Alerts and Notifications Guide Axiom



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# Alerts

Using alerts, you can define a condition to monitor and then notify one or more users if that condition is met. For example, you may want to alert certain users if their budget-to-actuals variance for a particular month exceeds a specified amount.

Alerts are defined within Axiom files, on a dedicated Alert Control Sheet (Control\_Alert). To define an alert condition, you specify properties such as:

- The condition to be evaluated to trigger the alert.
- The recipients for the alert notification if it is triggered.
- The message to be displayed to alert recipients.
- The method of alert delivery (email and/or task pane).
- An optional link to the source file or another file to provide the user with more information about the alert.

Once alerts have been defined, you can process them in a variety of ways. You can set up alerts within a report and then process alerts for that report periodically using File Processing or by using the Process Document List task in Scheduler. Or you can set up alerts within a plan file, and then those alerts will be processed when the plan file is run using Process Plan Files.

If an alert condition evaluates to True when alerts are processed, then the specified recipients receive an alert notification. This notification is displayed in the Notification task pane and/or delivered via email, depending on the alert settings. The user can read the notification, navigate to the specified supporting file, and delete the notification when they are finished reviewing it. Alternatively, you can query alert notifications using the Axiom.Notifications system table and display them in a file, such as the Home file, or in an Axiom form.

# **Creating alerts**

Alerts can be created within any Axiom file, by adding an Alert Control Sheet to that file.

- Alerts should be added to a report file if you want to report upon some data and then alert based on that data. Report alerts can be processed at any time by using File Processing (to leverage multipass processing) or by using the Process Document List task in Scheduler.
- Alerts should be added to a template (for use in plan files) if you want to alert based upon data within a particular plan file, and you want the alerts to be processed when running Process Plan Files.

Alerts are based on a condition defined within the file. Before starting to create alerts, you should take some time to consider exactly what condition you want to track, and what data you need to evaluate that condition.

Only administrators can enable a file for alerts. Once the Alert Control Sheet has been added to a file, any user with access to the file and access to the Alert Control Sheet can define alerts.

To enable alerts for a file:

• On the Axiom Designer tab, in the Developer group, click Tools > Add a Control Sheet > Alerts.

The Alert Control Sheet is added to the file as **Control\_Alert**. All alerts for the file must be defined on this sheet. By default, the sheet is set up with a header row for the alert tags, and a couple of sample alerts (which you can delete or leave for reference as desired).

You can define alerts by adding rows to this sheet. Each row should start with an [Alert] tag (with brackets), and then complete each alert property (without brackets). For more information, see Alert properties.

|    | A B                          | С                   | D           | E          | F                 | G           | н                                 | 1                                | J   |
|----|------------------------------|---------------------|-------------|------------|-------------------|-------------|-----------------------------------|----------------------------------|---|
| 1  | [Alerts]                     | [ID]                | [Condition] | [Severity] | [Recipients]      | [Delivery]  | [NavigateTo]                      | [Title]                          | [Message]                                   |
| 2  |                              |                     |             |            |                   |             |                                   |                                  |   |
| 3  | Alert Control Sheet          |                     |             |            |                   |             |                                   |                                  |   |
| -4 | Get help on alert properties |                     |             |            |                   |             |                                   |                                  |   |
| 5  |                              |                     |             |            |                   |             |                                   |                                  |   |
| 6  | Alert Tag                    | Alert ID            | Condition   | Severity   | Alert Recipients  | Delivery To | Supporting File                   | Notification Title               | Notification Message                        |
| 7  | [Alert]                      | RevVar_730_Oct2012  | True        | Warning    | jdoe;role:Finance | Email       | Report!M15                        | Revenue variance alert for Cons  | Revenue variance is negative, please review |
| 8  | [Alert]                      | ExpVar_730_Oct2012_ | False       | Info       | role:Finance      | TaskPane    | \Axiom\Reports Library\Monthly Re | Expense variance alert for Conse | Expense variance is over 8%, please review  |

The default format of the Alert Control Sheet is provided for your convenience. However, you can set up this sheet however you like; you do not have to use this format. For example, you may want to define alerts using an Axiom query instead of "hard-coding" them into the default grid. If so, then you can set up an Axiom query on the Alert Control Sheet. As long as each column has the appropriate alert header tag (as shown in row 1 above), and each alert row is flagged with an [Alert] tag, then alerts can be placed anywhere on the sheet. However, all alerts must be defined on the Alert Control Sheet—you cannot define them on other sheets in the file.

