QAD Adaptive Applications

User Guide

QAD EQMS Admin Tools: AppXtender

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Change Summary

The following table summarizes significant differences between this document and previous versions.

Date/Version	Description	Reference	Changed By
MAY 2019/v2019	Initial upload	--	RQT
APR 2020/v2019	Modified versioning information in the Field process; Modified information in Accessing Admin Tools	p. 25, p. 11	RQT
DEC 2020/v2020.1	Modified versioning; Added a chapter for Integration	p. 80	RQT
JUNE 2021/v2021	Modified versioning; Added a section for change logging	p. 16	RQT
AUG 2021/v2021.1	Modified versioning	--	RQT
MAR 2022/v2022	Modified versioning	--	RQT
SEPT 2022/v2022.1	Modified versioning	--	RQT
MAR 2023/v2023	Modified versioning; Modified information in the Outputs>Reports section	p. 75	RQT
MAR 2024/v2024	Modified versioning; Modified Metrics	p. 76	RQT
SEPT 2024/v2024.1	Modified versioning	--	RQT
MAR 2025/v2025	Modified versioning; Modified Web Services	p. 81	RQT

Date/Version	Description	Reference	Changed By
SEPT 2025/v2025.1	Modified versioning; Added steps 3 and 4 in the Adding a New Filter section; Added Designate for Visual Indicator Value field description in the Checklist Settings section; Added description for the Time Based Notification checkbox in the Adding a New Inbox Action section. Added information on Scheduled Items (Display Date and Time updates) in the Setup section. Added information regarding Copy as a new Layout icon in the Details Screen section. Added a note in Step 5 in the Adding a New Details Screen section.	p. 65 p. 26 p. 57 p. 19 p. 68 p. 69	F6J

Chapter 1

Introduction

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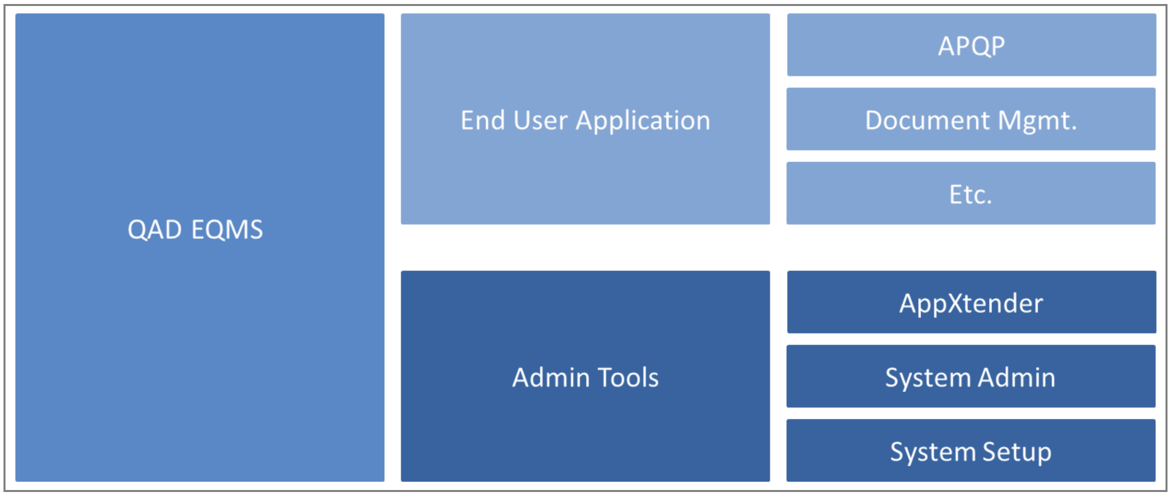
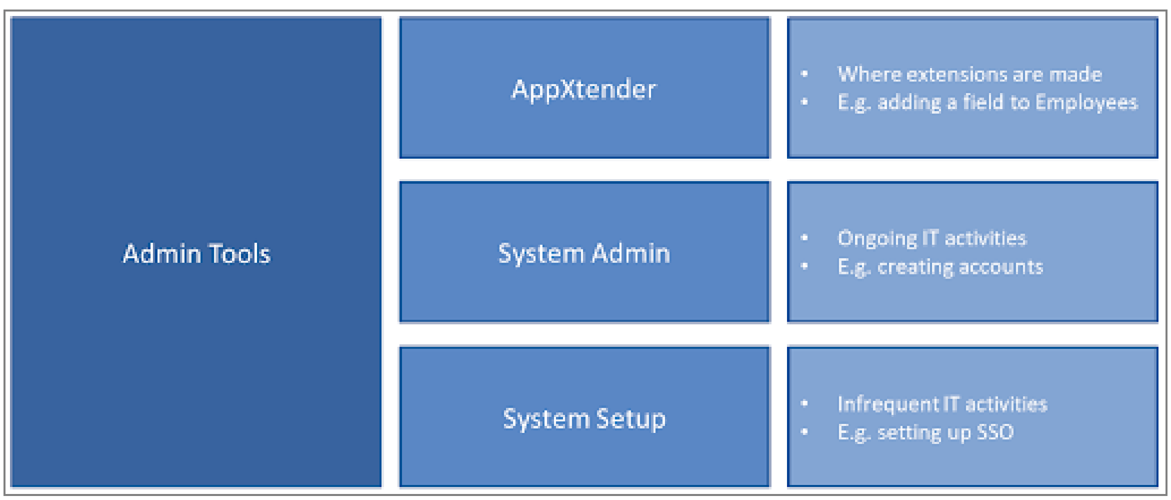
Overview

QAD EQMS is a suite of enterprise-wide quality management software that enables organizations to comply with management standard requirements. This system allows you to determine how to automate business processes, comply with quality and regulatory standards, and leverage the same data needed in multiple processes. This product comes with two applications tied directly together: the End User Application and Admin Tools.



The End User Application is the normal interface of the QAD EQMS solution. This web-based tool is where users access the full suite of QAD's EQMS applications such as APQP, Document Control, Audit Management, CAPA & NCR, Inspection & SPC, and more.

Admin Tools is a system intended for users to view and interact with the design and documentation of the End User Application. It contains three main modules: AppXtender, System Admin, and System Setup. This user guide focuses on AppXtender, which allows you to enhance – or extend – certain aspects of processes, including the general structure, security business logic, layouts, and more.



About This Guide

This user guide focuses on:

- Accessing the Admin Tools application
- Setup and layout of the AppXtender module
- Adding and extending processes using the AppXtender module

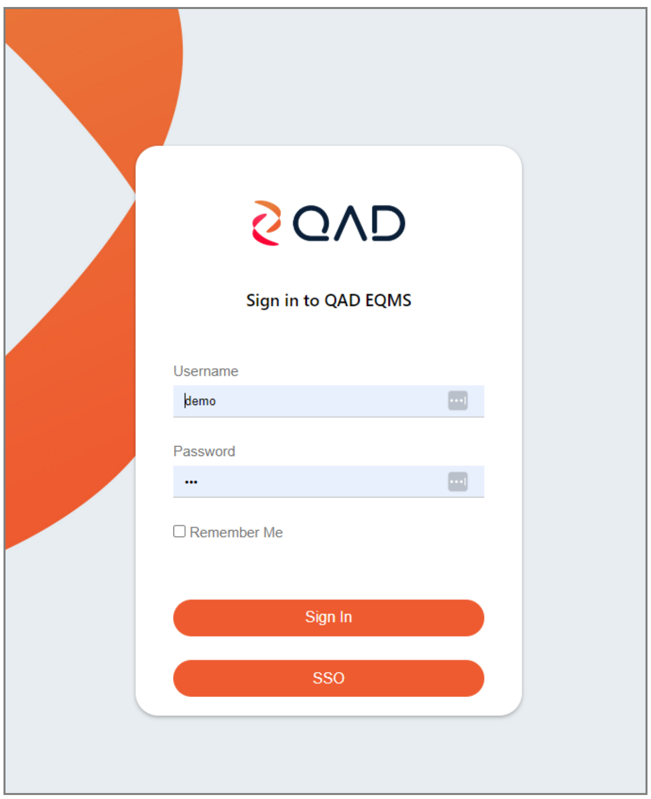
Note: This guide operates under the assumption that the Extend toggle is switched on. See "Extending Processes" on page 15 to learn more.

