

# **Process Management Guide**

Axiom

Version 2021.1

The logo for AXIOM, featuring the word "AXIOM" in a bold, white, sans-serif font. The text is enclosed within a thin, light blue rectangular border. The background of the entire page is a dark blue gradient with a pattern of overlapping, lighter blue circles and organic shapes, creating a modern, abstract design.

**AXIOM**

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# Introduction

The Process Management feature can be used to define, manage, and track any process that can be performed in Axiom, such as annual rollover and monthly data updates.

## ▶ Intended audience

This guide is intended for administrators and other power users who are responsible for defining and administering processes in Axiom.

## ▶ What is covered in this guide?

This guide covers the following aspects of process management for standard process definitions:

- Creating the process definition, including the steps of the process, owner assignments and due dates, and notifications
- Starting and stopping processes
- Managing active processes, including moving steps, regenerating tasks, and reviewing process status
- Reference for all step types

## ▶ What is not covered in this guide?

The following topics are not covered in this guide:

- Plan file processes. Process management supports a special type of process known as a plan file process. This process is dedicated to managing plan files through a defined set of steps. Because plan file processes have special features and can only be used in conjunction with file groups, plan file processes are discussed in the separate *Plan File Process Guide*.
- Completing tasks. For more information on how end users interact with processes and assigned tasks, see the *Desktop Client User Guide*.

All documentation for Axiom can also be accessed using the Axiom Help Files.

## ► Axiom Client versions

This guide discusses functionality that is available in the Axiom Desktop Client (Excel Client and Windows Client). Screenshots of features may show either the Excel Client or the Windows Client. The Axiom functionality is virtually identical in both environments.

# Process Management

Using the Process Management feature, you can define a set of process steps—including assigning ownership and due dates—and then track the completion of these steps. For example, you could manage and track an annual rollover process, monthly data updates, or any specialized process such as cash flow forecasting for financial institutions.

Process management provides the following benefits:

- A documented workflow to complete a particular process in Axiom. All necessary steps can be detailed in the process, including steps that happen outside of Axiom (for example, preparing a source file for use in an import). Steps can be dependent on prior steps, or they can be performed in parallel as appropriate.
- Clear ownership of each process step, including due dates. Users who are assigned a step will be notified of this responsibility, and can view and complete the step within their Process task pane.
- Easy access to features necessary to complete process steps. Each step can be associated with certain features in Axiom, so that the user responsible for the step can often launch the necessary feature directly from the Process task pane and perform the assigned task.
- A permanent audit trail for the process, including who completed a step and when. The process status details can be viewed while the process is active, and also after the process is complete, so that there is always a record of the process.

**NOTE:** In order to manage plan files in a planning process, you must use a special version of process management known as a *plan file process*. These processes are defined at the file group level using a *plan file process definition*. Plan file processes are dedicated to editing and reviewing plan files according to a defined set of steps, owners, and due dates. Because plan file processes support different step types and different features, they are not discussed in this section. This section only discusses general process definitions. For more information on using plan file processes, see the *Plan File Process Guide*.

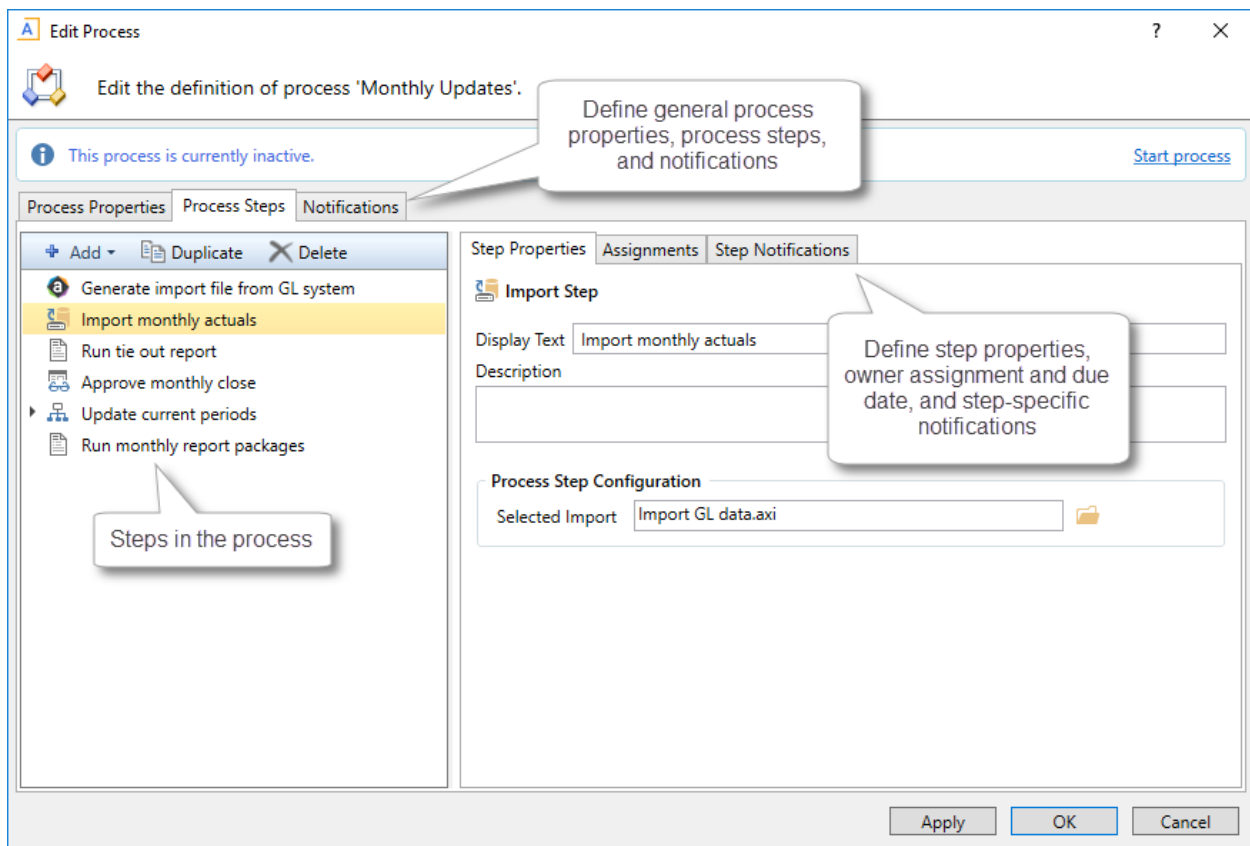
## About process management

Process management can be used to manage and track an Axiom-related process from end to end—encompassing all aspects of the process, including steps that may need to be completed outside of the system.

## ► Defining processes

In order to use process management, you first create a process definition. This file defines the properties of the process, such as:

- Name and description (for example "Annual Rollover")
- Process owner
- Steps in the process
- Owners and due dates for each step
- Associated files and features for each step
- Notifications to be sent during the process



*Example process definition*

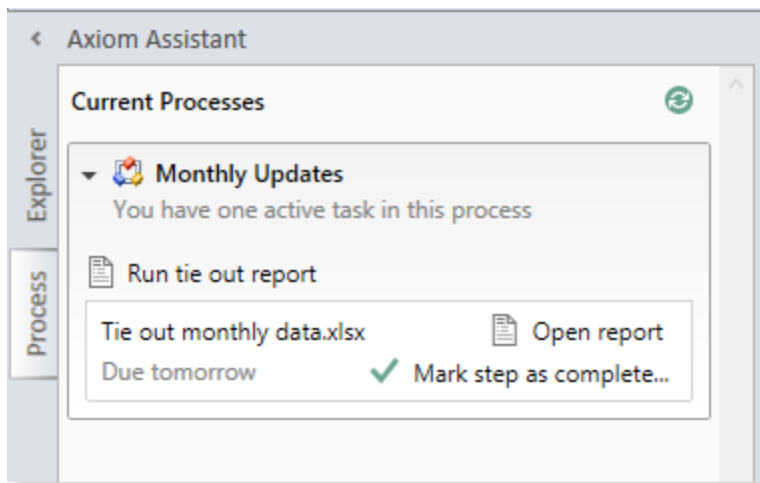
The process definition is a file that is stored in the Process Definition Library (or for processes that belong to a file group, within the file group's Process Definitions folder). The process definition can be subsequently edited and "activated" as needed, whenever you need to perform and track the process. When a process is activated, a new incarnation of the process is created to track the details of that particular process instance. This ensures that you always have a history of each time the process is performed, including who completed each step in the process and when.



## ► Performing a process

When you are ready to perform a process, you "activate" or start it. The first step in the process is made active, and a notification is sent to the assigned step owner (or owners). This default notification gives the user information such as the process name, the step name and description, and the due date. You can optionally customize the notifications for a process, and you can disable them if desired.

When a process is active, the process owner and all administrators can see the process in the Process task pane. Other users only see the process if they are the assigned owner of a step in the process.



*Example process task pane for a step owner (non-admin)*

The assigned user must perform the task and then mark the step as complete by the designated due date. For more information, see [Step ownership and completing process tasks](#). If necessary, an administrator or the process owner can override step ownership and complete the step.

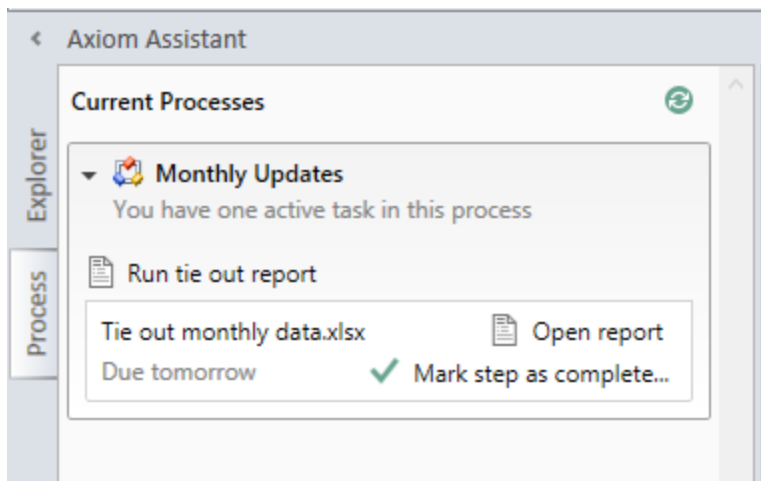
Once the currently active step is complete, the process moves to the next step, and so on until all steps are complete. Generally speaking, only one step at a time is active in a process. However, there can be multiple active steps at the same time if a Parallel Subprocess step is used in the process. When the active step is a parallel subprocess, all sub-steps of the subprocess become active simultaneously and can be completed in parallel. The subprocess is not completed until all sub-steps are completed. For more information, see [Performing process steps in parallel](#). The Multiple Approvals Process Step also counts as a parallel subprocess.

When all steps in the process are complete, the process instance is automatically completed.

## ► Step ownership and completing process tasks

Each step in a process represents a task to be performed, and that step has one or more assigned owners. When a step becomes active in a process, a task is generated for the assigned owner. This user is expected to perform the task for that step, and then mark the step as complete by its assigned due date. This is done using the Process task pane.

If a user is the assigned owner of an active step, the process and the active step display in the Process task pane (or in a custom task pane that has been configured to show the process task control).



*Example active task in task pane*

The process task may be an activity that the assigned user performs in Axiom, such as running an import, or it may be an activity that the user completes externally, such as obtaining the source file for the import from another system and saving it to the designated location. The task may be simply to confirm that the process is ready to continue (an approval step).

The step name and description should be defined so that the assigned user clearly understands what they are expected to do to complete the task. In some cases, the step may have an associated "action", such as the **Open report** button in the example screenshot above. This is provided as a convenience, so that the user can easily access features that are related to the task. However, once the file or feature is open, it is up to the user to decide what to do with that file or feature in order to perform the task. Axiom does not perform any validation before allowing a step to be completed; it is up to the assigned user to determine that the step is complete.

Once the user has completed the task to their satisfaction, they can mark the step as complete by clicking the button in the task pane. This opens the Process Action dialog, so that the user can confirm that they want to complete the step, as well as enter any step comments.

This dialog displays slightly differently depending on step type. Most steps will display as follows, showing a step progression diagram for context:

**Process Action**

Mark process step as completed in process 'Monthly Updates'.

**Current Step**  
 Import monthly actuals  
 Jane Doe (jdoe)

**Next Step**  
 Run tie out report  
 Wendy Hunter

**Comment** Any comment will be stored with the process and included in notifications to the next step owner.

1000 characters remaining

OK Cancel

**NOTE:** If the step is part of a Parallel Subprocess, then the step progression diagram is not displayed, because the process does not continue to the next step until all steps in the subprocess are complete. The user is simply informed that they are completing the current step.

Certain step types have slightly different step completion behavior. For example:

- If the step is an Approval Process Step, then the **Mark step as complete** button does not display in the task pane. Instead, the user can click either **Approve** or **Reject**. If they click Approve, the step is completed and the process moves to the next step. If they click Reject, the process is moved back to the prior step.
- If the step is a Scheduler Process Step, then the step displays in the Process task pane for information only, because the step will be processed and completed automatically by Axiom. However, if the Scheduler job experiences errors, then the user has various options to restart the job or to manually mark the step as complete if the job does not need to be re-run.

In most cases, the current, next, and prior step owners show in the completion dialog. Prior steps and their owners only show when the task can be rejected back to the prior step. However in some cases, it is not possible or feasible to show the step owners. For example, if the next step in the process is a subprocess that may resolve to multiple steps with multiple possible owners, then Axiom does not attempt to show the next steps or their owners. Instead it displays the name of the subprocess and that there will be "(multiple step owners)".

Once the step is completed, the process no longer displays in the user's Process task pane (unless the user is also the step owner of the next step). If the user has no active tasks in any processes, then the Process task pane will be empty for the remainder of the current session, and will not open the next time the user logs in (unless the user has been assigned a new active task in the meantime). Exceptions are as follows:

- Process owners see the process in their Process task pane as long as the process is active.
- The Process task pane is visible to administrators as long as any process in the system is active.

If necessary, an administrator or the process owner can mark a step as complete. For example, imagine that the assigned user already performed the necessary task but then left on vacation before they marked the step as complete. The administrator can mark the step as complete so that the process can continue. In this case the process history will reflect both the original assigned owner, and the fact that the administrator completed the step.

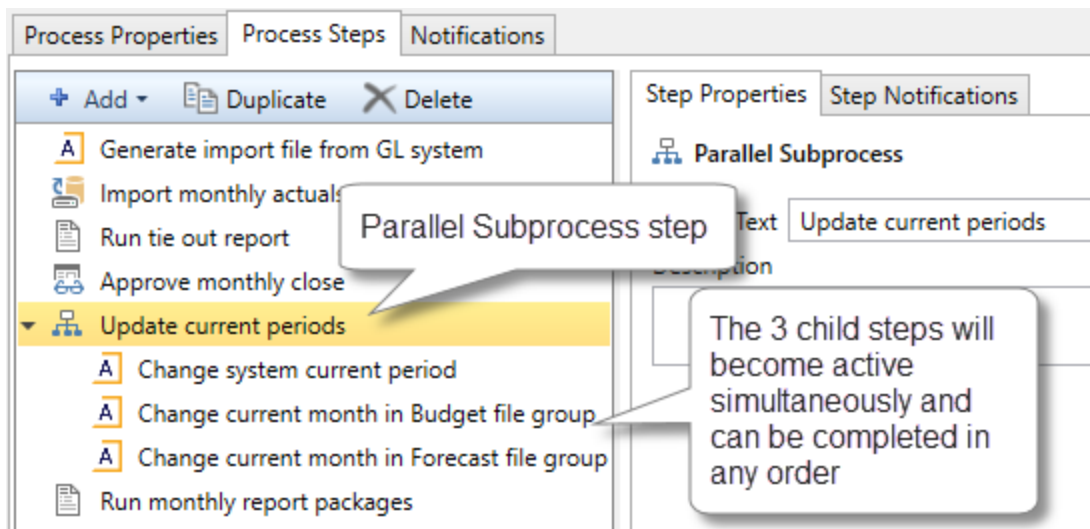
### ► Performing process steps in parallel

In general, the order of steps in your process definition determines the order in which tasks for the process can be completed.

When the process is started, the individual steps are made active in the order they are listed. By default, each step is dependent on the prior step being completed (sequential steps). So if step 1 is the currently active step, step 2 is not made active and cannot be completed until step 1 is marked as complete. Once step 1 is completed, step 2 becomes active, and so on.

However, you may have some steps in your process that are not dependent on each other and can be completed in any order. These steps are known as parallel steps, meaning they can all be active at the same time.

To configure parallel steps, you must use a **Parallel Subprocess** step, and then define the parallel steps as sub-steps of the subprocess. This tells Axiom that the sub-steps of the subprocess can be completed in any order.



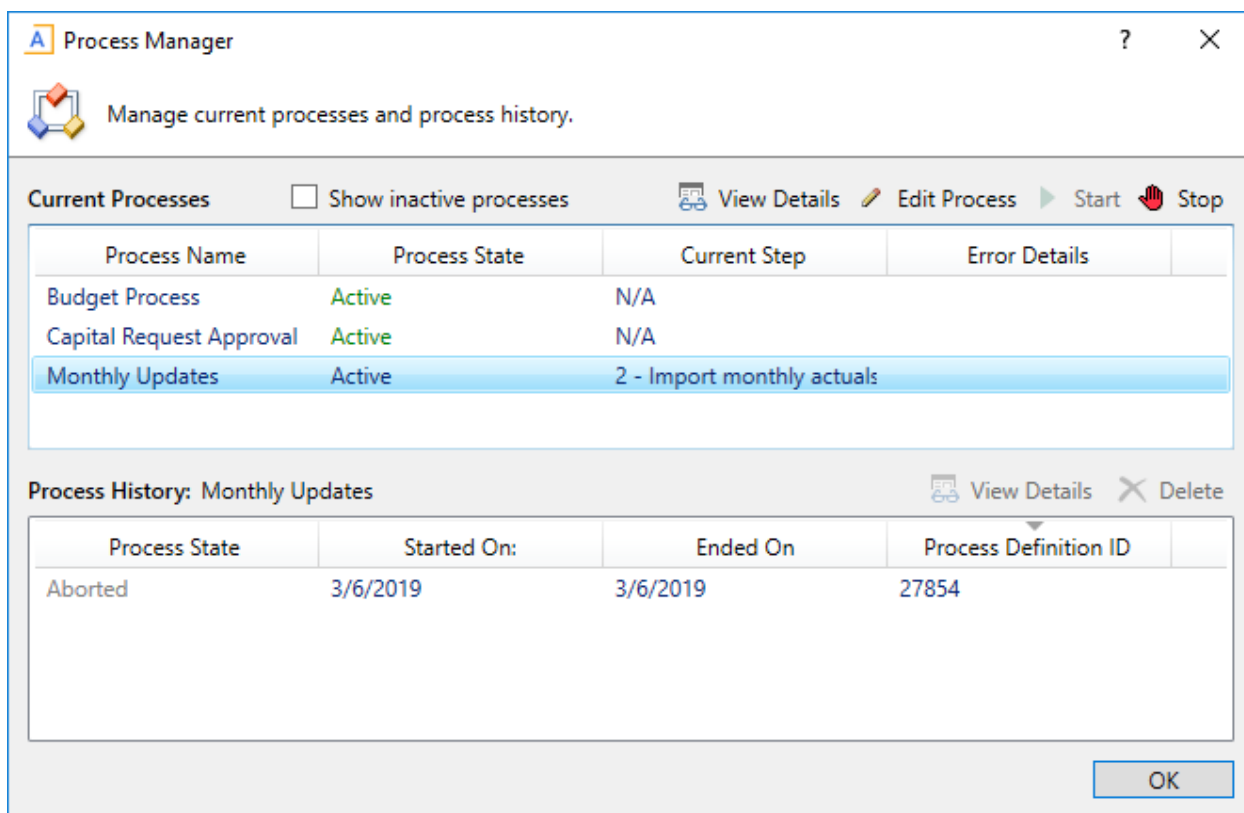
When the Parallel Subprocess step becomes the active step, all sub-steps are also made active. Once all sub-steps in the subprocess are completed, then the Parallel Subprocess step is automatically marked as completed, and the process moves to the next step.

Imagine that step 2 of a process is a Parallel Subprocess step, and the subprocess has 5 sub-steps. Once step 1 is completed, then step 2 becomes active as well as all 5 of its sub-steps. The owners of the sub-steps can work on these steps and complete them in any order. Once all 5 of the sub-steps are completed, step 2 is automatically completed, and then step 3 of the process becomes the active step.

