the following results:
Name = 'Administrators' Description = 'Administrators have complete
access to maintain system'
Name = 'Process Runtime Managers' Description = 'Process Runtime
Managers have complete access to manage runtime processes'
Name = 'process definition Designers' Description = 'process
definition Designers have complete access to add, modify and remove process
templates' */
```

Supported Versions

3.2.0.4 and higher

Query Role Members

API Type

Web Services

Description

Retrieves the members assigned to a role that match a specified SQL statement.

Syntax

public virtual WFRoleMember[] QueryRoleMembers(string roleName, string sqlWhereClause)

Parameters

Name	Description
roleName	Definition: The name of a role. Type string Allowed Values: A valid role name.
sqlWhereClause	Definition:

Name	Description
	The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

Returns array of WFRoleMember members of the role that match the specified SQL statement.

Example

```
IWFAdminService svc = GetAdminService();
string roleName = ...// for examples, "Users"
string sqlWhereClause = ...// for example, "ASSIGNEE_TYPE='User'"

try
 {
    WFRoleMember[] roleMembers = svc.QueryRoleMembers(roleName, sqlWhereClause);
    foreach (WFRoleMember member in roleMembers)
        {
        Console.WriteLine("Assignee = '{0}', Created Date = '{1}'",
                        member.Assignee,
                        member.CreatedDate.ToShortDateString());
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/*
This example produces the following results:
Assignee = 'DEMO\CONTROLLER' & Created Date = '9/18/2009'
Assignee = 'DEMO\CFO' & Created Date = '9/18/2009'
*/
```

Supported Versions

3.2.0.4 and higher

Remove Group

API Type

Web Services

Description

Removes a group from the AgilePoint system.

Syntax

public virtual void RemoveGroup(string groupName)

Parameters

Name	Description
groupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string groupName = ...// for examples, "Users"

try
 {
    svc.RemoveGroup(groupName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Group Member

API Type

Web Services

Description

Removes a member from a group.

Syntax

public virtual void RemoveGroupMember(string GroupName, string UserName)

Parameters

Name	Description
GroupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.
UserName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string GroupName = ...// for examples, "Engineers"
string UserName = ...// for example, @"VIT\ct-002"

try
 {
    svc.RemoveGroupMember(GroupName, UserName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Role

API Type

Web Services

Description

Removes a role from the AgilePoint system.

Syntax

public virtual void RemoveRole(string roleName)

Parameters

Name	Description
roleName	Definition: The name of a role. Type string Allowed Values: A valid role name.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string roleName = ...// for example, "Engineers"

try
 {
    svc.RemoveRole (roleName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Role Member

API Type

Web Services

Description

Removes a user or a group from a specified role.

Syntax

public virtual void RemoveRoleMember(string RoleName, string Assignee, string AssigneeType, string ObjectID)

Parameters

Name	Description
RoleName	Definition: The name of a role. Type string Allowed Values: A valid role name.
Assignee	Definition: The name of the assignee. Type string Allowed Values: A valid user name or group name, depending upon the assignee type.
AssigneeType	Definition: The type for the assignee for the task. Type string

Name	Description
	Allowed Values: • **User** - Assigns the task to a user. • **Group** - Assigns the task to a group.
ObjectID	Definition: Reserved for future use. Type string Allowed Values: A null value.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string RoleName = ...// for example, "Engineers"
string Assignee = ...// for example, @"VIT\ct-002"

try
 {
    svc.RemoveRoleMember(RoleName, Assignee, "User", null);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Group

API Type

Web Services

Description

Updates information for a group.

Syntax

WFGroup UpdateGroup(string GroupName, string Description, string ResponsibleUser, bool Enabled)

Parameters

Name	Description
GroupName	Definition: Specifies the name of a group. Type string Allowed Values: A valid group name.
Description	Definition: A free text description of an entity. Type string Allowed Values: A string that can contain spaces and special characters.
ResponsibleUser	Definition: The user name for the responsible user of this group. The responsible user must be a registered AgilePoint user. Type string Allowed Values: A valid user name.
Enabled	Definition: Enables or disables an entity. Type bool Allowed Values:

Name	Description
	• **True** - Enables the entity. • **False** - Disables the entity.

Output

An updated WFGroup.

Example

```
IWFAdminService svc = GetAdminService();
string GroupName = ...// for example, "TestGroup1"
string Description = ... // for example, "This is new description of
the user group"
string ResponsibleUser = ...// for example, "DEMO3\\Administrator"

try
 {
WFGroup updatedGroup = Svc.UpdateGroup(GroupName, Description,
ResponsibleUser, true);
 }

catch (Exception ex)
 {
Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Role

API Type

Web Services

Description

Updates information for a role.

Syntax

public virtual WFRole UpdateRole(string RoleName, string Description, int[] Rights, bool Enabled)

Parameters

Name	Description
RoleName	Definition: The name of a role.

Name	Description
	Type string Allowed Values: A valid role name.
Description	Definition: A free text description of an entity. Type string Allowed Values: A string that can contain spaces and special characters.
Rights	Definition: Specifies the rights that are assigned to the Role. Type WFAccessRights Allowed Values: An array of index values. See the table for appropriate indexes. WFAccessRights provides the enums for rights. See the sample code for more information.
Enabled	Definition: Enables or disables an entity. Type bool Allowed Values: • **True** - Enables the entity. • **False** - Disables the entity.

Output

An updated WFRole object.

Example

```
IWFAdminService svc = GetAdminService();
string RoleName = ...// for example, "TestRole"
```

```
string Description = ...// for example, "This is new description for TestRole"
List<int> list = new List<int>();
list.Add(WFAccessRights.AddModifyGroup);
list.Add(WFAccessRights.AddModifyRole);
list.Add(WFAccessRights.AddModifyUser);
list.Add(WFAccessRights.AddProcessTemplate);
list.Add(WFAccessRights.AddRemoveModifyDelegation);
int[] Rights = list.ToArray();

try
 {
    WFRole updatedRole = svc.UpdateRole(RoleName, Description, Rights, true);
 }

catch( Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Organization Properties

This section describes service calls related to various organization properties.

Get Organization Properties

API Type

Web Services

Description

Retrieves organization properties such as Title, Department and Location.

Syntax

public virtual KeyValue[] GetOrganizationProperties(string Name)

Parameters

Name	Description
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string

Name	Description
	Allowed Values: A valid name.

Output

An array of KeyValue objects.

Example

```
IWFAdminService svc = GetAdminService();
string name = ...// for example, "Departments"

try
 {
    KeyValue[] organizationProperties =
    svc.GetOrganizationProperties(Name);
    foreach (KeyValue property in organizationProperties)
    {
       Console.WriteLine("Property Name = 'Department' Property Value =
       '" + property.Value + "'");
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Remove Organization Properties

API Type

Web Services

Description

Removes an organization property from AgilePoint.