Accessing Admin Tools

Admin Tools is a web-based application that can be viewed from many of today's popular browsers, including Firefox and Google Chrome. The Admin Tools website can be accessed through a direct URL link.

When you navigate to your company's Admin Tools website, the Login screen is displayed.

Fig. 1: Login screen



Use the Sign In panel to enter your specific credentials for accessing the application. Complete the following fields to access the system:

- **Username**. If you do not have a username, contact your system administrator to obtain one.

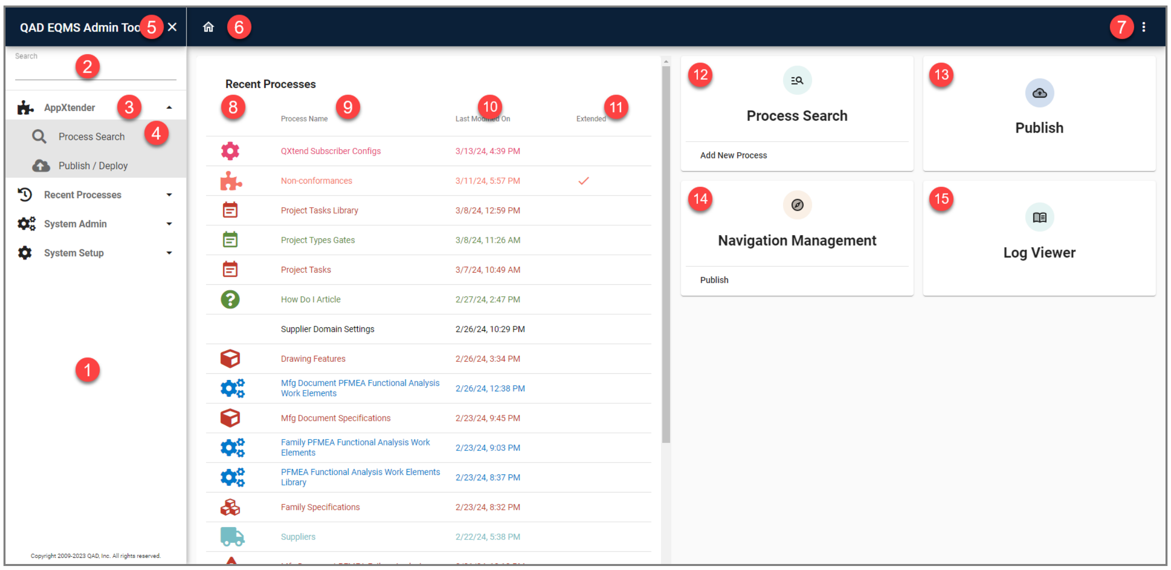
- **Password.** Your unique password.
- **Remember My Login.** Select this check box to have the website remember the username and password that you entered. By selecting this box, when you point your browser to the website, you will automatically be logged in to the application as long as your username or password have not changed.

  Note: This is only saved on the current computer that you are using.

Click the Sign In button to access the application.

Admin Tools Desktop

Fig. 2: Desktop – Home



Navigation Panel

1. **Navigation Panel.** The navigation panel houses the action items available within the Admin Tools application. It is a tree-like structure organized by navigation groups, which can be expanded to display the navigation items beneath them. By default, the navigation panel is displayed in an expanded view.
2. **Navigation Search.** The search bar is used to limit the navigation groups and items and only show the items that match what have been typed.
3. **Main Navigation Group.** The navigation groups organize the Admin Tools functionality. Click the group to show the navigation items within the group. These can be expanded or collapsed by clicking the arrow on the right hand side.
4. **Main Navigation Items.** Clicking a navigation item opens a functionality in the display window. Each item performs a different functionality.
5. **Close/Show.** Click the X to close the navigation panel. When the panel is closed, click the Show icon to expand the navigation panel into view.

Main Toolbar

6. **Breadcrumbs.** To the right of the navigation panel, a breadcrumb trail informs you of where you are within the system at any given time.
7. **Additional Options Menu.** Click this menu to view the About page and to log out.

Recent Processes

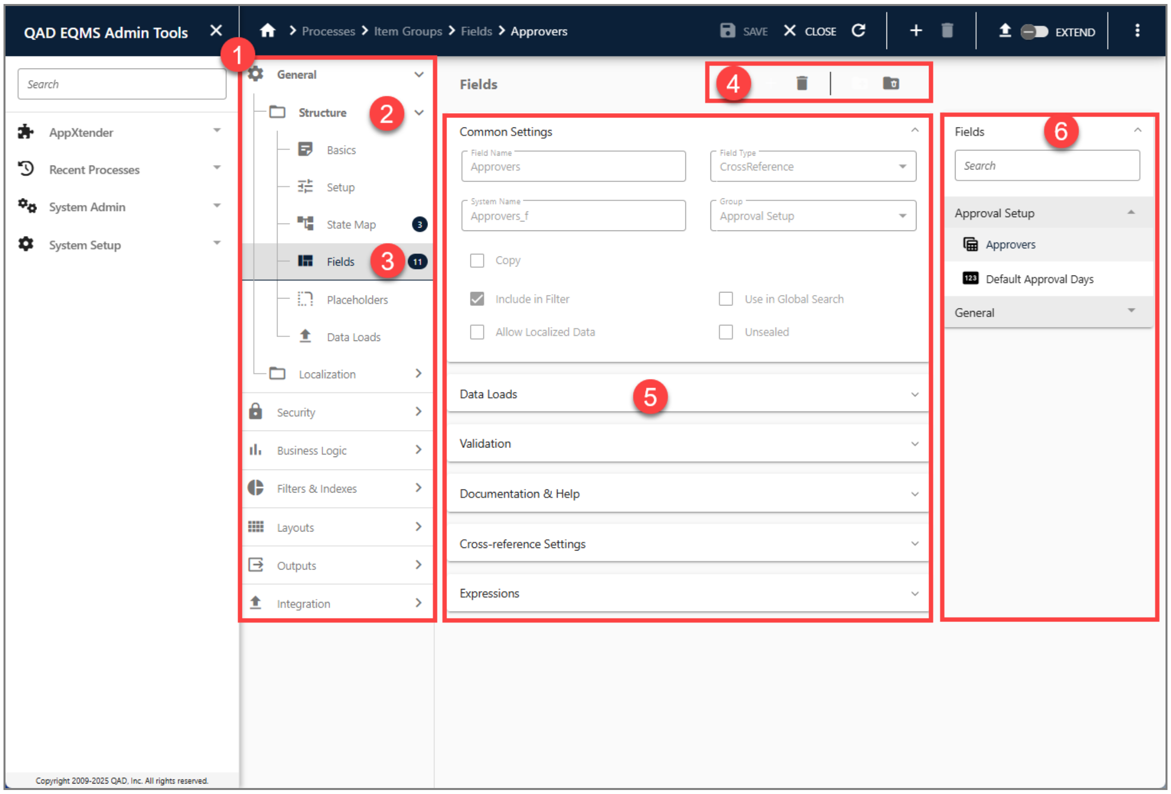
8. **Application Icon**. The icon on each line item corresponds to the application to which each process belongs.
9. **Process Name.** The official name of the process.
10. **Last Modified On.** Displays the date and time when the record was last modified.
11. **Extended.** If the process is extended (i.e. modified) then the Extend icon displays in this column.

