



ALBPM Process Administrator Reference

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Process Administrator Overview

Process Administrator is the AquaLogic BPM Enterprise component which you use to manage the process execution environment.

Process Administrator is a Web-based application which you can run from any Web browser with access to the Process Administrator Web application. With Process Administrator you can manage organization elements, control process execution engines, publish projects, connect to external resources, and monitor processes.

In order to run Process Administrator as well as other ALBPM Web Applications, you must set up a directory configuration with the Configuration Wizard, and then run the Web Applications from [Admin Center](#).

Organization

Organization Overview




The processes within a project always operate in the context of an *organization*. This means that an organization must be defined for each project.





In a project, the organization can represent all or part of a real organization, can include all or parts of other organizations, such as contractors or affiliates, and can also include roles that belong to no organization, such as customers. In AquaLogic® BPM, an organization is defined by the following elements:

- Organizational Units
- Roles
- Groups
- Participants
- Holidays
- Calendars
- Business Parameters

An organization is defined for each project. Therefore, it is not necessary to include elements of the organization which will have no function in the processes of a particular project. If you are not sure you will require a given element, leave it out. It can be always be added later, even on a running Process Engine.

Organization elements are accessed from Studio's Project Navigator or from the left pane in Process Administrator. A description of each type of element follows:

Element		Description
Organizational Units		Organizational Units are used to represent departments or divisions within the organization. Organizational Units can be defined hierarchically so that, for example, you can represent divisions within an organization, departments within a division, areas within a department, and so on. You can assign Participants, Calendars, and Business Parameters to an Organizational Unit. You can also deploy processes under an organizational unit.
Roles		Roles are used to represent functions performed by people related to the organization. Roles are assigned to participants or groups, and these assignments define the permissions the participants have when executing AquaLogic BPM tasks through Workspace.
Groups		Groups are collections of roles. In this way, it is possible assign multiple roles to participants in a single step. Groups may also contain other groups.

Element		Description
Participants		Participants are the actual people who participate in the organization, usually as end users of the BPM implementation.
Holidays		Holidays Define the organization's non-working days. These rules inform the Process Execution Engine that there is an exception to the normal calendar rules on certain days of the year.
Calendars		Calendars define the organization's work week and work schedule. Calendar rules can be assigned to organizational units.
Business Parameters		Business Parameters are used to maintain constant values defined either for the entire organization, or at the Organizational Unit level. These parameters are visible to all instances and all processes across the Organization. Although business parameters may be changed every once in a while, they are not meant to be used as variables. Rather, they provide a way of storing long-lived values, such as a sales tax rate, without having to hard-code them into PBL methods.

Working With Organization Elements

When the embedded Process Engine is started from Studio (select **Run ► Start Engine** from the menu), all the information about the organization is copied to an isolated environment where the engine executes processes.

Changes introduced while the Engine is running will not be updated to the runtime environment until the Process Engine is stopped and started, or until a `Refresh Engine Data` operation is performed. Depending on how runtime engine properties are set, the `Refresh Engine Data` operation might be performed automatically after introducing changes to the organization structure.

See Engine Properties for further information on how the runtime environment is updated with the latest changes. Some changes might require users currently logged in to WorkSpace first log out before having the changes available in their WorkSpace sessions. Refer to Refreshing the Embedded Execution Engine Data for further details on this topic.



Note: In this documentation, the parts of the organization are referred to as organizational elements or objects.

Participants

Participants are users who log in to WorkSpace and process instances.

About Participants

Participants defined in the organization are all the people enabled to track and perform tasks of business processes designed and developed with Studio.

A participant might belong to an organizational unit. If so, he can only perform tasks on processes deployed in that organizational unit or any organizational units that are below it.

You can assign a set of roles to a participant. A participant who logs in to WorkSpace can perform all the tasks defined for the roles assigned to him.

You can create, edit, and delete participants from the **Project Navigator**. Participants are usually created within Studio for process design and testing purposes. When the process is implemented into production, actual participants will normally be imported from an existing company directory or will be defined within Process Administrator.

Adding a Participant

If you are not using an external directory service, you can add participants from Process Administrator.

To add a participant:

1. In the **Navigator** pane, click **Participants** (8).
- The **Participants** pane will appear.
2. On the **Participants** pane, click **Add**.
- The **Add Participant** pane will appear.
3. On the **Add Participants** pane, make sure that the **Enable** checkbox is checked.
4. Enter the **User ID** for the participant. The participant will use it when logging in to WorkSpace.
5. Enter the **First Name** and **Last Name** for the participant.
6. Optionally, enter **Telephone** and **Fax** numbers for the participant.
7. To automatically notify the participant when work items are received, check the **Notify by e-mail when new instances arrive** checkbox. In the **Mail** field, enter the e-mail address where the Process Engine should send notifications.
8. Enter a password for the participant in the **Password** and **Confirm Password** fields. This will be the password the participant will use when logging in to WorkSpace.
9. If the participant will belong to an organizational unit, select it from the **Organizational Unit** from the drop-down list.
10. Optionally, attach a photograph of the participant by specifying an image file in the **Photo** field and clicking on the **Upload** button.
11. To allow the participant to manage other participants, including role and group assignments, check **Enable User Administration**.
12. If the participant will be a system administrator, check **Administrator**.
13. Click **Save**.

The participant is added to the organization, and the **Edit Participant** pane appears, with the settings for the just-entered participant.

After you have added the participant, you may want to assign roles or groups to the participant, you may need to define an absence period, or you may need to change the participant's password. You can access these settings from the **Advanced Properties** section of the **Edit Participant** pane.

Editing a Participant

To edit a participant:

1. In the **Navigator** pane, click **Participants** (8).
- The **Participants** pane will appear.
2. In the **Participants** pane, click on the name of the participant you wish to assign a group to.
- The **Edit Participant** panel will appear with the settings for the participant you have chosen.
3. Edit the settings you wish to change and click **Save** when you are done. To edit settings from the Advanced Properties pane, see the corresponding related topic.

Changing a Participant's Password

You can change the password for any participant if your organization data is fully managed by ALBPM.



Note: You cannot change the password for a participant if your directory is configured with an external directory service such as an LDAP provider or Microsoft Active Directory. In this case, passwords are managed from the directory service.

To change the password of a participant:

1. In the **Advanced Properties** section of the **Edit Participant** pane, click on **Change the password**. The **Change the password** pane will appear.
2. Enter the new password in the **Password** and **Confirm password** fields.
3. Click **Save**

The participant's password is changed.

Assigning a Role to a Participant

Participants are assigned to roles that determine their assigned tasks and permissions. Participants can also be assigned to groups, which can encompass multiple roles.