**NOTE:** Simply defining the alerts within the file does not cause any alerting actions to take place. It does not matter if a particular condition currently resolves to True or False within the file; the condition status only matters when the alerts are processed.

## Setup considerations for File Processing

If you plan to process alerts using multipass File Processing, then many alert settings should be set up using dynamic formulas. This includes the alert ID, the recipients, the notification message and the notification title. For example, if you will be processing by department, then you definitely want to include the department number for the current pass in the ID, title, and notification, and you probably want to return different user or role names depending on the department. You can use GetCurrentValue () in these formulas.

If you specify the current file as the supporting document—the [NavigateTo] location—the multipass context will be automatically applied when the user opens the file from the alert notification. For example, if the alert was generated for the Dept 4200 pass, then when the user opens the file from that notification (whether from the task pane or the email link), the file will automatically be filtered for Dept 4200, and GetCurrentValue functions will return values as if it were currently processing that department. This allows the user to see the file using the same context as when the alert was generated.

**NOTE:** The filter will only be applied when the file is refreshed. You should configure the relevant Axiom queries to refresh on open if you want the user to see the data as soon as they open the file, without needing to click the Refresh button.

These features only apply when the alerts are processed using File Processing. If you process alerts in any other way, then GetCurrentValue will not return values during processing, and no filters will be applied when the file is opened from the notification. Generally, if you set up alerts to leverage File Processing features, then those alerts should always be processed using File Processing and not using any other alert processing option.

# Alert properties

Each alert defined on the Alert Control Sheet has the following alert properties.

The Alert Control Sheet is only visible to administrators or to users with both read/write permission to the file and **Allow Unprotect** permission. Otherwise, it is hidden by default.

**NOTE:** If you plan to process alerts using File Processing, then you can use GetCurrentValue to dynamically incorporate the current pass into certain alert settings, such as the alert ID, or the notification title.

| ltem<br>[Column Tag]     | Description  |  |  |  |
|--------------------------|--|--|--|--|
| Alert Tag<br>[Alert]     | The alert tag for the alert. Each alert defined in the sheet must be identified by an [Alert] tag.   |  |  |  |
|                          | You can also use this tag to specify whether a particular alert is "active" or not.<br>For example, you can set up the tag using a formula so that the cell either<br>displays [Alert] or is blank based on some condition. This allows you to<br>temporarily "disable" some alerts and exclude them from processing without<br>needing to delete the entire alert definition.   |  |  |  |
| Alert ID<br>[ID]         | The identifying code for the alert. This code is used to determine whether an alert is considered "new" or "existing" at the time of processing. If an existing alert in the database has the same code, then the alert is ignored even if the condition is True.  |  |  |  |
|                          | In most cases, you will want to set up a dynamic alert ID that incorporates the desired alerting "interval." For example, if the file will be processed daily but you only want users to be alerted of a particular condition once per week at most, then the ID should incorporate some kind of indicator of the current week. You may also want to incorporate the document ID into the alert ID, so that there is no chance of duplicating alert IDs generated from another file. |  |  |  |
|                          | For more information about defining the alert ID and determining the alerting interval, see Controlling the frequency of alert notifications.  |  |  |  |
|                          | The alert ID is only used for alert management purposes; it does not display to the user. The ID is limited to 255 characters.   |  |  |  |
| Condition<br>[Condition] | The condition to be evaluated when the alert is processed. This condition must evaluate to True or False.  |  |  |  |
|                          | You can define any condition using an IF statement. For example, if you want to<br>alert users when a particular variance exceeds a certain threshold, you can set<br>up the file to query the necessary data and then calculate the variance, and<br>then create an IF function that returns True when the variance exceeds the<br>threshold, and False when it does not. For example:  |  |  |  |
|                          | =IF(Report!G23 >= 0.1, "True","False")   |  |  |  |