Easy Access Icons

12. **Process Search.** Opens the Process Search screen, which allows you to search for and open a specific process.
13. **Publish.** Opens the Publish dialog, which allows you to publish and deploy changes.
14. **Navigation Management.** Opens the Navigation Management screen, which allows you to set up the navigation menu layout and specify which processes and applications each security role can see.
15. **Log Viewer.** Opens the Log Viewer screen, which allows visibility into noteworthy events that may have happened to provide input when analyzing or troubleshooting the system.

Process Desktop

Fig. 3: Process desktop



1. **Contextual Navigation Menu.** The contextual navigation menu contains the groups and items specific to the selected process. It is a tree-like structure organized by contextual groups, which can be expanded to display the contextual items beneath them. By default, the General and Structure contextual groups are expanded and the Basics contextual item is displayed.
2. **Contextual Groups.** The contextual groups organize the process functionality. Click the group to show the contextual items within the group. These can be expanded or collapsed by clicking the arrow on the right-hand side.
3. **Contextual Items.** Clicking a contextual item opens a functionality in the display window. Each item performs a different functionality.
4. **Contextual Toolbar.** The toolbar specific to the contextual item. Some items do not have their own toolbar.
5. **Sections.** The individual topics within a contextual item. These can be expanded or collapsed by clicking the arrow on the right-hand side. The first section is expanded by default.
6. **Item Menu.** The menu specific to the contextual item. Some items do not have their own menu.

Main Toolbar

Once you select a process in the AppXtender, the main toolbar remains the same regardless of which topic you explore in the contextual navigation menu. The figure below explains the different parts of this toolbar.

Fig. 4: Process Search Toolbar

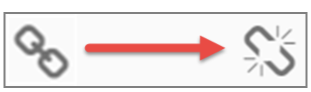
1. Displays the current process in a breadcrumb trail.
2. Save the current process.
3. Close the process editor.
4. Reload the current process.
5. Add a new process.
6. Publish the current process.
7. Extend the process to tailor it past its current settings.
8. Display the About and Sign-Out menu.

Extending Processes

The overall intention of Admin Tools is to allow users to tailor their experience by **extending** processes – that is, making small, custom changes to a process without modifying the standard product itself. Possible extensions include adding process and field descriptions, moving the state map, adjusting security, changing process versioning, and more.

To extend a part of a process, you must indicate that you want to extend the process as a whole. This is done by clicking the Extend toggle on the main toolbar. Some items require a second extension, which can be done by clicking the link (**Override**) icon in the contextual toolbar. The icon changes to a broken link (**Restore Inherit**) and the item is ready to be extended. Clicking this icon once more will restore the inherit properties of the process, but will not undo any additions made; think of this icon as the link to keeping the original settings intact.

Fig. 5: "Breaking" the inherit link



Note that the Admin Tool is designed to open security further, not to restrict standard security configurations for the standard objects; this prevents situations where the standard product logic breaks as a result of security restrictions. Therefore, new security configurations can be added, but existing security can only be altered on extended items. If a field or section is **sealed** (cannot be extended), then it was designed that way to prevent malfunctions.

Adding Processes

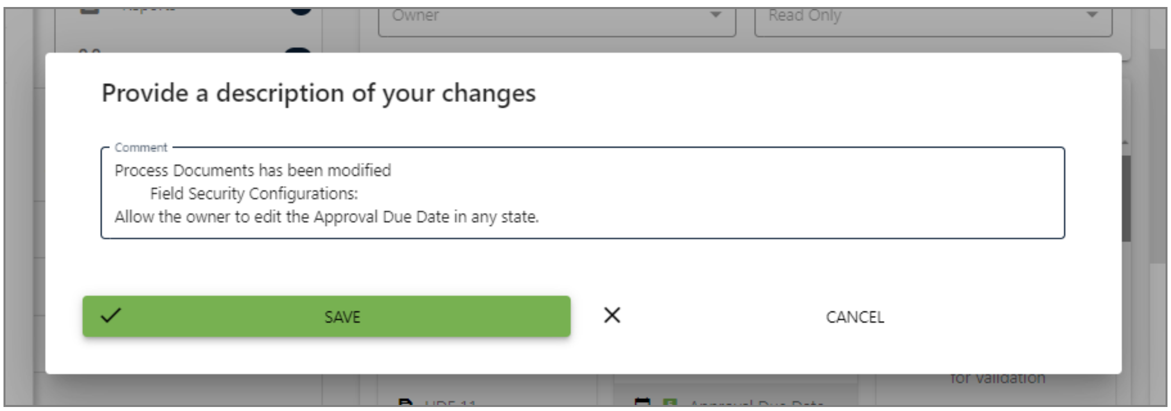
In addition to extending, you can also add new simple processes. Simple processes allow adding and editing of the following features:

- Structural configurations (basics, setup, states, fields, placeholders)
- Translations
- Security (record-level, field-level, states)
- Filters
- Detail and Search screen layouts
- Integration (web services and Esync events)

Logging Changes

When changes are made in any section of AppXtender, those changes must be logged. After clicking the Save button, a window appears, requesting a description of the changes. The system automatically provides a brief description, but you can add additional comments to provide specific details.

Fig. 6: Changes comment window



Chapter 2

Setting Up the Basics

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General

The General contextual group deals directly with the structure of a process and the localization of the system.

Structure

Structure concerns building the process: what it is used for, which fields are involved, and more.

- **Basics.** The name and documentation of the process.
- **Setup.** The activity of the process and style of versioning.
- **State Map.** A visual of the states and approvals involved in the process. New shapes can be added to the map.
- **Fields.** The settings of each field in the process. New groups (tabs) and fields can be added.