Syntax

public virtual void RemoveOrganizationProperties(string Name)

Parameters

Name	Description
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string Name = ...// for example, "Departments"

try
 {
    svc. RemoveOrganizationProperties (Name);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Organization Properties

API Type

Web Services

Description

Updates organization properties in the AgilePoint the system.

Syntax

void UpdateOrganizationProperties(string Name, KeyValue[] list)

Parameters

Name	Description
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.
list	Definition: A list of properties. Type KeyValue Allowed Values: A list of key-value pairs.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string Name = ...// for example, "Titles"
List<KeyValue> list = new List<KeyValue>();
list.Add( new KeyValue( "MANAGER", "Manager" ) );
list.Add( new KeyValue( "REG_SALES_DIRECTOR", "Regional Sales
Director" ) );
list.Add( new KeyValue( "GENERAL_MANAGER", "General Manager" ) );
KeyValue[] properties = list.ToArray();

try
 {
 adm.UpdateOrganizationProperties("Titles",properties );
 }

catch (Exception ex)
 {
Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Other Web Services

This section describes other additional web services.

Query Audit Trail

API Type

Web Services

Description

Retrieves all audit trail items.

Syntax

public virtual WFAuditTrailItem[] QueryAuditTrail(string where)

Parameters

Name	Description
where	Definition: The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

An array list of WFAuditTrailItem objects.

Example

```
// This is console application sample
IWFWorkflowService svc = GetWorkflowService();

// Checking where condition based on the CATEGORY COLUMNand PURPOSE
COLUMN .
string where = "CATEGORY = 0 AND PURPOSE='Check-in process
```

```
definition'";

try
 {
    // calling the QueryAuditTrail web method it return a array of Dataset.
    WFAuditTrailItem[] result = svc.QueryAuditTrail(where);
    foreach (WFAuditTrailItem item in result)// Iterating through
    WFAuditTrailItem
    {
        //Displaying the result on the console.
        System.Console.Write("ItemCategory: {0} ,ItemDateOccurred: {1}",
                    item.Category,item.DateOccurred);
        System.Console.Write("ItemDescription: {0} ,ItemObjectID: {1}",
                    item.Description, item.ObjectID);
        System.Console.WriteLine("ItemPurpose: {0} ,ItemPerformer: {1}",
                    item.Purpose item.Performer);
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

4.0.1 and higher

Query Database

API Type

Web Services

Description

Queries the database with any valid sql query and returns the dataset as a string in XML format.

Syntax

public virtual string QueryDatabase(string sql)

Parameters

Name	Description
sql	Definition: The where clause of the SQL statement you want to query. Type string Allowed Values:

Name	Description
	The where clause of a SQL statement.

Output

An XML string that contains the dataset with the results of the database query.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string sql = "SELECT * FROM WF_AUDIT_TRAILS where CATEGORY = 0 AND
PURPOSE='Check-in process definition'";

try
 {
    // calling the QueryDatabase web method and passing the sql query as the
 argument.
    string xml = svc.QueryDatabase(sql);
    Console.WriteLine("{0}", xml);// Displaying the XML string on console.
    System.IO.stringReader sr = new System.IO.stringBuilder(xml);
    System.Data.DataSet ds = new System.Data.DataSet();
    ds.LoadXml(sr);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Query Database (Extended Method)

API Type

Web Services

Description

Queries the database with any valid SQL query and returns an array of 2 elements in XML string format.

Syntax

public virtual string[] QueryDatabaseEx(string sql)

Parameters

Name	Description
sql	Definition:

Name	Description
	The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

2 elements in a string array, where string[0] is an XML string with the dataset of the query results and string[1] is an XML string with the schema.

Example

```
IWFWorkflowService svc = GetWorkflowService();
string sql = "SELECT * FROM WF_AUDIT_TRAILS where CATEGORY = 0 AND
PURPOSE='Check-in process definition'";

try
 {
    // calling the QueryDatabase web method and passing the sql query as the
 argument.
    string[] xmls = svc.QueryDatabase(sql);
    Console.WriteLine("{0}", xmls[0]);// Displaying the XML string on console.
    Console.WriteLine("{0}", xmls[1]);// Displaying the schema on console.
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Administrative Service

This section describes service calls related to administrative functions. These calls are found under admin.wsdl.

Get All EMail Templates

API Type

Web Services

Description

Retrieves all the global email templates from the server.

Syntax

private KeyValue[] GetAllEMailTemplates()

Parameters

Name	Description
None	Not Applicable

Output

Returns all the global email templates.

Example

```
private KeyValue[] GetAllEMailTemplates()

 {
    IWFAdminService api = GetAdminService();
    return api.GetAllEMailTemplates();
 }
```

Supported Versions

3.2.0.4 and higher

Get Database Information

API Type

Web Services

Description

Retrieves the database information of the current server configuration.

Syntax

public virtual DatabaseInfo GetDatabaseInfo()

Parameters

Name	Description
None	Not Applicable

Output

A DatabaseInfo object that represents the database information of the system.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    DatabaseInfo dbInfo = svc.GetDatabaseInfo();

    if (dbInfo != null)
    {
       Console.WriteLine("AgilePoint System Database Information:");
       Console.WriteLine("Vendor: {0}", dbInfo.Vendor);
       Console.WriteLine("Provider: {0}", dbInfo.Provider);
       Console.WriteLine("Connection string: {0}", dbInfo.Connstr);
    }
    }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
/*
This example produces the following results:
AgilePoint System Database Information:
Vendor: MSSQLDatabase
Provider:
Connection string: application name=AgilePoint Server;connection
lifetime=5;min pool
size=10;server=Demo3;database=AgilePointDB;trusted_Connection=yes
*/
```

Supported Versions

4.6 and higher

Get Domain Groups

API Type

Web Services

Description

Retrieves all the domain group objects.

Syntax

public virtual KeyValue[] GetDomainGroups(string LDAPPath, string Filter)

Parameters

Name	Description
LDAPPath	Definition: The LDAP path to the domain. Type string Allowed Values: A valid LDAP path. If the value is null, the AgilePoint Server machine domain will be used.
Filter	Definition: A filter term for groups that is wildcard-enabled. Type string Allowed Values: A string in the format (name=[my wildcard filter]).

Output

Array of KeyValue objects. If the specified group is not found, the output is null.

Example

```
IWFAdminService svc = GetAdminService();
string LDAPPath = ...// for example, LDAP://ou=Sales,dc=Frabrikam,dc=com
string Filter = "A*";
Filter = string.Format("(name={0})", Filter);

try
 {
    KeyValue[] grps = svc.GetDomainGroups(LDAPPath, Filter);
 foreach (KeyValue grp in grps)
        {
        Console.WriteLine("Group Name:{0}; Group Distinct Name:{1};", grp.Key,
 grp.Value);
        }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Domain Group Members

API Type

Web Services

Description

Retrieves the members of a domain group.