| Item<br>[Column Tag]            | Description   |
|---------------------------------|---|
| Severity<br>[Severity]          | The severity of the alert. When an alert notification is displayed in the Notifications task pane (or the Notifications panel in the Web Client), an icon indicates the severity.  Info  Karning  Frror  The severity is provided to give the user a visual indication of the importance of the alert. The example icons shown above are from the Desktop Client. The Web Client uses similar icons but with different styling. |
| Alert Recipients                | The Axiom users who should be notified if the alert condition resolves to True.   |
| [Recipients]                    | You can specify one or more user login names or role names. Separate multiple names with semicolons.  |
|                                 | Role names must be prefixed with $role$ : (for example, role:Finance). If a role is specified, the alert notification is displayed to all users who belong to the role at the time the alert was generated.   |
| Deliver To                      | Optional. Specify how the alert notification should be delivered:   |
| [Delivery]                      | <ul> <li>Email: Deliver the alert notification via email, using the email address defined for the recipients within Axiom security.</li> <li>TaskPane (default): Deliver the alert notification via the Notifications task pane.</li> </ul>   |
|                                 | If left blank, the notification will be delivered via the Notifications task pane.  |
|                                 | If you want the notification to be delivered via email <i>and</i> the Notifications task pane, enter both options separated by a semicolon like so: Email; TaskPane   |
| Supporting File<br>[NavigateTo] | Optional. Specify a supporting file that a user can open to get more information about the alert condition. See the discussion following this table for more information on how to specify the file.  |
|                                 | If this setting is left blank, then the alert notification will not contain any link to open a file (whether the notification is displayed in the task pane or delivered via email).  |

| ltem<br>[Column Tag]                 | Description  |
|--------------------------------------|--|
| View As Form<br>[ViewAsForm]         | Optional. Specify whether the supporting file should be opened as an Axiom form in the Desktop Client, if the supporting file is form-enabled.   |
|                                      | If True, the file will be opened as a form; if False, the source spreadsheet file will be opened. If nothing is specified (either the column is blank or the column is not present) then True is assumed as the default.   |
|                                      | This setting is ignored if the supporting file is not form-enabled. It is also ignored<br>if the link is opened from the Notifications panel in the Web Client. From the<br>Web Client, if the file is form-enabled then it is always opened as a form (unless<br>a cell address is specified in the Supporting File property, in which case the<br>source spreadsheet file will be opened so that the designated cell can be<br>shown). |
| Notification Title<br>[Title]        | The title of the alert notification. The title should be brief yet give the user an idea as to the content of the alert. For example: "Budget Variance Alert".   |
|                                      | The title is limited to 255 characters.  |
| Notification<br>Message<br>[Message] | The message for the alert notification. Ideally, the message should explain to the user what the alert condition is, why they are being notified, and what action (if any) the user should take as a result of the alert.  |
|                                      | The message is limited to 2000 characters.   |

Specifying the supporting file for the alert

If you want the user to be able to open a supporting file that contains more information about the alert condition, you can specify either of the following:

- A location in the current file, such as Report ! G23. When the user receives the alert, they can click a link to open the file and be taken to the specified location.
- A file path to a different file. When the user receives the alert, they can click a link to open the file and be taken to the specified location (if applicable).

The full Axiom file path must be specified, such as: \Axiom\Reports Library\Monthly Reports\Variance\_Report.xlsx. If desired, you can specify a location in the file using the following syntax:

FilePath;Location

For example: \Axiom\Reports Library\Monthly Reports\Variance\_ Report.xlsx;Report!D25

**TIP:** You can right-click a file in Axiom Explorer or the Explorer task pane and choose **Copy document path to clipboard**, then paste the path into the alert definition.