To assign a role to a participant:

1. In the **Participants** panel, click on the name of the participant you wish to assign a role to. The **Edit Participant** panel will appear with the settings for the participant you have chosen.
2. In the **Advanced Properties** section, click on **Assigned Roles**. The **Assigned Roles** panel will appear.
3. In the **Assigned Roles** Panel, click **Add**. The **Role Assignment** panel will appear.
4. On the Participants **Role Assignment** page, select a role from the **Role ID** list box.
5. If this is a parametric role, select a value from the **Parameter** list box.
6. Set the [About Role Permissions](#) on page 8 for the role by setting the corresponding check boxes.
7. Set the [About the Role Category](#) on page 8 for the role assignment, which is a number between 1 and 9 inclusive.
8. Click **Save**.

The new role assignment is added to the participant.

About the Role Category

The role category indicates the hierarchy of participants in relation to other participants in the same role. The category is set in the **Role Assignment** pane

Role assignments can be assigned a rank from 1 to 9, with 1 being the lowest and 9 being the highest. Participants can reassign instances based on their role ranking.

Participants with higher ranks can delegate instances to participants with lower ranks if they have been given the *delegate* permission. Participants with lower ranks can escalate work list instances to participants with higher ranks if they have been given the *escalate* permission. Participants with the peer assignment permission can assign instances to other participants with the same rank.


About Role Permissions

Role permissions determine the options available to participants in WorkSpace.

Role permissions include:


Permission	Maps to This in WorkSpace	Description	Design Dependency
Execute	Process icon in the Activity column in the instance list	Allows participants to process an instance.	<i>none</i>

Permission	Maps to This in WorkSpace	Description	Design Dependency
Route	Send, Send To, Back buttons in the toolbar	Allows participants to send an instance to the next activity in the process, send an instance back to the previous activity in the process, and send an instance to a specific participant assigned to the role for the next activity in the process.	The back action is only available to a participant if an exception handler was included in the process design and an exception occurred that invoked the exception handler while the participant was executing the instance.
Suspend	Suspend/Resume buttons in the toolbar	Allows participants to pause a process at the instance activity and make the process unavailable to other users until resumed.	The suspend property must be defined for the activity in the process design.
Abort	Abort button in the toolbar	Allows participants to abort an instance.	The activity must be defined as abortable in the process design.
Delegate	Reassign/Delegate icon in the Description column in the instance list	Allows participants to reassign an instance to another participant with a lower rank.	<i>none</i>
Reassign	Grab/Ungrab buttons in the toolbar	Allows participants to grab an instance from another activity in the process.	The grab activity must be included in the process design or the activity must be defined as grabbable.
Escalate	Reassign/Escalate icon in the Description column in the instance list	Allows participants to reassign an instance to another participant with a higher rank.	<i>none</i>
Peer Assignment	Reassign/Peer Assign icon in the Description column in the instance list	Allows participants to reassign an instance to another participant with the same rank.	<i>none</i>


 **Note:** A participant is only able to use assigned permissions if a process has been designed to include the activities that correspond to these permissions. For example, a participant will only be able to grab an instance if they have the grab permission and their role has a grab activity in the process that was created in Studio.

Assigning Groups to a Participant


Participants can be assigned to groups. Since groups can be assigned roles, this is another way of assigning roles to participants. This feature can only be used if ALBPM fully manages organization data.

 **Note:** You cannot assign a participant to a group if your directory is configured with an external directory service such as an LDAP provider or Microsoft Active Directory. In this case, groups are assigned in the directory rather than from Process Administrator or any other AquaLogic BPM component.

To assign a participant to a group:

1. In the **Advanced Properties** section of the **Edit Participant** pane, click on **Assigned Groups**. The **Assigned Groups** panel will appear.
2. In the **Assigned Groups** Panel, click **Add**. The **Add Assigned Group** panel will appear.
3. On the **Add Assigned Group** panel, enter the name of a group in the **Group Name** field. You can search for a group by clicking on the **Search for groups matching the entered name** icon () , which will make the **Select Group** browser window appear. You would then click on the name of the group.
4. Click **Save**



The participant is added to the group.

 **Note:** The participant will not be affected by this change until he logs out and logs in to a new session.

Defining an Absence Period for a Participant

Absence periods can be defined for participants so that replacement or substitute participants can be found to work on their tasks.


To define a participant absence period:

1. In the **Participants** panel, click on the name of the participant you wish to add an absence period to.
The **Edit Participant** panel will appear with the settings for the participant you have chosen.
2. In the **Advanced Properties** section, click on **Absence Periods**.
The **Absence Periods** panel will appear.
3. In the **Absence Periods** panel, click **Add**.
The **Add Absence Period** panel will appear.
4. On the **Add Absence Period** panel, enter the start and end dates for the period in the **Start Date** and **Finish Date** fields.
5. You can specify replacements for the absent participant. Search for replacements by clicking on the **Search Participant** icon (), which will make the **Select Participant** browser window appear. You would then select a participant.
6. Add each participant to the replacement list with the **Add** icon (). Note that you cannot add participants who do not have the same roles as the participant who will be absent.
7. Click **Save**.


The absence period is defined for the participant.

Removing a Participant from a Group


Participants can be removed from a group. This can be done when editing the participant. This feature can only be used if ALBPM fully manages organization data.

 **Note:** You cannot remove a participant from a group if your directory is configured with an external directory service such as an LDAP provider or Microsoft Active Directory. In this case, groups are managed in the directory rather than from Process Administrator or any other AquaLogic BPM component.

To remove a participant from a group:

1. In the **Participants** pane, click on the name of the participant you wish to remove from a group.
The **Edit Participant** pane will appear with the settings for the participant you have chosen.
2. In the **Advanced Properties** section, click on **Assigned Groups**.
The **Assigned Groups** pane will appear. It will list the groups the participant belongs to.
3. In the **Assigned Groups** pane, set the checkbox on each group you wish to remove the participant from, and click on the Delete button ().

Each selected group is removed from the participant.

 **Note:** The participant will not see this change until he logs out and logs in to a new session.

Roles

About Roles

A role in the organization is a title or job function which is associated to a set of activities performed by participants of the organization.

Examples of roles include Accounts Manager, Sales Clerk, or Customer. Roles are similar to job titles, but are more flexible because a participant can be assigned to several roles, and some roles, such as Customer, may not be jobs at all.

Roles and Activities

Every interactive activity is defined under a role. This is done by placing the activity within a *swim lane* with the name of the role. Swim lanes with no role name are only used for automatic activities which require no user interaction, and are not assigned to a role.

Roles and Participants

Participants are assigned one or more roles. This is how the process can determine which participants can execute a given activity.

Adding a Role

Roles are assigned to participants and groups and define which tasks the participants assigned to the role can perform.

Roles can be created automatically when they are imported with a project file or they can be created manually using the following steps and then mapped to abstract project roles during project publication.