**NOTE:** The Multiple Approvals Process Step is a special type of Parallel Subprocess. It can only contain Approval Process Steps as sub-steps, but otherwise its behavior is the same as the Parallel Subprocess.

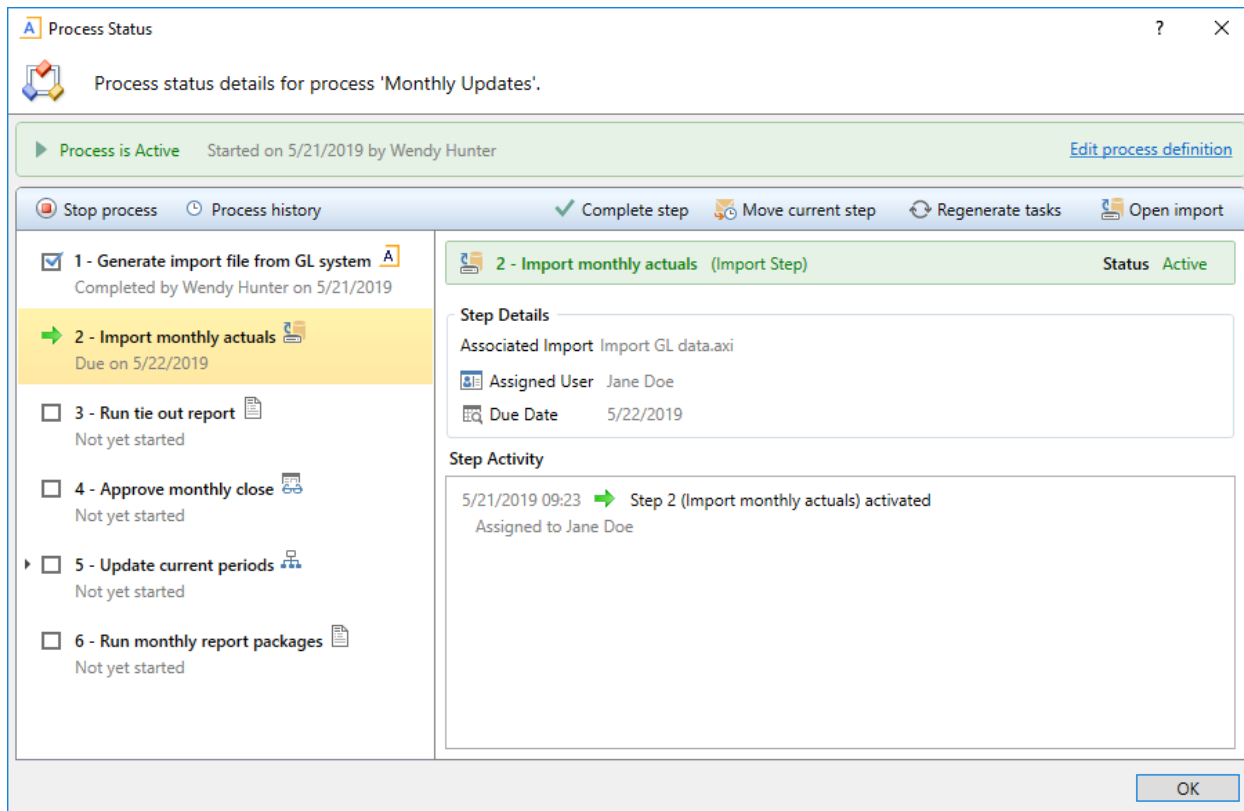
#### ► Tracking process status and history

Administrators and process owners can view process status and history at any time. Using the Process Manager dialog, you can see the status of all active processes or all current processes at-a-glance.



Example Process Manager dialog

Administrators and process owners can view the details for an active process, to see when each step was completed and by whom, as well as any comments added by users. You can also perform process administration tasks within this dialog, such as overriding step ownership, restarting stalled steps, and stopping the process.



Example process details in the Process Status dialog

Administrators can view the historical details for any process. For example, if you have a process that you run monthly, you can go back and view the prior month's details, or any amount of history that you want to retain.

# Creating Process Definitions

Using a process definition, you can define the set of steps to be managed and tracked as part of a process, including step order, ownership, associated actions, and due dates.

Process definitions are stored in the Process Definition Library. Access to the definitions is controlled by the file security settings on the **Files** tab of security. Only users who need to create and modify the process definitions need access to these files. Users who are assigned to perform individual steps in the process do not need access to the definition in order to perform the task or to view the process status.

**NOTE:** This topic discusses how to create a general process definition. If you want to manage plan files in a planning process, then you should use a *plan file process definition* instead. General process definitions and plan file process definitions share certain basic settings, but plan file process definitions are dedicated to plan file process steps, and also support additional features that are unique to plan file processes. For more information on using and creating a plan file process definition for a file group, see the *Plan File Process Guide*.

Process definitions are typically created by administrators, or other power users who are responsible for administrating parts of the system. The creator of the process definition needs to understand all steps of the process, who needs to perform each step, and when that step needs to be performed.

Process definitions do not have any impact on the system until they are activated.

**To create a new process definition:**

1. On the **Axiom** tab, in the **Administration** group, click **Manage > Processes > Process Definitions**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Process Definitions**.

The Axiom Explorer dialog opens, filtered to show the Process Definition Library. If you have access to the Process Definitions folder for any file groups, those folders also display here.

2. Right-click the **Process Definition Library** (or a subfolder), then click **New > Process Definition**. If you want to create a process definition for a file group, you can right-click the **Process Definitions** folder in the file group.

The **Edit Process** dialog opens. As you are working in this dialog, any validation errors for missing or invalid settings will display at the bottom of the dialog. You can save the process definition with configuration errors, however, you will not be able to start the process until all configuration errors are resolved.

3. In the **Process Properties** tab, complete the general process settings as desired. For more information, see:

- [Designating the process owner](#)
- [Configuring process visibility to step owners](#)
- [Process Definition Properties](#)

4. In the **Process Steps** tab, define the steps for the process.

- To add a step, click **Add** and then select the type of step to add. New steps are added after the step that you currently have selected in the list.

However, if the currently selected step supports sub-steps, then the new step is added as a sub-step. This applies to step types such as Parallel Subprocess. In this case, if you want to add a new top-level step that comes after the subprocess step, you must click **Add After Current Step** and then select the type of step to add.

- To remove a step, select that step and then click **Delete**. If the deleted step has child steps, those steps are removed as well.
- To change the order of steps, you can drag and drop them to different locations in the list.
- To copy a step, select the step and then click **Duplicate**. You can then modify the copied step as needed and move it to the desired location in the list.

Steps are performed in the order listed. By default, steps are dependent and sequential—meaning, each step in the list must be completed before the next step can be done. However, it is possible to use a Parallel Subprocess to define parallel steps—meaning multiple steps that are not dependent and can be performed at the same time. The parallel steps are then defined as sub-steps to the Parallel Subprocess. (Multiple Approvals Process Steps also behave like Parallel Subprocesses.)

Once you have added a step to the process, you can configure the settings for that step in the right-hand pane. This includes the display text for the step, the step ownership and due date, and other properties specific to the step type. You can also configure step-specific notification settings.

For more information on configuring the steps in the process, see the following topics:

- [Assigning owners to process steps](#)
- [Defining the due date for a process step](#)
- [Process step types](#)
- [Defining notifications at the step level](#)



**TIP:** In most cases, you should configure the process-level notification settings on the **Notifications** tab before configuring any step-level notification settings. This way the steps will have access to the inherited process-level settings.

5. In the **Notifications** tab, complete the notification settings for the process. You can enable or disable notifications for the process, define the default notification delivery method, and define default notifications to apply to the steps in the process. For more information, see [Configuring Notifications](#).
6. Click **Apply** to save, or **OK** if you are finished editing.

#### ► Copying an existing process definition

You can create a new process definition by copying an existing definition. To do this, use normal Axiom Explorer functionality:

- Right-click the definition file in the Process Definition Library, and then select **Copy**.
- Right-click a folder, and then select **Paste** to paste a copy of the file. The new file will be named **OriginalFileName - Copy**.
- Rename the file, then open the file and change the process definition settings as desired.

#### ► Creating a general process definition for a file group

You can create general process definitions that belong to a file group. For example, you might use a general process definition in a file group to document and manage the rollover procedures for the file group.

General process definitions in file groups have the following special properties:

- The processes are stored in the **Process Definitions** folder of the file group, instead of in the Process Definition Library.
- All step types that require a designated file group are automatically associated with the current file group. There is no option to specify a file group because the current file group is assumed.
- Processes can be copied when the file group is cloned, so that you do not have to create new processes for cloned file groups.
- The ability to create and edit processes for a file group is reserved for administrators and for users with the appropriate file access to the Process Definitions folder of the file group (as granted on the **Files** tab of the **Security Management** dialog).

General process definitions cannot be used to manage the plan files in a file group through a defined set of planning steps. To do that, you must use a *plan file process definition*. This is a special type of process definition that can only be created in a file group.

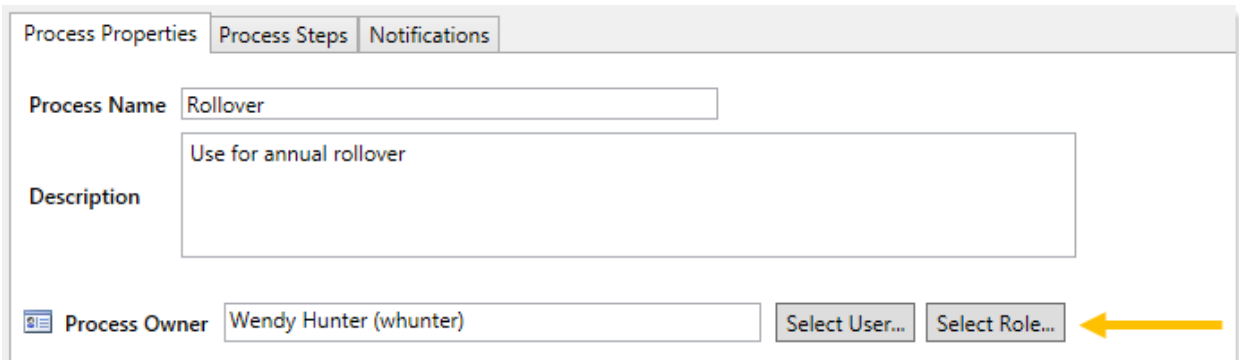
# Designating the process owner

Each process definition has a designated owner. The process owner receives all administrative notifications for the process, and can also:

- Start and stop the process
- Access the Process Status dialog when the process is active
- Move, complete, and regenerate steps

**NOTE:** Administrators can also perform all of these actions, regardless of whether or not they are the process owner.

The owner of the process is designated by the **Process Owner** setting on the **Process Properties** tab. By default, the process owner is set to the user who created the process definition. If desired, you can change the owner to a different user or to a role by clicking **Select User** or **Select Role**. If the owner is a role, then all users in that role are treated as process owners.



The screenshot shows a dialog box with three tabs: 'Process Properties', 'Process Steps', and 'Notifications'. The 'Process Properties' tab is active. It contains a 'Process Name' text box with the value 'Rollover', a 'Description' text box with the value 'Use for annual rollover', and a 'Process Owner' section. The 'Process Owner' section has a dropdown menu showing 'Wendy Hunter (whunter)' and two buttons: 'Select User...' and 'Select Role...'. A yellow arrow points to the 'Select Role...' button.

If the designated owner is a non-admin user, then you should make sure that the user has read/write access to the process definition, so that the user can open and edit the definition as needed, and can start the process. Once the process has been started, the process will display in the owner's Process task pane for the duration of the process, and the owner will gain access to the **View status** link so that they can perform any necessary administrative functions for the process. Process owners can also access the Process Manager dialog to perform process management activities for the processes they own.

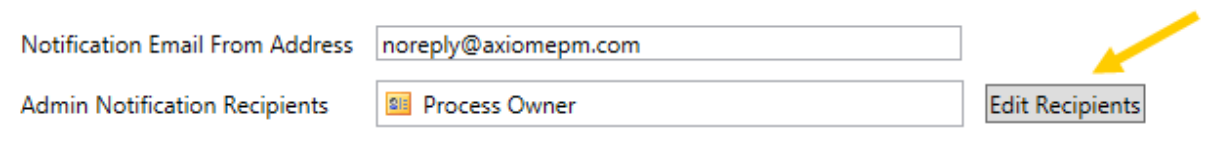
## ► Administrative notifications

Notifications are automatically sent to the designated process owner when the following situations occur:

- The process is started or stopped.
- An error occurs in a process step.

These notifications are system-managed and cannot be disabled or customized. However, you can designate additional users to receive these notifications.

The **Admin Notification Recipients** are designated on the **Notifications** tab. By default, the process owner is the only recipient of these notifications. To add or remove recipients, click **Edit Recipients**.



In the **Edit Recipients** dialog:

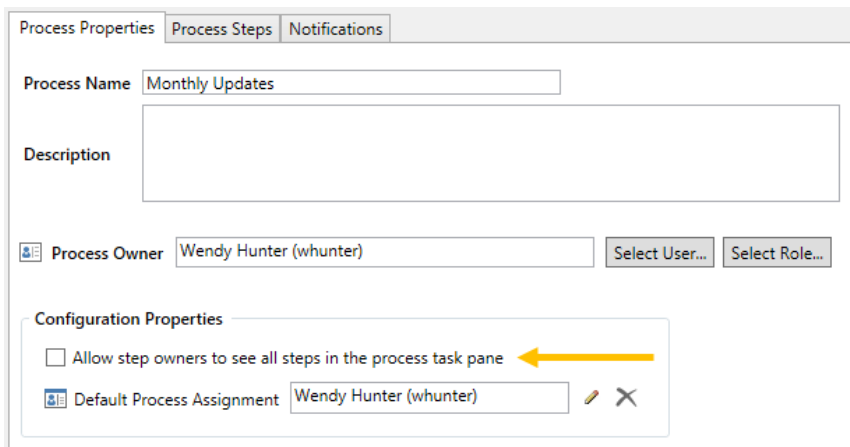
- To add a recipient, click **Add Recipients>User** or **Add Recipients> Role** to choose a user or role.
- To remove a recipient, select the user or role in the Notification Recipients list and then click **Delete**.

The process owner cannot be removed as a recipient. If the designated process owner is a role, then all users in that role will receive the administrative notifications.

**NOTE:** If the user who stopped or started the process is also an administrative notification recipient, that user will not receive a notification, because that user already knows about the change in process status. The intent of the started/stopped notifications is to inform interested parties that somebody else stopped or started the process.

## Configuring process visibility to step owners

When you create a process definition, you can specify whether step owners can see all steps in the process in the Process task pane, or only their current step. This is controlled using the following setting on the **Process Properties** tab: **Allow step owners to see all steps in the process task pane**.

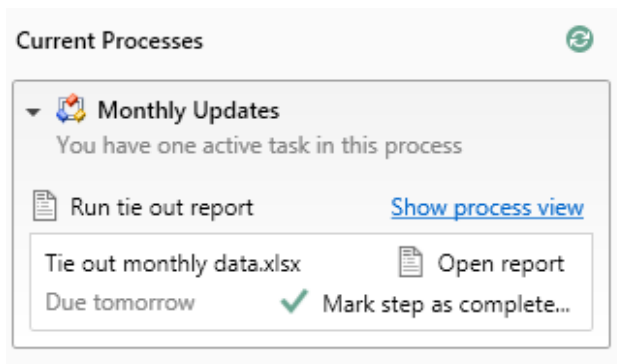


This setting is disabled by default, which means that step owners only have access to the Task View in the Process task pane. The Task View displays the currently active step as follows:

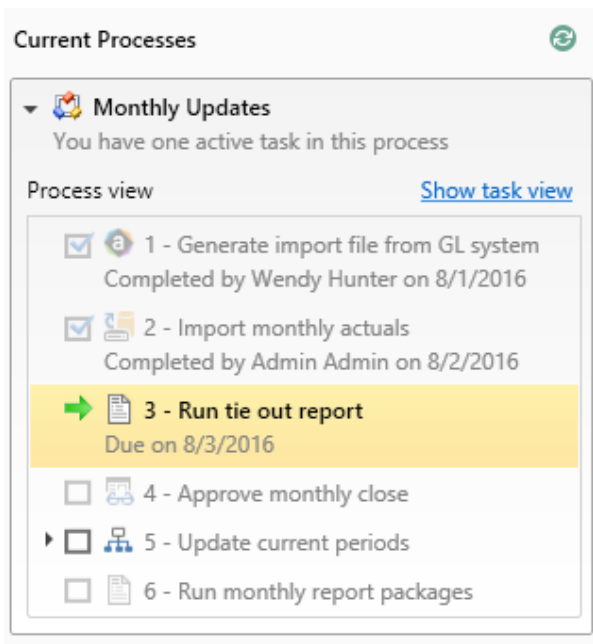
- The name and details of the currently active step are displayed without any reference to the step number. However, the user can see the step number in the tooltip.
- The step owner cannot see any other steps in the process, within the Process task pane. When the user completes the step, they can see the next step in the process. If the step can be rejected backwards, the user can also see the prior step.

If desired, you can enable this setting, which gives step owners access to the Process View in the Process task pane. Process View displays the full list of all steps in the process, so that the user can understand the context of the currently active step within the overall process. Process View is for information only—users cannot complete steps or launch files / features from Process View. Users can toggle between Task View and Process View as desired.

The following screenshots show examples of Task View versus Process View, including the toggles to switch back and forth. If a user does not have permission to see Process View, then the **Show process view** toggle does not display.



Task View



Process View

This setting does not apply to administrators or to process owners. These users always have access to Process View, regardless of whether this setting is enabled. Process View is the only available view for these users when they do not have an active task in the process.

# Assigning owners to process steps

Each step in a process definition must have a defined owner to perform that step and mark it as complete. The assigned step owner can be a user or a role.

When a step is made active, the assigned owner is notified that they have a task to complete in the process (if notifications are enabled for the process and for the step). The owner can view the active task in the Process task pane, perform actions associated with the task, and then mark the step as complete.

This topic discusses step ownership options for general process definitions. Plan file process definitions have additional options to assign step ownership, so that each plan file can be assigned a different owner for each step. For more information, see the *Plan File Process Guide*.


**NOTE:** When using a Parallel Subprocess or a Multiple Approvals step, ownership assignments are only made on the child steps. The parent step does not have ownership assignments.


► Assigning owners to individual steps

In the process definition, step owners are assigned on the **Process Steps** tab, in the **Assignments** sub-tab. Select the step for which you want to assign ownership, then use the **Assignment Type** field to select the ownership type.

The screenshot shows a dialog box titled "Assignment Configuration". It contains three main sections: "Assignment Type" with a dropdown menu currently showing "User" (an orange arrow points to this dropdown), "Assigned User" with a text box containing "Wendy Hunter (whunter)" and a delete icon (X), and "Due Date" with a text box containing "3 days after the process is started" and a delete icon (X). Each text box also has a small edit icon (pencil) to its right.

For steps in general process definitions, the assigned owner can be a user or a role:

Assignment Type	Description
User	<p>Assign a specific user as the owner of the step. When the step becomes active, a process task will be generated for the user to complete the step.</p> <p>Click the Edit button  to the right of the <b>Assigned User</b> box to select a user. You can select any user in the Axiom system.</p> <p><b>NOTE:</b> If most or all of the steps in your process use the same owner, you can choose to set a <b>default owner</b> at the process level. If you do this, then you can leave the Assigned User at the step level blank, and that step will automatically be assigned to the default owner.</p>

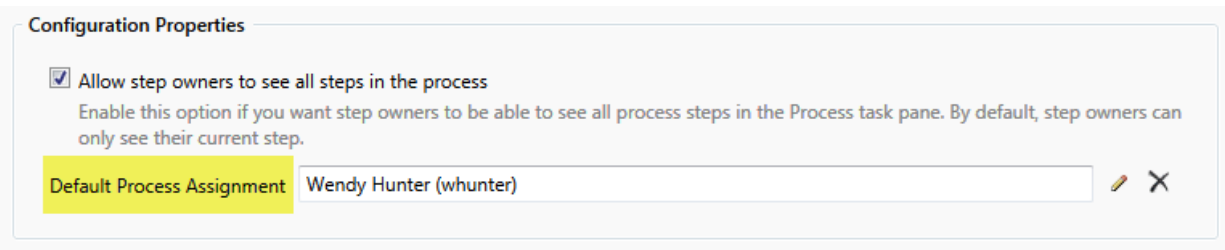
Assignment Type	Description
Role	<p>Assign a role as the owner of the step. When the step becomes active, a process task will be generated for all users in that role, and any of those users can complete the step.</p> <p>Click the Edit button  to the right of the <b>Assigned Role</b> box to select a role. You can select any role in the Axiom system.</p>

Until a process is active, you can edit step ownership settings as desired. Once a process is active, you can edit ownership settings for any step that is not already completed. If you change the ownership settings of an active step, new tasks will be regenerated as needed to reflect the new settings, including sending new Step Activated notifications (if enabled for the process).