Syntax

public virtual DomainUser[] GetDomainGroupMembers(string groupDistinguishedName)

Parameters

Name	Description
groupDistinguishedName	Definition: Specifies the name of a group in LDAP format. Type string Allowed Values: A valid a group name in LDAP format.

Output

An array of DomainUser objects.

Example

```
IWFAdminService svc = GetAdminService();
string groupName = "Administrators";
string groupDistinguishedName = "LDAP://" + groupName;

try
 {
    DomainUser[] grpUsers = svc.
    GetDomainGroupMembers(groupDistinguishedName);
    foreach (DomainUser usr in grpUsers)
        {
        Console.WriteLine("User Name:{0}; Full Name:{1};", usr.UserName,
 usr.FullName);
        }
```

```
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
/*
This example produces the following results:
User Name:Administrator; Full Name:Administrator
User Name:vitbdc/yuvarajn; Full Name:Yuvaraj Nagarajan
*/
```

Supported Versions

3.2.0.4 and higher

Get Domain Name

API Type

Web Services

Description

Retrieves the domain name to which AgilePoint Server connects.

Syntax

public virtual string GetDomainName()

Parameters

Name	Description
None	Not Applicable

Output

A string containing the domain name of the AgilePoint Server machine.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    string domainName = svc.GetDomainName();
    Console.WriteLine("AgilePoint System Domain Name={0}", domainName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

```
/* Sample of output
AgilePoint System Domain Name=LDAP://dc=Frabrikam,dc=com
*/
```

Supported Versions

4.6 and higher

Get Domain Users

API Type

Web Services

Description

Retrieves all the user information in the domain that AgilePoint Server connects. It could be a local Windows system user, or a domain controller on the network.

Syntax

public virtual DomainUser[] GetDomainUsers(string LDAPPath, string Filter)

Parameters

Name	Description
LDAPPath	Definition: The LDAP path to the domain. Type string Allowed Values: A valid LDAP path. If the value is null, the AgilePoint Server machine domain will be used.
Filter	Definition: A filter term for groups that is wildcard-enabled. Type string Allowed Values: A string in the format (name=[my wildcard filter]).

Output

Array of DomainUser objects. If the specified group does not exist, the return value is null.

Example

```
IWFAdminService svc = GetAdminService();
string LDAPPath = ...// for example,
LDAP://ou=Sales,dc=Frabrikam,dc=com
string Filter = ""; // All Users

try
 {
    DomainUser[] users = svc.GetDomainUsers(LDAPPath, Filter);
    foreach (DomainUser user in users)
    {
       Console.WriteLine("Full Name:{0}; Login Name:{1};", user.FullName,
 user.UserName);
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/*
This example produces the following results:
Full Name:Manager; Login Name:Demo3\Manager;
Full Name:Marcomm; Login Name:Demo3\Marcomm;
Full Name:SharePoint Administrator; Login Name:Demo3\sp_adm;
Full Name:Sujeet Kumar; Login Name:Demo3\sujeetk;
*/
```

Supported Versions

3.2.0.4 and higher

Get EMail Template

API Type

Web Services

Description

Retrieves an email templates with the specified template name from the server.

Syntax

private string GetEMailTemplate(string processTemplateID)

Parameters

Name	Description
processTemplateID	Definition: The unique identifier for the process definition to be checked out for modification. Type string Allowed Values: A valid process template ID

Output

Returns an email templates.

Example

```
private string GetEMailTemplate(string templateID)

 {
    IWFAdminService api = GetAdminService();
    return api.GetEMailTemplate(templateID);
 }
```

Supported Versions

3.2.0.4 and higher

Get Locale

API Type

Web Services

Description

Retrieves the default locale for the AgilePoint Server.

Syntax

public virtual string GetLocale()

Parameters

Name	Description
None	Not Applicable

Output

Locale abbreviation—for example, en-US.

Example

```
IWFAdminService svc = GetAdminService();
string activeDirectoryLdapPath = ...// for example,
LDAP://ou=Sales,dc=Frabrikam,dc=com
string userFilter = ""; // All Users

try
 {
    string locale = svc.GetLocale();
    Console.WriteLine("Locale = '{0}'", locale);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/*
This example produces the following results:
Locale = 'en-US
*/
```

Supported Versions

4.6 and higher

Get Register User

API Type

Web Services

Description

Retrieves the user information for the registered user.

Syntax

public virtual RegisteredUser GetRegisterUser(string userName)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.

Output

RegisteredUser object.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    RegisteredUser registerUser =
    svc.GetRegisterUser("domain\\wilson.goodman");
    Console.WriteLine("Name = '{0}', Department = '{1}'",
                   registerUser.FullName,
                   registerUser.Department);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

//This example produces the following results:
//Name = 'CFO' Department = 'Finance'
```

Supported Versions

3.2.0.4 and higher

Get Register Users

API Type

Web Services

Description

Retrieves all registered users.

Syntax

public virtual RegisteredUser[] GetRegisterUsers()

Parameters

Name	Description
None	Not Applicable

Output

Returns an array of registered users.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    RegisteredUser[] registerUsers = svc.GetRegisterUsers();
    foreach (RegisteredUser regUser in registerUsers)
    {
       Console.WriteLine("Name = '{0}', Department = '{1}'",
                   registerUser.FullName,
                   registerUser.Department);
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Get Register User Icons

API Type

Web Services

Description

Retrieves an icon for a registered user.

Syntax

public virtual byte[] GetRegisteredUserIcon(string userName)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.

Output

Return an array of bytes that contains image data.

Example

```
For future use.
```

Supported Versions

4.6 and higher

Get Sender Email Address

API Type

Web Services

Description

Retrieves the sender email address of the AgilePoint Server.

Syntax

public virtual string GetSenderEMailAddress()

Parameters

Name	Description
None	Not Applicable

Output

The email address that is configured as the sender email address on the AgilePoint Server.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    string senderEMailAddress = svc.GetSenderEMailAddress();
    Console.WriteLine("Sender EMail Address = '{0}'",
    senderEMailAddress);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

//This example produces the following results:
//Sender EMail Address = 'admin@your-domain.com'
```

Supported Versions

4.6 and higher

Get SMTP Server

API Type

Web Services

Description

Retrieves the SMTP server of the current server configuration.

Syntax

public virtual string GetSmtpServer();

Parameters

Name	Description
None	Not Applicable

Output

A string that contains the name of the AgilePoint system's SMTP server.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    string smtpServer = svc.GetSmtpServer();
    Console.WriteLine("SMTP Server Name = '" + smtpServer + "'");
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

//This example produces the following results:
//SMTP Server Name = 'smtp.vitinfotech.com'
```

Supported Versions

4.6 and higher

Get System Performance Information

API Type

Web Services

Description

Retrieves system performance information for AgilePoint Server.

Syntax

public virtual WFSysPerfInfo GetSysPerfInfo()

Parameters

Name	Description
None	Not Applicable

Output

WFSysPerfInfo object.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    WFSysPerfInfo sysPerfInfo = svc.GetSysPerfInfo();
```

```
    Console.WriteLine("1) ServerID = '{0}'",sysPerfInfo.ServerID);
    Console.WriteLine("2) MemoryAllocated = '{0}'",
    sysPerfInfo.MemoryAllocated);
    //...
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/*
This example produces the following results:
1) ServerID = 'DEMO/4356'
2) MemoryAllocated = '7329'
*/
```

Supported Versions

3.2.0.4 and higher

Get System User

API Type

Web Services

Description

Retrieves the name of the system user.