To add a role:

1. In the **Navigator** pane, click **Roles** (📁).
The **Roles** pane will appear.
2. On the **Roles** pane, click **Add**.
The **Add Role** pane will appear.
3. Enter a name for the new role in the **Name** field.
4. Optionally enter a brief description of the role in the **Description** text box.
5. If you are defining a parametric role, check the **Parametric?** checkbox. Otherwise, proceed to step 7.
The **Parametric** section will appear.
6. Enter a parametric value in the **Add Parametric Value** field, and click the Add icon (+) to add it. Repeat for each parameter value as required. You can delete an unwanted parameter with the Delete icon (✕).
The list of parameter values is shown.
7. Click **Save**.
The role is added.

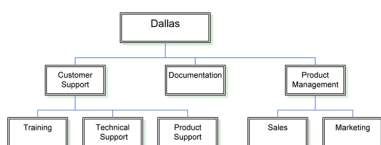
For any participant to perform a role, you will have to assign the role either to the appropriate participants or to one or more groups which those participants may be a member of.

Organizational Units

About Organizational Units

Organizational units are typically departments or divisions within an organization. Organizational units can be organized in a hierarchy.

For example:



In this hierarchy, Dallas is a single top-level organizational unit which contains the Customer Support, Documentation, and Product Management organizational units, while Customer Support contains Training, Technical Support, and Product Support organizational units.

Once the organizational units have been defined, participants may be assigned to one of the organizational units in the hierarchy. Processes can be deployed for one of the organizational units defined so that only participants in that organizational unit and in lower levels within the hierarchy are able to perform tasks in a process.

Every organizational unit might have a different calendar rule associated to it. This allows the Process Execution Engine to take into account time zones and working schedules set for the organizational unit where processes are deployed and to calculate deadlines accordingly.

Studio allows you to define the organizational hierarchy and the properties of each organizational unit. Remember that all the changes introduced to the organizational structure require a `Refresh Engine Data` operation if they are to be made available to processes on a currently running Process Engine.

Adding an Organizational Unit

If you are not using a directory service, you can add an Organizational Unit from the **Process Administrator**.



Note: When creating a hierarchy of organizational units, the parent units must be created before the child units.

To add an organizational unit:

1. In the **Navigator** pane, click **Organizational Units** (H).
- The **Organizational Units** pane will appear.
2. In the **Organizational Units** pane, click on the **Add** button.
- The **Add Organizational Unit** pane will appear.
3. If the organizational unit will be a child of a parent unit, select an organizational unit from the **Parent ID** drop-down list.
4. In the **Add Organizational Unit** pane, enter a name for the organizational unit in the **Name** field.
5. Optionally, write a short description of the organizational unit in the **Description** text box.
6. To apply a calendar rule to the organizational unit, select it from the **Calendar Rule** drop-down list. All calendar rules created in the Process Administrator are available in the list.
7. Click **Save**.

A new organizational unit is added.

Editing an Organizational Unit

You can edit the properties of an organizational unit if your organization data is fully managed by ALBPM. You cannot change the name of an existing organizational unit.



Note: You cannot edit an organizational unit if your directory is configured with an external directory service such as an LDAP provider or Microsoft Active Directory. In this case, organizational units are managed from the directory service.

To edit an organizational unit:

1. In the **Organizational Units** panel, click on the name of the organizational unit you wish to edit.
The **Edit Organizational Unit** panel will appear.
2. In the **Edit Organizational Unit** panel, you can edit the description of the organizational unit in the **Description** text box.
3. You can also select a different calendar rule for the organizational unit, in the **Calendar Rule** list box.
4. Click **Save**

The organizational unit's properties are changed.

Groups

A group is a collection of participants, roles, and other groups. Every participant in a group has, by virtue of being in it, all the roles assigned to the group.

Groups are therefore a way to simplify role assignment for many participants. Rather than assign each role to a given participant, the participant can be assigned to a group which already has a defined set of roles.

About Groups

Groups are collections of roles. In this way, it is possible assign multiple roles to participants in a single step. Groups may also contain other groups.

Unlike an organizational unit, which can belong to only one parent organizational unit, a group may be included in many other groups. Groups are therefore not organized in a hierarchical structure. However, if a group is included in another group, then it cannot have as a member that group. That is, so long as group A includes group B, group B cannot include group A.

Adding a Group

If you are not using a directory service, you can add a group from the **Process Administrator**.

Groups are assigned to one or more roles and one or more participants. When participants are assigned to a group, they are automatically assigned to the group's roles and are able to perform the activities associated with those roles.

To add a group:

1. In the **Navigator** pane, click **Groups** (📁).
The **Groups** pane will appear.
2. On the **Groups** pane, click **Add**.
The **Add Group** pane will appear.
3. Enter an ID for the new group in the **Group ID** field.
4. Enter a name for the new group in the **Name** field.
5. Optionally enter a brief description of the group in the **Description** text box.

6. A group can be valid within an organizational unit. If so, select it from the **Organizational Unit for administration scope** drop-down list.
7. Click **Save**.
The group is added.

Assigning a Role to a Group

The roles assigned to a group determine the roles that will be assigned to the group's participants.

To assign a role to a group:

1. In the **Groups** panel, click on the name of the group you wish to assign a role to.
The **Edit Group** panel will appear with the settings for the group you have chosen.
2. In the **Advanced Properties** section, click on **Assigned Roles**.
The **Assigned Roles** panel will appear.
3. In the **Assigned Roles** Panel, click **Add**.
The **Assigned Roles** panel will appear.
4. On the Group's **Role Assignment** page, select a role from the **Role ID** list box.
5. If this is a parametric role, select a value from the **Parameter** list box.
6. Set the [About Role Permissions](#) on page 8 for the role by setting the corresponding check boxes.
7. Set the [About the Role Category](#) on page 8 for the role assignment, which is a number between 1 and 9 inclusive.
8. Click **Save**.

The new role assignment is added to the group.

Calendar Rules

About Calendar Rules

Calendar rules define the work hours, time zone, and holiday rule assignment for organizational units.

Multiple calendar rules can be created as needed for different organizational units (such as day shift, night shift, east coast, west coast, etc.). Calendar rules determine the available work days for participants and the scheduling of activity deadlines.

Adding a Calendar Rule

Calendar rules define the work hours, time zone, and holiday rule assignment for organizational units.

Multiple calendar rules can be created as needed for different organizational units (such as day shift, night shift, east coast, west coast, etc.). Calendar rules determine the available work days for participants and the scheduling of activity deadlines.



Note: Calendar rules can be added to projects in Studio or they can be added in Process Administrator.

To add a calendar rule:

1. In the **Navigator** pane, click **Calendar Rules** (📅).
The **Calendar Rules** pane will appear.
2. On the **Calendar Rules** pane, click **Add**.
The **Add Calendar Rule** pane will appear.
3. Enter a name for the new calendar rule in the **Name** field.

4. Select a time zone from the **Time Zone** drop-down list.
5. If a holiday rule should be applied to the calendar, select one from the **Holiday Rule** drop-down list.
6. Complete the **Work Schedule** pane, selecting at least one work day and adjusting the hours as necessary. Use the second set of fields for each day for cases where there are two work periods per day. The second checkbox on each line enables the second time period.
7. Click **Save**

The calendar rule is added.