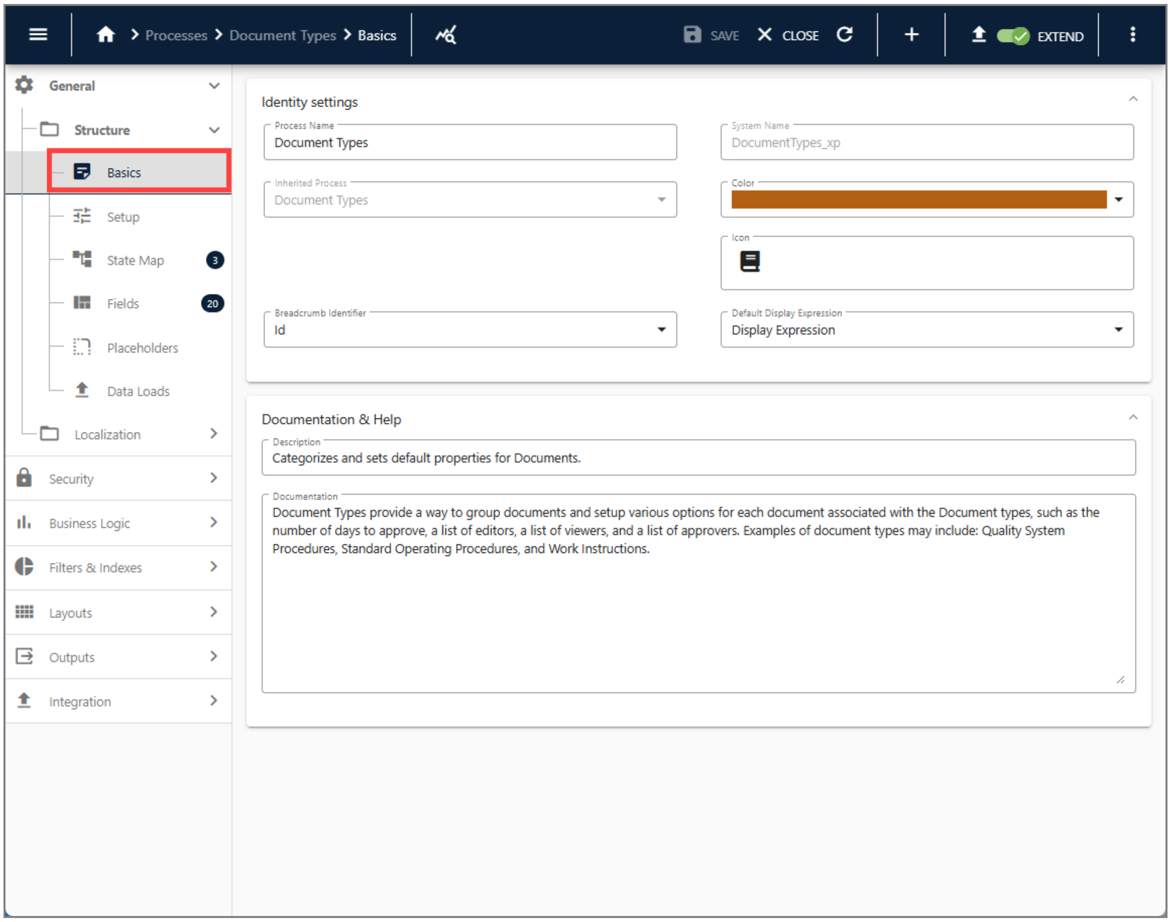
Localization

Localization allows for custom translations of certain areas within a process.

Basics

The Basics item defines the process name, description, and a few visual settings. The Identity Settings section names the process, while the Documentation & Help section supplies a basic and a detailed description of the process.

Fig. 7: Basics screen



Extending the Basics

Altering the Text

When you extend the process, you can rename it in the Process Name field. Additionally, you can add or alter the description and documentation text, which is particularly useful when downloading process documentation.

Setup

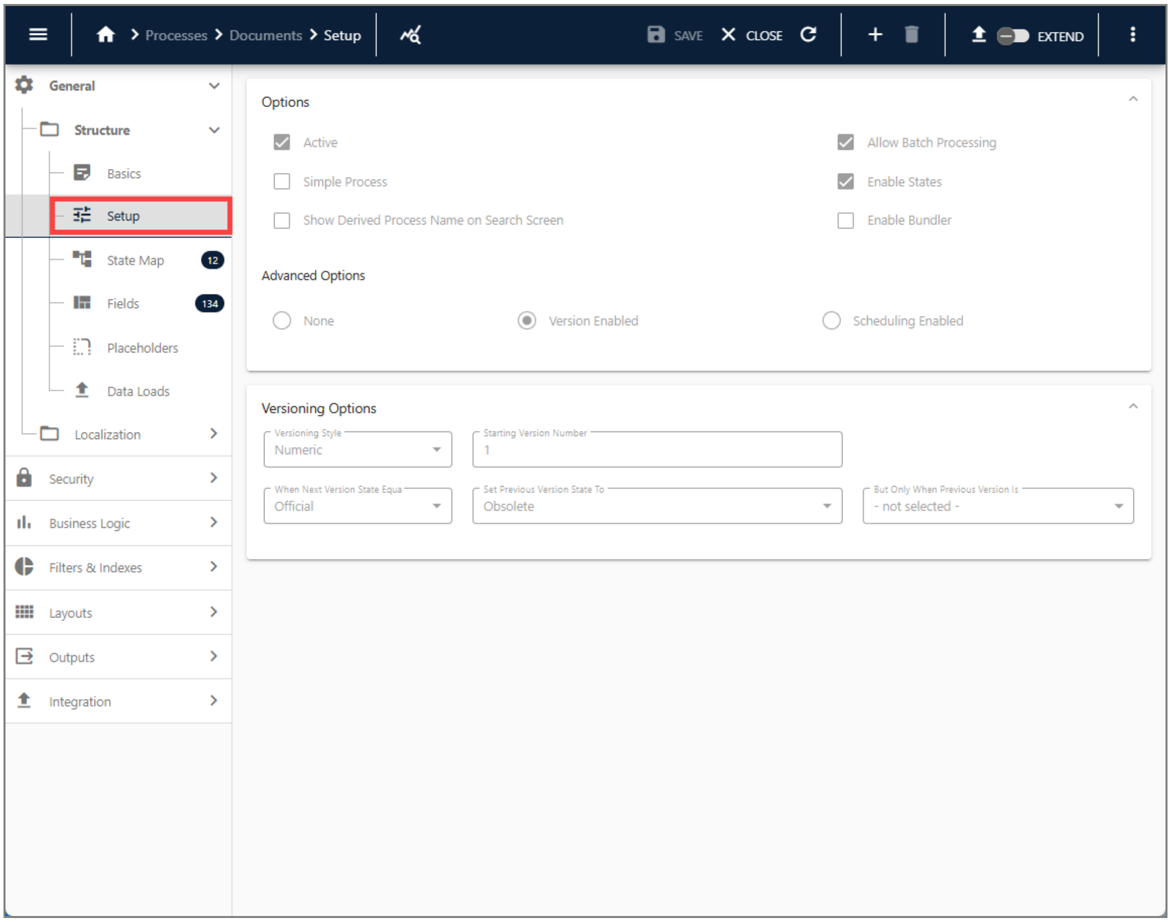
The Setup item determines if the process is active within the EQMS system, and gives the option of enabling batch processing. Batch processing is the ability to select more than one record at a time for bulk updates, such as moving states or approving records.

If the process allows versioning, then the Versioning Options section is visible. Here, users can determine the versioning style (numeric, alpha, or alphanumeric), the starting version number, and the state transitions that constitute a new version. This can be further refined by restricting version changes to occur only when the previous version meets a certain requirement, such as being a draft or being any state other than Obsolete.

If the process allows scheduling, then the Scheduling Options section is visible. Here, users can set up default parameters for a scheduled review, including the default frequency, the state when a review is scheduled, and more. Use the Scheduled Items option from the More menu to view all scheduled items for a record within a scheduled process. This option displays scheduled items with both the date and time.

In the example below, when a record becomes Official, a new version is created and the previous version becomes Obsolete. Since no selection is made in the "But Only When Previous Version Is" drop-down field, the previous version contains no restrictions.

Fig. 8: Setup screen



Extending Setup

Customizing Setup Options

The "Active" and "Allow Batch Processing" check boxes are automatically selected by default. You can deselect or select them when extending the process.

If versioning is activated, you can select a different versioning style from the drop-down field and enter a new starting version number. Additionally, you may adjust the state change parameters.

If scheduling is activated, you can set a default frequency for reviews, select which state initiates a review, and more.