In both cases, the user must have at least read-only rights to the file in order to open it from the alert notification.

#### NOTES:

- If the supporting file references a location in the current file and you process alerts using File Processing, then when the user clicks the link in the notification to open the file, the multipass filter will automatically be applied to the file. This allows the user to view the file using the same context that generated the alert. Axiom queries should be set to refresh on open in this case, so that the filter is applied when the file is opened. Note that this behavior does not apply if the link is opened from the Notifications panel in the Web Client.
- If the supporting document is opened as an Axiom form in the Desktop Client, the cell location within the file does not apply and will be ignored if specified.

# Design considerations for sending alert notifications via email

### Email content

If you decide to send the alert notification via email, you should be aware of how the notification message from the alert definition will display in the email. The email body is structured as follows:

The following alert was generated in Axiom:

<Message text from the alert definition>

More information is available at <CellLocation> in <SupportingFileName>:
 <Hyperlink to Supporting File>

You can see an example default email here.

The beginning line that starts "The following alert..." is always included. This line cannot be removed.

The "More information..." hyperlink is only included if a supporting file is indicated in the alert definition, in the [NavigateTo] column. If this field is left blank for a particular alert, then no automatically generated hyperlink will be included in the email. However, you can include a manually generated hyperlink in the email body by placing it within the defined message text (see next section for an example).

#### Line breaks

When defining the body text for the alert notification, you can create line breaks in the cell by pressing ALT+ENTER. For example, you may want to define body text with two separate paragraphs, or with a separate line for a signature.

The following screenshot shows an example alert definition. The Notification Message cell has several line breaks created using ALT+ENTER. Line breaks are used to place the hyperlink and the signature on new lines. In this example the text is wrapped in a formula so that a hyperlink can be manually inserted within the body text using GetDocumentHyperlink (instead of specifying a supporting file in the alert definition).

|      |   | J7 • (*           | fx ="Revenue variance for your department is<br>"& | negative. Please review the variance | and submit a comment using the following report:  |
|------|---|-------------------|--|--------------------------------------|---|
|      |   |                   | GetDocumentHyperlink(93)&"                         |                                      |   |
|      |   |                   |  |                                      |   |
|      |   |                   | Jane Doe"  |                                      |   |
| >    |   | 🛅 alert_c         | lelivery ×   |                                      |   |
|      |   | G                 | Н  | 1                                    | L L L L L L L L L L L L L L L L L L L             |
| -    | 4 |                   |  |                                      |   |
| L D  | 5 |                   |  |                                      |   |
| 8    | 6 | Deliver To        | Supporting File                                    | Notification Title                   | Notification Message                              |
|      |   |                   |  | •                                    | Revenue variance for your department is negative. |
| ≥    |   |                   |  |                                      | Please review the variance and submit a comment   |
| L E  |   |                   |  |                                      | using the following report:                       |
| Vor  |   |                   |  |                                      | http://whga/Axiom/c1/Axiom.UI.Start.application   |
| >    |   |                   |  |                                      | ?docref=%3a93%3a%3a                               |
| ŧ    |   |                   |  |                                      |   |
| stan | 7 | Email             |  | Revenue variance alert for Co        | ns Jane Doe                                       |
| ssis | - | Ernan<br>Teologia |  | Revenue variance alert for Co        | insparie Doe                                      |
| A    | 8 | TaskPane          |  | Expense variance alert for Col       | nsc Expense variance is over 8%, please review.   |

When alerts are processed and a notification email is sent, the email will look similar to the following:



**NOTE:** Placing a hyperlink in the message text will only work when the alert notification is delivered via email. In the Notifications task pane, the hyperlink text will not resolve to a clickable hyperlink.

# **Processing alerts**

Once alerts have been defined within a file, they can be processed in several different ways, depending on the type of file. When you process alerts, each alert condition in the file is evaluated to be True or False. If True, then an alert notification is delivered to the designed recipients using email and/or the Notifications task pane. **NOTE:** At the time of processing, the alert ID is used to determine whether a particular alert is "new" or "existing." If the ID matches an existing alert ID in the database, then no action is taken for that alert. For more information on this process, see Controlling the frequency of alert notifications.