Syntax

public virtual string GetSystemUser()

Parameters

Name	Description
None	Not Applicable

Output

Returns the name of the system user as a string value.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    string systemUser = svc.GetSystemUser();
    Console.WriteLine("AgilePoint System User= '{0}'", systemUser);
 }
```

```
catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

//This example produces the following results:
//AgilePoint System User = 'Administrator'
```

Supported Versions

4.6 and higher

Query Register Users

API Type

Web Services

Description

Retrieves the list of registered users on theAgilePoint Server.

Syntax

public virtual RegisteredUser[] QueryRegisterUsers(string sqlWhereClause)

Parameters

Name	Description
sqlWhereClause	Definition: The where clause of the SQL statement you want to query. Type string Allowed Values: The where clause of a SQL statement.

Output

Returns a list of registered users.

Example

```
IWFAdminService svc = GetAdminService();
string sqlWhereClause = "DEPARTMENT in ('PublicUsers', ...)"

try
```

```
 {
    RegisteredUser[] registeredUsers =
    adminService.QueryRegisterUsers(sqlWhereClause);
    foreach (RegisteredUser user in registeredUsers)
    {
       Console.WriteLine("User Name = '{0}', Email = '{1}'",
       user.UserName,user.EMailAddress);
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }

/*
This example produces the following results:
User Name = 'DEMO\Author' Email = 'author@DEMO.com'
User Name = 'DEMO\Employee' Email = 'employee@DEMO.com'
*/
```

Supported Versions

3.2.0.4 and higher

Register User

API Type

Web Services

Description

Registers a user on the AgilePoint system.

Syntax

public virtual void RegisterUser(RegisteredUser user)

Parameters

Name	Description
user	Definition: Specifies information about a user. Type RegisteredUser Allowed Values: A valid RegisteredUser object.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    RegisteredUser user= new RegisteredUser();
    user.FullName = "Accountant";
    user.UserName = "DEMO\\Accountant";
    user.Department = "Accounts";
    user.EMailAddress = "accountant@DEMO.com";
    user.Locale = "en-US";
    svc.RegisterUser(user);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Unregister User

API Type

Web Services

Description

Removes a user's registration from the AgilePoint system. Note that this call does not remove the user from the local Windows system or the domain controller.

Syntax

void UnregisterUser(string userName)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string

Name	Description
	Allowed Values: A valid user name for a registered AgilePoint user.

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string userName = ...// for example, "[Domain Name]\[User Account
Name]"

try
 {
svc.UnregisterUser(userName);
 }

catch( Exception ex)
 {
Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Registered User

API Type

Web Services

Description

Updates user data for a registered user.

Syntax

public virtual void UpdateRegisterUser(RegisteredUser user)

Parameters

Name	Description
user	Definition: Specifies information about a user. Type

Name	Description
	RegisteredUser Allowed Values: A valid RegisteredUser object.

Output

None.

Example

```
RegisteredUser user = new RegisteredUser();
user.UserName = "DEMO3\\cfo";
user.FullName = "Andy";
user.EMailAddress = "cfo@tusca.com";
user.Title = "CFO";
user.Department = "Marketing";
user.Manager = "DEMO3\\Administrator";
user.Locale = Thread.CurrentThread.CurrentUICulture.Name;
IWFAdminService svc = GetAdminService();

try
 {
    svc.UpdateRegisterUser( user );
 }

catch( Exception ex )
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Registered User Icon

API Type

Web Services

Description

Updates the icon for a registered user.

Syntax

public virtual void UpdateRegisteredUserIcon(string userName, byte[] UserIcon)

Parameters

Name	Description
userName	Definition: The user name for the user. Type string Allowed Values: A valid user name for a registered AgilePoint user.
UserIcon	Definition: A byte array representation of icon image. Type byte Allowed Values: A valid byte array.

Output

None.

Example

```
None.
```

Supported Versions

4.6 and higher

Report Configuration Methods

This section describes service calls related to reports.

Add Report Configuration

API Type

Web Services

Description

Adds a report configuration to the system.

Syntax

public virtual WFReportConfigure AddReportConfigure(string reportName, string configure)

Parameters

Name	Description
reportName	Definition: The name of a report. Type string Allowed Values: A valid report name.
configure	Definition: The report configuration in XML format. Type string Allowed Values: A valid report configuration in XML format.

Output

WFReportConfigure object.

Example

```
IWFAdminService svc = GetAdminService();
string reportName = ...//for example, "weekly task report"
string configure = ...// xml-serialization of WFReportConfiguration

try
    {
    WFReportConfigurereportConfig =
    svc.AddReportConfigure(reportName, configure);
    }

catch (Exception ex)
    {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
    }
```

Supported Versions

3.2.0.4 and higher

Get All Report Configurations

API Type

Web Services

Description

Retrieves all report configurations from the system.

Syntax

public virtual WFReportConfigure[] GetAllReportConfigure()

Parameters

Name	Description
None	Not Applicable

Output

WFReportConfigure object.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    WFReportConfigure[] reportConfigs = svc.GetAllReportConfigure();
    Console.WriteLine("This AgilePoint Server has {0} reports
    configured:", reportConfigs.Length);
    foreach (WFReportConfigure config in reportConfigs)
    {
       Console.WriteLine("Report Name: {0}", config.ReportName);
    }
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
/*
This example produces the following results:
This AgilePoint Server has 1 reports configured:
Report Name:Average Process Time By Automatic Activities
*/
```

Supported Versions

3.2.0.4 and higher

Get Report Configuration

API Type

Web Services

Description

Retrieves a report configuration from the system.

Syntax

public virtual WFReportConfigure GetReportConfigure(string reportName)

Parameters

Name	Type	Description
reportName	Definition: The name of a report. Type string Allowed Values: A valid report name.	

Output

WFReportConfigure object.

Example

```
IWFAdminService svc = GetAdminService();
string reportName = ...;

try
 {
    WFReportConfigure cfg = svc.GetReportConfigure(reportName);
    Console.WriteLine("Report Name: {0}, config:{1}", cfg.ReportName,
    cfg.Configure);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
```

```
}
```

Supported Versions

3.2.0.4 and higher

Read Configuration

API Type

Web Services

Description

Read an event service configuration.

Syntax

public string ReadConfiguration()

Parameters

Name	Description
None	Not Applicable

Output

WFEvent object.

Example

```
public string ReadConfiguration()

 {
    IWFEventServiceConfiguration eventservice = GetEventService();
    string configuration = eventservice.ReadConfiguration();
 }
```

Supported Versions

3.2.0.4 and higher

Remove Report Configure

API Type

Web Services

Description

Removes a report configuration from the system.

Syntax

public virtual void RemoveReportConfigure(string reportName)

Parameters

Name	Type	Description
reportName	Definition: The name of a report. Type string Allowed Values: A valid report name.	

Output

None.

Example

```
IWFAdminService svc = GetAdminService();
string reportName = ...;

try
 {
    svc.RemoveReportConfigure(reportName);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Update Report Configuration

API Type

Web Services

Description

Updates a report configuration in the AgilePoint system.