State Map

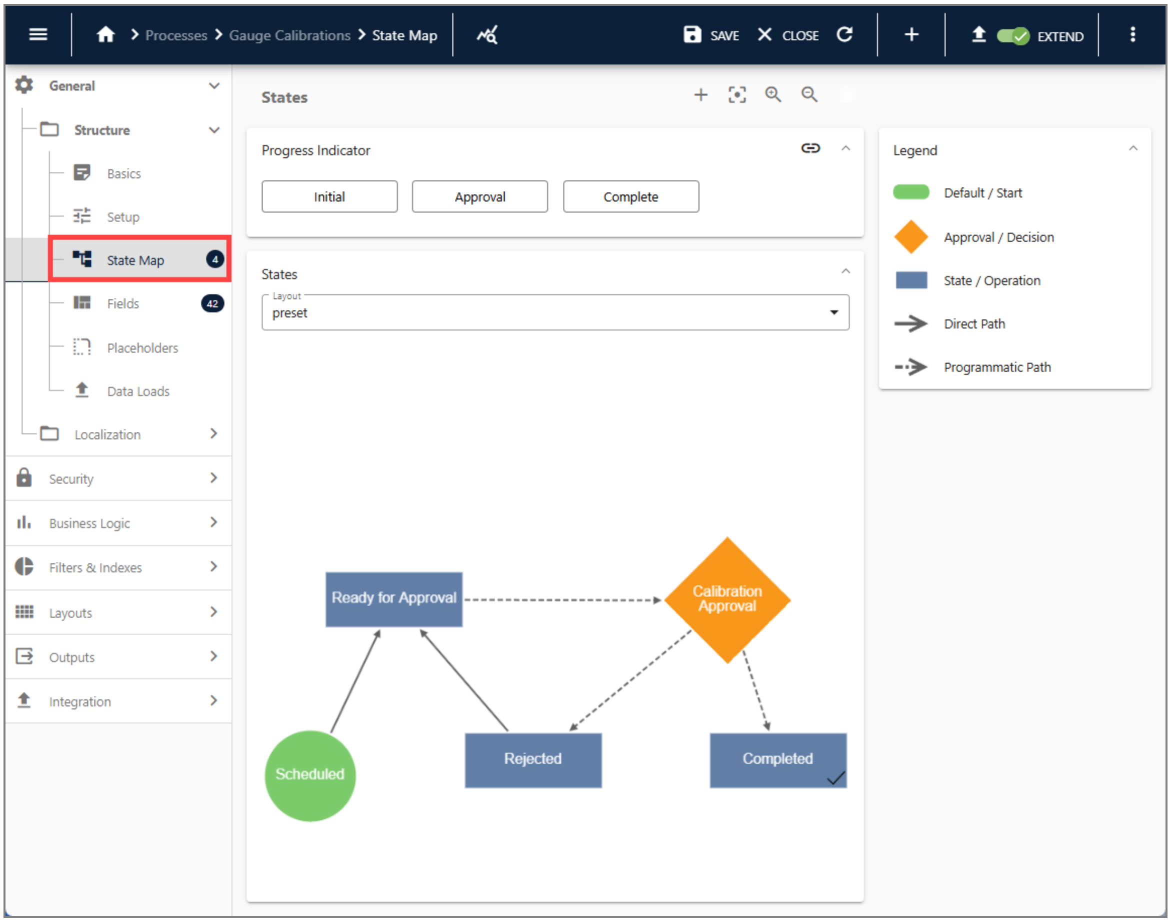
The State Map item organizes and displays the states and approvals involved in a process, including the paths that connect them. Current states can be moved and connected to new states that you create. A legend is included.

This screen contains its own separate toolbar, which contains icons for adjusting the view of the States screen and for extending the process.

Fig. 9: State Map contextual toolbar

- **Add New Shape.** Adds a new shape to the map, ready to be formatted.
- **Center Workflow Map.** Adjusts the state map to its default size and moves it to the center of the screen.
- **Zoom In.** Sizes the state map to be larger.
- **Zoom Out.** Sizes the state map to be smaller.
- **Remove Selected Shape.** Deletes the selected state from the state map.

Fig. 10: State Map screen



Extending the State Map

Adding a New State

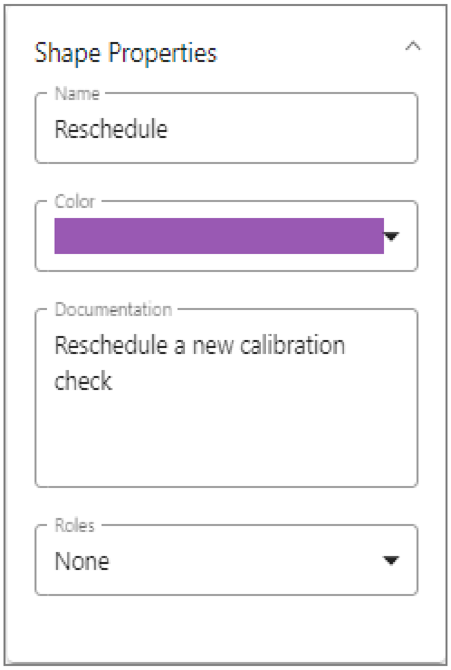
New states can be added to the state map and connected to existing states with direct paths. Note that Default and Approval shapes cannot be added, nor can programmatic paths; these are part of the inherited process.

1. In the contextual toolbar, click the Add New Shape button. A new shape appears with the text "New State 1".

   Note: If you cannot see the new shape, click the Zoom Out button to display more of the area around the map.

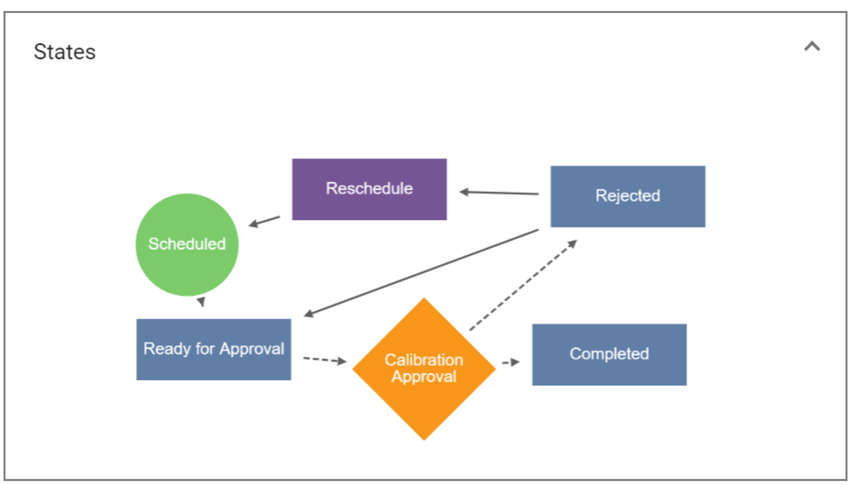
2. Click the new shape. A new item menu appears titled Shape Properties.

Fig. 11: Shape Properties



3. In the new menu, enter a name and documentation for the shape. If desired, select a new color.
4. Drag the shape to the desired position on the map.
5. Hover over the shape to show a black arrow. Click and drag this arrow to connect the shape to an existing shape; this links the two together, creating a direct path from the new state to an inherited one.
6. Click the Save button in the main toolbar.

Fig. 12: Extended state map



Fields

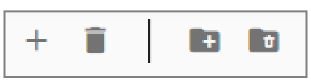
The Fields item features several sections that detail basic and specific settings for each field included in the process. Every field has a section for Common Settings, Validation, and Documentation & Help. A fourth section contains the settings specific to the type of field. Some fields also have a section for Expressions, which allows for default or calculated expressions.

Blank by default, the screen requires you to select a field from the item menu before you can view the settings. Fields are organized by the tabs that house them within the EQMS product. Each field contains an icon displaying the field type. Other icons may be included if the field is required, has a calculated expression, or is an unsaved extension.