Alerts can be processed in the following ways:

- File Processing: You can set up alerts in a file and then use File Processing to process the alerts using multipass processing.
- **Process Document List**: You can set up alerts in a report file (or a driver file) and then use the Process Document List task in Scheduler to process the alerts.
- **Process Plan Files**: If alerts are defined within plan files, these alerts are processed automatically when the file is processed using Process Plan Files.
- Process Alerts: You can process alerts directly within the file, by using the Process Alerts action.
- Save: You can configure a file so that alerts are processed automatically as part of a save.

You should perform alert processing as frequently as you need the alert condition to be evaluated. For example, maybe you are checking budget to actual variances for the current period, and you only need to check the condition once per month, after the actuals data for the current period has been imported into the system. It is not necessary to process these alerts more frequently, because the data will not change over the course of the month.

On the other hand, maybe you are monitoring budget data for the current planning cycle, while users are actively working in their budgets. In this case you want to process alerts more frequently, because the data is continually changing, and you want to alert users of a problem condition in their budgets as soon as possible. You might choose to process these alerts weekly, daily, or even hourly.

### Processing alerts using File Processing

File Processing supports a processing type of **Alerts**. The only action performed by this processing type is to refresh the file using the current pass filter, and then process the alerts defined on the Alert Control Sheet.

You can process alerts using File Processing manually within the file, or schedule it using the File Processing task for Scheduler.

The advantage of using File Processing to process alerts is that you can define an alert once and then process it multiple times at different levels using multipass processing. For example, imagine that you want to alert department managers if their department exceeds a variance threshold for a particular area. You could set up a report that brings in data for each department and calculates the variance, and then define an alert for each individual department value. However, it would be much more streamlined to use file processing to process the report by department. In this case you would set up a report that brings in the consolidated data and then define one dynamic alert against that value. Then you would set up the report for multipass processing by department. For each pass, it will automatically apply the department-specific filter for the data and then process the alert against that data. The alert settings

would need to dynamically change for each pass—for example you could set up the alert ID, message title, etc., using GetCurrentValue() so that the current department number is reflected for each pass of alerts.

When an alert is generated using multipass File Processing, the current pass information is stored within the alert notification. If the supporting file for the alert—the [NavigateTo] location—is set to the current file, then the multipass context will be automatically applied when the user opens the file from the alert notification. For example, if the alert was generated for the Dept 4200 pass, then when the user opens the file from that alert notification, the file will automatically be filtered for Dept 4200, and GetCurrentValue functions will return values as if it were currently processing that department. This allows the user to see the file using the same context as when the alert was generated.

#### NOTES:

- The multipass filter will only be applied when the file is refreshed. You should configure the relevant Axiom queries to refresh on open if you want the user to see the data as soon as they open the file, without needing to click the Refresh button.
- This multipass behavior does not apply if the link is opened from the Notifications panel in the Web Client. It only applies when the link is opened from the Notifications task pane in the Desktop Client, or from the email notification.

## Processing alerts using Process Document List

The Process Document List task in Scheduler allows you to schedule processing of a report file or a driver file. To process alerts as part of this task, select the **Process alerts in selected workbooks** option. All formulas in the file will be recalculated before alerts are processed.

You can configure the remaining options as desired. For example, if your alerts are dependent on an Axiom query within the file, then you should select **Perform all enabled Axiom Queries in selected workbooks**. If you want to perform a save-to-database and/or save the file after alerts are processed, you can enable those options as well.

### Processing alerts using Process Plan Files

If alerts are defined within a plan file, then those alerts will be processed any time the file is processed using Process Plan Files, whether it is run manually from the ribbon menu or by using the Scheduler task. There is no way to disable this processing. Alerts are processed after formulas are recalculated and after any Axiom queries are run, based on the Process Plan Files configuration.

### Processing alerts using Process Alerts

You can process alerts directly within the file, without using file processing:

• On the Axiom tab, in the Advanced group, click Process Alerts.