Syntax

public virtual WFReportConfigure UpdateReportConfigure(string reportName, string configure)

Parameters

Name	Description
reportName	Definition: The name of a report. Type string Allowed Values: A valid report name.
configure	Definition: The report configuration in XML format. Type string Allowed Values: A valid report configuration in XML format.

Output

WFReportConfigure object.

Example

```
IWFAdminService svc = GetAdminService();
string reportName = ...//for example, "weekly task report"
string configure = ...// xml-serialization of WFReportConfiguration

try
 {
    WFReportConfigurereportConfig =
    svc.UpdateReportConfigure(reportName, configure);
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Component Administration Methods

This section describes service calls related to server component administration.

Get Server Component

API Type

Web Services

Description

Retrieves a server component name.

Syntax

public virtual WFComponent GetServerComponent(string Name)

Parameters

Name	Description
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.

Output

WFComponent object.

Example

```
None.
```

Supported Versions

3.2.0.4 and higher

Get Server Component Names

API Type

Web Services

Description

Retrieves the server component names using the Admin Services.

Syntax

public virtual string[] GetServerComponentNames()

Parameters

Name	Description
None	Not Applicable

Output

An array of strings that contain the server component names.

Example

```
IWFAdminService svc = GetAdminService();

try
 {
    string[] names = svc.GetServerComponentNames();
 }

catch (Exception ex)
 {
    Console.WriteLine("Failed! " + ShUtil.GetSoapMessage(ex));
 }
```

Supported Versions

3.2.0.4 and higher

Classes

This section includes references for all classes within the AgilePoint Web Service API.

KeyValue

Description

A class that represents an object with name and value properties.

Syntax

public class `KeyValue`

Constructors

public `KeyValue`();

public `KeyValue`(string key, string val);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
Key	Definition: Specifies the key of the instance. Type string Allowed Values:

Property	Description
	A valid key.
Value	Definition: The value for an item, such as the value for an attribute in a name-value pair. Type string Allowed Values: A valid string value.

NameValue

Description

A class that represents an object with the name and value properties.

Syntax

public class `NameValue`

Constructors

public `NameValue`();

public `NameValue`(string *name*,object *value*);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.Share (in Ascentn.Workflow.Share.dll)

Properties

Property	Description
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.
Value	Definition: The value for an item, such as the value for an attribute in a key-value pair. Type object Allowed Values: A valid object value.

IWFWorkflowService

Description

A class that provides interfaces for the AgilePoint workflow API on the client side.

Syntax

public interface `IWFWorkflowService`

Constructors

Not Applicable.

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

IWFTrackingEventPublisher

Description

Provides an interface to publish a process event.

Syntax

public interface `IWFTrackingEventPublisher`

Constructors

Not Applicable.

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
AppNameFilter	Definition: Gets the application name filter. Type

Property	Description
	string Allowed Values: A valid application name filter.
EventTypeFilter	Definition: Gets the event type filter. Type string Allowed Values: A valid event type filter.

RegisteredUser

Description

A class that represents an AgilePoint registered user.

Syntax

public class `RegisteredUser`

Constructors

public `RegisteredUser`();

public `RegisteredUser`(string user, string emailAddress, DateTime registeredDate, string fullName);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
Department	Definition: Gets and sets department of the user. Type string Allowed Values: A valid department name.
EMailAddress	Definition: Gets and sets the user's e-mail address. Type string Allowed Values: A valid e-mail address.
FullName	Definition: Specifies the full name of the user. Type string Allowed Values: A single line of text.
Manager	Definition: Specifies the manager of the user. Type string Allowed Values: A valid user name.
RegisteredDate	Definition: Gets and sets date registered. Type

Property	Description
	DateTime Allowed Values: A valid DateTime value.
Title	Definition: Specifies the job title of the user. Type string Allowed Values: A single line of text.
UserName	Definition: Specifies a qualified user name of the instance. A qualified user name formats as [Domain Name]\[Logon Username] or [Local host name]\[Logon Username]. Type string Allowed Values: A valid user name for a registered AgilePoint user.

WFAccessRights

Description

A class that represents different types of access rights.

Syntax

public enum `WFAccessRights`

Constructors

Not Applicable.

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

WFAgilePart

Description

An abstract class of AgilePart.

Syntax

public class `WFAgilePart`

Constructors

protected `WFAgilePart`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

WFAgilePartDescriptor

Description

An abstract class of WFAgilePartDescriptor.

Syntax

public class `WFAgilePartDescriptor` : WFAutomaticActivityDefinition, IWFProcessDefinitionReference

Constructors

public `WFAgilePartDescriptor`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
AssemblyName	Definition: Gets and sets the full name of the assembly. Type string Allowed Values: A valid assembly name.
ClassName	Definition: Gets and sets the class name, including the namespace. Type string Allowed Values: A valid class name.
Description	Definition: A free text description of the activity.

Property	Description
	Type string Allowed Values: A string that can contain spaces and special characters.
DisplayName	Definition: Gets and sets the display name of the activity. Type string Allowed Values: A valid activity display name.
ExpectedDuration	Definition: Specifies an expected time duration of the activity. Type WFTimeDuration Allowed Values: A valid WFTimeDuration object.
ID	Definition: Specifies the activity ID. Type WFTimeDuration Allowed Values: A valid activity ID.
IncomingActivities	Definition: Gets the interfaces for all the incoming activities. Type WFTimeDuration Allowed Values: A valid WFTimeDuration object.
IncomingEmail	Definition:

Property	Description
	Specifies an email template that used for an email notification after the start of the activity. Type string Allowed Values: A valid email template.
IncomingMailTemplate	Definition: Specifies an email template that used for an email notification after the start of the activity. Type string Allowed Values: A valid email template.
Index	Definition: Specifies the ordering index of the activity. Type int Allowed Values: An integer.
Item	Definition: Specifies the value associated with the specified parameter name. Type object Allowed Values: A valid Types object.
Method	Definition: Specifies the name of the method for the AgilePart. Type string Allowed Values: A valid method name.

Property	Description
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.
OutgoingActivities	Definition: Gets the interfaces for all the outgoing activities. Type string Allowed Values: A valid interface.
OutgoingEmail	Definition: Specifies an email template that used for email notification after the completion of an activity. Type string Allowed Values: A valid email template.
OutgoingMailTemplate	Definition: Specifies an email template to use for email notification when leaving the activity. Type string Allowed Values: A valid email template.
Procedure	Definition: Specifies the name of the procedure (method). Type string Allowed Values:

Property	Description