- Approval
- Auto Number
- Check Box
- Checklist
- Choice
- Cross-reference
- Date/Time
- File
- Image
- Label
- Numeric
- Result
- Reverse Cross-reference
- Text

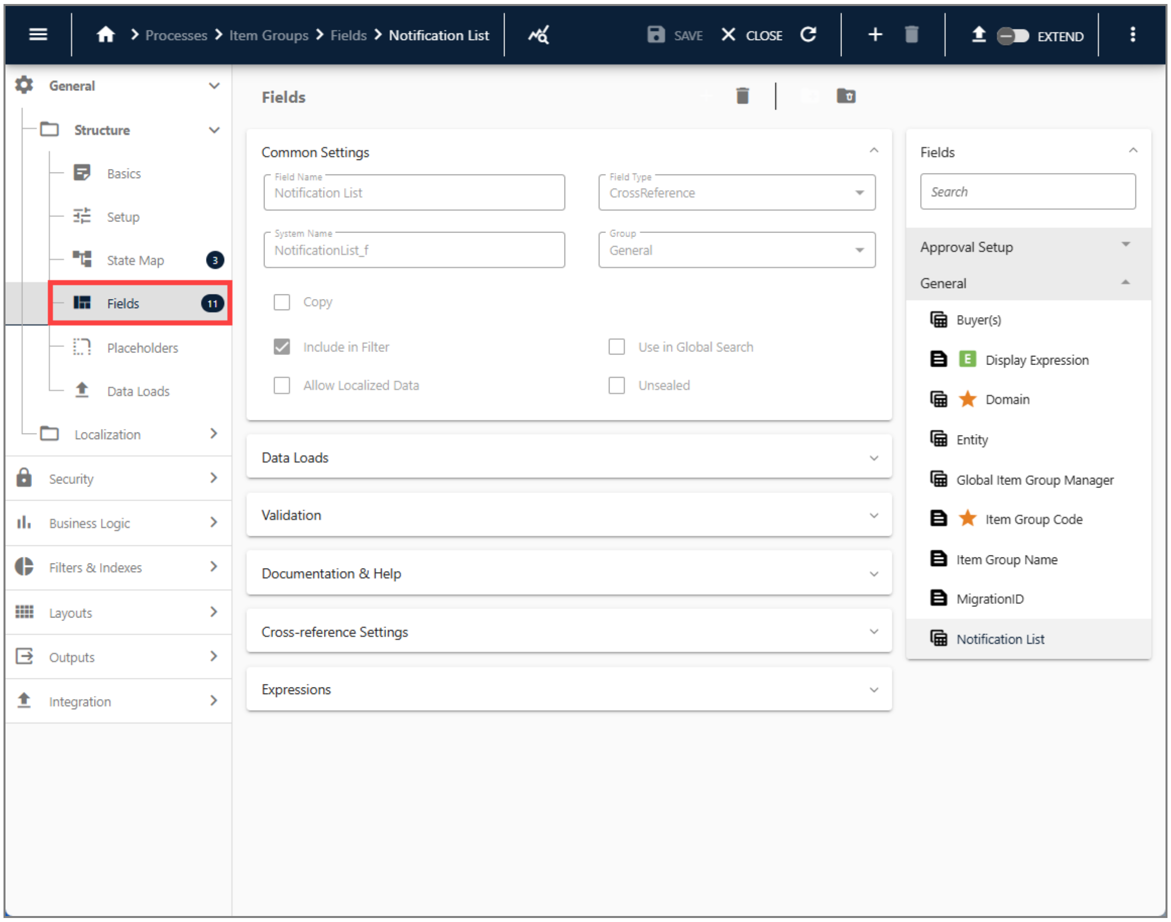
This screen features its own separate toolbar, which has icons for adding and removing groups and fields, as well as for extending the process.

Fig. 13: Fields contextual toolbar



- **Add New Field.** Add a new simple field to the process.
- **Remove Selected Field.** Remove the field currently selected. Only added fields can be removed.
- **Add New Group.** Add a new group to the process.
- **Remove Active Group.** Remove the group currently selected. Only added groups can be removed.

Fig. 14: Fields screen



Extending Fields

Extending Inherited Field: All Field Types

Although most settings for inherited fields are sealed, each section has some fields that can be extended. The following settings apply to all field types.

Common Settings

- **Field Name.** Title of the field.
- **Copy.** When a record is versioned, this option determines if the data in this particular field will be copied into the new version record. Note that versioning must be turned on; see "Setup" on page 19 for more information.
- **Deep Copy.** When a cross-reference field is set to deep copy, the record that is pointed to by the selected cross-reference is also copied (e.g. If a Document record is versioned, and the Document References field is set for Copy, the new document record would point to the same Document References record. With deep copy, the new document record would point to a new Document References record, copied from the original). Note that versioning must be turned on; see "Setup" on page 19 for more information.

- **Include in Filter.** If selected, the field is included in the process search screen in the EQMS product.
- **Allow Localized Data.** If selected, the end user can enter data into the field and it will default to their language.

Validation

- **Required in All States.** If selected, the field is always required.
- **Required States.** The field is required during each state that is selected.

Documentation & Help

- **User Prompt.** The text that displays in a field before any data exists in the field (e.g. "Enter name").
- **Documentation.** Description of the field and how to use it.

Extending Inherited Fields: Type-Specific

Each field has settings specific to that field's type. See the options for extending these settings below.

Sections preceded by an asterisk * may be used when a new field is created, depending on the field type. Items preceded by two asterisks ** are only available when adding a new field.

Approval Settings

- **Ready for Approval State.** Select the state that indicates the record is ready for approval.
- **Approved State.** Select the state that indicates the record has been approved.
- **Rejected State.** Select the state that indicates the record has been rejected.
- **Approval Level.** Approvals may have multiple levels. Click a level number and customize the other approval settings to the selected level.
    - For example, in a Document record, the Document Owner has the top level (e.g. Level 4). and all other approvers are lower levels. By the time the record comes to the Document Owner for approval, it has already been approved by everyone else.
- **Approval Algorithm.** Determines how many users must approve or reject a record before the decision is considered final.
    - **All Approvers Approve.** Selected by default. All approvers must approve the record before it can move to an approved state.
    - **One Approver Approves.** As soon as one approver has approved for each level, the record moves to an approved state.
    - **X% Approvers Approve.** As soon as a specified percentage of approvers have approved for each level, the record moves to an approved state. The percentage is calculated within the level.
    - **One Approvers Approves or Rejects.** As soon as one approver has approved or rejected (regardless of level), the record moves to an approved or rejected state. Rejections take precedence over approvals.

- **Allow Delegation.** If selected, approvers may allow a delegate to approve in their stead, such as when the original approver is out of office.
- **Approvers Setup.** Select the role, field, or process that makes up the approvers for each level.
- **Override Setup.** Select the role, field, or process that is allowed to override approval for each level.
- **Business Unit.** If approval is set up by role or field, then you may select a business unit to further filter the approvers.

Auto Number Settings

- **Starting Value.** Set the starting value of the auto number field.
- **Reset After Publish.** If selected, the auto number will reset after the process record is published.

* Check Box Settings

- **Use Toggle Style Switch.** Convert the check box to a toggle-style switch. This allows you to enter custom labels for when the field is undefined, selected, and deselected.

* Checklist Settings

- **Question Process.** Select the process that defines the checklist's questions.
- **Question Process Filter.** Filter the questions from the source question process.
- **Answer Process.** Select the process that contains the checklist's questions and responses.
- **Answer Process' Default State.** Determine the default state for answers when the questions are copied into the answer process.
- **Sort By.** Determine how the questions will be sorted, such as by sequence or ID.
- **Sort Direction.** Determine whether questions will be sorted in ascending or descending order, if at all.
- **Designate as Comment Field.** If you want a comment field, select which field will function as the comment field.
- **Designate for Visual Indicator Value.** Designate for Visual Indicator Value. The system uses visual symbols to represent the status of checklist question results, such as: Passed, Failed, Requires Attention, Not Answered, and Skipped/Exempt. While the system automatically provides visual indicators for checklists that use Global Choice or Samples to determine results of Passed, Failed, Requires Attention and Unanswered. The Designate for Visual Indicator Value allows for configuration of a field on the checklist result process to determine a visual indicator value for Skipped/Exempt, which is shown as a solid gray indicator. Additionally in cases where Global Choice or Samples are not used in the checklist results a calculated field can be mapped to determine visual indicator results for Passed, Failed, Skipped/Exempt.
- **View Type.** Determine whether the questions are viewed as a table or in single question view.
- **Single Question View Display Field.** If the view type is Single Question View, select the field that will display in the question list.
- **Allow Ad hoc Questions.** If selected, users can add their own ad hoc questions to the checklist within the user interface.