Holiday Rules

Adding a Holiday Rule

Holiday rules are a collection of holidays that can be applied to calendar rules. Multiple holiday rules can be created as needed for different calendar rules.



Note: Holiday rules can be added to projects in Studio or they can be added in Process Administrator.

To add a holiday rule:

1. In the **Navigator** pane, click **Holiday Rules** (📅).
The **Holiday Rules** pane will appear.
2. On the **Holiday Rules** pane, click **Add**.
The **Add Holiday Rule** pane will appear.
3. Click **Next**.
The **Add Holiday** pane will appear.
4. Enter a description in the **Description** field.
5. Select a holiday rule type from the **Type** drop-down list.
6. If you selected *Same Date Every Year*, *A Date Applicable Only for the Given Year*, or *Closest Monday*, enter the date for the holiday in the **Date** field. If you selected *N-th Weekday of the Month*, select the month from the **Month** drop-down list, select a week and a day of the week from the **Date** drop-down lists. If you selected *Days Before and After Easter*, define the date by entering a number in the **Days** field, and select between days after and days before from the drop-down list.
7. Click **Save**.

The holiday rule is added.

About Holiday Rules

Holiday rules are collections of holidays that can be applied to calendar rules.

Multiple holiday rules can be created as needed for different *calendar rules*. Holiday rules affect the available work days for participants and the scheduling of activity deadlines.

Engines

Start a Process Execution Engine

A process engine must be running in order to execute processes. You can start a process engine from the **Engines** pane.

At least one process engine must be configured. If there are no engines, see Adding a Process Execution Engine.

To start a process execution engine:

1. In the **Navigator** pane, click **Engines** (⚙️).

The **Engines** pane will appear, with a list of available engines. If an engine is stopped, it will have a status of *Not running*.

2. In the **Engines** pane, on the line of the engine you wish to start, click on the **Start** icon (▶️).

The engine will start. If the engine starts successfully, a status of *Ready* will be shown.

Adding a Process Execution Engine

You can add any number of process execution engines. Even though many processes can run in the same engine, you may prefer to keep processes independent from one another.

To add a process execution engine:

1. In the **Navigator** pane, click **Engines** (⚙️).

The **Engines** pane will appear, with a list of available engines.

2. On the **Engines** pane, click **Add**.

The **Choose the Engine Type** pane will appear.

3. Enter a name for the engine in the **Engine Name** field.
4. Leave the **Engine Type** drop-down list to its default value.
5. Specify the type of database this engine will use by selecting it from the **Engine Database Type** drop-down list.

Projects

Projects can contain one or more processes, but only one organization. Usually, the processes in a project are related. Projects are created in Studio, and imported into Enterprise using Process Administrator.

Publishing a Project

To publish a project is to make it available for deployment in ALBPM Enterprise. You can deploy a project from the publication process, or you can deploy it separately.

To publish a project:

1. In the **Navigator** pane, click **Projects** (🔍).
The **Published Projects** pane will appear, with a list of published projects.
2. In the **Published Projects** pane, click **Publish**.
The **Publication Source** pane will appear.
3. Set the Publication Source, which can be a **Project at Web Server host**, an **Exported Project** or a **VCS** (Version Control System). For a project at a Web server host, you must also specify the URL of the project. For an exported project, specify the file of a project exported from Studio. CVS is currently the only supported VCS provider.
4. Set the options in the **Publication Properties** section as desired.
5. You can deploy the processes you are publishing by checking the **Deploy processes after publishing them** checkbox. If you opt to deploy, you can also import the project's custom views and custom presentations by checking the **Import the project's custom views and presentations after the deployment** checkbox.
6. Click **OK**.
The **Publish Process** pane will appear.
7. Add any notes you may have about the project in the text box in the **Remarks** section.
8. In the **Role Mapping** section, you can specify which real role (as defined in Process Administrator) will take on which abstract role (as defined in Studio). One or more abstract roles can be assigned to the same real role.
9. If there are process variables in the project, the **Variable Mapping** section will be present. In this section, you can specify which real variable (as defined in Process Administrator) will take on which process variable (as defined in Studio).
10. If there are external resources in the project, the **External Resource Mapping** section will be present. In this section, you can specify which real external resource (as defined in Process Administrator) will be mapped to which process configuration (as defined in Studio).
11. Click **Publish**.
If you chose to deploy the project in step 5, the **Deploy** pane will appear. If not, go to step 17.
12. In the **Deployment Topology** pane, select how you want to see the list of projects by selecting from the **Show the deployment grouped by:** drop-down list. The choices are by *Server*, or by *Organizational Unit*.
The list shows the projects in the requested order.
13. For each project you will deploy, determine the organizational unit (OU) the project will be available in. The project will also be available in all organizational units below the selected organizational unit. If you don't select an OU, the project will be available to the entire organization.
14. You can also select the views that will be generated for WorkSpace users, in the **Views Generation** column. The options are *Unified inbox* (the default), *By process*, and *By process and activity*. In most cases the default value is used.
15. Set the archiving option as desired in the **Enable Archiving** checkbox.
16. In the **Action** column drop-down list, select *Deploy*.

17. Click **OK**.

The project is deployed.

If you did not opt to deploy the project in step 5, you will need to deploy the project separately. To do so, see [Deploying a Project](#) on page 18.

Deploying a Project

You can deploy a project that is already published, but not deployed.

A Project must be published before it is deployed. You can also deploy a project during the publishing procedure. See [Publishing a Project](#) on page 17 for details.

To deploy a project:

1. In the **Navigator** pane, click **Projects** (☰).

The **Published Projects** pane will appear, with a list of published projects.

2. In the **Published Projects** pane, , in the **Deployment** column for the project, click on the **Not Deployed** link for the project.

The **Deploy** pane will appear.

3. Click **Deploy**.

4. In the **Deployment Topology** pane, select how you want to see the list of projects by selecting from the **Show the deployment grouped by:** drop-down list. The choices are by *Server*, or by *Organizational Unit*.

The list shows the projects in the requested order.

5. For each project you will deploy, determine the organizational unit (OU) the project will be available in. The project will also be available in all organizational units below the selected organizational unit. If you don't select an OU, the project will be available to the entire organization.

6. You can also select the views that will be generated for Workspace users, in the **Views Generation** column. The options are *Unified inbox* (the default), *By process*, and *By process and activity*. In most cases the default value is used.

7. Set the archiving option as desired in the **Enable Archiving** checkbox.

8. In the **Action** column drop-down list, select *Deploy*.

9. Click **OK**.

The project is deployed.

External Resources

External resources are objects through which AquaLogic BPM can connect and interact with external resources such as Web services, databases, or server configurations.