This approach is primarily intended as an alert testing tool, and not as a regular method of processing alerts. When you first set up alerts within a file, you should use this feature to test the alerts by sending them to yourself or to a designated testing group. After confirming that the alerts work as expected, you should finalize the alert setup and then process them using the primary means listed above.

When you use Process Alerts, the file is recalculated but Axiom queries are not refreshed. If your conditions depend on data from an Axiom query, you may want to perform a refresh before processing the alerts.

This option is only available to administrators and to users with the following permissions to the file: Read/Write and Unprotect.

#### Processing alerts on save

You can configure a file so that alerts are processed automatically when a save is performed: either a save-to-database, or saving the document. For example, you might have alerts set up in a plan file to track certain conditions in the plan file, and you want those alerts to be processed automatically on save.

To enable alert processing on save, use *one* of the following options on the default Control Sheet for the file, in the **Workbook Options** section:

- Process alerts on save data
- Process alerts on save document

You can choose one behavior or the other, but not both—if both are enabled then only the save-todatabase processing will occur. Once you have decided which behavior you want to enable, you can select one of the following options for that behavior:

- **Process**: When alerts are processed, the normal alert processing results dialog is shown. This is typically only used when the alert author is testing the alert setup for the file.
- **ProcessSilently**: Alerts are processed silently in the background; the user performing the save will not be aware of the alert processing (unless, of course, the user receives an alert as a result of the processing). This is the intended setting for production-ready files.

If you want to use save processing in a form-enabled file, then you must use the "save data" option, because the file is not saved when in the Axiom forms environment. Also, in the Axiom forms environment both **Process** and **ProcessSilently** will behave in the same way (processing silently), because Axiom forms do not support the ability to display the alert processing results dialog.

# Controlling the frequency of alert notifications

When setting up alerts, it is important to consider how often you want a user to be notified about a particular condition.

The primary determiner of alert frequency is, of course, how often the alerts are processed. If a particular file is processed for alerts just once per month, then at most users can receive this alert once per month. However, processing frequency is only part of the equation—you also need to consider whether a user may have already been alerted about a particular condition, and whether they should be alerted again at this particular processing interval.

Imagine a scenario where a file is processed for alerts once per day or even per hour. For example, users may be actively working on budgets, and you have certain alert conditions that you want to monitor for the budget data. Because users may be saving their budgets throughout the day and changing the budget data, the alerts need to be processed frequently. So imagine that an alert condition resolves to True when this file is processed at 2:00 AM on Monday. Do you want users to receive the same alert again if this condition is still True when the file is processed again the next day, or the next hour?

The answer may vary depending on the type of conditions you are monitoring with alerts, and your alerting preferences. You may want users to be constantly alerted until they correct the issue, even that means they are receiving an alert daily or even hourly. On the other hand, you might prefer that users be alerted of a particular condition once per week at most. In this case you can think of the alerting "interval" as weekly, even though the processing frequency might be daily or hourly.

To control the alerting interval, you can use the alert ID to determine whether an alert is considered "new" or "existing" when it is processed. New alerts will be added to the database and displayed to the designated recipients. Existing alerts will be ignored.

Alert processing is handled as follows:

- When alerts are processed, Axiom evaluates all active alert conditions found on the Alert Control Sheet of the file. If a condition evaluates to False, then no action is taken. If the condition evaluates to True, then the alert is eligible for notification.
- Axiom then compares all newly eligible alerts to existing alerts in the database, using the alert ID
  (as defined on the Alert Control Sheet) as the comparison point. If the ID for a newly eligible alert
  matches the ID for an existing alert in the database, then no action is taken for that alert. If no
  ID match is found, then the new alert is added to the database and the alert notification is
  delivered to the designated alert recipients.
- Alerts remain in the Axiom database until they are purged using the Scheduler System Data Purge task. This task purges alerts older than a specified number of days (by default, 60 days). It is important to understand that if a user deletes an alert notification from their Notification task pane, this does *not* delete the associated alert from the database; it simply removes the notification from the task pane.