	A valid procedure name.
Process	Definition: Gets the interface class and sets the process definition. Type string Allowed Values: A valid process definition.
SaveErrorMessageTo	Definition: Specifies an attribute name for an error message of the AgilePart execution. Type string Allowed Values: A valid attribute name.
SaveStatusTo	Definition: Specifies an attribute name for the status of the AgilePart execution. Type string Allowed Values: A valid name of an attribute that is boolean type.
Synchronous	Definition: Specifies the flag to determine if this is a synchronous call. Type bool Allowed Values: • **True** - The call is synchronous. • **False** - The call is asynchronous.
TimeoutActivities	Definition: Gets the interfaces for all the timeout activities.

Property	Description
	Type string Allowed Values: A valid interface.
TimeoutMailTemplate	Definition: Specifies an email template that used for email notification when the activity is overdue. Type string Allowed Values: A valid email template.
WaitAllIncoming	Definition: Gets and sets the flag to determine whether the activity must wait until all predecessor activities complete. Type string Allowed Values: • **True** - The activity waits until all predecessor activities complete. • **False** - The activity starts without waiting for predecessor activities complete.

WFAgileWork

Description

An abstract class of WFAgileWork.

Syntax

public class `WFAgileWork`

Constructors

protected `WFAgileWork`(WFProcessInstance currentProcessInstance, WFManualActivityInstance currentActivityInstance);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

WFAgileWorkDescriptor

Description

An abstract class of WFAgileWorkDescriptor Custom properties format: [Prefix]:[Assembly Information]:[Class Name]:[Parameter].

Syntax

public class `WFAgileWorkDescriptor` : WFManualActivityDefinition, IWFProcessDefinitionReference

Constructors

public `WFAgileWorkDescriptor`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
AssemblyName	Definition: Gets and sets the full name of the assembly. Type string Allowed Values: A valid assembly name.
AutoComplete	Definition: Gets and sets the flag that determines whether the work item is automatically marked as completed. Type bool Allowed Values: • **True** - The work item is completed automatically. • **False** - The work item is not completed automatically.
ClassName	Definition: Gets and sets the class name, including the namespace. Type string Allowed Values: A valid class name.
CustomProperties	Definition: Specifies the custom properties. This member supports the AgilePoint Framework infrastructure and does not intend to use directly from your code. Type string Allowed Values:

Property	Description
	A valid custom properties.
Description	Definition: A free text description of the activity. Type string Allowed Values: A string that can contain spaces and special characters.
DisplayName	Definition: Gets and sets the display name of the activity. Type string Allowed Values: A valid activity display name.
ExpectedDuration	Definition: Specifies an expected time duration of the activity. Type WFTimeDuration Allowed Values: A valid WFTimeDuration object.
ID	Definition: Specifies the activity ID. Type WFTimeDuration Allowed Values: A valid activity ID.
IncomingActivities	Definition: Gets the interfaces for all the incoming activities. Type WFTimeDuration Allowed Values:

Property	Description
	A valid WFTimeDuration object.
IncomingEmail	Definition: Specifies an email template that used for an email notification after the start of the activity. Type string Allowed Values: A valid email template.
IncomingMailTemplate	Definition: Specifies an email template that used for an email notification after the start of the activity. Type string Allowed Values: A valid email template.
Index	Definition: Specifies the ordering index of the activity. Type int Allowed Values: An integer.
Item	Definition: Specifies the value associated with the specified parameter name. Type object Allowed Values: A valid Types object.
MaxParticipant	Definition: Specifies the maximum participants for the activity. Type int

Property	Description
	Allowed Values: An integer.
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values: A valid name.
Optional	Definition: Gets and sets the flag to indicate if the activity is optional. Type bool Allowed Values: • **True** - The activity is optional. • **False** - The activity is not optional.
OutgoingActivities	Definition: Gets the interfaces for all the outgoing activities. Type string Allowed Values: A valid interface.
OutgoingEmail	Definition: Specifies an email template that used for email notification after the completion of an activity. Type string Allowed Values: A valid email template.
OutgoingMailTemplate	Definition:

Property	Description
	Specifies an email template to use for email notification when leaving the activity. Type string Allowed Values: A valid email template.
Participant	Definition: Specifies the participant of the activity. Type string Allowed Values: A valid user name.
Participants	Definition: Specifies the participants of the activity. Type string Allowed Values: A valid multiple user names separated with a semicolon (;).
Process	Definition: Gets the interface class and sets the process definition. Type string Allowed Values: A valid process definition.
ReassigningEmail	Definition: Specifies the email template that used for an email notification when task is reassigned. Type string Allowed Values:

Property	Description
	A valid email template.
ReassigningMailTemplate	Definition: Specifies the email template for task reassignment. Type string Allowed Values: A valid email template.
RemindingEmail	Definition: Specifies an email template that used for reminding email notification. Type string Allowed Values: A valid email template.
RemindingMailAtBusinessTime	Definition: Gets and sets the flag that determines whether reminding an email must send in business time. Type bool Allowed Values: • **True** - Reminding emails are sent using business time. • **False** - Reminding email are sent using real time.
RemindingMailFrequency	Definition: Specifies the frequency of reminding an email notification. Type int Allowed Values: An integer.
RemindingMailStartTime	Definition:

Property	Description
	Specifies the start time in minutes of reminding an email notification before the task expires. Type int Allowed Values: An integer.
RemindingMailTemplate	Definition: Specifies the email template for task reminder emails. Type int Allowed Values: A valid email template.
ReuseParticipant	Definition: Gets and sets the flag that determines whether the participants must remain the same when the activity activated more than one time. Type bool Allowed Values: • **True** - The participants remains the same when the activity activated more than one time. • **False** - The participants do not remain the same when the activity activated more than one time.
TimeoutActivities	Definition: Gets the interfaces for all the timeout activities. Type string Allowed Values: A valid interface.
TimeoutEmail	Definition: Specifies the email template to use for email notification when task is overdue. Type

Property	Description
	string Allowed Values: A valid email template.
TimeoutMailTemplate	Definition: Specifies an email template that used for email notification when the activity is overdue. Type string Allowed Values: A valid email template.
WaitAllIncoming	Definition: Gets and sets the flag to determine whether the activity must wait until all predecessor activities complete. Type string Allowed Values: • **True** - The activity waits until all predecessor activities complete. • **False** - The activity starts without waiting for predecessor activities complete.
WaitWorkPerformed	Definition: Specifies whether the activity must be marked as completed by the application before proceeding. Type bool Allowed Values: • **True** - The activity must complete before proceeding. • **False** - The activity can proceed without waiting.