Note: Designers may configure external resources in ALBPM Studio for testing purposes when they design a project. When the project is moved from a development environment to a production environment, you should use the topics in this section to review and re-configure the external resources to work in the new environment.

Adding an External Resource

When you create an external resource, you are configuring the connection parameters for connecting to the external resource.

Bear in mind that, when you are creating an external resource, no connection is established with the external resource at that time. This gives you the flexibility to specify an external resource that may not yet be available, but it also means that you will not receive a warning if you have specified the resource incorrectly.

To add an external resource:

1. In the navigator pane, click **External Resources** (🔗).

The **External Resources** pane will appear. Any existing external resources will be listed.

2. On the **External Resources** pane, click **Add**.

The **Add External Resource** pane will appear.

3. Enter a name for the new external resource in the **Name** field.

4. Select the [External Resource Types](#) on page 19 you are adding in the **Type** drop-down list.

5. Some external resource types have subtypes. If applicable for the type you have selected, select an option from the **Subtype** drop-down list.

6. Click **Next**.

The **Edit External Resource** pane appears.

7. In the Properties section of the **Edit External Resource** pane, enter the properties required by the resource type you are adding. For details, refer to the [External Resource Types](#) on page 19 topic.

8. Click **Save**.

The external resource is added.

External Resource Types

A number of external types are supported. They are listed in this section.

Some external resource types have subtypes. The following table shows supported external resource types. Click on the external resource type to see the subtypes:

External Resource
SQL Database Types on page 20
Web Service Types on page 20
Server Configuration

External Resource
Microsoft .NET Service
Mail Outgoing Service
J2EE Application Server
Enterprise Java Bean
AquaLogic Service Bus
Mail Incoming Service
Microsoft COM Service
JMX Service
JMS Messaging Service
JNDI Directory Server
JPD

SQL Database Types

SQL Database external resources are used to connect to databases to retrieve, update, or add data from the BPM Project. Databases accessed as external resources are not to be confused with the database used by process execution engines or directory configurations.

The following SQL database drivers are available.

- BEA's IBM DB2 Driver Versions: 8.X, 9.X
- BEA's Informix Driver Versions: 9.2, 9.3, 9.4, 10
- BEA's Microsoft SQL Server Driver Versions: 2005
- BEA's Oracle Driver Versions: 9.2, 10
- BEA's Sybase Driver Versions: 11.X, 12.X, 15.0
- IBM DB2 DataBase for OS390
- Generic JDBC Version 1
- IBM DB2 AS/400 JDBC
- Remote JDBC

Web Service Types

A Web service external resource can either be a *producer* or a *consumer*. Different configuration settings are required for each type.

Web Service Types:

- Consumer
- Producer

Deleting an External Resource

You can remove an delete an external resource when it is no longer required. Doing so does not remove the underlying resource, it simply removes the reference to it.

For example, if you delete a database external resource, the database will be removed from the list of external resources in Process Administrator, but the database itself will still exist. You will have to remove the database separately.

To remove an external resource:

1. In the navigator pane, click **External Resources** (📁).
The **External Resources** pane will appear. Existing external resources will be listed.
2. On the **External Resources** pane, select the external resource that you want to delete.
3. Click **Delete** (✕).
A confirmation dialog box appears.
4. Click **OK**.
The external resource is deleted.

Variables

Variables are placeholders in memory for values used by processes.

Variables can be created automatically when they are imported with a project file from Studio, or they can be created in Process Administrator and then mapped to abstract project variables during project publication. Variables can also be internationalized to display correctly in other languages.

Studio	Process Administrator
Business Parameter	Business Parameter
External Variable	Variable
Business Variable	Variable with Business Variable checkbox selected
Instance Variable	No equivalent in Process Administrator since it is process specific. It is included in the project file on import and does not need to be configured.

Adding a Variable

To add a variable:

1. In the **Navigator** pane, click **Variables** (🔍).
The **Variables** pane will appear.
2. In the **Variables** pane, click **Add**.
The **Add Variable** pane will appear.
3. Enter a name for the new variable in the **Name** field.
4. Select the datatype of the variable from the **Type** drop-down list.
5. If you specified a String datatype, enter the size of the string in characters. If you specified a Decimal datatype, enter the size in digits and the number of digits to the right of the decimal point.
6. If you are creating a business variable, check the **Business Variable** checkbox.
7. Click **Save**.

Business Parameters

Business parameters are placeholders for global values used by processes in an organization.

Business parameters can be created automatically when they are imported with a project file from Studio, or they can be created in Process Administrator and then mapped to abstract project business parameters during project publication. Business parameters can be uniquely defined for individual organizational units.

The variable and business parameter mapping from Studio to Process Administrator is as follows:

Studio	Process Administrator
Business Parameter	Business Parameter
External Variable	Variable
Business Variable	Variable with Business Variable checkbox selected
Instance Variable	No equivalent in Process Administrator since it is process specific. It is included in the project file on import and does not need to be configured.

Adding a Business Parameter

To add a business parameter:

1. In the **Navigator** pane, click **Business Parameters** (◆).

The **Business Parameters** pane will appear.

2. In the **Business Parameters** pane, click **Add**.


The **Add Business Parameters** pane will appear.

3. Enter a name for the new business parameter in the **Name** field.

4. Select the data type of the variable from the **Type** drop-down list.

5. Enter the initial value at the organization level in the **Organization Value** field.

6. You can add values for the business parameter at the organizational unit level. To do so, select a unit from the

Organizational Unit drop-down list and click on the Add icon (). Then, enter the value which will apply to that organizational unit and all units under it.

7. Click **Save**.

The business parameter is added.

Be aware that business parameter values can be changed by a process, if the process was so designed, and may differ the original value entered in this task. Business parameter values are persistent, and an engine restart will not restore the initial values.

External Processes

Processes published on one process execution engine in one host can call processes or sub-processes published on a different process execution engine on another host. The called or remote processes are called external processes.

For example, a warehouse company may have a process that calls a sub-process that resides in a shipping company. Both processes are published and deployed on different process execution engines in different hosts and different networks. These are also typically behind firewalls. The warehouse process must be able to find the connection information for the shipping process in order to send the instance to the shipping process. An external process scenario could also include internal processes that are published and deployed on different process execution engine hosts.

When a process execution engine needs to communicate with a process located on another process execution engine host, it starts looking for an external process to establish the connection and reach the process. The external processes defined in the external process list are evaluated in descending order until an external process matching the required process information is found.

Adding an External Process

To add a connection to an external process:

1. In the **Navigator** pane, click **External Processes** (🔗).

The **External Processes** pane will appear.

2. In the **External Processes** pane, click **Add**.

The **Add External Process to Another Organization** pane will appear.

3. Enter the name of the organization which has the process you want to connect to. This is the *organization logical name* defined by whoever used the Configuration Wizard to set up the current directory configuration. If you don't know what the name of the organization is in a given host, you can find out by clicking **Organization** (in that host) and looking at the title bar of the organization panel, which will be in the form "Organization: *your_organization*".
4. Click **Next**.
The **Add External Processes to Processes** pane will appear.
5. Enter the information needed to establish the connection.
6. Click **Save**.