### ► Defining a default user assignment for the process



If desired, you can specify a default user assignment at the process level. This option is useful when you have a process where most or all of the steps are performed by the same user.

The default user assignment can be set on the **Process Properties** tab, as the **Default Process Assignment**.

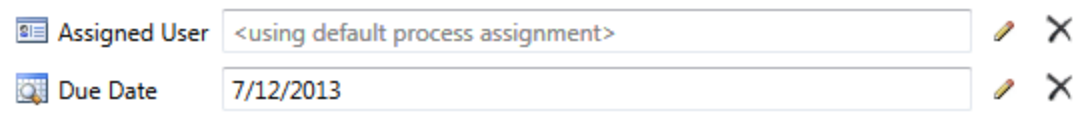





**Configuration Properties**




☒ Allow step owners to see all steps in the process  
 Enable this option if you want step owners to be able to see all process steps in the Process task pane. By default, step owners can only see their current step.

**Default Process Assignment** Wendy Hunter (whunter)  

If an individual step is set to User as the Assignment Type, but no user has been specified, then the step will use the default assignment. This is indicated in the step properties as follows:



 **Assigned User** <using default process assignment>  

 **Due Date** 7/12/2013  

Once a process has been started, the default process assignment cannot be changed. However, you can still change the owner of any individual steps that have not yet been completed.

### ► Step ownership and security permissions

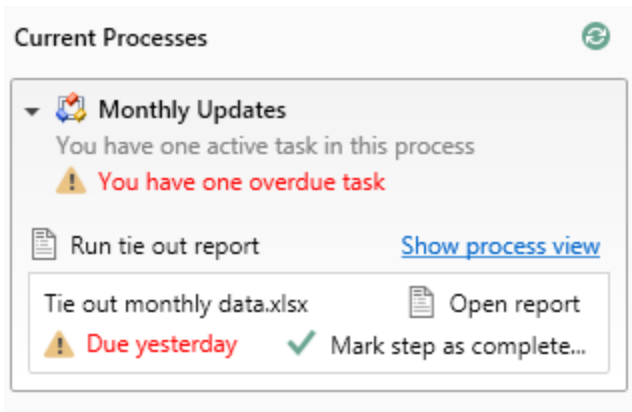
For steps in a general process definition, step ownership only grants the ability to mark the step as completed in the process. It does not grant the user the necessary security permissions to perform any associated action for the step, and it does not prevent any other user from performing that associated

action. When assigning owners to process steps, you should be sure that the owner has the appropriate security permissions to perform the associated task for the step.

For example, imagine that the step is "Import actuals data" and the step has been linked to the GLActuals import utility. If the user has permission to execute that import (as defined in security), then the user can click **Open import** for the task in the Process task pane to execute that import. However, if the user does not have permission to execute the import, then being the step owner does not grant them the permission. Additionally, if other users have security permissions to execute that import, they can still do so.

## Defining the due date for a process step


Each step in a process definition can have a defined due date. If a step has not been completed by the due date, then the step becomes overdue. If the active step in a process has become overdue, a warning displays in the Process task pane and the due date displays in red.

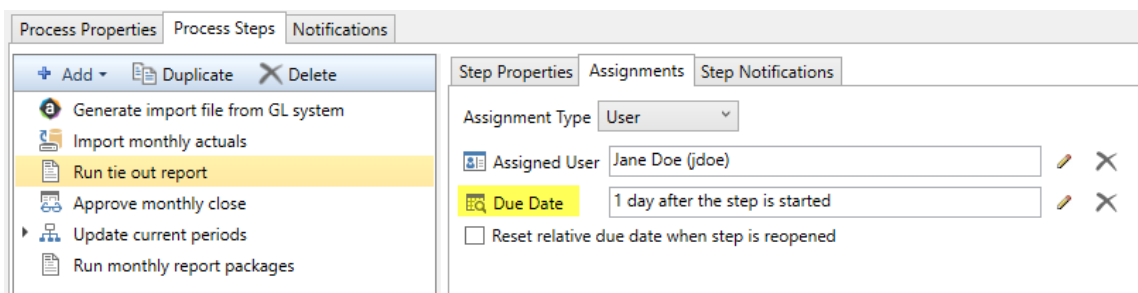


Example display of overdue step

In the process definition, step due dates are defined per step on the **Process Steps** tab, in the **Assignments** sub-tab.

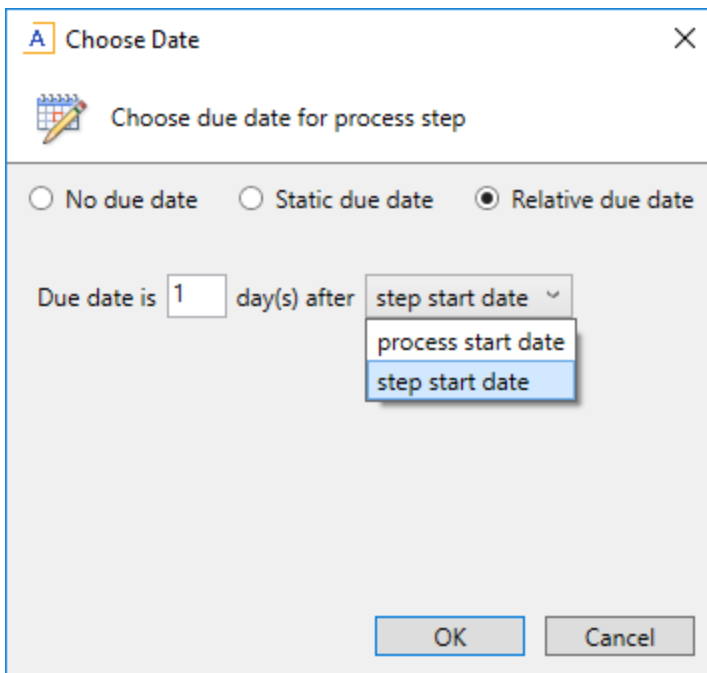
To define the due date for a step:

1. Click the **Edit** icon  to the right of the **Due Date** box.



2. In the **Choose Date** dialog, select one of the following options:

- **No Due Date:** The step does not have a due date.
- **Static Due Date:** Select a specific date for the due date. You can select the date from a calendar.
- **Relative Due Date:** Specify a number of days to dynamically determine the due date. The number of days can be relative to the date the process was started (**process start date**), or to the date this particular step was started (**step start date**). For example, the step can be due 7 days after the process was started, or 7 days after this step was started. By default, the process start date is used.



*Example Choose Date dialog*


3. If you specified a relative due date that is based on the step start date, decide whether or not to enable **Reset relative due date when step is reopened**. This option displays underneath the **Due Date** field.

By default this option is disabled, which means that the step due date is calculated when the step is first started, and that due date does not change if the step is later reopened. So if the step due date is 6/1/2021 when the step is first started, and then later the step is reopened on 6/2/2021, the step due date will remain at 6/1/2021 and the reopened task will be 1 day past due.

If instead you want the step due date to be reset (recalculated) based on the date the step is reopened, then you should enable this option. Continuing the above example, if the step is reopened on 6/2/2021 and the due date for the step is configured to be 3 days after the step start date, the due date for the reopened task will be recalculated to 6/5/2021.



### ► Changing due dates

You can change the due date of a step at any time if the process is not active. If you have already defined a due date and now you want to clear it (so that the step has no due date), click the **Delete** icon  to the right of the **Due Date** field.

For active processes, you can change the due date of any step that is not already completed. If you change the due date of an active step, new tasks will be regenerated as needed to reflect the new due date, including sending new Step Activated notifications (if enabled for the process).

## Using the result of a previous step

You can configure a step in a process definition to perform an action on the result of a previous step. This is intended to support processes where an item is created in one step and then you want to perform one or more actions on this newly created item.

Currently, this configuration is only supported for processes that use a File Group Process Step with the Clone File Group action. This is the only step type that officially creates a new item in Axiom. Although you can use other process steps to direct step owners to create any kind of item, the creation is not an official step action and is not tracked by the process.

The typical use case for this configuration is for a rollover process. For example:

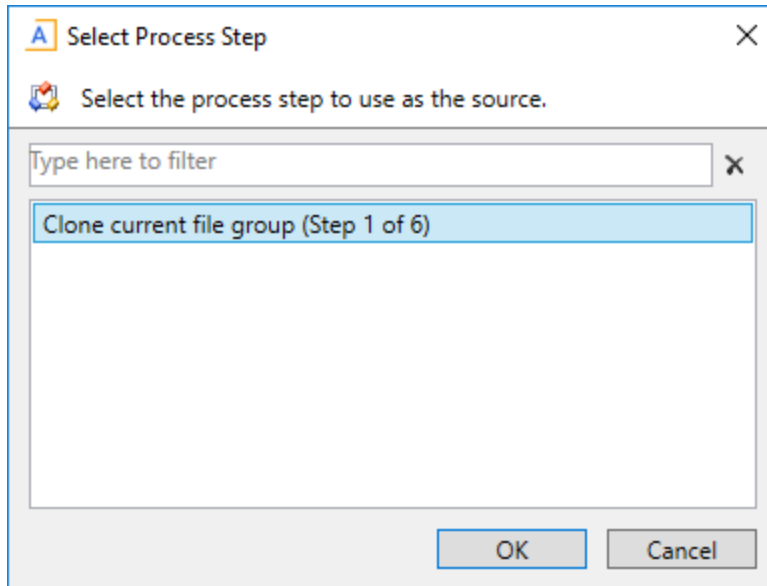
- Step 1 uses the Clone File Group action to create a new file group for the new cycle of planning.
- Step 2 creates the plan files for the new file group that was created in Step 1.
- Step 3 processes the plan files for the new file group that was created in Step 1.

For Step 1, you would point the step to an existing file group such as Budget 2021. When the process is activated, the step owner would perform the cloning process and create a new file group such as Budget 2022. However when setting up the process definition, you can't point Step 2 to the Budget 2022 file group because it isn't created yet. Instead, you would configure Steps 2 and 3 to use the result of Step 1.

### ► Configuring a step to use the result of a previous step

When defining a File Group Process Step, do the following to use the result of a previous step:

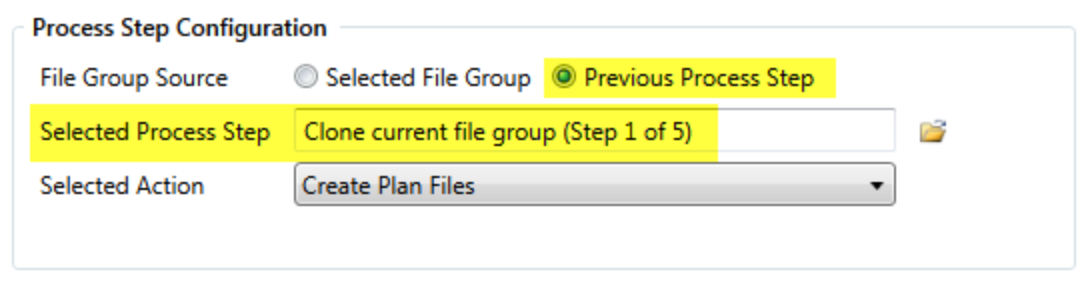
1. For **File Group Source**, select **Previous Process Step**.
2. For **Selected Process Step**, click the Browse button to select the step where the file group is created.



The Select Process Step dialog displays a list of steps that are eligible for selection. If no steps are eligible, a message informs you of this. Only steps that meet the following criteria are eligible for selection:

- Must precede the current step.
- Must create a file group using the Clone File Group action.

To continue the example in the previous section, the configuration for Step 2 will look like the following:

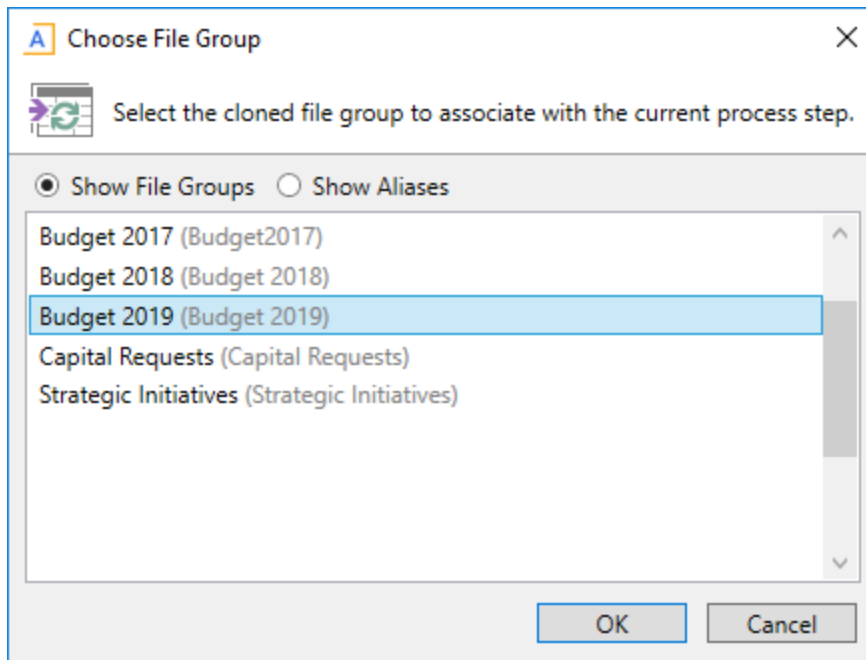


This means that Step 2 will create plan files for the file group that was created in Step 1.

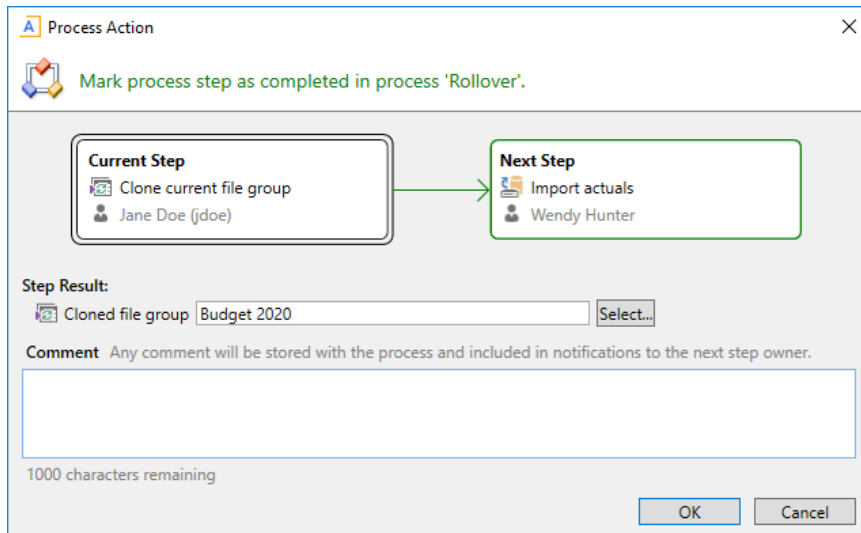
### ► Tracking the step result in active processes

If a process is configured to use the result of a previous step, then the result of that step must be tracked within the process. To continue the previous example, when Step 1 is completed the process needs to know the name of the file group that was created, so that it can pass the name of that file group to Steps 2 and 3.

When a step owner completes a step where the created file group is used by a subsequent step, then as part of the completion process they must specify the name of the file group that was created.



This selected file group is then associated with the step. In the Process Action dialog, it is displayed as the **Step Result**. If needed, you can change the selected file group here before completing the step, by clicking **Select**. However, once the step has been completed, the step result is then fixed and cannot be changed without reopening the step.



The file group that is specified as the step result will be passed to the subsequent steps that use that result. The step result is also documented in the process details for future reference.

#### Step Activity

- 9/28/2017 10:33 → Step 1 (Clone current file group) activated  
Assigned to Ron Sandstone
- 9/28/2017 10:34 📄 Step resulted in cloned file group 'Budget 2019'
- 9/28/2017 10:34 ☑ Step 1 (Clone current file group) completed by Ron Sandstone

## Deleting a process definition

You can delete a process definition if it is not active and you no longer need it. Deleting a process definition will also delete all history for that process, so you should make absolutely sure that the definition and its history are not needed before you delete it.

To delete a process definition:

1. On the **Axiom** tab, in the **Administration** group, go to **Manage > Process Management > Process Definitions**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Process Definitions**.

The Axiom Explorer dialog opens, filtered to show the Process Definition Library (as well as any file group Process Definition folders that you have access to, if applicable).

2. Right-click the definition that you want to delete, then click **Delete**.

You will be prompted to confirm that you want to delete the definition, and warned that all associated history will also be deleted.

3. At the confirmation prompt, click **OK**.

The process definition is now deleted.

# Process step types

Process management supports various step types to be used for different purposes. This section details the available step types for general process definitions, and the type-specific settings.

This section does not cover the special step types supported by *plan file process definitions*. For more information on steps in plan file processes, see the *Plan File Process Guide*.

**NOTE:** Previous releases supported a step type of Plan File Subprocess. This step type has been deprecated and is no longer available to be added to new processes. All new plan file processes should be created using a *plan file process definition*, as this special process type supports the full range of plan file process functionality. However, if you had an existing process definition with a Plan File Subprocess step, that process will continue to operate as it did previously. For information on plan file process definitions, see the *Plan File Process Guide*.

## Approval Process Step

The Approval Process Step is intended to be used for steps where you need the explicit approval of a user in order to move forward with the process.

### ► Process behavior

When the Approval Process Step is the active step, the step owner has the following options:

- **Approve** the process so that it will move to the next step.
- **Reject** the process so that it will return to the prior step.

The Approval Process Step is the only step type that supports moving the process either forward or backward; all other steps only have the option to move forward when completed.

### ► Step-specific settings

Approval Process Steps in general processes do not have any unique step settings. Only the general step settings apply.

### ► Restrictions

Approval Process Steps cannot be sub-steps of a Parallel Subprocess step. Because the sub-steps of a parallel subprocess can be completed in any order, an approval or a rejection would not make sense in this context. If you want to approve the steps in a parallel subprocess, then the next step after the parallel subprocess should be an approval step. In this case, note that if the assigned user rejects the process to return to the prior step, the entire parallel subprocess will be "reopened" and made active again.

If you want to enable parallel approval steps (approvals that can occur concurrently instead of sequentially), then you can use the special Multiple Approvals Process Step. This step works like a parallel subprocess, however, it is specially designed to handle approval steps only. For more information, see [Multiple Approvals Process Step](#).

## File Group Process Step

The File Group Process Step is intended to be used for steps where you need the user to perform some kind of action on a file group.

**NOTE:** This step type is for performing actions on a file group as part of a larger process. If instead you want to manage plan files through a planning process, use a plan file process.

### ► Process behavior

When the File Group Process Step is the active step, the step owner has two actions available in the Process task pane:

- **<Action>**: The user can click the action link to open a file or perform the action associated with this step. The text of the action and what it does depends on the selected action for the step. For example, if the selected action is Process Plan Files, then the link text is "Process Plan Files" and clicking on it opens the Process Plan Files dialog for the file group.
- **Mark step as complete**: The user can click on this link to complete the active task.