WorkPerformer	Definition: Specifies the WorkPerfomer/job of the manual activity. Type

Property	Description
	string Allowed Values: A valid WorkPerfomer/job name.
WorkToPerform	Definition: Represents the task that performed by the participants of the activity. Type string Allowed Values: A valid work to perform name.

WFAny

Description

A class that represents a primitive data type with type code.

Syntax

public class `WFAny`

Constructors

public `WFAny`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
Type	Definition: Gets and sets the type of a WFAny object. Type int Allowed Values: An integer.
Value	Definition: The value for an item, such as the value for an attribute in a key-value pair. Type object Allowed Values: A valid object value.

WFEvent

Description

A class that represents a workflow event.

Syntax

public class `WFEvent`

Constructors

public `WFEvent`();

public `WFEvent`(string name);

public `WFEvent`(string sender, string name);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
ActivityInstID	Definition: The unique ID for an activity instance. Type string Allowed Values: A valid activity instance ID.
AutoStart	Definition: Specifies if the process starts immediately after it is created. Type bool Allowed Values: • **True** - The process instance starts immediately after it is created. • **False** - The process instance does not start immediately after it is created.
clientData	Definition: Specifies the client data, which identifies a client for AgilePoint Server. Type string Allowed Values: A string that contains the client data.

Property	Description
	If this value is null, the system will keep existing client data. Otherwise the relevant data is overwritten.
CustomAttributes	Definition: Specifies custom attributes in XML format. Type NameValue Allowed Values: A valid NameValue pair.
Designated	Definition: Gets and sets the flag that determines if the event should be handled by a designated engine. Type bool Allowed Values: • **True** - The event is handled by a designated engine. • **False** - The event is not handled by a designated engine.
Diagnostic	Definition: Gets and sets the flag that determines if the process data will be deleted from the database after the process is completed. Type bool Allowed Values: • **True** - The process data is deleted from the database. • **False** - The process data is not deleted from the database.
EndDate	Definition: Specifies the completion date of delegation. Type DateTime Allowed Values:

Property	Description
	A valid DateTime value.
Entries	Definition: Gets the relay time of the event. Type int Allowed Values: A valid relay time.
Error	Definition: Gets and sets the error message of the event. Type string Allowed Values: A valid error message.
EventID	Definition: Specifies a unique ID for an event. Type string Allowed Values: A unique, 32-character ID.
EventName	Definition: Specifies the name of the event. Type string Allowed Values: A valid event name.
ParamsXml	Definition: Gets and sets the parameters as XML. Type string Allowed Values:

Property	Description
	A parameter.
ParentProcInstID	Definition: Specifies parent process instance ID. Type string Allowed Values: A valid process instance ID.
ProcDefID	Definition: Specifies process template (process definition) ID. Type string Allowed Values: A valid process definition ID.
ProcInstID	Definition: Specifies the unique ID of a process instance. Type string Allowed Values: A valid process instance ID
ProcInstName	Definition: A unique process name that is associated with the process definition. Type string Allowed Values: A unique process instance name up to 1024 characters.
Sender	Definition: Specifies a sender of the event. Type string

Property	Description
	Allowed Values: A valid user name.
SentDate	Definition: Specifies a sent date of the event. Type DateTime Allowed Values: A valid DateTime value.
SourceWorkItemID	Definition: An ID that represents the original, or source, work item. Type string Allowed Values: A valid, unique 32-character ID.
Status	Definition: The status of the event. Type string Allowed Values: A valid status.
ThrowAwayInstance	Definition: Specifies the flag that determines if AgilePoint server should clear the process from cache. Type bool Allowed Values: • **True** - AgilePoint Server clears the process from the cache. • **False** - AgilePoint Server does not clear the process from cache.
UserID	Definition:

Property	Description
	Specifies the user ID. Type string Allowed Values: A valid user ID.
WorkItemID	Definition: An ID that represents a work item (task). Type string Allowed Values: A valid, unique 32-byte work item (task) ID.
workObjectID	Definition: An ID for an object, such as a document, that is associated with the process instance. Type string Allowed Values: A valid, unique 256-character ID. Even though the field size is 256 characters, in common practice, this will usually return a 32-character GUID.

WFIntegratedApplication

Description

A class that represents an integrated application, such as an AgileConnector.

Syntax

public class `WFIntegratedApplication` : IWFIntegratedApplication

Constructors

public `WFIntegratedApplication`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
AppEventKind	Definition: Specifies the type of application event. Type IWFWorkflowService Allowed Values: A valid application event.
AppName	Definition: Specifies the name of the application. Type string Allowed Values: A valid, case-sensitive application name.
Category	Definition: Gets and sets a category name. Type string Allowed Values: A valid category name.

Property	Description
CustomConfiguration	Definition: Gets and sets custom configuration settings. Type System.Xml.NodeList Allowed Values: A valid set of custom configuration settings.
Description	Definition: A free text description of the application. Type string Allowed Values: A string that can contain spaces and special characters.
Impersonator	Definition: Specifies a user name of an impersonator user account. Type string Allowed Values: A valid impersonator user name.

WFIntegratedApplicationDescriptor

Description

An abstract class that describes the global control module.

Syntax

public class `WFIntegratedApplicationDescriptor` : IWFIntegratedApplicationDescriptor

Constructors

public `WFIntegratedApplicationDescriptor`(string integratedApplicationsXML);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
integratedApplicationsXml	Definition: Gets the configuration settings for the integrated application. Type string Allowed Values: Valid configuration settings.

WFPartialRollbackInstruction

Description

A class that provides instructions for activating activity instances.

Syntax

public class `WFPartialRollbackInstruction`

Constructors

public `WFPartialRollbackInstruction`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
PartialRollbackUnits	Definition: An array of instances of the PartialRollbackUnit class. Type PartialRollbackUnit Allowed Values: One or more PartialRollbackUnit objects.

WFProcessMergingInstruction

Description

A class that provides instructions for merging process instances during runtime.

Syntax

public class WFProcessMergingInstruction

Constructors

Not Applicable.

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
MergingProcessInstanceIDs	Definition: An array that includes the process instance IDs of the process instances you are merging. Type string Allowed Values: An array of valid process instance IDs.
MergedProcessInstance	Definition: An instance of the MergedProcess Parameter class that includes the merged process instance. Type MergedProcessParameter Allowed Values: A valid An MergedProcess Parameter object.

WFProcessMigrationInstruction

Description

A class that provides instructions for merging process instances during runtime.

Syntax