Process Monitoring

You can monitor and record statistics about the execution of your processes. ALBPM provides two ways to do this: Business Activity Monitoring (usually referred to as BAM), and the Business Activity Data Mart (usually referred to simply as Data Mart).

Business Activity Monitoring (BAM)

BAM records information about process instance performance and process workload over a recent time period, usually 24 hours. BAM information is also updated frequently (the default update frequency is 30 minutes), so that BAM data can be used to present almost real-time business processes metrics. You can then use these to manage current trends or identify issues with your business processes.

BAM data is not retained; it is removed at the *Data Expiration Time*, which is measured in hours. The default expiration time is 24 hours.

Business Activity Data Mart

The Data Mart stores data similar to BAM, but over longer periods of time. Data Mart data is updated daily and consolidated. You can choose between daily and hourly data resolution. You also can determine the time of day the daily update will be recorded, and independently determine the time of day the data will represent (called the *snapshot* time). For example, you can set the update to occur at midnight when server load is low, but have the snapshot set to 6:00 PM so that the consolidation reflects data up to the close of business (COB) time.

BAM and Data Mart Configuration

BAM (Business Activity Monitoring) and Business Activity Data Mart data is a collection process load and execution time of measurements. The BAM database maintains current information, while the Data Mart database stores historical series.

Overview

BAM and Data Mart data is derived from audited events, and therefore depends on how audit event generation is configured. When enabling either BAM or the Data Mart, it will help you to understand event generation options. See [Audit Events Overview](#) on page 34.

The BAM and the Data Mart databases use similar (but not identical) schemas and are separate from the engine database. Neither is required for process execution, so you only need to configure a BAM or a Data Mart database if you intend to use it.

Configuration Steps

You must perform the following tasks to configure either BAM or Data Mart process monitoring services:

- Add the external resource reference
- Create the database
- Select the database external resource
- Enable automatic update

If you will set up both BAM and the Data Mart, you will need to do the preceding steps twice (once for each service). The steps below are common to both services:

- Configure process monitoring properties
- Install (depending on system) and start the updater service

You perform nearly all of these steps in the Process Administrator. The only exception is the updater service, which you must manage separately.

Updater Service

The process execution engine does not write data to the BAM and Data Mart databases. Instead, a separate updater service does the job. Although the BAM and Data Mart databases are independent, the same service updates both.

Adding the BAM or Data Mart Database External Resource

To configure a BAM or Data Mart, you must first add the corresponding database external resource.

To add the BAM or Data Mart database external resource:

- 1. In the navigator, click **External Resources** (☰).
- 2. In the **External Resources** pane, click on the **Add** button.
The **Add External Resource** pane will appear.
- 3. In the **Name** field, enter a name for the data mart database, such as ALBPMDataMart.
- 4. In the **Type** drop-down list, select **SQL Database**.
- 5. In the **Subtype** drop-down list, select the database driver appropriate for your database.

When configuring an external resource for BAM and Data Mart data, you may only choose one of the following database drivers:

- BEA's DB2 Driver Versions: 8.x, 9.x
- BEA's MS SQL Server Driver Versions: 2005
- BEA's Oracle Driver Versions: 9.2, 10

- 6. Review all fields and click **Next**.
The **Edit External Resource** pane will appear.
- 7. Specify the database properties in the **Properties** section.

Most properties are common to all the supported databases, but some are database specific. The following table describes each property:

Property Name	Description
Host	Name or IP address of the host (real or virtual machine), where the database resides.
Port	Port number to connect to the database.
Schema	Enter the name of the database schema, for example, you could name the Data Mart database schema ALBPMDataMart. <i>Required for IBM DB2 and Oracle.</i>
Database	Enter the name of the database, for example, you could name the Data Mart database ALBPMDataMart. <i>Required for Microsoft SQL Server. Optional for Oracle.</i>
SID	System Identifier. <i>Required for Oracle only.</i>
User	Enter a user name to be used by the updater service to connect to the database.
Password	Password for the user described above.

If you are setting properties to connect to an Oracle data base, an **Advanced** section appears. In this section, you can specify the *Tablespace*, *Temporary Tablespace*, and *Profile* properties.

- 8. Set runtime and connection pool properties in their respective sections. Unless you have a specific requirement, you can leave the defaults.

9. If you must specify any additional connection properties, click **Add** and enter the property name and value. To remove an unneeded property, select the property's checkbox and click **Delete**.
10. Click **Save**.
The external resource is created.

You have added the external resource, but this step only makes ALBPM aware of the database properties. It does not create the database. You must create the database in a separate step. See [Creating the BAM or Data Mart Database](#) on page 27.

Creating the BAM or Data Mart Database

Before enabling BAM or the Data Mart, you must create their respective databases. You can use Process Administrator to either create the database directly, or to generate an SQL script for execution by a database administrator.

Before you can create a BAM or Data Mart database, you should have added the external resource for it. See [Adding the BAM or Data Mart Database External Resource](#) on page 26.

The following instructions assume you are logged in to Process Administrator. You must perform these steps for each service you will use (BAM and Data Mart).

To create a BAM or Data Mart database:

1. Click on **Process Monitoring**.
The **Process Monitoring** page appears.
2. Select the BAM or Data Mart tab.
3. In the **Advanced Properties** section, click **Manage Database**.
The **Manage Database** page appears.
4. Select the **Create the database** and **Create the data structure** options.
5. If you have administrator access to the database, enter the database administrator user and password, and click **OK**.
If Process Administrator reports that the database has been created successfully, you are done. The instructions below are for users without administrator access to the database.
6. If you do not have administrator access, click **Show SQL Statements**.
Your web browser will ask you if you want to save the `sql.txt` file.
7. Save the file to any location, and send it to the database administrator, who will run the SQL statements in the file, creating the database.

Configuring the Data Mart

You configure the Business Activity Data Mart from the **Process Monitoring** page of Process Administrator.

The Data Mart properties page includes properties common to both the Data Mart and BAM.

To configure Data Mart properties:

1. In the navigator, click **Process Monitoring** (📁).
The **Process Monitoring** page will appear.
2. In the **Process Data Mart** pane, set the properties as described below:

Property Name	Description
Enable Automatic Update	If selected, the updater service will update the Data Mart database.
Runtime Database Configuration	Name of the external resource which points to the database where Data Mart information is stored.
Data Detail Level	You can select <i>hourly</i> or <i>daily</i> .
Snapshot Time	Time of day that will define the start and end of the 24 hour period. For example, you may want to configure your "transaction day" to go from 6 PM to 6 PM the following day.