### ► Step-specific settings

When configuring a File Group Process Step, complete the following settings in addition to the general step settings:

Item	Description
File Group Source	<p>Specify the source of the file group for this step:</p> <ul style="list-style-type: none"> <li>• <b>Selected File Group:</b> You will select an existing file group on which to perform an action.</li> <li>• <b>Previous Process Step:</b> The file group for this action is created in a previous process step. You will select the step in the process where this file group is created.</li> </ul> <p>For example, imagine a process where step 1 clones a file group to create a new file group, and then step 2 creates plan files for the new file group. In step 1, you would use Selected File Group to specify the existing file group that you want to clone. In step 2, you would use Previous Process Step to specify the file group that was created in step 1.</p> <p>This step does not apply if the process definition is associated with a particular file group. In that case, the current file group is assumed.</p>
Selected File Group	<p>The file group for the step. Click the <b>Select</b> button to select an existing file group. This option is only available if File Group Source is set to Selected File Group.</p> <p>This step does not apply if the process definition is associated with a particular file group. In that case, the current file group is assumed.</p>
Selected Process Step	<p>The previous step in the process where the file group for this step is created. This option is only available if File Group Source is set to Previous Process Step. For more information, see <a href="#">Using the result of a previous step</a>.</p> <p>Click the <b>Select</b> button to select the step. Only steps that meet the following criteria are eligible for selection:</p> <ul style="list-style-type: none"> <li>• Must precede the current step.</li> <li>• Must create a file group using the Clone File Group action.</li> </ul> <p>This step does not apply if the process definition is associated with a particular file group. In that case, the current file group is assumed.</p>

Item	Description
Selected Action	<p>The action to perform on the file group:</p> <ul style="list-style-type: none"> <li>• <b>Open Plan Files</b>—If the user has one available plan file in the file group, that plan file will open. Otherwise, the Open Plan Files dialog opens, showing the user's available plan files.</li> <li>• <b>Create Plan Files</b>—Opens the Create Plan Files dialog with no special setup; the user will need to configure it as needed to complete the step.  <b>NOTE:</b> If the file group is an on-demand file group, then this action behaves like the "Add new file" link in the Open Plan Files dialog. The user can click on the link to create a new on-demand plan file.</li> <li>• <b>Clone File Group</b>—Opens the Clone File Group dialog with no special setup; the user will need to configure it as needed to complete the step.</li> <li>• <b>Edit File Group</b>—Opens the Edit File Group dialog with no special setup; the user will need to configure it as needed to complete the step.</li> <li>• <b>Process Plan Files</b>—Opens the Process Plan Files dialog with no special setup; the user will need to configure it as needed to complete the step.</li> </ul> <p>The display text and/or description for the step should make it clear to the user what they are expected to do in order to consider the step complete.</p>

**NOTE:** The assigned user for the step must have the appropriate security permissions to access the file group and perform the designated action. The File Group Process Step does not grant any permissions or elevate any existing permissions.

## Generic Process Step

The Generic Process Step can be used for any step that is not covered by the other step types. This step type has no special behaviors and is not associated with any particular feature in Axiom.

You might use this step for:

- A task that a user needs to complete outside of Axiom.
- A task that uses an Axiom feature for which there is no specific step type.

### ► Process behavior

When the Generic Process Step is the active step, the step owner can use **Mark step as complete** in the Process task pane to complete the step.



This step cannot be associated with an action; the assigned user will need to perform the task on their own. It is important to define the display text and description clearly so that the user understands what they need to do in order to consider the step complete.

#### ► Step-specific settings

Generic Process Steps do not have any unique settings. Only the general step settings apply.

## Import Process Step

The Import Process Step is intended to be used for steps where you need a user to access an import utility in Axiom, whether to edit the import settings and/or execute the import.

#### ► Process behavior

When the Import Process Step is the active step, the step owner has two actions available in the Process task pane:

- **Open import:** The user can click this link to access the import according to their security permissions. The step name and/or description should make it clear to the user what they are expected to do with the import.
- **Mark step as complete:** The user can click this link to complete the active task.

#### ► Step-specific settings

When configuring an Import Process Step, complete the following setting in addition to the general step settings:

Item	Description
Selected Import	The import utility to associate with this step. Click the folder icon to select the import.

**NOTE:** The assigned user for the step must have the appropriate security permissions to access the import and perform the desired action. The Import Process Step does not grant any permissions or elevate any existing permissions.

# Multiple Approvals Process Step

The Multiple Approvals Process Step is intended to be used when you want multiple users to approve a process concurrently instead of sequentially. The difference in approach is as follows:

- For sequential approvals, use several Approval Process Steps in a sequential order. Only one approval step is active at a time, and that step must be completed before the process moves to the next approval step.
- For concurrent approvals, use a Multiple Approvals Process Step with two or more Approval Process Steps as sub-steps. When the parent Multiple Approvals Process Step becomes active, then all approval sub-steps become active concurrently. All of the sub-steps must be completed before the process moves to the next step.

## ► Process behavior

When the Multiple Approvals Process Step is the active step, then all of its approval sub-steps are also made active. Owners of the approval sub-steps can complete their steps as appropriate without any dependencies on the other sub-steps. When *all* sub-steps are approved by their owners, then the Multiple Approvals Process Step is automatically marked as complete and the process moves on to the next step. However, if *any* of the sub-steps are rejected, then the entire step is rejected and the process is moved back to the step immediately before the Multiple Approvals Process Step.

## ► Step-specific settings

The only available step settings for Multiple Approvals Process Steps are display text and description. These steps do not have owner assignments or due dates. Owner assignments and due dates are defined individually for each sub-step.

## ► Restrictions and limitations

- A Multiple Approvals Process Step must have two or more sub-steps. The sub-steps can only be Approval Process Steps.
- When an owner of a sub-step in a Multiple Approvals Process Step completes a step, the previous and next steps shown in the Process Action dialog are the top-level steps before and after the Multiple Approvals Process Step. The other sub-steps do not have an order and therefore are not shown in relation to the step being approved or rejected.

# Parallel Subprocess

The Parallel Subprocess step is intended to be used when you have several steps that are not dependent on each other, and instead can be performed at the same time (in parallel). The only purpose of this step is to define a set of sub-steps that can be performed concurrently.

### ► Process behavior

When the Parallel Subprocess step is the active step, all sub-steps of that subprocess are also made active. Owners of the sub-steps can complete their steps as appropriate without any dependencies on the other sub-steps. When *all* sub-steps of the subprocess are marked as complete by their owners, then the Parallel Subprocess step is automatically marked as complete. For more information, see [Performing process steps in parallel](#).

### ► Step-specific settings

The only available step settings for Parallel Subprocesses are display text and description. They do not have owner assignments or due dates. Owner assignments and due dates are defined individually for each sub-step.

### ► Restrictions and limitations

- A Parallel Subprocess must have two or more sub-steps, to define the steps that can be performed in parallel.
- Approval Process Steps cannot be sub-steps of a Parallel Subprocess. Because the child steps of a Parallel Subprocess can be completed in any order, an approval or a rejection would not make sense in this context.
  - If you want to approve the steps in a Parallel Subprocess, then the next step after the Parallel Subprocess should be an Approval Process Step. In this case, note that if the assigned user rejects the process to return to the prior step, the entire Parallel Subprocess will be "reopened" and made active again.
  - If you want multiple Approval Process Steps to be active simultaneously, then you should use a Multiple Approvals Step. This is a special type of parallel subprocess that only allows for approval steps.
- When an owner of a sub-step in a Parallel Subprocess completes a step, they will not see the previous and next steps in the Process Action dialog. Within the context of the subprocess, all sub-steps are occurring concurrently and there is no "previous" and "next". However, if a user has the ability to view all steps of the process in the Process task pane, they can see the overall step progression there.

## Report Process Step

The Report Process Step is intended to be used for steps where you need a user to run a report in Axiom. For example, you may want a user to run a report for any of the following reasons:

- Verify data before moving on in the process
- Run a save-to-database report utility
- Distribute report packages using File Processing features
- Process alerts

## ► Process behavior

When the Report Process Step is the active step, the step owner has two actions available in the Process task pane:

- **Open report:** The user can click this link to access the report according to their security permissions. The step name and/or description should make it clear to the user what they are expected to do with the report.
- **Mark step as complete:** The user can click this link to complete the active task.

## ► Step-specific settings

When configuring a Report Process Step, complete the following settings in addition to the general step settings:

Item	Description
Selected Report	The report to associate with this step. Click the folder icon to select a file in the Reports Library.
Open Form As	<p>If the report is form-enabled, then you can specify how the file is opened when the user opens it from the Process task pane:</p> <ul style="list-style-type: none"><li>• <b>Form in the client</b>(default)</li><li>• <b>Form in web browser</b></li><li>• <b>Spreadsheet</b></li></ul> <p>This option only displays if the selected report is form-enabled.</p> <p><b>NOTE:</b> When using the Axiom Excel Client, Axiom forms will always open in the user's browser instead of within the application, regardless of this setting.</p>

**NOTE:** The assigned user for the step must have the appropriate security permissions to access the report and perform the desired action (such as Allow Save Data to perform a save-to-database). The Report Process Step does not grant any permissions or elevate any existing permissions.

# Scheduler Process Step

The Scheduler Process Step is intended to be used for steps where you want to run a Scheduler job as part of the process. Unlike other step types, the Scheduler Process Step is an automated step, meaning that no user intervention is required to run the Scheduler job or to complete the step (assuming no errors occur).

## ► Process behavior

When the Scheduler Process Step is made active, Axiom will automatically place the job in the Scheduler queue for immediate processing (pending Scheduler thread availability). If the processing completes successfully, then the step is automatically marked as complete and the process continues to the next step. Any notifications defined in the job are honored; no additional notifications are sent.

If the job experiences any errors, or if Axiom is unable to schedule the job for some reason, then the step is effectively stalled. However, unlike other stalled steps, if this occurs the assigned user has several options available in the Process task pane to attempt to resolve the issue:

- **View job results:** The user can view the job results to troubleshoot the issue. However, note that the user must have the **Scheduled Jobs User** permission and at least read-only access to the job in order to view the job results.
- **Restart scheduled job:** This option places the job in the Scheduler queue to be run again. This assumes that the error was the result of some temporary issue which no longer applies, or that the underlying issue has been addressed and the job is now expected to complete without error.
- **Mark step as complete:** This option can be used to ignore the job error and manually complete the step. This may be appropriate for situations where the job completed with partial success which is sufficient to consider the step complete, or for cases where the step owner or an administrator ran the Scheduler job or related utility manually as part of troubleshooting the original issue, so the job does not need to be run again as part of processing this step.

## ► Step-specific settings

When configuring a Scheduler Process Step, complete the following settings in addition to the general step settings:

Item	Description
Selected Scheduler Job	The Scheduler job to associate with this step. Click the folder icon to select the job.

Although the step is automated, you must still specify an assigned user for the step. The job will run using the permissions of the assigned user. The assigned user is not required to have any access to Scheduler or to the specified job, although ideally the user will have this level of permissions in order to troubleshoot the job results if any errors occur.

# Table Process Step

The Table Process Step is intended to be used for steps where you need a user to perform some kind of administrative action on a table.


## ► Process behavior

When the Table Process Step is the active step, the step owner has two actions available in the Process task pane:

- **<Action>**: The user can click the action link to open a table or perform the action associated with this step. The text of the action and what it does depends on the Selected Action for the step. For example, if the Selected Action is Clone Table, then the link text is "Clone Table" and clicking on it opens the Create Table dialog for table cloning.
- **Mark step as complete**: The user can click on this link to complete the active task.

## ► Step-specific settings

When configuring a Table Process Step, complete the following settings in addition to the general step settings:

Item	Description
Selected Table	The table on which to perform the designated action. Click the folder icon to select a table.
Selected Action	<p>The action to perform on the table:</p> <ul style="list-style-type: none"><li>• <b>Clone Table</b></li><li>• <b>Edit Table Data</b> (meaning Open Table in Spreadsheet)</li><li>• <b>Edit Table Structure</b></li></ul> <p>In all cases, the assigned user will be able to open the associated dialog from the Process task pane when the step is active. The display text and/or description for the step should make it clear to the user what they are expected to do in order to consider the step complete.</p> <p>If Edit Table Data is the selected action, then you can optionally define a Data Filter and/or a Row Limit for the task.</p>
Data Filter	<p>Optional. Define a data filter to limit the data to be displayed in Open Table in Spreadsheet. Use the Filter Wizard  to create the filter criteria statement.</p> <p>This setting only applies if Edit Table Data is the selected action.</p>
Row Limit	<p>Optional. Enter a number to limit the number of rows to be displayed in Open Table in Spreadsheet.</p> <p>This setting only applies if Edit Table Data is the selected action.</p>

**NOTE:** The assigned user for the step must have the appropriate security permissions to access the table and perform the designated action. The Table Process Step does not grant any permissions or elevate any existing permissions.

# Managing Active Processes

Once process definitions have been created, administrators and process owners can perform tasks such as starting or stopping a process, viewing overall process status and process history, and managing step status.

Management tasks can be performed from the following locations:

- On the **Axiom** tab, in the **Administration** group, go to **Manage > Process Management > Current Processes**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Current Processes**.

- From the **Process** task pane, click **View status**. This is only available for active processes.

You can also start processes and access process details from within the process definition itself.

## Starting or stopping a process

A process is only managed by the system if it has been started. Once a process is started, it will remain active until it is completed or stopped.

**NOTE:** Only administrators or process owners can start or stop a process.

### ▶ Starting a process

Once you have completed a process definition and you are ready to work on the process, you can start it. When you start a process, Axiom does the following:

- Creates a unique process instance to track the process steps and store the process details. Each activation of a particular process definition is stored separately, so that you can always see the historical details.
- Activates the first step in the process and creates one or more tasks as appropriate.

- Displays the activated process in the Process task pane. Administrators can see every activated process; other users will only see the process if they are the process owner or if they have a task for the currently active step.

**To start a process:**

1. On the **Axiom** tab, in the **Administration** group, click **Manage > Process Management > Process Definitions**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Process Definitions**.

This opens the Axiom Explorer dialog, showing the Process Definition Library (and any file group Process Definitions folders that you have access to). You can also access these definitions from the Explorer task pane.

2. Open the process definition that you want to start, and then click **Start Process** in the top right-hand corner of the dialog.

**NOTE:** The process definition cannot be started if it contains any missing or invalid settings. These validation errors will display at the bottom of the dialog if present. You can click the link to be taken to the tab or step that contains the error. Once all errors are resolved, you will be able to start the process.

3. At the confirmation prompt, click **OK**.

The process is now active. Once a process has been started, you can track its progress using the Process Manager or by clicking the **View status** link in the Process task pane. For more information, see [Viewing process status and comments](#).

You can also start processes from the Process Manager dialog. On the **Axiom** tab, click **Manage > Process Management > Current Processes**. In the **Process Manager** dialog, select **Show inactive processes**. Select the process that you want to start, then click **Start**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Current Processes**.

## ▶ Stopping a process

When you stop a process, all current tasks are deleted and the process status changes from Active to Aborted. If the process definition is started again later, a new process instance will be created and the process will start over from the first step. There is no way to restart a particular process instance at the step it was on when it was stopped.



To stop a process:

1. On the **Axiom** tab, in the **Administration** group, go to **Manage > Process Management > Current Processes**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Current Processes**.

2. In the **Process Manager** dialog, select the process that you want to stop, and then click **Stop**.
3. At the confirmation prompt, click **OK**.

You can also stop processes using the Process Status dialog. From the **Process** task pane (or a custom task pane configured to show the process control), click **View status**. In the **Process Status** dialog, click **Stop process**.

### ► Completing a process

General processes are automatically completed when all steps in the process are complete. Once a particular process instance is completed, that same instance cannot be restarted. If the process definition is started again, a new process instance will be created and the process will start over from the first step.

Axiom saves the process details for each activated instance of a process. Administrators and process owners can always go back and view the available history. For more information on viewing process history, see [Viewing process history](#).

### ► Scheduling a process

You can use the Scheduler task **Start Process** to automatically start a process at a specific point in time. The schedule can be one-time, or recurring.

If the process is already active when the Scheduler job executes, you can decide what to do with the current process. You can leave the current process running, or you can stop the current process and then start a new process.

If you use a recurring schedule to start the process, then the process steps should use relative due dates so that the due dates will adjust dynamically for each execution. If the due dates are specific calendar dates, then you must remember to edit the process definition before each scheduled execution for the new calendar dates.

## Modifying active processes

If a process is not active, you can edit its definition as desired. When a process is active, then certain edits are not allowed, and other edits have no effect on the active process.

### To edit a process definition:

1. On the **Axiom** tab, in the **Administration** group, go to **Manage > Process Management > Process Definitions**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Process Definitions**.

The Axiom Explorer dialog opens, filtered to only show the Process Definition Library.

2. Double-click the process definition that you want to edit.
3. In the **Edit Process** dialog, make any allowed edits as needed.

If the process is currently active, a warning message displays at the top of the **Process Properties** tab.

4. Click **Apply** to save (or **OK** if you are finished making edits).

### ▶ Disallowed edits for active processes

The following edits cannot be made to the process definition of an active process, because they would invalidate the currently active step or the process history:

- Making any edits to the properties of a completed step
- Moving the currently active step to another level
- Deleting the active step

### ▶ Editing considerations

All properties of the currently active step can be edited. Note the following:

- If you change the step name, description, or action of the active step, and the current step owner currently has the Process task pane open, they will need to refresh it in order to see these changes.
- If you change the step owner or due date of the active step, this will cause the task for the step to be regenerated with the new information, including sending a new Step Activated notification to the step owner (if applicable).
- If you add a step to an active parallel subprocess or multiple approvals step, the new step will be automatically activated in the process when you save the change to the process definition.

For the most part, any new, deleted, or moved steps should be after the currently active step, so that they will still be part of the step progression. However, it is possible to add new steps to any point of the process, delete any steps other than the currently active step, and move any steps (except as noted in the previous section). You should carefully consider the effect any of these types of changes will have on the active process before making them. For example:

- If you add a step before the currently active step, then that step will not be part of the progression unless you move the process back to that step, or unless it is possible for the process to be rejected back to that step.
- If you move the currently active step to an earlier point in the process, this may result in re-activating already completed steps as the process moves forward from the currently active step. If you move the currently active step to a later point in the process, this may result in some steps never being started.
- If you delete a completed step, that step will no longer display in the process definition or in the Process Status dialog for the current instance. The only way to view the details of that step would be to query the `Axiom.ProcessEvents` table, which would still contain the events for the step activation and completion.

## Viewing process status and comments

Administrators can view the status of all processes at any time. They can view a summary of process status, and they can view details for each individual process. Any comments added by users when completing steps are also displayed in these details.

Designated process owners can also view the status of processes that they own.

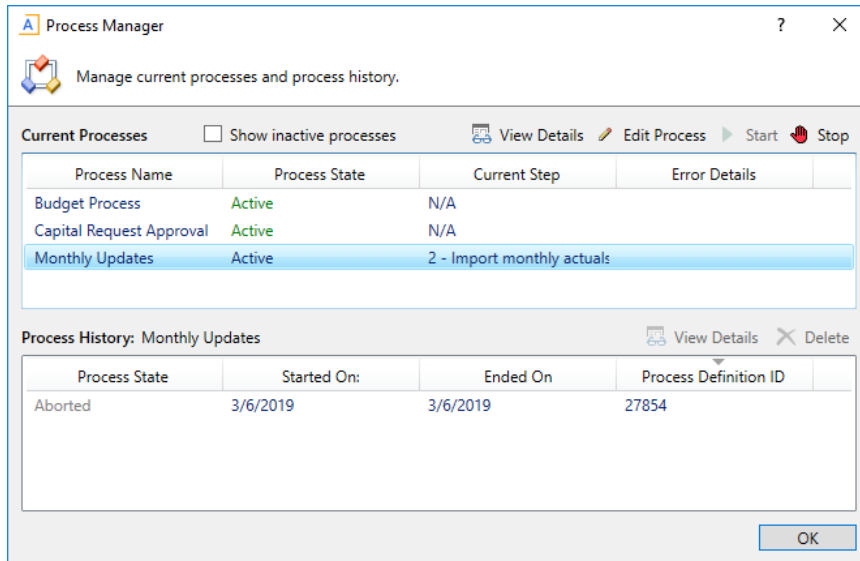
### ► Process status summary

The Process Manager dialog shows key information for processes at a glance, such as the current state of the process and the current step of the process. To access this dialog:

- On the **Axiom** tab, in the **Administration** group, click **Manage > Process Management > Current Processes**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Current Processes**.

By default, the Process Manager dialog shows active processes only. You can click **Show inactive processes** to see all processes. The details displayed are for the most recent instance of the process (the "current" process).



*Example summary of active processes*

From here you can perform actions such as viewing the process details, editing the process definition, and starting and stopping the process. You can also view process history.