- **Hide Validation.** If validation errors exist (e.g. required fields), this will hide those errors.
- **Show States.** When Show States is selected, a state drop-down will appear in the checklist control.
- **Show Linked Items.** For each checklist question, on the Choices field where potential responses are specified, you can require a new item (e.g. a Nonconformance). Show Linked Items will show a link to the new item created.
- **Select question fields.** Select which fields in the question process and checklist process should be used for mapping.
- **Map answer fields to questions.** Determine which question and answer fields are mapped together.
- **Select which fields to show in the checklist.** Select the fields that should be included in the checklist. The fields that you select will appear in the "Define the checklist's layout" field.
- **Define the checklist's layout.** Drag and drop fields and determine their size to define the layout of the checklist.

* Cross-reference Settings

- ****Process to Cross-reference To.** Select the process to which the cross-reference is connected. This field is required when adding a new field.
- **Display Field for Search and Drop-downs.** Select which field is shown when looking at the cross-reference field on a detail screen or a search screen. This field is required when adding a new field.
    - For example, if the cross-referenced process is Employees, you may choose to have the Full Name field display for search and drop-downs.
- **Filter.** Filters which records appear in the cross-reference field (e.g. Active, By Domain and Site, Employee without Training Role, etc.)
- **Select which fields to show in drop-downs.** For each check box selected, the corresponding field will display in cross-references involving the process to which the cross-reference is connected.
- **Determine which order to show the drop-down fields.** The check boxes that you selected in the field above appear in this field. Once you've selected all appropriate items, click the grab icon to drag the items in the order in which you want them to appear in drop-downs.
- ****Allow Multiple.** If selected, the cross-reference field changes from a simple drop-down field to a multiple selection field. Selecting this option causes two more check boxes to appear.
    - **Limit Records.** Limit the amount of records that can be linked in the cross-reference field.
    - **Allow Link/Unlink.** If selected, the Link button is available on the cross-reference field.
- **Allow Clear.** If selected, the Delete Item button is available on the cross-reference field.
- **Allow Add New.** If selected, the Add New Item button is available on the cross-reference field.

- **Allow View Detail.** If selected, the Show Items ☰ button is available on the cross-reference field.

* Date and Time Settings

- **Display Format.** Select whether the field is intended to display date only, time only, or both date and time.

File Settings

- **Filter Parameters.** If a filter is applied, select the parameters that filter the results.
  - For example, if the filter is "Active by Site and Document Type", you can set the parameters to "Site = Automotive Mfg Site" and "Document Type = Audits". Now the filter is restricted to showing only active audit files from the Automotive Mfg site.
- **PDF Setup.** The PDF Setup area contains several report drop-down fields in which you can choose to add a watermark, cover page, or appendix to appear when the indicated report is selected.
  - **Watermark PDF Report - Portrait/Landscape.** Displays a watermark with the document number, version number, and version date of the report. The watermark displays on every page. Portrait is oriented vertically, landscape is oriented horizontally.
  - **Cover Page PDF Report - Portrait/Landscape.** Adds a cover page that appears before the report. Portrait is oriented vertically, landscape is oriented horizontally.
  - **Appendix PDF Report - Portrait/Landscape.** Adds an appendix that appears at the end of the report. Portrait is oriented vertically, landscape is oriented horizontally.
- **Watermark First Page.** If selected, the printed reports will display a watermark with the document number, version number, and version date of the report. The watermark will only appear on the first page.
- **Apply Control Stamp on View.** If selected, a control stamp appears on the document when viewed in the system. The control stamp states who printed the document and when.

* Image Settings

- **Search Screen.** Set the width and height of the image that will appear in the process' search screen.
- **Detail Screen.** Set the width and height of the image that will appear in the process' detail screen.
- **Keep Original Image Size.** If selected, the image will keep its original size.

Label Settings

- **Label Text.** The text displayed on the label.
- **Hide Field Name.** If selected, the label's field name is not visible on the detail screen.

* Numeric Settings

- **Display Format.** Select whether the field is intended to display a numeric, a currency, or a percentage.
- ****Decimals to Display.** If the "Treat as Decimal" field is selected, enter a number between 0-99 to determine how many numbers should appear after the decimal.
- **Minimum.** Set the minimum value allowed.
- **Maximum.** Set the maximum value allowed.
- ****Treat as Decimal.** The field will display the numeral with a decimal.

*Results

- **Choice Field.** Select the Choices field on the answer process that provides the options to the question.

Reverse Cross-reference Settings

No fields are extendable.

* Text Settings

- ****Enable Rich Text.** If selected, rich text is enabled for the field. This means that content can be formatted (color, size, lists, links, headers, etc.) and images and tables may be added. Selecting this check box hides the other text settings options.
- ****Character Length Limit.** Limits the amount of characters that can be included in the text field.
- **Input Mask Type.** Enforces specific formatting for text fields. Options are None, Standard, Numeric, and DateTime.
- ****Input Mask.** Enter the alphanumeric tokens that determine the mask you want to set. For example, you could create a mask for phone numbers (e.g. (###) - ###-####).
  - Click the Legend icon to see the codes that each input mask type allows.
- **Example.** View an example of how the input mask will appear.

Adding a New Group

You can add new groups to the process, which will appear in the EQMS product as a new tab. Once a group is created, you can add new fields directly to the group or drag and drop fields from other groups, provided that the field name is not grayed out.

1. Click the Add New Group icon in the contextual toolbar. A new screen appears in the display window and a new group appears in the item menu.
2. Enter a name in the Group Name field. The name changes immediately in the item menu.
3. Save the current process.

Adding a New Field

You have the ability to add new simple fields to a process, which can occupy a new or inherent group. New fields can be customized in many ways, but are limited.