Property Name	Description
Update Daily at Time	Time of day when the data will actually be updated. You can set this at low activity times, for performance reasons.
*Log Directory	Path of the folder where the Data Mart log file will be written.
*Messages Logged from Data Store Updater	Minimum message severity level you want the service to log.
*Language	Language you want logged messages to be in.
*Generate Performance Metrics	If selected, Data Mart information will include activity and process times.
*Generate Workload Metrics	If selected, quantity data such as the number of instances will be recorded.
Generate O3 Cubes	If selected, O3 Cubes will be generated after the Data Mart database has been updated.

** These properties also affect BAM*

3. Click **Save**.

Configuring BAM

You configure BAM from the **Process Monitoring** page of Process Administrator.

Before configuring BAM, you should have added the external resource reference to the BAM database, and you should have created the BAM database itself.

To configure BAM properties:

1. In the navigator, click **Process Monitoring** (📊).
The **Process Monitoring** page will appear.
2. In the **BAM** pane, set the properties as described below:

Property Name	Description
Enable Automatic Update	If selected, the updater service will update the BAM database.
Updater Database Configuration	Name of the external resource which points to the database where BAM information is stored.
Update Frequency	The time that will elapse between updates, in minutes.
Data Expiration Time	BAM data will expire after this period and be removed. Recall that BAM is meant for monitoring of current activity. If you want longer term measurements, use the Data Mart. This value is set in hours, and the default is 24.

3. Click **Save**.

Dropping the BAM or Data Mart Database

After you disable BAM or the Data Mart, you can drop the respective database. You can use Process Administrator to either drop the database directly, or to generate an SQL statement for execution by a database administrator.

Bear in mind that dropping the database only executes a `DROP DATABASE` SQL statement on the BAM or Data Mart database. It does not remove the external resource.

1. Click on **Process Monitoring**.
The **Process Monitoring** page appears.
2. Select the **BAM** or **Data Mart** tab.
3. In the **Advanced Properties** section, click **Manage Database**.
The **Manage Database** page appears.
4. Select the **Drop the database**.

- If you have administrator access to the database, enter the database administrator user and password, and click **OK**. If Process Administrator reports that the database has been dropped successfully, you are done. The instructions below are for users without administrator access to the database.

- If you do not have administrator access, click **Show SQL Statements**. Your web browser will ask you if you want to save the `sql.txt` file.

- Save the file to any location, and send it to the database administrator, who will run the SQL statement in the file, creating the database.

Note that this file will contain a single statement in the form:

```
DROP DATABASE database_name
```

You may simply be able to ask your DBA to drop the database by name. The advantage of sending an SQL file is to prevent dropping a similarly named database.

Configuring the Updater Service

BAM and Data Mart data is obtained and recorded by the ALBPM DataWarehouse service.

The updater service runs independently from the process execution engine, and may continue to run if the engine has stopped, or be stopped while the engine is running. The updater service does require access to the process engine database.

Instructions for running, stopping and configuring the updater service depend on the operating system.

Installing and running the Updater Service in Windows

Under Microsoft Windows, you must install the updater service before it can run. You then control the updater service from the Windows Services console.

To install the updater service in Windows:

- Goto the `ALBPM_HOME\bin` folder

In default Windows installations, the `ALBPM_HOME` folder is as follows:

Path	Edition
C:\bea\albpm6.0\enterprise	Standalone
C:\bea\albpm6.0\j2eew1	BEA WebLogic
C:\bea\albpm6.0\j2eews	IBM WebSphere

- To install the updater service, enter the following at the command line prompt: `albpmwarehouse install`

Once the updater service is installed, you can control it from the Windows Services console. The service is called *ALBPM 6.0 DatawareHouse Service*.



Note: The updater service startup is installed set to *Automatic*, but is not started upon installation. You should start the service manually from the Services console. The service will then start automatically on system startup.

- To remove the updater service, enter the following: `albpmwarehouse remove`

Starting and Stopping the Updater Service in Unix

In Unix-like operating systems, the updater service is started and stopped with the `albpmwarehouse.sh` shell script.

To start or stop the updater service:

- At a shell prompt, execute the following to start the updater service:

```
$ALBPM_HOME/bin$ ./albpmwarehouse.sh start
```

The updater service will start.

- To stop the service, execute the following:

```
$ALBPM_HOME/bin$ ./albpmwarehouse.sh stop
```

The updater service will stop.

Archiving

ALBPM business processes do not require data from an instance once this instance has ended, so process instances are discarded upon instance expiration. If you want to keep these instances for some reason, you must enable archiving.

To configure process archiving you must:

1. Create an archive database external resource reference.
2. Create the archive database.
3. Configure the Process Engine to enable archiving.

Adding an Archive External Resource

To enable archiving, you must add an External Resource which references the archive database.

To add an archive database external resource:

1. In the **Navigator** pane, click **External Resources** (🔍).

The **External Resources** pane will appear. Any existing external resources will be listed.

2. On the **External Resources** pane, click **Add**.

The **Add External Resource** pane will appear.

3. Enter a name for the archive database external resource, such as "ALBPMArchive", in the **Name** field.
4. Select *SQL Database* in the **Type** drop-down list.
5. In the **Subtype** drop-down list, select the database driver appropriate for your database.

When configuring an external resource for archiving, you may only choose one of the following database drivers:

- BEA's DB2 Driver Versions: 8.x, 9.x
- BEA's MS SQL Server Driver Versions: 2005
- BEA's Oracle Driver Versions: 9.2, 10

6. Click **Next**.

The **Edit External Resource** pane appears.

7. Specify the database properties in the **Properties** section.

Most properties are common to all the supported databases, but some are database specific. The following table describes each property:

Property Name	Description
Host	Name or IP address of the host (real or virtual machine), where the database resides.
Port	Port number to connect to the database.
Schema	Enter the name of the database schema, for example, you could name the Data Mart database schema ALBPMDataMart. <i>Required for IBM DB2 and Oracle.</i>
Database	Enter the name of the database, for example, you could name the Data Mart database ALBPMDataMart. <i>Required for Microsoft SQL Server. Optional for Oracle.</i>
SID	System Identifier. <i>Required for Oracle only.</i>

Property Name	Description
User	Enter a user name to be used by the updater service to connect to the database.
Password	Password for the user described above.

If you are setting properties to connect to an Oracle data base, an **Advanced** section appears. In this section, you can specify the *Tablespace*, *Temporary Tablespace*, and *Profile* properties.

8. Click **Save.**

The archive database external resource is added.

You have only created a reference to the archive database. To enable archiving, you must also set the process execution engine to archive process instances and you must create the archive database itself.

Creating an Archive Database

To enable archiving, you must create an archive database.

Before you can enable archiving, you should have added the external resource reference so that the process engine knows where it is. See Adding the Archive Database External Resource.