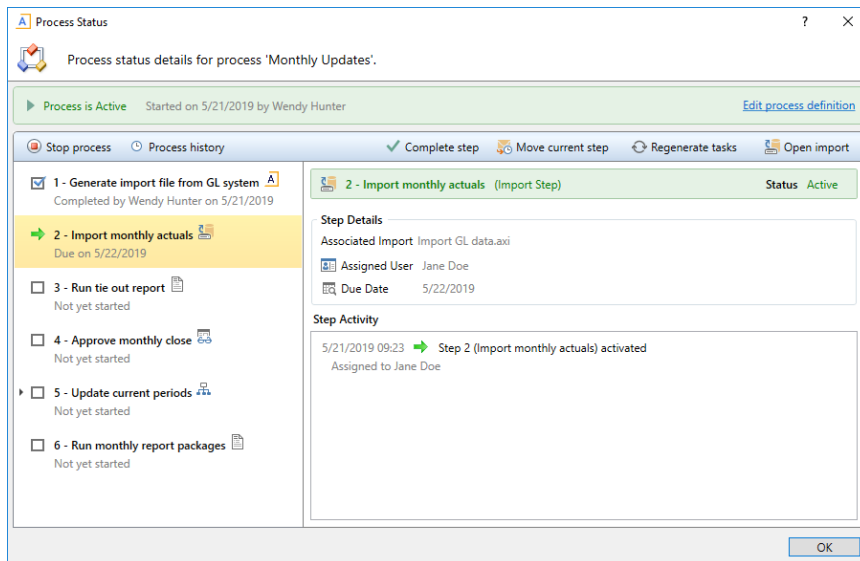
For administrators, this dialog shows all processes. For process owners, the dialog only shows processes that the user owns.

### ► Viewing individual process details

To view the details of a specific process from the Process Manager dialog, select the process in the list and click **View Details**. Alternatively, administrators and process owners can view the details of an active process by clicking the **View status** link in the Process task pane (or in the process definition).

In the **Process Status** dialog, you can view all of the information about the process, including:

- Status of each individual step, whether it is completed, active, or not yet started
- Properties of each individual step, including step type, assigned owner, due date, and any associated file or feature
- Details of all step activity, such as when it was made active, when it was completed (and by whom), and any comments associated with the activity



*Example process details*

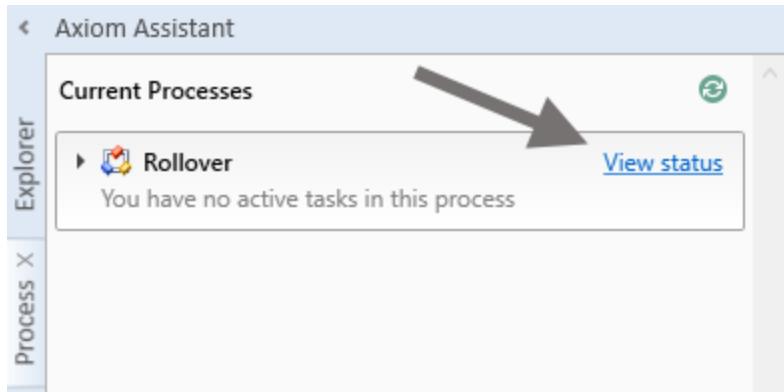
You can also perform administrative activities for the process from this dialog, such as stopping the process, performing step actions, completing steps (overriding step ownership), and reactivating stalled steps.

## Moving processes to different steps

Administrators and process owners can move an active process to a different step. There are two different options for moving a process to a different step. These options are intended to be used for different circumstances as follows:

- **Complete step** should be used when you need to override step ownership, but the step should be completed as normal and the process should move on to the next step. For example, the step owner may have forgotten to complete the step before leaving for vacation, so they have asked an administrator to complete it for them.
- **Move current step** should be used when you need to make administrative adjustments to the process. When moving a step, the current task is aborted instead of completed, and the target step is activated. Any steps in between the aborted step and the target step are simply not started.

These actions can be performed in the **Process Status** dialog. To open this dialog, click **View status** for the process in the Process task pane (or in a custom task pane configured to show the process control).



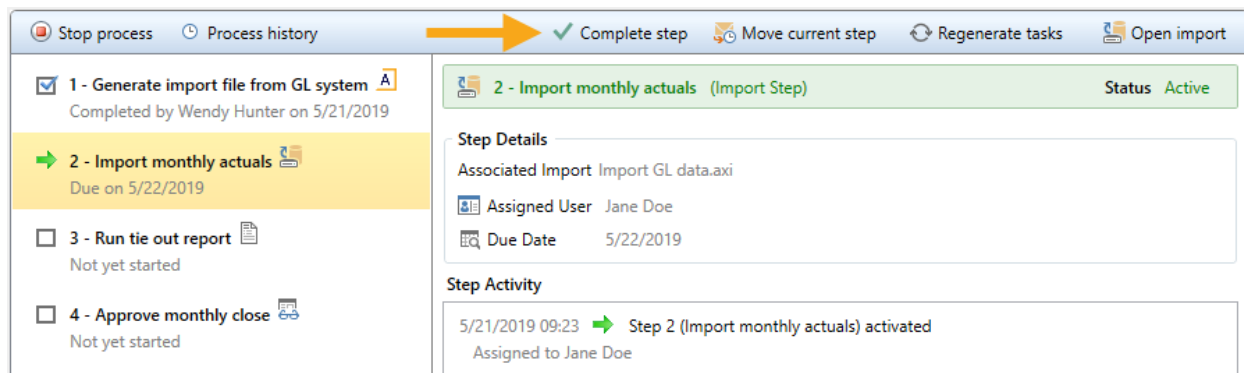
The process definition also contains a **View status details** link to open the Process Status dialog, when the process is active.

### ► Completing a step (overriding step ownership)

As necessary, you can override step ownership and mark the active step as completed. The process history will track both the original ownership assignment and the user who actually completed the step.

For example, imagine that the assigned user for a step performed the necessary task, but forgot to mark the step as complete before leaving on vacation. In this case, an administrator can mark the step as complete so that the process can continue.

To do this in the Process Status dialog, select the step that you want to complete, then click **Complete step**. If the step is an approval step, then you can click **Approve step** or **Reject step** as appropriate.



This opens the same **Process Action** dialog that you see when completing a step from the Process task pane, where you can define a comment if desired. When you click **OK**, the step will be completed just as if the owner had completed it (including any resulting notifications), except that you will be recorded as the completing user instead of the owner.

## ► Moving to a different step

As necessary, you can move a process from the currently active step to a different step. The ability to move the current step depends on which step is currently active and whether it is a top-level step or part of a subprocess:

- If the currently active step is a top-level step, then the process can be moved to any other top-level step. If the process is a plan file process definition, then any or all plan files can be moved to any other top-level step.
- If the currently active step is a sub-step in a parallel subprocess (including sub-steps of a multiple approvals step), then you can select the parent subprocess step and choose to move the process to any other step at the same level. In this case, all subprocess steps are aborted and the process is moved to the selected step.

**To move a step in the Process Status dialog:**

1. Select a currently active step (or its parent step) and then click **Move current step**.
2. In the **Move Current Step** dialog, select the step that you want to move to. The dialog only displays eligible steps as described previously in this section.
3. By default, notifications are *not* sent to new step owners when moving the current step. If you want to send notifications as part of the move, then select **Send notifications to users affected by this current step change**. If this check box is selected, then you can also optionally enter a comment to be included in the notification and stored with the process.

If enabled, the notification sent when a step is moved will always be the Step Activated notification for the target step. Because the currently active step is aborted instead of completed, no Step Completed notifications will be sent.

4. Click **OK** to move the step.

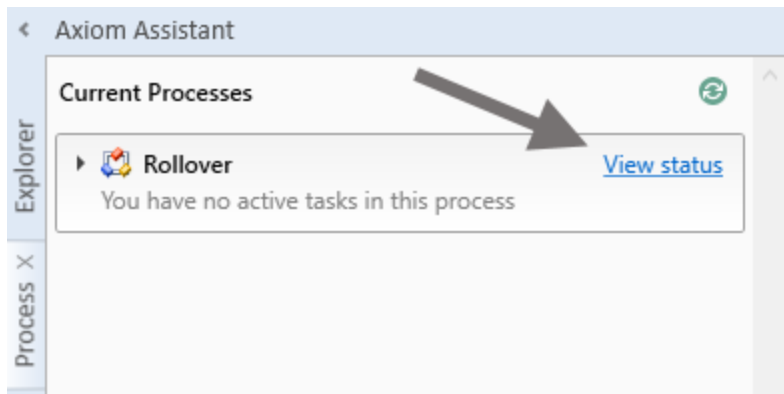
The current step is aborted, and the target step is made active.

## Fixing common process issues

While a process is active, administrators and process owners may need to address common process issues such as:

- Regenerating tasks for a stalled step
- Regenerating tasks to reflect changes in the process assignments or security
- Restarting a Scheduler Process Step

These actions can be performed in the **Process Status** dialog. To open this dialog, click **View status** for the process in the Process task pane (or in a custom task pane configured to show the process control).



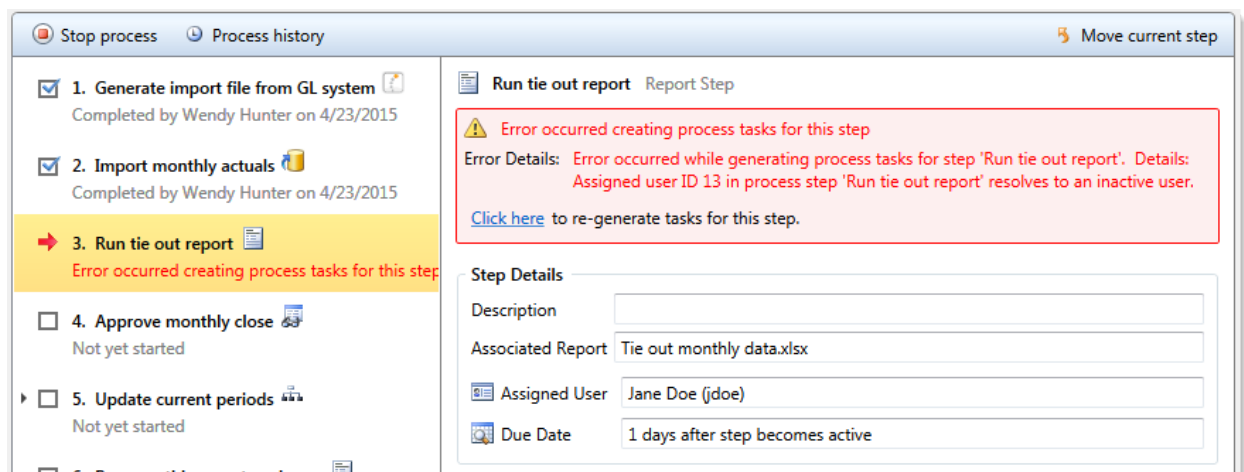
The process definition also contains a **View status details** link to open the Process Status dialog, when the process is active.

### ► Regenerating tasks for a stalled step

If an issue occurs that prevents a step from becoming active, the step will stall in the process, and the process cannot continue.

For example, imagine that the assigned user for step 2 of a process has been disabled or deleted in security. When step 1 is completed, step 2 cannot be made active because the assigned user is not eligible or the user record does not exist. Step 2 then becomes stalled, which causes the overall process to become stalled.

In this example, if the user was disabled in the system accidentally, you could edit Security to re-enable the user, and then regenerate the tasks for the step. To do this in the Process Status dialog, select the stalled step and then click the link in the error message.



Axiom will attempt to reactivate the step, which causes any associated tasks to be regenerated. If the task generation is successful, the step will be made active and the process can continue as normal.



**NOTE:** If instead the step needs a different owner, then you can edit the process definition to assign a different user. When you save the change to the process definition, the task for that step will automatically be regenerated for the new owner, and the error state will be removed.

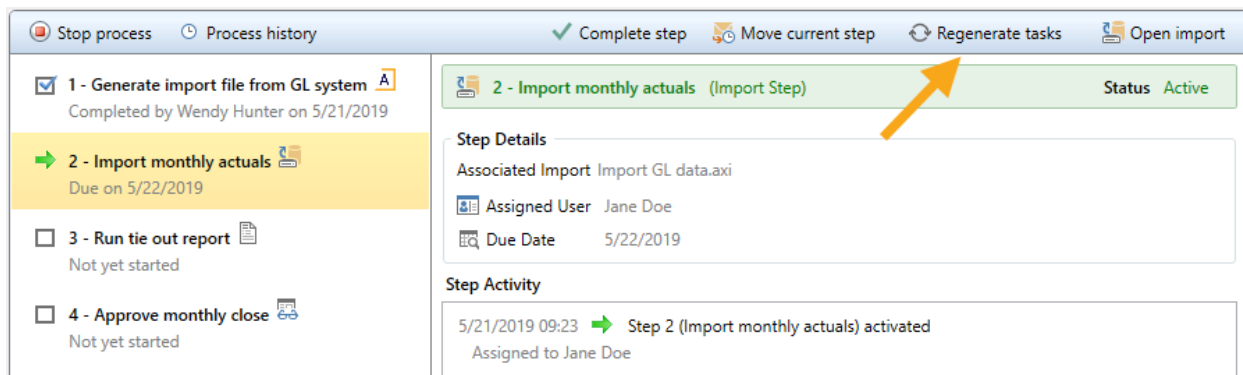
### ► Regenerating tasks to reflect process or security changes

In certain cases, you may need to regenerate tasks for an active step in order to incorporate changes made to the process assignments or to security. For example:

- If the owner assignment is an assignment column or an assignment workbook, and the assignments in the column or workbook have been changed since the step became active.
- If the owner assignment is a role, and the members of the role have changed since the step became active.
- If security permission changes have been made that would affect the ownership of the active step.

**NOTE:** It is not necessary to manually regenerate tasks if you change the assignment *type* for a step (for example, from user to assignment column), or change the specifically assigned user or role. In these cases, the tasks are regenerated automatically when you save the change to the process definition. In the examples listed above, the process is not aware of the changes made outside of the process definition, so the process does not know to automatically regenerate the tasks.

To regenerate tasks for a step in the Process Status dialog, select the step and then click **Regenerate tasks**.



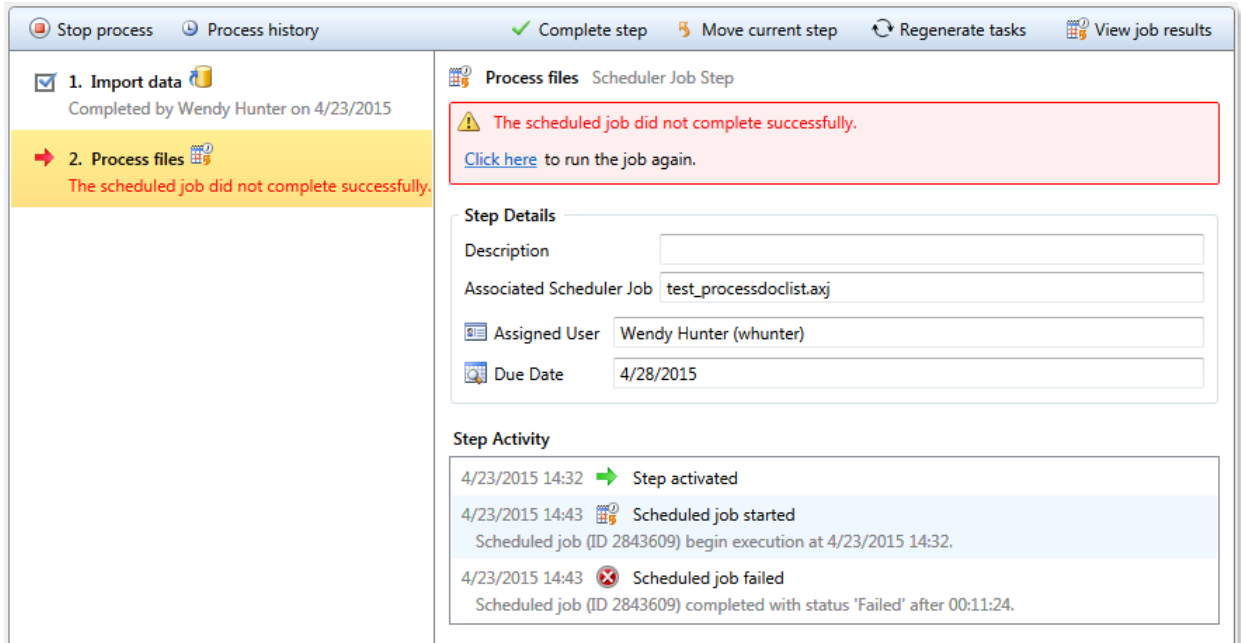
A message box informs you that all current tasks for the step will be deleted and new tasks will be created. Click **OK** to continue.

### ► Restarting Scheduler jobs after errors

If a Scheduler Process Step experiences an error when attempting to run a Scheduler job, then you have the option to restart the job. You should restart the job if the error was the result of a temporary condition that no longer applies, or if the underlying condition that caused the error has since been

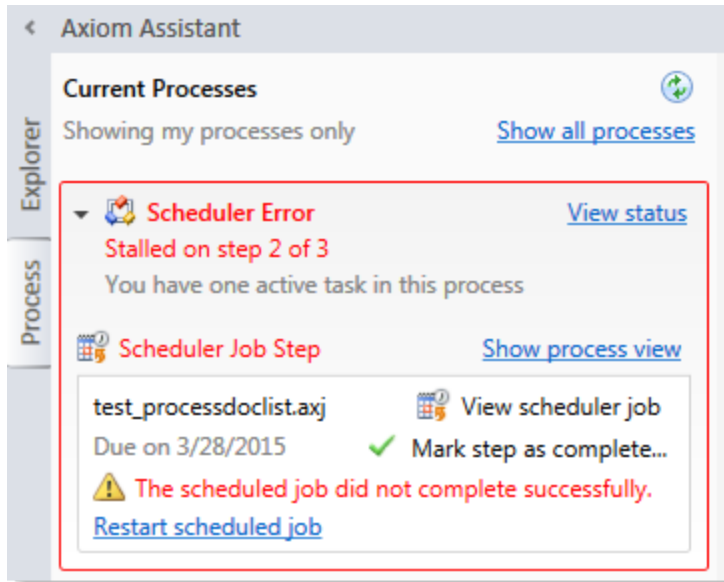
addressed and you no longer expect the job to experience any errors. If you are not certain why the job experienced errors, you can click the **View job results** link to investigate the issue before restarting the job.

To restart the job from the Process Status dialog, select the stalled Scheduler step, and then click the link in the error message. This will remove the error state and place the job in the Scheduler queue again.



Alternatively, you can choose to manually mark the step as complete if the job does not need to be run again. For example, the job results may have been Partial Success and in this case that may be enough to consider the step complete. Or, you may have manually run the job or run the associated activity while troubleshooting the error, and therefore the job does not need to be run again.

Unlike other error conditions for active processes, the administrator or process owner is not required to intervene. The step owner also has access to these options within the Process task pane when a Scheduler job experiences errors, and therefore may be able to address the issue without requiring assistance.



## Reporting on process information

In addition to the information in the Process Status dialog, Axiom provides several features to enable creating custom process reports.

All of these features depend on providing a process definition ID to specify the process for reporting. The `GetProcessInfo` function can be used to look up the ID for a current process definition, given information such as the file path to that definition. This is the common approach for reporting on current processes.

Each time a process is run, the history of that particular process instance is archived and stored in the database. If you want to report upon a historical process instance, you can look up the ID for historical instances as follows:

- Go to **Manage > Process Management > Current Processes**.
- Enable **Show inactive processes** (if necessary), then select the current process in the top of the dialog.
- You can then review the history for that process at the bottom of the dialog, including the process definition ID for each available historical instance.

### ► `GetProcessInfo` function

The `GetProcessInfo` function returns step information and status for a process. Given a process definition ID (and other details as needed), the function can return information such as the step name, status, owner, and due date. If the step is performed for plan files in a file group, the plan code can be used to return information on that particular code.

The `GetProcessInfo` function can be used to bring points of information into individual cells, such as to display the current step owner and due date within a plan file. It can also be used to build out full process reports, either on its own or in conjunction with an Axiom query. For example, you could query the department table to bring in a list of departments, and then use `GetProcessInfo` in the calc method to return process status information for the plan file of each department.

### ► Axiom.ProcessSteps

The `Axiom.ProcessSteps` table contains information on all steps in a process definition, such as the step name, step type, and step number. Queries to this table must include a data filter that limits the query to a particular `ProcessDefinitionID` (`ProcessDefinitionID=IDNumber`).