For example, if you want an alert to be sent every time alerts are processed (assuming the condition evaluates to True), then you could set up the alert ID so that it uses the current date/time stamp as part of the ID (Variance\_11202012\_0930). If you want the alert to be sent once per month at most, then you could set up the alert ID to use the current month as part of the ID (Variance\_June2012).

Keep in mind that the alert ID is compared against all existing alerts in the database, regardless of their source. If another file also has alerts set up with an ID format of Variance\_MonthYear, it is possible that an alert ID from one file would match an existing alert ID generated from another file. If this is a concern, then you may want to set up your alert IDs to incorporate the current document ID, so that alerts are unique per document.

## Deleting alerts using the System Data Purge task

As discussed above, alerts remain in the system until they are purged by the System Data Purge task in Scheduler. It is important to understand that this functionality is primarily intended as a database management tool to purge old data from the database, and not as a means of alert control.

In theory, if you know that the System Data Purge task is configured to purge all alerts older than 15 days, and you have a file that you want to process for alerts on a monthly basis, then you would not need to worry about making the alert ID dynamic per month because there should not be any alerts left over in the database from the prior month. However, it is best to use the dynamic alert ID method so that you can explicitly control the alerting interval. Keep in mind that the purge task is limited to deleting a specific number of records each time it is run, so depending on how often your purge task is run and how much old data is present in the database, old alerts might not get purged until later than expected.

Also, keep in mind the user experience when configuring the purge task. When alerts are purged from the database, they will disappear from the user's Notification task pane with no explanation (assuming that is how the alerts were delivered). Ideally, the purge time frame should be set so that most users will have already deleted the alert from their task pane by the time the alert record is purged from the database. Setting a shorter time frame may cause user confusion.

# Viewing alert notifications

When a new alert is added to the database as a result of alert processing, an alert notification is delivered to all designated alert recipients, using email and/or the Notifications task pane.

# Email notification

If the alert notification is delivered via email, the subject of the email is "Axiom alert: *Alert Title*>". The alert message is placed within the body text. The email also contains a hyperlink to the supporting file if one is specified in the alert definition.



Example email alert notification

### Notifications task pane

Alert notifications are displayed in the Notifications task pane in the order they are received, with the most recent alerts at the top.

By default, notifications are collapsed so that only the severity icon and the alert title are visible. Users can expand the notification to read the alert message and to navigate to the supporting document for the alert, if defined.



Example Notifications task pane

If a user receives a new alert notification during the current session or if unread alerts are present when the user logs in, the Notifications tab will flash orange and will remain orange until the tab is clicked. New notifications display in bold text until they are read.

Using the right-click menu, users can mark notifications as read (or unread), and can delete notifications from the task pane. If a user has rights to access the source file for an alert, they can also navigate to the alert definition in that file.

Notifications do not have an expiration date. A notification will continue to display in the user's Notifications task pane until the user deletes it, or until the notification record is purged from the database using the System Data Purge task in Scheduler. Keep in mind that if a user deletes a notification, this simply removes the notification from the user's task pane, it does not delete the notification record from the database.

The Notifications task pane is system-controlled. Users cannot manually open and close it, and it is not available for customization. The task pane behaves as follows:

- The task pane displays on startup if the user has an active notification (read or unread). If the task pane contains unread notifications, the task pane is active and the tab flashes. The task pane continues to display for the duration of the current session, even if the user deletes all active notifications from the task pane.
- The task pane does not display on startup if the user has no active notifications. If the user receives a new notification mid-session, the task pane automatically opens, becomes active, and the tab flashes.

**NOTE:** In the Web Client, users can view alert notifications using a similar approach, in the Notifications panel of the Web Client container.

# Alternative alert viewing methods

In addition to the Notifications task pane, you can display alert notifications to users by querying the Axiom.Notifications system table. This is intended for environments where you need custom display of notifications.