The following instructions assume you are logged in to Process Administrator

To create an archive database:

1. Click on **Engines**.
The **Engines** page appears.
2. Click on the name of the engine you want to create an archiving database for.
The **Edit Engine** page appears.
3. In the **Advanced Properties** section, click **Manage Database**.
The **Manage Database** page appears.
4. Select the **Create the database** and **Create the data structure** options.
5. If you have administrator access to the database, enter the database administrator user and password, and click **OK**.
If Process Administrator reports that the database has been created successfully, you are done. The instructions below are for users without administrator access to the database.
6. If you do not have administrator access, click **Show SQL Statements**.
Your web browser will ask you if you want to save the `sql.txt` file.
7. Save the file to any location, and send it to the database administrator, who will run the SQL statements in the file, creating the database.

Setting the Process Execution Engine to Archive Instances

To configure a process execution engine to archive instances, you must specify the archive database external resource and enable archiving for that engine.

To set a process execution engine to archive instances:

1. In the **Navigator** pane, click **Engines** (⚙️).
The **Engines** pane will appear, with a list of available engines.
2. Click on the name of the engine you want to configure
The **Edit Engine** page will appear for that engine.

3. Select the **Services** tab.
4. Select **Enable Archiving**.
The **Archiving Database Configuration** drop-down list will appear.
5. Select the archive database external reference you added in Adding an Archive External Reference, and click **Save**.

Reference

Audit Events Overview

When Audit Events are Generated

You can define which process activities will generate auditing events.

You set whether an activity generates events in design time, and you can set this for each activity, for activity groups, or for the whole process. You can also set whether the process engine generates events or not at run time.

Design Time

Design time event generation options are set in Studio. At design time, the following options are available for each *activity*:

Setting	Description
<i>Default</i> (default setting)	Indicates that the activity will record events according to the group or process default, as described below.
<i>Generate Events</i>	The activity will generate events, regardless of the group or process default.
<i>Do not Generate Events</i>	The activity will not generate events, regardless of the process default.

Also at design time, the following options are available for each *group*:

Setting	Description
<i>Default</i> (default setting)	Indicates that the group's activities will record events according to the process setting, as described below.
<i>Generate Events</i>	The default for the group's activities will be to generate events, regardless of the process default.
<i>Do not Generate Events</i>	The default for the group's activities will be not to generate events, regardless of the process default.

The following options are available for each *process*. These settings will be used by activities or groups set to *Default*. If a group or activity is not set to *Default*, it will ignore the process setting.

Setting	Description
<i>Generate Events for Interactive Activities</i> (default setting)	Each activity set to the <i>Default</i> option will generate events if it is interactive, and will not generate events if it is automatic.
<i>Generate Events for all Activities</i>	Each activity or group set to <i>Default</i> will generate events.
<i>Do not Generate Events</i>	Each activity or group set to <i>Default</i> will not generate events.

Run Time

You set run time event generation in Process Administrator, for each process engine. You can set each process engine to one of the following event recording modes:

Setting	Description
<i>Depends on Process</i> (default setting)	Indicates that the process engine will follow the settings of each process. That is, it will follow the design time settings as described in the section above.
<i>Never</i>	No events are recorded, except instance begin and end activities. Design time settings are ignored.
<i>Always</i>	All activities generate events, regardless of process, group, or activity settings. Design time settings are ignored.

Remarks

If all settings are left at their defaults, a process will generate events for interactive activities and not for automatic activities. Begin and End activities are always generated.

This is a reasonable default because activities that require human interaction have the most variable execution times. However, you may want to measure some automatic activities, for example those that invoke external systems that for whatever reason have variable execution times.

Each event generated has a slight performance cost. This cost is not important for interactive activities since these activities spend most of their time waiting for participants to execute them. However, it may have significant impact on automatic activities that are performed frequently.

Which Audit Events are Generated

The following auditing events are generated:

- All the activities generate the same events (IN, OUT, EXECUTE, SELECT, UNSELECT, among others.)
- The Begin activity has no Activity IN event as the instance is created in it.
- The End activity has no Activity OUT event as the instance terminates there.
- The Join activity generates events only if the Split associated activity generates events.
- When an instance is created, a CREATION event is generated instead of an Enter event. This event is always automatically generated if the Engine stores events. All original instances (copy 0) have the CREATION event.
- When an instance is finished, an END event is generated. This event is always automatically generated if the Engine stores events. All terminated original instances (copy 0) have the END event.
- Interactive activities have additional events that occur between the Enter and End events.

If you have any Generates events check box selected, the Audit Trail in WorkSpace is enabled. The Audit Trail displays all events that have occurred for an instance.

Glossary

AquaLogic BPM uses special terms or applies specific meanings to common words. This section contains commonly used ALBPM terms.

activity

In a process, an activity is a single piece of work that forms a distinct step within a process. An activity may be a manual activity or an automated, computer-based activity. An activity may contain multiple tasks.

Admin Center

The management and configuration component of AquaLogic[®] BPM Enterprise. See the [Admin Center Guide](#).

Archive Viewer

An Enterprise component which you can use to view archived process instances.

business process

A business process represents a specific set of business tasks and activities which must be executed to reach a well-defined outcome. When the goal is reached, the process is complete.

Examples of simple processes include hiring an employee, processing a sales order, or reimbursing a business expense. More complex business processes can also be designed according to the needs of a particular organization.

instance

See [process instance](#) on page 37.

participant

A user. A participant performs the work represented by an [activity](#) on page 36. This work is normally manifested as one or more work items assigned to the participant via the Workspace application.

Process Administrator

The process deployment and configuration component of AquaLogic[®] BPM Enterprise. See the [Process Administrator Guide](#).

process definition

The representation of a business process in a form which supports automated manipulation, such as modeling or enactment by a process execution engine or Web service. The process definition consists of a set of related activities and their relationships, as well as criteria to indicate the start and end of the process, and information about the individual activities, such as roles, systems, and user interface form

process definition file

An ALBPM process definition file is an XML file that contains the definition of a process. The process definition file uses an .xpd1 extension.

process instance

A business process instance is a specific item proceeding through a business process. For example, in a business process which handles purchases, each instance will be an individual purchase order. There can be any number of instances traversing a *business process* on page 36.

project

A logical collection of related artifacts, including process definitions, business variables, business parameters, and external resource definitions. Typically, a project corresponds to a set of related business processes that collectively provide business value in a particular functional area. A project is created within the Process Designer and published and deployed using the Process Administrator.

role

A job function in a process that has associated activities to be performed by a user or group. Users and/or groups are associated with process roles either in design time with Studio, or in run time in the Process Administrator.

Studio

The ALBPM Suite modeling and design tool for business analysts and developers. Analysts can model, simulate and test any number of business processes using the tool. Studio can also be used to create Business Activity Monitoring (BAM) reports.

work item

A term sometimes used in previous ALBPM documentation to denote a *process instance* on page 37, particularly as seen by Workspace users.

Workspace

Workspace is the AquaLogic BPM Enterprise component that end users in an organization use to carry out tasks that are part of a *business process*. Workspace is a Web application which works on standard Web browsers.