This table could be used in an Axiom query to dynamically build out the steps for a specified process, rather than needing to "hard-code" the steps in the report.

### ► Axiom.ProcessTasks

The `Axiom.ProcessTasks` table contains information on the active tasks for a process, such as the task name, owner, and due date. When a step is made active in a process, one or more tasks are generated for the owner(s) of that step. Queries to this table must include a data filter that limits the query to a particular `ProcessDefinitionID` (`ProcessDefinitionID=IDNumber`).

For administrators and process owners, queries to this table return all current tasks in a process. For other users, only their current tasks (if any) are returned.

This table could be used in an Axiom query to report on the current tasks in a process, or to create a custom utility for managing process tasks using Save Type 4.

### ► Axiom.ProcessEvents

The `Axiom.ProcessEvents` system table contains information on all events performed for a process. Events include activities such as:

- Activating, completing, or aborting a process
- Activating or completing a step
- Stalling a step
- Regenerating tasks for a step

The table includes information on each event such as the process name, the step name and number, the date/time the event occurred, and the user who triggered the event. Queries to this table must include a data filter that limits the query to a particular `ProcessDefinitionID` (`ProcessDefinitionID=IDNumber`).

This table could be used in an Axiom query to report on the detailed history of a process, such as all events for a particular plan file.

# Viewing process history

Each time a process is started, a new process instance is created to track the details of that particular execution of the process. This ensures that you always have a history of each time the process is performed, including who completed each step in the process and when. You can retain this history as long as needed.

Administrators and process owners can view the history for a process. Administrators can view history for all processes, whereas process owners can only view history for processes they own.

**To view the history for a process:**

1. On the **Axiom** tab, in the **Administration** group, click **Manage > Process Management > Current Processes**.

**NOTE:** In systems with installed products, this feature may be located on the **Admin** tab. In the **Workflow** group, click **Process Management > Current Processes**.

2. In the **Process Manager** dialog, select the process for which you want to view the history. If necessary, select **Show inactive processes** to display all processes.

When you select a process in the top of the dialog, the bottom of the dialog populates to show the historical instances for that process.

3. In the **Process History** section, select the process instance for which you want to view the history, and then click **View Details**.


Make sure to click the View Details button that is directly over the Process History section, not the button that is above the Current Processes section.

The **Process Status** dialog opens, displaying the details for the historical instance of that process. In addition to reviewing the details, you can perform the following actions from this dialog:

- **View process definition:** Opens a read-only copy of the process definition as it existed at the time of this historical instance. If desired you can use **Save As** to "restore" this historical definition as a new definition.
- **Start process:** Starts a new instance of the process, using the current process definition. This option is only available if there is not already an active instance of the process.

If there is already an active instance of the process, a message will display at the top of the dialog to inform you of this. You can click the link in this message to be taken to the currently active instance.

## ▶ Deleting process history

If you do not need the history of a particular process instance anymore, you can select that instance in the Process History section and then click **Delete** . Process history is retained until it is manually deleted (it does not get automatically purged by the Purge System Data Scheduler job).

If the process definition is deleted, all history for that process is also automatically deleted.

# Configuring Notifications

General processes can send several different types of notifications, all of which can be configured at the process level and at the step level. These notifications are used to inform or remind users about tasks they need to perform, or to inform other interested parties about the current step status.

When setting up notifications for a process, you can determine:

- The types of notifications that are sent for the process and for each step
- The recipients of each notification
- The content of each notification
- The delivery method of each notification (email, Notifications task pane, or both)
- Whether notifications are sent at all, for the entire process or per step
- The frequency and timing of reminder notifications

When defining notifications for a process, you can define default notifications at the process level. These process-level notifications are inherited by the individual steps in the process. At the step level, you can choose to enable or disable the inherited notifications as needed, and you can define custom notifications to be used for that step only.

**NOTE:** The information in this section does not apply to administrative notifications for a process, which are system-managed notifications intended to inform the process owner about the general operation of the process and any errors encountered. For more information about process ownership and administrative notifications, see [Designating the process owner](#).

# Notification types for general processes

The following types of notifications can be sent for a general process in process management:

Notification Type	Description	Available Recipient Types
Step Activated	<p>Notification that is sent when a step is made active. By default, the notification informs the step owner(s) that they have a task to perform in the process. You can customize the default notification as desired.</p> <p><b>NOTE:</b> This notification type is <i>not</i> used when a previously active step is reopened due to an approval step rejection. Instead, the Step Reopened notification type is used.</p>	<ul style="list-style-type: none"><li>• Task owners</li><li>• Any named user or role</li><li>• Process owner</li></ul>
Step Reopened	<p>Notification that is sent when a step is reopened, due to a subsequent approval step being rejected. By default, the notification informs the step owner that their task has been reopened. You can customize the default notification as desired.</p>	<ul style="list-style-type: none"><li>• Task owners</li><li>• Any named user or role</li><li>• Process owner</li></ul>
Step Rejected	<p>Notification that is sent when an approval step is rejected. This notification type is not configured by default and is entirely user-definable.</p> <p>This notification type only applies to approval steps and multiple approval steps.</p> <p><b>NOTE:</b> This notification type is about the step that was rejected, not about the prior step that was reopened as a result of the rejection. It is intended to inform the process owner or other interested parties about the rejection.</p>	<ul style="list-style-type: none"><li>• Previous step owners</li><li>• Any named user or role</li><li>• Process owner</li></ul>
Step Completed	<p>Notification that is sent when a step is completed. This notification type is not configured by default and is entirely user-definable.</p>	<ul style="list-style-type: none"><li>• Previous step owners</li><li>• Any named user or role</li><li>• Process owner</li></ul>
Due Date Reminder	<p>Notification that is sent to remind users of an upcoming step due date. This notification type is not configured by default and is entirely user definable, including the reminder schedule.</p>	<ul style="list-style-type: none"><li>• Task owners</li><li>• Any named user or role</li><li>• Process owner</li></ul>

Notification Type	Description	Available Recipient Types
Overdue Reminder	Notification that is sent to remind users of an overdue step. This notification type is not configured by default and is entirely user definable, including the reminder schedule.	<ul style="list-style-type: none"> <li>• Task owners</li> <li>• Any named user or role</li> <li>• Process owner</li> </ul>

**NOTE:** For more information on the recipient types, see [Customizing recipients for process notifications](#).

Most of these notification types do not apply to subprocess steps (the parent step of the subprocess). For example, a Step Activated notification is *not* sent when a multiple approvals step is made active; instead the notification is sent for the first sub-step in the subprocess. Similarly, the Due Date Reminder and Overdue Reminder notification types do not apply to subprocess steps, because these steps do not have due dates (only the sub-steps do).

The only notification types that apply to subprocess steps are:

- **Step Completed:** This can be used with any subprocess. It will be sent when all sub-steps in the subprocess are completed.
- **Step Rejected:** This only applies to multiple approvals steps. It will be sent when the multiple approvals subprocess is rejected due to any of its approval sub-steps being rejected.

You can define multiple instances of the same notification type, at any level of the process. If multiple notifications apply when a particular step activity occurs (such as when a step is activated), then all eligible notifications will be sent. For example, you might do this if you want to define different notification content for different recipients of the notification type.

### ► Notification design considerations

Keep in mind the following design considerations when defining notifications for a process.



- **Step Activated / Step Reopened - Sending to recipients other than step owners**

If you want to send the Step Activated or Step Reopened notification to any recipients other than the step owners, you should consider creating a second instance of the notification type with text that is appropriate for the other recipients.

The default text for these notification types assumes that the notification is being read by the step owners. The text includes statements such as "You have a new task..." and "Please login to Axiom to complete your tasks." It may be confusing for process owners or other recipients to receive this notification because these users do not actually have a new task, they are just being informed of someone else being assigned a new task. The non-owner recipients should have a separate instance of the notification type, with text that better reflects the informational status of the notification, such as: "A new task has been issued for Step 'Import data' in Process 'Rollover'."

- **Step Activated / Step Reopened - Delivering to the Notifications task pane**

Because the default delivery method is email, the default text for these notifications contains the sentence "Please login to Axiom to complete your tasks." If you decide to deliver notifications to the Notifications task pane instead, this sentence does not apply and should be removed.

- **Step Rejected - Using with multiple approvals steps**

If you want to use the Step Rejected notification type with a multiple approvals step, you should consider at which level you want the notification to be issued. You can enable Step Rejected for each approval sub-step in the subprocess, which means that the notification will be sent at the level of the individual sub-step that was rejected. Or, you can enable Step Rejected at the subprocess level (the parent multiple approvals step), which means that the notification will be sent for the parent step when any of the sub-steps are rejected.

This choice impacts how the variables are resolved in the notification text and what information is available to the notification. You can also choose to send both levels of notification, but this is probably more notifications than necessary for the same event, unless each notification is for different recipients.

## Disabling notifications for a process

By default, each process includes "built-in" notifications intended to inform step owners about new and reopened tasks in the process. You can define additional notifications and customize the built-in notifications as needed.

However, if you don't want to send these notifications, then you can disable notifications for the entire process or for specific steps. If notifications are disabled, then the only way users can learn of their active tasks is through the Process task pane, or through other custom reports created by your organization.

## ► Disabling notifications at the process level

Use the **Enable Process Notifications** option on the Notifications tab to enable or disable notifications for the entire process.

- By default, this check box is selected, which means notifications are enabled for the process. Notifications will be sent according to the notification settings defined for each individual step (which may include using the inherited process-level notifications).
- If you clear this check box, then notifications are disabled for the process. No notifications will be sent. The **Default Notifications** section becomes grayed out and cannot be edited. Additionally, any notification settings made at the individual step level will be ignored.

The screenshot shows the 'Notifications' tab of a 'Process Properties' dialog. At the top, there are three tabs: 'Process Properties', 'Process Steps', and 'Notifications'. Below the tabs, there is a section with a checkbox labeled 'Enable Process Notifications'. The checkbox is unchecked, and a tooltip message says 'Unchecking this property will suppress all non-admin notifications for this process'. Below this, there is a section titled 'Default Notifications' which is grayed out. To the right of this section is an 'Edit Notification' link. Below the 'Default Notifications' section is a table with two columns: 'Notification' and 'Recipients'.

Notification	Recipients
Step Activated	Task Owners
Step Reopened	Task Owners

*Notifications disabled for a process*

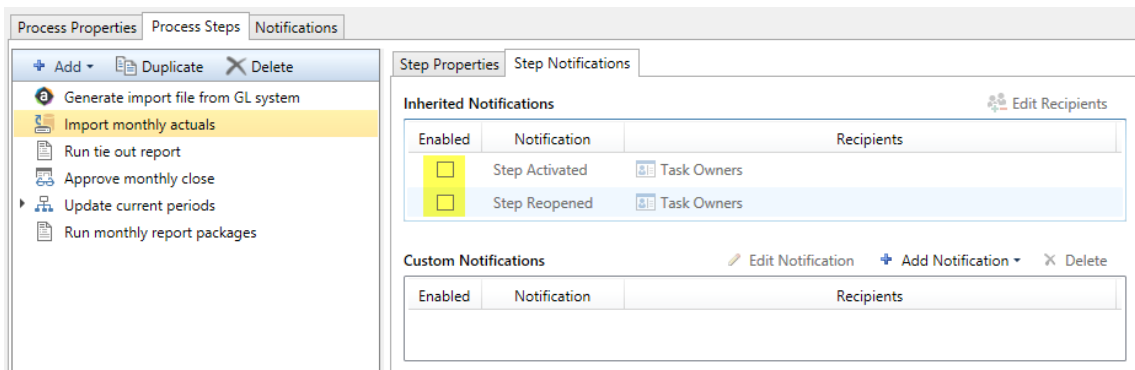
Administrative notifications are always sent and cannot be disabled. For more information on these notifications, see [Designating the process owner](#).

## ► Disabling notifications at the step level

If **Enable Process Notifications** is enabled at the process level, then you can enable or disable notifications at the individual step level.

To disable notifications for a particular step, go to the **Process Steps** tab and then select the desired step. In the **Step Notifications** sub-tab, you can enable or disable notifications by type.

- **Inherited Notifications:** These notifications are inherited from the process-level notifications. To disable the inherited notifications at the step level, clear the **Enabled** check box for each notification.



*Inherited notifications disabled for a step*

- **Custom Notifications:** These notifications are defined for the current step. To disable a custom notification, clear the **Enabled** check box.

It would be unusual to define a custom notification for a step and then disable it, unless you are disabling it temporarily for testing purposes or for other transient reasons. If you do not need the custom notification for the step, you can delete it instead of disabling it.

Any inherited or custom notifications that are disabled for the step will not be sent for that step.

If **Enable Process Notifications** is *disabled* at the process level, then any step-level notification settings are ignored and no notifications will be sent for the process. However, you can continue to edit the step-level notification settings so that they are configured as you want them in case you later re-enable notifications at the process level. A warning message displays across the top of the Step Notifications sub-tab to inform you when notifications are disabled at the process level.

#### ► Disabling notifications at the subprocess level

It is not possible to disable notifications for all sub-steps of a subprocess. If you want to disable notifications for a subprocess, you must disable them for each individual sub-step in the subprocess, using the methodology described in the previous section.

Inherited and custom notifications can also be disabled for the subprocess (parent) step itself, using the methodology described in the previous section.

# Defining default notifications for a process

You can define default notifications at the process level. These notifications are inherited by all eligible steps in the process, and can be enabled or disabled for those steps.

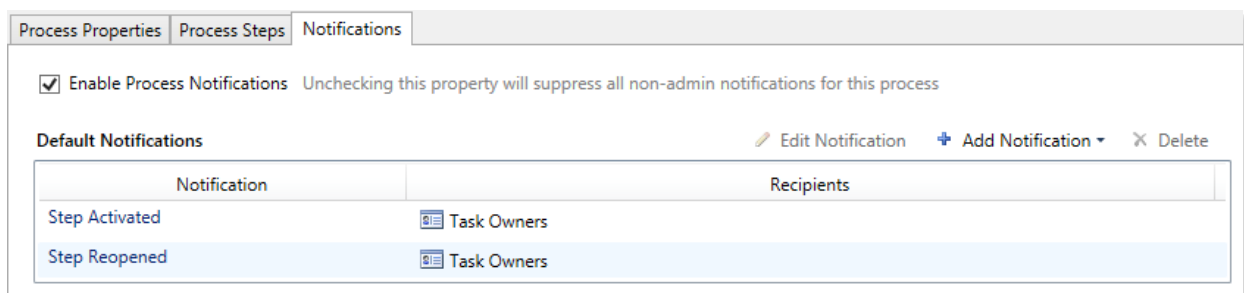
Default notifications are best for notifications that you want to use for all or most of the steps in the process. If many steps use the same notification, then it is easier to define it at the process level rather than for each individual step. If you don't want a default notification to apply to a particular step, then you can disable it at the individual step level.

The following steps are eligible to inherit the default notifications defined at the process level:

- Any top-level step that is not a subprocess step can inherit all default process-level notifications.
- Subprocess steps (the parent step of the sub-steps) can only inherit certain notification types from the default process-level notifications. Notification types that do not apply to subprocess steps will not be inherited by those steps.
- Sub-steps of parallel subprocesses (including multiple approvals steps) can inherit all default process-level notifications.

## ► Built-in default notifications for all processes

By default, all process definitions start with two default notifications at the process level: a Step Activated notification and a Step Reopened notification.



*Built-in default notifications for a process*

These built-in notifications are configured as follows:

- Notification recipients are set to task owners.
- Notification delivery is set to use the process-level setting (which by default is email delivery).
- The messages contain basic details about the process and the current task.

You can use the built-in notifications as is, or you can customize them as desired. All aspects of the notification are customizable. You can also opt to delete the built-in notifications and create your own from scratch.

The following screenshots show example default process notifications for a general process definition.



Mon 1/14/2019 11:02 AM

noreply@axiomepm.com

**Rollover process notification - 1 new task(s)**

To Hunter, Wendy

You have 1 new task(s) in process 'Rollover'.

Please login to Axiom Software to complete your tasks.

Process Step Name: Import actuals

Description: Import actuals data for last year.

Due Date: 1/15/2019

Previous Submitter Name: Jane Doe

Process Comment:

*Step Activated notification*



Mon 1/14/2019 11:16 AM

noreply@axiomepm.com

**Rollover process notification - 1 reopened task(s)**

To Hunter, Wendy

1 process task(s) have been reopened in process 'Rollover'.

Please login to Axiom Software to complete your tasks.

Process Step Name: Run tie-out report

Description: Run the budget tie-out report to confirm data is flowing into and out of plan files as expected.

Due Date: 1/15/2019

Rejecting User Name: Ron Sandstone

Process Comment: Please check the report again, I am seeing exceptions in the data.

*Step Reopened notification*

### ► Adding, editing, and deleting default process notifications

You can add, edit, and delete default process notifications using the **Notifications** tab of the **Edit Process** dialog. Any existing default notifications defined for the process (including the built-in notifications) display in the **Default Notifications** grid.

You can define default process notifications at any time. If the process is already active, any changes made will apply to new notifications delivered after that point.

**To add a default notification:**

1. Click **Add Notification**, then select the notification type that you want to add. For more information on the available notification types, see [Notification types for general processes](#).
2. In the **Edit Process Notification** dialog, define the properties for the new notification. For more information, see [Notification properties for process definitions](#). Note the following:
  - Most newly added notifications do not have any default recipients. You must add the desired recipients before the notification is valid for use. The exception is reminder notification types—these notifications go to task owners by default.
  - Newly added notifications do not have any defined message text. You must define this content before you can save the notification.
3. Click **OK** to save the notification.
4. You are prompted to choose whether you want the new notification to be enabled in existing steps by default. Click **Yes** or **No** as appropriate.

**NOTE:** It is not possible to globally enable the notification for all steps after it is saved. If you don't enable the notification at this point, you must manually go to each existing step and enable it as needed.

The notification is added to the grid, and is available to be inherited by all eligible steps. Whether the notification is enabled in existing steps depends on your Yes/No selection when saving the notification. Whether the notification is enabled for newly created steps depends on the **Default Enablement** setting for the notification.

**To delete a default notification:**

- Select the notification in the grid, and then click **Delete**.

The deleted notification is removed from the process. Any steps that were inheriting the notification can no longer use it.

**To edit a default notification:**

- Double-click the notification in the grid. You can also select the notification in the grid and then click **Edit Notification**.

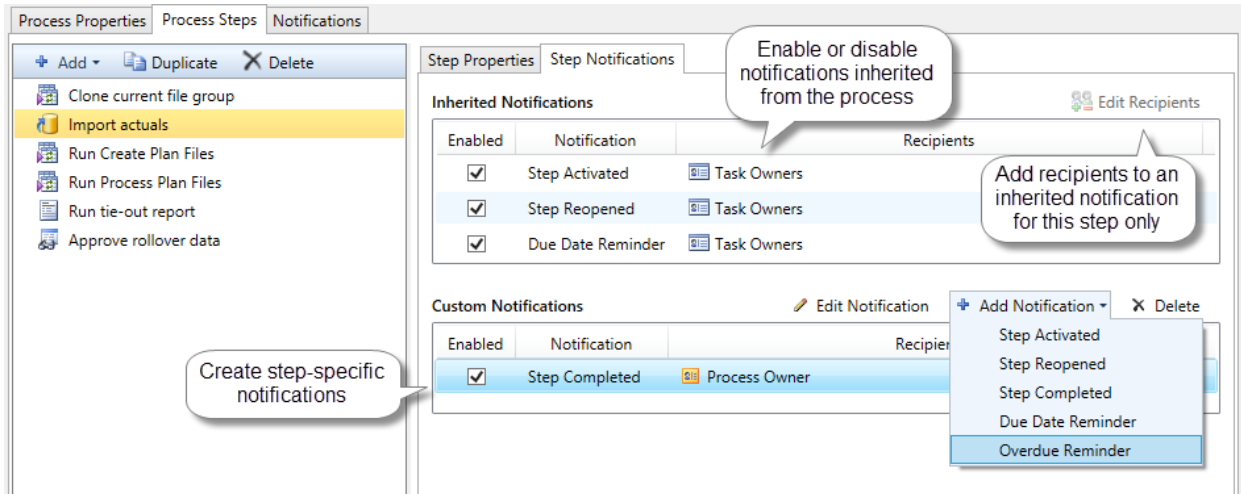
Within the **Edit Process Notification** dialog, you can edit notification properties such as:

- The delivery method for the notification (email, Notifications task pane, or both)
- The urgency of the notification
- The recipients of the notification
- The notification message contents
- The notification reminder schedule (for reminder notification types only)

# Defining notifications at the step level

For each step in a process definition, you can configure notifications as follows:

- You can manage inherited notifications for the step. These are notifications that the step inherits from the default process-level notifications. Inherited notifications can be enabled or disabled, and you can optionally add recipients for the current step.
- You can define custom notifications for the step. These notifications only apply to the current step.