# Reference

# Viewing notifications using the Notifications task pane

If you receive an Axiom notification, the notification displays in the Notifications task pane. This is a system-controlled task pane that is always available in the Desktop Client if you have notifications. Click the **Notifications** tab in the Axiom Assistant area to view the task pane.



Example Notifications task pane

If you have unread notifications when you first log in, or if you receive new notifications during a current session, the Notifications tab will flash orange and remain that color until you click on the tab. Unread notifications display in bold text. Once a notification has been read, the bolding is removed.

Notifications can come from the following sources:

- Alert notifications. Your system administrators and other power users may have set up alerts to monitor certain alertable conditions and then notify specified users.
- **Process management notifications.** These notifications result from active processes in process management, such as to inform you that you have a new task in the process.
- **Message stream notifications.** If you have subscribed to a document's message stream, you will be notified of any new comments made about that document.
- Axiom system processes such as Process Plan Files. If you have triggered certain system processes, Axiom will notify you when the process is completed or when errors occur.
- Scheduler jobs. If you have run a Scheduler job manually and that job is configured to send notifications, you will be notified when the job completes or errors (depending on the notification configuration).

#### NOTES:

- The Notifications task pane is a system-controlled task pane; you cannot hide or show this task pane manually. The Notifications task pane always displays on startup if you have any active notifications (read or unread). Otherwise, it does not display. If you receive a new notification during a session and the task pane is not already open, this will cause the task pane to open.
- All notifications displayed in the Notifications task pane are also available in the Notifications panel of the Axiom Web Client. Both areas read from the same source of notifications, and edit the same source as well. So if you mark a notification as read in one area, or delete a notification from one area, the other area will reflect these changes.

#### Reviewing notifications

Within the task pane, notifications are listed in the order they were created, with the newest notifications at the top. Each notification displays a severity icon and an alert title, as well as how old the notification is. The following severity icons are used:

- 🛯 🚺 Info
- 🔺 Warning
- I Error

To read the notification text, double-click the notification to expand it. The text should provide you with more information about the notification and why you are receiving it. You can double-click the notification again to collapse it.

If the notification is from an alert, then the alert creator may have specified a document that you can open to see more information about the alert condition. If so, then you will see an **Open** link underneath the message text when you expand the notification. Click this link to open the associated document.

### Notification actions

You can select one or more notifications and then right-click to perform the following additional actions:

- Mark Read: Mark the selected notifications as read.
- Mark Unread: Mark the selected notifications as unread.
- **GoTo Alert Definition**: Open the source document for the alert, if you have permission to access the file. You will be taken directly to the specific alert definition that generated the notification.
- **Delete**: Delete the selected notifications. Keep in mind that once a notification has been deleted, you cannot undo this action.

# Axiom.Notifications

The Axiom.Notifications system table contains information about the alert notifications in your system.

**NOTE:** Queries to this table are automatically filtered to show notifications for the current user only.

### Available columns

The following columns can be queried:

| Column                  | Description  |
|-------------------------|--|
| AlertID                 | The ID of the alert.   |
| Title                   | The title of the alert notification.   |
| Message                 | The message text for the alert notification.   |
| Severity                | The severity of the alert.   |
| NavigateToDocumentID    | The document ID for the associated document for the alert (as derived from the NavigateTo setting for the alert).  |
| NavigateToSheetLocation | The specific sheet location to navigate to when the associated document is opened, if specified (as derived from the NavigateTo setting for the alert).  |
| PrincipalID             | The user to receive the alert notification. If an alert definition specifies multiple recipients, then there will be multiple records in the Axiom.Notifications table for that alert ID, one for each user. |
| SourceDocumentID        | The document ID for the alert source file.   |
| SourceSheetLocation     | The location in the source file for the alert definition.  |
| IsRead                  | Specifies whether the alert notification has been marked as read in the Notification task pane (True/False).   |
| CreationDate            | The date the alert notification was created.   |
| NotificationID          | The database ID of the alert notification. This ID is randomly assigned by the database for each generated notification; it is not the alert ID.   |

# Save Type 4 support

Axiom.Notifications can be modified using Save Type 4.

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