public class `WFProcessMigrationInstruction`

Constructors

Not Applicable.

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Type	Description
MatchingActivityDefinition	Definition: Specifies information for activity migration. Type class Allowed Values: A valid class.	
SourceProcessDefinitionID	Definition: The ID of the original, or source, process definition. Type string Allowed Values: A valid process definition ID.	
TargetProcessDefinitionID	Definition:	

Property	Type	Description
	The ID of the target, or destination, process definition. Type string Allowed Values: A valid process definition ID.	
Action	Definition: Specifies the migration action. Type MigrationAction Allowed Values: A valid migration action.	
IncludeXmlData	Definition: Specifies whether a migration includes XML data. Type bool Allowed Values: • **True** - The migration includes an XML data. • **False** - The migration does not include an XML data.	

WFProcessPluggableAdapter

Description

A class that represents an AgileExtender.

Syntax

public `WFProcessPluggableAdapter`

Constructors

public `WFProcessPluggableAdapter`(WFProcessInstance currentProcessInstance)

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
ComponentTypeID	Definition: Specifies a unique type ID of an Agile Extender. Type string Allowed Values: A valid type ID for your AgileExtender.
Name	Definition: Specifies the name of an AgileExtender. Type string Allowed Values: A valid AgileExtender name.
DisplayName	Definition: Gets and sets the display name of an AgileExtender. Type string Allowed Values:

Property	Description
	A valid AgileExtender display name.
Description	Definition: A free text description of an AgileExtender. Type string Allowed Values: A string that can contain spaces and special characters.
AssemblyFullName	Definition: Gets the full name of an AgileExtender assembly. Type string Allowed Values: A valid AgileExtender assembly name.
ClassName	Definition: Gets the type of the AgileExtender. Type string Allowed Values: A valid AgileExtender type.
ProcessInstance	Definition: Gets a runtime process instance object. Type WFProcessInstance Allowed Values: A WFProcessInstance object.

WFProcessPluggableAdapterDescriptor

Description

A Design Time supporting class for Agile Extender. This Design Time class extends the class WFProcessPluggableAdapterDescriptor.

Syntax

public partial class `MyAgileExtenderDescriptor` : `WFProcessPluggableAdaptterDescriptor`

Constructors

public `WFProcessPluggableAdaptterDescriptor`()

public `WFProcessPluggableAdaptterDescriptor`(bool *designTime*)

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
ComponentTypeID	Definition: Specifies a unique type ID of an Agile Extender. Type string Allowed Values: A valid type ID for your AgileExtender.
Name	Definition: Specifies the name of an AgileExtender.

Property	Description
	Type string Allowed Values: A valid AgileExtender name.
DisplayName	Definition: Gets and sets the display name of an AgileExtender. Type string Allowed Values: A valid AgileExtender display name.
Description	Definition: A free text description of an AgileExtender. Type string Allowed Values: A string that can contain spaces and special characters.
AssemblyFullName	Definition: Gets the full name of an AgileExtender assembly. Type string Allowed Values: A valid AgileExtender assembly name.
ClassName	Definition: Gets the type of the AgileExtender. Type string Allowed Values: A valid AgileExtender type.
Process	Definition:

Property	Description
	Gets the interface class and sets the process definition. Type IWFProcessDefinition Allowed Values: A IWFProcessDefinition class.
DesignTime	Definition: Specifies whether the object is used at design time. Type bool Allowed Values: • **True** - The object is used at design time. • **False** - The object is not used at design time.

WFProcessSplittingInstruction

Description

A class that provides instructions for splitting a process instance during runtime.

Syntax

public class `WFProcessSplittingInstruction`

Constructors

Not Applicable.

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
SplitProcessInstances	Definition: An array of instances of the SplitProcessParameter class. Type SplitProcessParameter Allowed Values: A valid SplitProcessParameter object.

WFQueryExpr

Description

A class that represents a query expression object.

Syntax

public class `WFQueryExpr`

Constructors

public `WFQueryExpr`();

public `WFQueryExpr`(string columnName, int op, WFAny any, bool val);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
Any	Definition: Gets and sets the WFAny object to be compared. Type WFAny Allowed Values: A valid WFAny object.
ColumnName	Definition: Gets and sets the associated database column name. Type string Allowed Values: A valid database column name.
IsValue	Definition: Gets and sets the flag that indicates if it compares a value or column of the table. Type bool Allowed Values: • **True** - It compares a value or column of the table. • **False** - It does not compare a value or column of the table.
Name	Definition: The name of an item, such as a property or attribute in a name/value pair. Type string Allowed Values:

Property	Description
	A valid name.
Operator	Definition: Specifies the operator used for comparison. Type int Allowed Values: A valid operator.

WFTimeDuration

Description

A class that represents Time Duration with length, time unit, and business time.

Syntax

public class `WFTimeDuration` : Serializable

Constructors

public `WFTimeDuration`();

public `WFTimeDuration`(string length, WFTimeUnit unit, bool b);

public `WFTimeDuration`(int length, WFTimeUnit unit, bool b);

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
BusinessTime	Definition: Determines whether the system calculates the duration using your business time calendar. Type bool Allowed Values: • **True** - The system calculates duration using business time. • **False** - The calculates the duration based on real time.
Length	Definition: Specifies the length of time duration. Type string Allowed Values: A valid time duration length.
Unit	Definition: Specifies the time unit. Type WFTimeUnit Allowed Values: • hour • day • week • month • year

WFTimeUnit

Description

A class that represents time unit.

Syntax

public class `WFTimeUnit`

Constructors

public `WFTimeUnit`();

Namespace and Assembly

Requirement	Value
Namespace	Ascentn.Workflow.Base
Assembly	Ascentn.Workflow.WFBase (in Ascentn.Workflow.WFBase.dll)

Properties

Property	Description
Value	Definition: The value for an item expressed as an integer, such as a time unit. Type int Allowed Values: An integer.

Data Types

A list of all data types used in the AgilePoint Web Service API. Common types refer to the documentation on msdn.com

Name	Description
bool	See the documentation on MSDN.
byte	See the documentation on MSDN.
DateTime	See the documentation on MSDN.
enum	See the documentation on MSDN.
Guid	Instantiates the Guid class.
int	See the documentation on MSDN.
IWFProcessDefinition	Instantiates the IWFProcessDefinition class.
IWFWorkflowService	Instantiates the IWFWorkflowService class.
KeyValue	Instantiates the KeyValue class.
MergedProcessParameter	Instantiates the MergedProcessParameter class.
MigrationAction	Instantiates the MigrationAction class.
NameValue	Instantiates the NameValue class.
object	See the documentation on MSDN.
PartialRollbackUnit	Instantiates the PartialRollbackUnit class.
RegisteredUser	Instantiates the RegisteredUser class.
SplitProcessParameter	Instantiates the SplitProcessParameter class.
String	See the documentation on MSDN.
WFAccessRights	Instantiates the WFAccessRights class.
WFAny	Instantiates the WFAny class.
WFEvent	Instantiates the WFEvent class.
WFProcessInstance	Instantiates the WFProcessInstance class.
WFQueryExpr	Instantiates the WFQueryExpr class.
WFTimeDuration	Instantiates the WFTimeDuration class.
WFTimeUnit	See the documentation on MSDN.