**NOTE:** If multiple instances of the same notification type apply to a step, then each instance will be sent when the notification is triggered. For example, if a step has an inherited Step Activated notification as well as a custom Step Activated notification, then both notifications will be sent (unless one of the notifications is disabled).

## ► Manage inherited notifications for a step

You can manage inherited notifications for the individual steps in a process. All steps inherit the default notifications defined at the process level. You can enable or disable inherited notifications at the step level, and you can add recipients at the step level.

To manage inherited notifications for a step, go to the **Process Steps** tab in the **Edit Process** dialog. Select the step, then go to the **Step Notifications** sub-tab. Any existing inherited notifications for the step display in the **Inherited Notifications** grid.

- Use the **Enabled** check box to enable or disable an inherited notification. If enabled, the notification will be sent for this step; if disabled, the notification will not be sent.

Whether an inherited notification is enabled by default for a step depends on the choices made when the notification was created at the process level or the subprocess level.

- To add recipients to an inherited notification, select the notification in the grid and then click **Edit Recipients**. For more information, see [Adding step-specific recipients to inherited notifications](#).

The only inherited notification property that can be customized at the step level is the recipients. If you want to customize the text of an inherited notification for use with a specific step only, then you should do one of the following (depending on what you want to accomplish):

- Disable the inherited notification and instead create a custom notification of the same type for the step.

OR

- Leave the inherited notification enabled and create a custom notification of the same type for the step, but send each notification to different recipients.

### Inherited notifications for subprocess steps

Parallel subprocess steps and multiple approvals steps can only inherit certain types of notifications from the process. This only applies to the parent subprocess step itself. The child steps of the subprocess can inherit all notification types as normal.

The only notification types that a subprocess step can inherit are:

- **Step Completed:** When all steps in the subprocess have been completed, the Step Completed notification will be sent.
- **Step Rejected:** This notification type only applies to multiple approvals steps. If any of the approval sub-steps are rejected, the Step Rejected notification will be sent for the parent multiple approvals step. Note that this type of notification should be defined at either the parent level or the child level, but not both (unless you want to send each notification to different recipients).

### ► Define custom notifications for a step

You can define custom notifications for each step in a process. The custom notifications defined at the step level only apply to that step. If the process is already active, any changes will apply to new notifications delivered after that point.

To define custom notifications for a step, go to the **Process Steps** tab in the **Edit Process** dialog. Select the step, then go to the **Step Notifications** sub-tab. Any existing custom notifications defined for the step display in the **Custom Notifications** grid.

#### To add a custom notification:

1. Click **Add Notification**, then select the notification type that you want to add. For more information on the available notification types, see [Notification types for general processes](#).
2. In the **Edit Process Notification** dialog, define the properties for the new notification. For more information, see [Notification properties for process definitions](#). Note the following:



- Most newly added notifications do not have any default recipients. You must add the desired recipients before the notification is valid for use. The exception is reminder notification types—these notifications go to task owners by default.
- Newly added notifications do not have any defined message content. You must define this content before you can save the notification.

3. Click **OK** to save the notification.

The notification is added to the grid, and by default it is enabled for the step. You can disable it if desired, if you want to temporarily turn off the notification for the step.

**To delete a custom notification:**

- Select the notification in the grid, and then click **Delete**.

The deleted notification is removed from the step.

**To edit a custom notification:**

- Double-click the notification in the grid. You can also select the notification in the grid and then click **Edit Notification**.

Within the **Edit Process Notification** dialog, you can edit notification properties such as:

- The delivery method for the notification (email, Notifications task pane, or both)
- The urgency of the notification
- The recipients of the notification
- The notification message contents
- The notification reminder schedule (for reminder notification types only)

**Custom notifications for subprocess steps**

You can define custom notifications for parallel subprocess steps and multiple approvals steps. The process is the same as for normal steps. However, only Step Completed and Step Rejected (for multiple approvals steps) notifications can be defined for the parent subprocess step. The child steps of the subprocess can use all notification types as normal.

## Customizing notification content for general process definitions

The default Step Activated and Step Reopened notifications for process definitions have default content that you can use as is, or you can customize it as desired. When defining all other notifications, the content is entirely up to you—there is no default content.

All notification content is defined in the **Notification Message** tab of the **Edit Process Notification** dialog. To access this dialog, go to the **Notifications** tab for the process or the **Step Notifications** tab for a step, and then add or edit a notification.

**NOTE:** If a step has inherited a notification from the process level, the content of that notification cannot be edited at the step level. You must go to the process level to edit the content of the inherited notification.

Process management supports a set of process variables that can be used to return process, step, and task information for use in notification content. For example, you can return the name of the process, the name of the step, and the due date of the step.

### ► Notification message sections

Each notification message has two sections—the **Notification Subject** and the **Notification Message Body**. Both sections for the notification must have some content in order to be valid.

The subject is rendered as the email subject line and/or as the notification title in the Notifications task pane. The message body is the body text.

**Edit Process Notification**

Edit a 'Step Activated' process notification

**Step Activated notifications** are sent for new process tasks when a step is first activated. This can be after a prior step has been completed or approved, or after a Move Step operation has occurred.

**Notification Configuration** **Notification Message**

**Notification Subject** Insert variable ▾

{ProcessName} process notification - {TaskCount} new task(s)

**Notification Message Body** Insert variable ▾

You have {TaskCount} new task(s) in process '{ProcessName}'.  
Please login to Axiom Software to complete your tasks.

Process Step Name: {CurrentStepName}  
Description: {CurrentStepDescription}  
Due Date: {StepDueDate}  
Previous Submitter Name: {PreviousSubmitterName}  
Process Comment: {PreviousSubmitterComment}

Apply OK Cancel

*Example notification for a general process definition*

## ► Process variables

Process variables can be used in all sections of the notification message, although certain variables can only be used in certain sections. The variables use standard variable syntax in Axiom—for example:

{StepDueDate}.

Use the **Insert variable** menu for the current section to insert a variable into the text. The menu displays only the variables that are currently valid for use, based on the current section, the step type, and the process type. Although you can manually type the variables, it is recommended to use the menu to ensure that you only use variables that are valid for the current section. When you choose a variable from the menu, it is displayed in plain text—for example, Due Date for {StepDueDate}.

### General variables

The following variables return general information about the process and its steps.

Variable	Description	Notification Types
{CompletingUserComment}	<p>The comment made by the user who completed the step.</p> <ul style="list-style-type: none"><li>• This variable resolves to blank if no comment was entered.</li><li>• If the step that was completed was a parallel subprocess or a multiple approvals step, then this variable resolves as a list of sub-steps, completing users, and comments, such as: Sub-step 1 name - user name - comment Sub-step 2 name - user name - comment</li></ul>	Step Completed
{CompletingUserName}	<p>The name of the user who completed the step.</p> <ul style="list-style-type: none"><li>• If the step that was completed was a parallel subprocess or a multiple approvals step, then this variable resolves as a list of sub-steps and completing users, such as: Sub-step 1 name - user name Sub-step 2 name - user name</li></ul>	Step Completed

Variable	Description	Notification Types
{CurrentStepName}	Name of the current step.	All notification types
{CurrentStepDescription}	Description of the current step.	All notification types
{CurrentStepNumber}	Number of the current step.	All notification types
{DaysPastDue}	Number of days past the due date for the current step.	Due Date Reminder, Overdue Reminder
{DaysTilDueDate}	Number of days until the due date for the current step.	Due Date Reminder, Overdue Reminder
{OwnerFullName}	The full name of the current task owner.	Step Activated, Step Reopened, Due Date Reminder, Overdue Reminder

Variable	Description	Notification Types
{NextStepDueDate}	<p>The due date of the next step in the process.</p> <ul style="list-style-type: none"> <li>If the next step is a parallel subprocess or a multiple approvals step, then this variable resolves as a list of sub-steps and due dates, such as: <ul style="list-style-type: none"> <li>Sub-step 1 name - due date</li> <li>Sub-step 2 name - due date</li> </ul> </li> <li>If the completed step was a sub-step of a parallel subprocess or a multiple approvals step, and the subprocess is still active, then this variable resolves to text such as "N/A - parallel subprocess step is not complete".</li> <li>If the completed step was the last step in the process, then this variable resolves to text such as "N/A - the process is complete".</li> </ul>	Step Completed, Step Rejected
{NextStepName}	<p>The name of the next step in the process.</p> <ul style="list-style-type: none"> <li>If the next step is a parallel subprocess or a multiple approvals step, then this variable resolves as follows: <ul style="list-style-type: none"> <li>Parallel Subprocess Step Name (Comma-separated list of sub-step names)</li> </ul> </li> <li>If the completed step was a sub-step of a parallel subprocess or a multiple approvals step, and the subprocess is still active, then this variable resolves to text such as "N/A - parallel subprocess step is not complete".</li> <li>If the completed step was the last step in the process, then this variable resolves to text such as "N/A - the process is complete".</li> </ul>	Step Completed, Step Rejected

Variable	Description	Notification Types
{NextStepOwner}	<p>The owner of the next step in the process.</p> <ul style="list-style-type: none"> <li>If the next step is a parallel subprocess or a multiple approvals step, then this variable resolves as a list of sub-steps and owners, such as: <ul style="list-style-type: none"> <li>Sub-step 1 name - user name</li> <li>Sub-step 2 name - user name</li> </ul> </li> <li>If the completed step was a sub-step of a parallel subprocess or a multiple approvals step, and the subprocess is still active, then this variable resolves to text such as "N/A - parallel subprocess step is not complete".</li> <li>If the completed step was the last step in the process, then this variable resolves to text such as "N/A - the process is complete".</li> <li>If the owner is a role, then this variable resolves as a comma-separated list of all owners in the role.</li> </ul>	Step Completed, Step Rejected
{PreviousStepName}	<p>The name of the previously active step in the process.</p> <ul style="list-style-type: none"> <li>This resolves to N/A for the first step in the process when used in Step Activated notifications.</li> <li>If the previous step was the last-completed step of a parallel subprocess or a multiple approvals step, then this variable resolves as follows: <ul style="list-style-type: none"> <li>Parallel Subprocess Step Name (Comma-separated list of sub-step names)</li> </ul> </li> </ul>	Step Activated, Step Reopened

Variable	Description	Notification Types
{PreviousSubmitterComment}	<p>The comment made by the user who completed the previously active step.</p> <ul style="list-style-type: none"> <li>• This resolves to N/A for the first step in the process. For other steps, it resolves to blank if no comment was entered.</li> <li>• If the previous step was a parallel subprocess or a multiple approvals step, then this variable resolves as a list of sub-steps, submitters, and comments, such as: <ul style="list-style-type: none"> <li>Sub-step 1 name - user name - comment</li> <li>Sub-step 2 name - user name - comment</li> </ul> </li> </ul>	Step Activated
{PreviousSubmitterName}	<p>The name of the user who completed the previously active step.</p> <ul style="list-style-type: none"> <li>• This resolves to N/A for the first step in the process.</li> <li>• If the previous step was a parallel subprocess or a multiple approvals step, then this variable resolves as a list of sub-steps and submitters, such as: <ul style="list-style-type: none"> <li>Sub-step 1 name - user name</li> <li>Sub-step 2 name - user name</li> </ul> </li> </ul>	Step Activated
{ProcessName}	The name of the process (display name if defined, process name if not).	All notification types
{RecipientFirstName}	The first name of the notification recipient.	All notification types
{RecipientFullName}	The full name of the notification recipient.	All notification types

Variable	Description	Notification Types
{RejectingUserComment}	The comment made by the user who rejected the step (or in the case of On Demand Process Aborted, the user who aborted the plan file in the process). This variable resolves to blank if no comment was entered.	Step Reopened, Step Rejected, On Demand Process Aborted
{RejectingUserName}	The name of the user who rejected the step (or in the case of On Demand Process Aborted, the user who aborted the plan file in the process).	Step Reopened, Step Rejected, On Demand Process Aborted
{StepDueDate}	The due date for the step.	Step Activated, Step Reopened, Due Date Reminder, Overdue Reminder
{TaskCount}	The count of tasks covered by this notification.	Step Activated, Step Reopened, Due Date Reminder, Overdue Reminder

#### Other variables

The following variables can only be used in notifications for Report Process Steps.

Variable	Description	Notification Types
{LinktoReport}	Link to open the specified report for the step.	Any notification type

Note the following when using the {LinkToReport} variable:

- If the report is form-enabled, then the hyperlink will open the file as a form or as a spreadsheet depending on the step-level setting **Open Form As**. For email notifications, if the step is configured to open the file as a form, then the form will be opened in the Web Client (browser) in all cases. For notifications delivered to the Notifications task pane, the option to open the form in the browser or the desktop client will be honored.



- If the report is not form-enabled, the hyperlink opens the report as a spreadsheet in the user's default desktop client.
- When the report is opened as a spreadsheet and the notification is sent via email, the hyperlink uses the same format as hyperlinks generated using `GetDocumentHyperlink`, including the differing URL format for systems using SAML or OpenID Authentication.

## Customizing recipients for process notifications

When defining the notifications for a process definition, you can customize the recipients for each notification. You can choose specific users and roles to receive notifications, and you can select defined classes of recipients such as task owners and the process owner.

### ► Recipient types

The following recipient types are available for process notifications. Certain recipients are only available for certain notification types.

Recipient Types	Description
Task Owners	The notification will be sent to the current task owners for the step.  This recipient type is not available for the Step Completed or Step Rejected notification types, because once the step is completed it has no current owners.
User	Select any named user defined within Axiom security to send the notification to that user. This recipient type is available for any notification.
Role	Select any named role defined within Axiom security to send the notification to all users in that role.
Process Owner	The notification will be sent to the process owner. This recipient type is available for any notification.

Recipient Types	Description
Owners of All Previous Steps	<p>The notification will be sent to the assigned owners of all previous steps in the process. If any previous step was a Multiple Approvals step or a Parallel Subprocess step, then the notification will be sent to the owners of each of the substeps. This recipient type is only available for the Step Completed and Step Rejected notification types.</p> <p>When a step is activated, all assigned owners at that time are logged in the process history. As long as the step is completed or rejected instead of aborted, then those logged step owners will be considered as previous step owners and will receive notifications triggered by subsequent steps. If the user who actually completed or rejected the step was not an assigned step owner, that user will not receive a notification.</p> <p>When a substep of a Multiple Approvals step or a Parallel Subprocess step is completed or rejected, any sibling substeps are not considered to be previous steps. The list of previous steps starts at the previous parent step.</p>
Completer of Previous Step	<p>The notification will be sent to the user who completed the immediately previous step in the process. If the previous step was a Multiple Approvals step or a Parallel Subprocess step, then the notification will be sent to the users who completed each of the substeps. This recipient type is only available for the Step Completed and Step Rejected notification types.</p> <p>When a substep of a Multiple Approvals step or a Parallel Subprocess step is completed or rejected, the previous step is the previously completed parent step, not any sibling substeps.</p>

Generally speaking, the Task Owners recipient type is intended to be used when you want to inform a user that they have a task to complete in the process, or to remind the user that they need to complete the task. All other recipient types are intended to inform interested users about what is currently going on with the process. For example, a process owner may want to receive a notification as each step in the process is completed, to help them keep tabs on the process. Similarly, there may be a specific user or role who is also interested in receiving this information, for the entire process or perhaps for a specific step.

When using different types of recipients for the same notification type, in most cases you should define multiple notifications with different text. The text for task owners should be action-oriented (such as "You have a new task to complete for process Rollover"), whereas the text for interested parties is more informational ("User jdoe completed step Import Actuals for process Rollover").

### ► Defining recipients for a notification

When you create or edit a notification at any level of the process, you can specify the recipients on the **Notification Configuration** tab of the **Edit Process Notification** dialog. The **Add Recipient** list only shows the recipients that are valid for the current notification type and process type.

**Edit Process Notification**

Edit a 'Step Activated' process notification

**Step Activated notifications are sent for new process tasks when a step is first activated. This can be after a prior step has been completed or approved, or after a Move Step operation has occurred.**

**Notification Configuration** | Notification Message


**Display Name**  (optional, default is the notification type)




**Notification Delivery**  
☒ Use current process setting   ☐ Use notification-specific setting  
 Process setting: Email notification

**Notification Urgency**  
☒ Normal Importance  
☐ High Importance

**Default Enablement**  
 Choose whether this notification should be enabled by default in newly added process steps.  
☒ Enabled by default   ☐ Disabled by default

**Notification Recipients**

 **+ Add Recipient** **X Delete**

-  User
-  Role
-  Process Owner

Once the notification has been saved, you can see the list of recipients in the notifications grid:


**Edit Process**





Edit the definition of process 'Monthly Updates'.

**This process is currently inactive.** [Start process](#)

**Process Properties** | **Process Steps** | **Notifications**

☒ **Enable Process Notifications** Unchecking this property will suppress all non-admin notifications for this process

**Default Notifications**  Edit Notification **+ Add Notification** **X Delete**

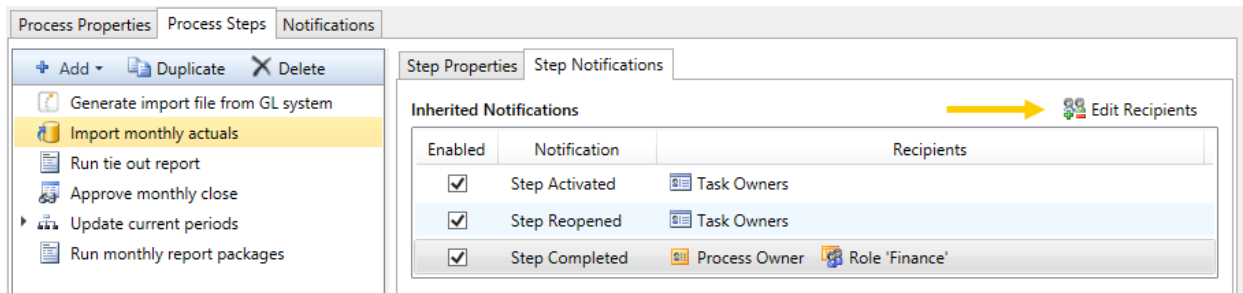
Notification	Recipients
Step Activated	 Task Owners
Step Reopened	 Task Owners
Step Completed	 Process Owner  Role 'Finance'

► Adding step-specific recipients to inherited notifications

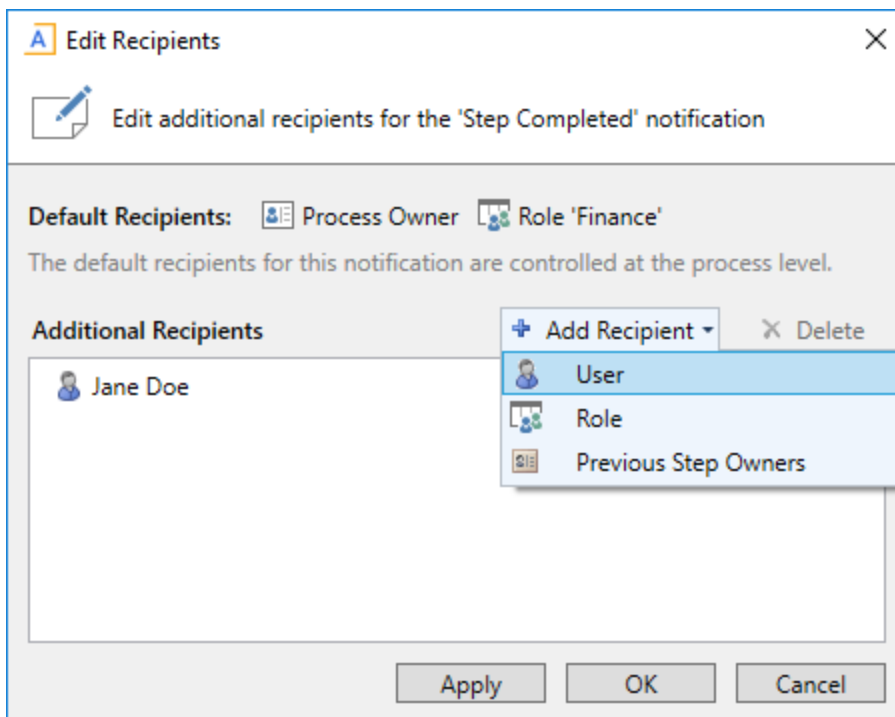
When a step inherits a notification from the process level, you have the option of adding recipients for that step only.

For example, imagine that you want to notify a specific user when a particular step completes. You can always choose to create a custom notification for that step and send it to that user. However, if an inherited Step Completed notification is already available to the step, then you can just add the user to that notification.

To add the user to the inherited notification, select the step and go to the **Step Notifications** sub-tab. Select the notification in the grid, then click **Edit Recipients**.



In the **Edit Recipients** dialog, you can see the default recipients defined for the inherited notification at the top of the dialog. You cannot remove any of these recipients, but you can add a recipient for this step only. In the following screenshot, the user Jane Doe will be included in the notification when this step is completed.



- To add a recipient, click **Add Recipient** and then select the type of recipient to add. Any recipient types that are already included in the default recipients are not listed here.
- To remove an additional recipient, select the recipient and then click **Delete**.

Any recipients listed in the **Additional Recipients** section will receive the notification for this step only.

## Setting up schedules for reminder notifications (standard processes)

When defining a Due Date Reminder or Overdue Reminder notification for a process definition, you must set the schedule for these reminders.

Within the **Edit Process Notification** dialog, the schedule is defined on the **Reminder Configuration** tab. This tab is only present for reminder notifications—all other notifications are triggered by step events such as step activation or completion.

**Edit Process Notification**

Edit a 'Due Date Reminder' process notification

**Due Date Reminder notifications are sent according to the reminder schedule, up until the tasks are due.**

**Reminder Configuration**

**Reminder Schedule**

Start:  day(s) before process step is due

☒ Until due date  
☐ Until  day(s) before process step is due  
☐ Single notification only

**Reminder Frequency**

☒ Every  day(s)  
☐ Every weekday

**Reminder Time**

Select the time of day when reminders are evaluated and delivered.

Evaluate reminders at  Pacific Daylight Time (GMT-07:00)

Apply OK Cancel

Example Reminder Configuration tab

## ► Due Date Reminder schedules

To decide on the appropriate Due Date Reminder schedule, you should consider the following:

- How many days before the due date do you want the reminders to start? This will impact the start of the schedule.
- How many reminders do you want to send / how frequently should the user be reminded? This will impact the reminder frequency and the end of the schedule.
- Do you want to send a reminder on the due date itself?

If you want to send reminders prior to the due date *and* on the due date itself, keep in mind that you may want to use different text for these notifications. For example, when sending reminders before the due date, you probably want to include text such as: "This is a reminder that your task for Step 'Import Data' is due in 3 days." If you use the same text on the due date, it will resolve as "due in 0 days"—which is technically true, but not as clear as saying "this task is due today." You might also want to use stronger wording in the notification on the due date itself. To do this, you can create two Due Date Reminder notifications, one to be sent before the due date, and one to be sent only on the due date. Each notification would have different text, and use a different reminder schedule.

To set the reminder schedule for a Due Date Reminder notification, complete the following settings on the **Reminder Configuration** tab:

1. In the **Reminder Schedule** section, set the start date for the reminder by editing the setting **Start \_\_ day(s) before process step is due**. Enter any number of days before the due date. By default, this is set to 1 day before the due date.

For example, if the step is due on 1/10/2016 and you set the start date to 3 days before the due date, then reminders will start on 1/7/2016.

You can specify 0 days as the start date if you only want to send a reminder on the due date itself.

2. In the **Reminder Schedule** section, set the stop date for the reminder by selecting one of the following options:
  - **Until due date** (default): Reminders will be sent from the start date until the due date (including the due date itself).
  - **Until \_\_ day(s) before process step is due**: Reminders will be sent from the start date until the number of days specified before the due date. By default this is set to 1 day before the due date.
  - **Single notification only**: The reminder will be sent once, on the start date.
3. In the **Reminder Frequency** section, select the frequency of the notifications:
  - **Every \_\_ day(s)** (default): The reminder notification will be sent according to the specified day interval, from the start date to the end date. By default this is set to send a notification every 1 day, meaning a notification will be sent each day. All days of the week are included when choosing this option, including Saturday and Sunday.

- **Every weekday:** A reminder notification will be sent each weekday (Monday-Friday), from the start date to the end date. No notifications will be sent Saturday or Sunday.

**NOTE:** If **Every weekday** is selected and the configured schedule causes a notification to fall on the weekend, that notification is simply not sent—it is not moved to the nearest weekday. This means that some schedule configurations may not send any notifications if the entire schedule happens to fall on the weekend. Specifically, you should not select this option if you are only sending a single notification, in case that single notification falls on the weekend.

4. In the **Reminder Time** section, select the time of day at which this reminder will be evaluated and delivered. You can select any hour from 12:00 AM to 11:00 PM. By default, this is set to 5:00 PM. See [How reminder schedules work](#) for more information.

The following table contains some example schedules and the resulting notifications. The frequency is assumed as every 1 day in these examples.

Example	Start Date	Stop Date	Resulting Notifications
Reminders before and on the due date	3 days before	Until due date	4 - one each on the three days before the due date, and one on the due date
Reminders only before the due date	3 days before	Until 1 days before step is due	3 - one each on the three days before the due date, none on the due date
Reminder only on the due date	0 days before	Single notification	1 - one on the due date

The frequency impacts how many of these notifications are ultimately sent. If the frequency is set to every 2 days in the first example, then only 2 of the 4 eligible notifications will be sent. Similarly if the frequency is set to weekdays only, then the number of notifications sent depends on how many of those days (if any) fall on a weekend.

### ► Overdue Reminder schedules

To decide on the appropriate Overdue Reminder schedule, you should consider the following:

- How many days after the due date do you want the reminders to start?
- How many reminders do you want to send / how frequently should the user be reminded?

Of course, at a certain point, if a task is persistently overdue then some other action should be taken. Your organization may run reports that are intended to inform the process owner about tasks that are overdue, so that they can take action accordingly. Another option in this case would be to create an Overdue Reminder notification that goes to the process owner or to other designated users. For example, your organization may have a rule that if a task is 3 days late, the situation should be escalated

to the task owner's manager. You could have two Overdue Reminder notifications—one that goes to the task owners when the task becomes overdue, and another that goes to the process owner when the task is 3 days late.

To set the reminder schedule for an Overdue Reminder notification, complete the following settings on the **Reminder Configuration** tab:

1. In the **Reminder Schedule** section, set the start date for the reminder by editing the setting **Start \_\_ day(s) after process step is due**. Enter any number of days after the due date. By default, this is set to 1 day after the due date.

For example, if the step is due on 1/10/2016 and you set the start date to 1 day after the due date, then reminders will start on 1/11/2016.

2. In the **Reminder Schedule** section, set the stop date for the reminder by selecting one of the following options:
  - **No end date** (default): Reminders will be sent from the start date until the step is completed.
  - **Until \_\_ day(s) after process step is due**: Reminders will be sent from the start date until the number of days specified after the due date. By default this is set to 1 day after the due date.
  - **Single notification only**: The reminder will be sent once, on the start date.
3. In the **Reminder Frequency** section, select the frequency of the notifications:
  - **Every \_\_ day(s)** (default): The reminder notification will be sent according to the specified day interval, from the start date to the end date. By default this is set to send a notification every 1 day, meaning a notification will be sent each day. All days of the week are included when choosing this option, including Saturday and Sunday.
  - **Every weekday**: A reminder notification will be sent each weekday (Monday-Friday), from the start date to the end date. No notifications will be sent Saturday or Sunday.

**NOTE:** If **Every weekday** is selected and the configured schedule causes a notification to fall on the weekend, that notification is simply not sent—it is not moved to the nearest weekday. This means that some schedules may not send any notifications if the entire schedule falls on the weekend. Specifically, you should not select this option if you are only sending a single notification, in case that single notification falls on the weekend.

4. In the **Reminder Time** section, select the time of day at which this reminder will be evaluated and delivered. You can select any hour from 12:00 AM to 11:00 PM. By default, this is set to 5:00 PM. See [How reminder schedules work](#) for more information.

## ► How reminder schedules work

Reminder notifications are evaluated once per hour using the system Scheduler job **System.ProcessNotifications**.



This job checks all active steps in all active processes to see if these steps have any configured reminder notifications.

- If a step has reminder notifications, the job checks the due date of that step and the schedule of those notifications to see if any are eligible to be sent.
- If the notification is eligible to be sent, and the configured reminder time of the notification falls within the current hour in which the job is running, the notification will be sent.

Under normal circumstances, this setup results in only one reminder being sent per day, for each eligible step / notification combination. However, a reminder notification could be sent multiple times in a day if either of the following occurs:

- The reminder time is edited for an active process.
- The schedule for the system job is changed so that the job runs multiple times in an hour (or the job is manually run again within an hour).

All times for this process are evaluated on the Axiom Application Server. When you select a time, you select it based on your local time zone (shown next to the selected time for your reference). This selected time is converted to Coordinated Universal Time (UTC) when it is saved to the server, so that the reminders will be evaluated relative to your selected local time.

Reminder schedules are only evaluated while the step is active. If the step is completed, rejected, or aborted, then no reminder notifications will be sent.

## Notification properties for process definitions

The following properties can be set for each notification defined in a general process definition.

### ► Notification Configuration tab

This tab defines general properties for the notification.

Item	Description
Display Name	<p>Optional. The name of the notification. This name is for use when configuring notifications for the process; it is not displayed anywhere in the actual notification to users.</p> <p>If left blank, the notification type is used as the display name (such as "Step Activated"). If you have more than one of a particular notification type, you should define a unique display name for each to avoid confusion.</p>

Item	Description
Notification Delivery	<p>Specifies how the notification will be delivered to recipients.</p> <p>By default, the option <b>Use current process setting</b> is enabled, which means that the notification will be delivered according to the process-level delivery settings on the <b>Notifications</b> tab. If you want to override the process-level settings for this particular notification, then select <b>Use notification-specific setting</b> instead.</p> <p>If <b>Use notification-specific setting</b> is enabled, then select one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Notification task pane:</b> Display the notification in the recipient's Notifications task pane.</li> <li>• <b>Email notification (default):</b> Send the notification by email, using the recipient's email address as defined in Axiom Security.</li> <li>• <b>Both notifications:</b> Send the notification by email and display it in the Notifications task pane.</li> </ul>
Notification Urgency	<p>Specifies the urgency of the notification. Select one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Normal Importance:</b> The notification will not be called out as having any particular importance.</li> <li>• <b>High Importance:</b> The notification will be flagged as important. In the Notifications task pane, the notification will display with an exclamation point. For email notifications, the display depends on the recipient's email client configuration.</li> </ul>
Default Enablement	<p>Specifies whether the notification will be enabled by default in newly added process steps that are eligible to inherit the notification. Select one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Enabled by default (default):</b> The notification will be enabled by default in newly added process steps.</li> <li>• <b>Disabled by default:</b> The notification will be disabled by default in newly added process steps.</li> </ul> <p>This setting is only present when defining default notifications for the process. It does not display for step-specific custom notifications.</p> <p>This setting does not impact whether a notification will be enabled in existing steps. When you create a new default notification, you will be prompted to choose whether you want the new notification enabled in existing steps.</p>
Notification Recipients	<p>The recipients of the notification. If recipients have already been selected, they will display in the Notification Recipients box.</p> <ul style="list-style-type: none"> <li>• To add recipients, click <b>Add Recipient</b> and then click the type of recipient to add.</li> <li>• To delete a recipient, select the recipient in the Notification Recipients box and then click <b>Delete</b>.</li> </ul>

### ► Notification Message tab

This tab defines the message for the notification. All message sections for the notification must have some content in order to be valid. For more information, see [Customizing notification content for general process definitions](#).

Item	Description
Notification Subject	Defines the subject line for the notification.
Notification Message Body	Defines the message body for the notifications. This text should contain all necessary task details for the notification.

### ► Reminder Configuration tab

This tab defines the reminder schedule for the "reminder" notifications. This tab only applies to the following notification types: Due Date Reminder and Overdue Reminder. For more information, see [Setting up schedules for reminder notifications \(standard processes\)](#).

Item	Description
Reminder Schedule	<p>Specifies when reminder notifications will start, and how long they will continue.</p> <p>To specify when reminder notifications will start (the start date):</p> <ul style="list-style-type: none"><li>• For due date reminders, enter the number of days before the due date that you want reminders to start. By default, reminders start 1 day before the step is due.</li><li>• For overdue reminders, enter the number of days after the due date that you want reminders to start. By default, reminders start 1 day after the step is due.</li></ul> <p>To specify how long reminder notifications will continue (the stop date), select one of the following:</p> <ul style="list-style-type: none"><li>• <b>Until due date / No end date</b> (default): For Due Date Reminders, notifications will continue until the due date is reached. For Overdue Reminders, notifications will continue until the step is completed.</li><li>• <b>Until __ day(s) before / after process step is due</b>: Notifications will continue until the specified number of days before the step is due (for Due Date Reminders) or after the step is due (for Overdue Reminders). By default this is set to 1 day.</li><li>• <b>Single notification only</b>: The notification will only be sent once, on the specified start date.</li></ul>

Item	Description
Reminder Frequency	<p>Specifies the frequency of reminder notifications between the start date and the stop date. Select one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Every X days:</b> A reminder notification will be sent according to the specified day interval. By default this is set to send a notification every 1 day, meaning a notification will be sent each day. All days of the week are included when choosing this option, including Saturday and Sunday.</li> <li>• <b>Every weekday:</b> A reminder notification will be sent each weekday (Monday-Friday). No notifications will be sent Saturday or Sunday.</li> </ul> <p>This option does not apply if the notification is set to <b>Single notification only</b>.</p>
Reminder Time	<p>Specifies the time of day when reminders will be evaluated and delivered. Select any hour from 12:00AM to 11:00PM. By default, this is set to 5:00 PM.</p>



# Process Definition Properties

This topic is a reference for all properties that can be configured for general process definitions.

## ► Process Properties tab

This tab defines the basic properties of the process definition.

Item	Description
Process Name	The name of the process. This name defines: <ul style="list-style-type: none"><li>• The name of the process definition file.</li><li>• The process name displayed in process dialogs and web pages, if no separate display name is defined.</li></ul>
Display Name	Optional. The display name of the process. By default, the process name is used as the display name.  If a display name is defined, then the process displays in process dialogs using the display name instead of the process name. The process definition file continues to use the process name.
Description	Optional. The description of the process definition. This description displays in the Process Status dialog.
Process Owner	The owner of the process. By default, this is set to the user who created the process definition, but it can be changed to another user.  The process owner receives all administrative notifications for the process and can perform all administrative actions for the process (such as starting and stopping the process, overriding task ownership to mark steps as complete, and so on).

## Configuration Properties

The following configuration properties can be set for the process:

Item	Description
Allow step owners to see all steps in the process task pane	<p>Specifies whether the assigned step owners can see all steps in the process when they interact with tasks in the Process task pane.</p> <p>By default, this option is disabled, which means that step owners only have access to the Task View in the Process task pane, which shows the currently active task. If this option is enabled, then step owners gain access to the Process View, which shows all steps in the process. Users can toggle between each view.</p> <p>This setting is only applicable to non-admin step owners. Administrators and process owners can always see all steps of any process.</p>
Default Process Assignment	The user to be used as the default step owner if no specific user assignment is made for a particular step. The default assignment only applies to steps where the <b>Assignment Type</b> is set to <b>User</b> .

## ► Process Steps tab

This tab defines the steps for the process. Steps are managed in the left-hand pane. Step properties are defined in the right-hand pane using the following sub-tabs: **Step Properties**, **Assignments**, and **Step Notifications**.

### Step Properties

This sub-tab defines basic properties for the selected step.

Item	Description
Display Text	<p>The display text for the step.</p> <p>If left blank, the display text is the step type (for example, "Approval Step" or "Generic Process Step"). It is strongly recommended to define display text that clearly identifies the specific purpose of this step.</p>
Description	<p>Optional. The description of the step.</p> <p>You can use this field to further explain the purpose of the step or to provide additional instruction to the step owner. Users can see the step description in a tooltip when hovering the cursor over the step in the Process task pane.</p>
Process Step Configuration	Some step types have additional properties that only apply to that particular step type. For more information about each step type and its unique configuration properties, see <a href="#">Process step types</a> .

### Assignments

This sub-tab defines ownership assignments and due dates for the selected step. This tab does not apply to parent Parallel Subprocess or Multiple Approvals steps.

Item	Description
Assignment Type	<p>Specifies the type of ownership assignment. The following assignment types are available:</p> <ul style="list-style-type: none"> <li>• <b>User:</b> A specific user will be assigned to the step.</li> <li>• <b>Role:</b> A specific role will be assigned to the step.</li> </ul> <p>Additional inputs are required, depending on the selected type. For example, if the type is User, then you must specify the assigned user. For more information, see <a href="#">Designating the process owner</a>.</p>
Due Date	<p>The date when the step must be completed. This can be a specific calendar date, or the due date can be relative based on a number of days after either of the following: the date the process was started, or the date this particular step was started.</p> <p>The due date can also be left blank if the step does not have a specific due date. For more information, see <a href="#">Defining the due date for a process step</a>.</p>
Reset relative due date when step is reopened	<p>Specifies whether the due date is reset when the step is reopened. This option is only available if the step uses a relative due date that is based on the step start date.</p> <p>By default, the step due date is calculated when the step is started, and that due date persists if the step is reopened. If instead you want the due date to be reset (recalculated) based on the date the step is reopened, select this option.</p>

## Step Notifications

This sub-tab defines notification properties for the selected step. The settings on this tab are only used if notifications are enabled at the process level. If notifications have been disabled for the entire process, a note displays across the top of the tab.

This tab has the following sections:

- **Inherited Notifications:** Use this section to manage the inherited notifications for this step. Inherited notifications are notifications defined at the process level. You can optionally enable or disable the inherited notifications on a per step basis, and you can edit the recipients for this step.
- **Custom Notifications:** Use this section to manage custom notifications for this step. You can add new notification types, or you can add custom versions of the inherited notification types.

For more information on customizing notifications for steps, see [Defining notifications at the step level](#).

### ► Notifications tab

This tab defines email notification settings for the entire process.

Item	Description
Enable Process Notifications	<p>Specifies whether notifications will be sent for the process. These notifications are typically sent to step owners, but can also be sent to other recipients.</p> <p>This option is enabled by default. When this option is enabled, you can also optionally enable or disable notifications for individual steps, using the <b>Step Notifications</b> sub-tab for the steps.</p> <p>If this option is disabled, then no notifications will be sent for the process. Any step-level notification settings will be ignored.</p> <p>This setting does not affect administrative notifications, which are always sent to the process owner (and any other recipients designated in <b>Admin Notification Recipients</b>).</p>
Default Notifications	<p>Defines the default notifications to apply to each step in the process. Each process starts with two notification types by default: Step Activated and Step Rejected. By default, these notifications are enabled for all eligible steps.</p> <p>You can define additional default notification types as desired and customize the existing default notifications. For more information, see <a href="#">Defining default notifications for a process</a>.</p>
Notification Delivery	<p>Specifies the default delivery setting for all notifications in this process. Select one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Notification task pane:</b> Display the notification in the recipient's Notifications task pane.</li> <li>• <b>Email notification (default):</b> Send the notification by email, using the recipient's email address as defined in Axiom Security.</li> <li>• <b>Both notifications:</b> Send the notification by email and display it in the Notifications task pane.</li> </ul> <p>All notifications defined for the process will use the default delivery setting, unless you choose to specify a different delivery setting on a per notification basis. Administrative notifications always use the default delivery setting.</p>
Notification Email From Address	<p>Specifies the "from" email address for all notifications sent for the process.</p> <p>By default, the "from" address is the default "from" address defined for Scheduler in the system configuration settings (for example, <code>noreply@axiomepm.com</code>). If desired, you can override this default and type in a different email address to be used for the process.</p>
Admin Notification Recipients	<p>Specifies the recipients of administrative notifications for the process. By default, the process owner receives all administrative notifications, but you can designate other users or roles to receive these notifications as appropriate. For more information, see <a href="#">Designating the process owner</a>.</p>



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