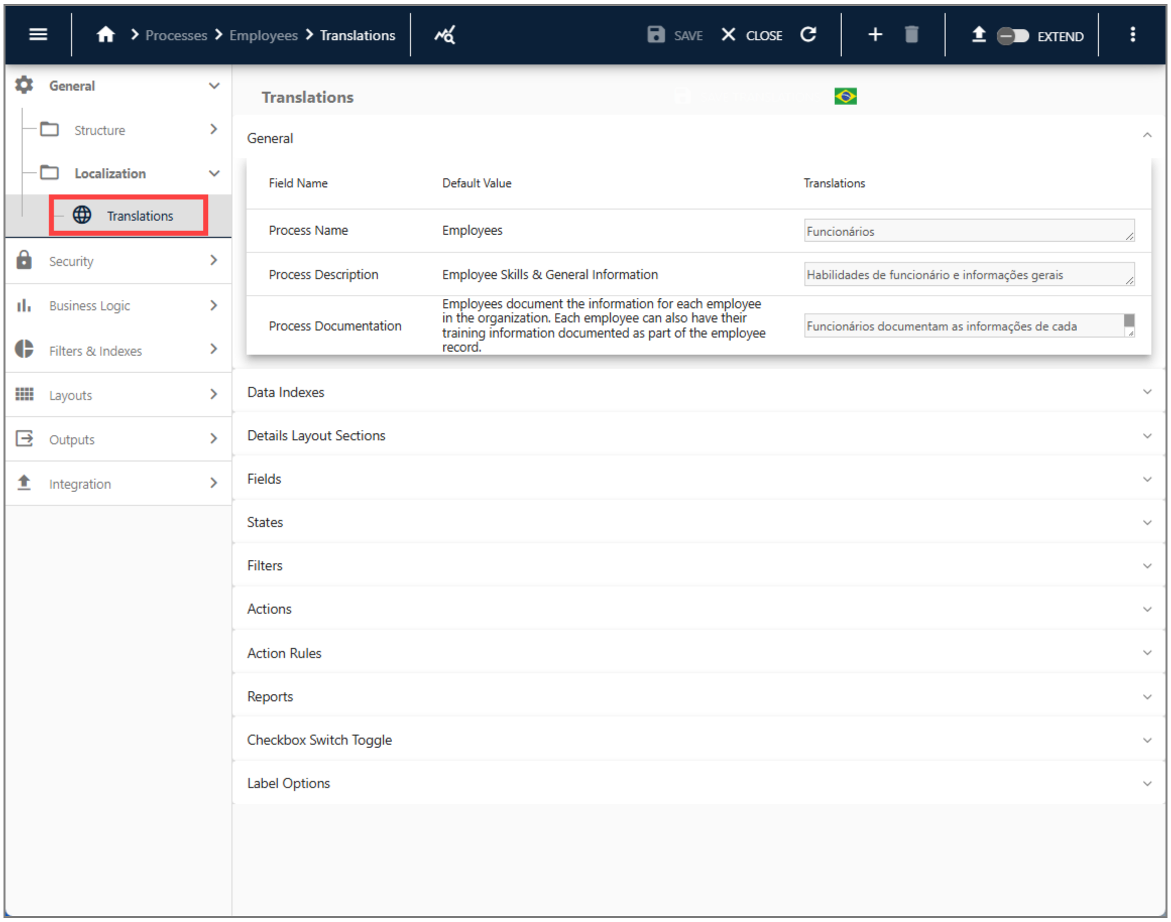
1. Click the Add New Field button in the contextual toolbar. A new record fills the display window and a new field appears in the item menu, under the selected group.
2. Enter a field name and select a field type. You can choose from one of the following field types: Check Box, Checklist, Choice, Cross-Reference, Date & Time, Numeric, Picture, Result, and Text.
3. If you want to move the field to a different group, then select the appropriate group in the Group field.
4. Navigate to the Validation section. Select the states in which this field is required. If you want it to be required in all states, then select "Required in All States".
5. Navigate to the Documentation & Help section. Enter a user prompt and documentation for the field.
6. Navigate to the field-specific settings section. Follow the instructions described in "Extending Inherited Fields: Type-Specific" on page 26 for the appropriate field type.
7. If the field contains the option for expressions, then navigate to the Expressions section. See "Expression Builder" on page 52.
8. Save the process.

Localization

Localization allows you to select a language and translate the default values of fields within a process. This capability is separate from a full translation, as it gives the opportunity to customize field descriptions.

The Localization contextual group contains one item: Translations. Once Translations is selected, the screen asks you to select localization to translate from the toolbar. Click the Select Localization button and select a language from the drop-down. A new screen appears.

Fig. 15: Translations screen



Click a section to reveal three columns in that section: Field Name, Default Value, and Translation. In the Translation column, enter your custom translations. Click the Save button in the toolbar when finished.

Chapter 3

Setting Up Security

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Security

The Security contextual group sets the security configurations for several different aspects of the process.

- **Record.** Security for adding and removing records.
- **Field.** Security for viewing and editing fields.
- **State.** Security for state movement.
- **Reports.** Security for viewing reports.
- **Commands.** Security for viewing and using commands.

Record

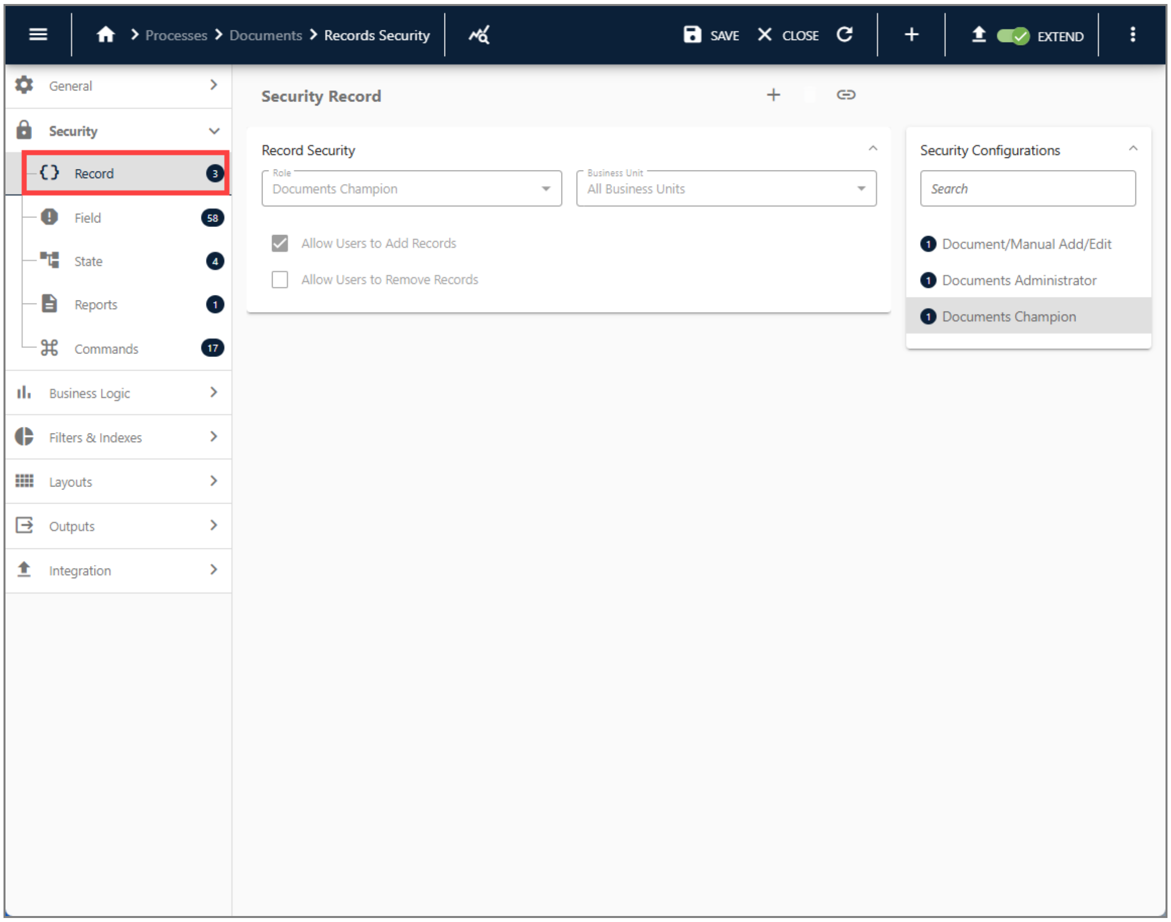
The Record security item determines which roles may allow users to add or remove records. New securities may be added, but inherent security is locked and cannot be extended. You can, however, click on an existing security configuration to view the detailed settings.

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 16: Record contextual toolbar

- **Add New Item.** Add a new record security configuration.
- **Remove Selected Item.** Delete a user-created record security configuration.
- **Override.** Click this icon to override the system and allow changes to the inherited security configuration.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited. Click this icon to return the inherited security configurations to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new security configurations added before clicking this icon will remain.

Fig. 17: Record security screen



Extending the Record Security

Adding New Record Security

1. Click the Add New Item button in the contextual toolbar. A new record fills the display window and appears in the item menu.
2. Select a role and a business unit.
3. Select whether this person can allow users to add or remove records. You may select one or both.
4. Save the process.

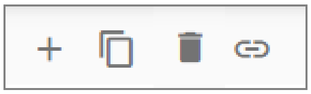
Field

The Field security item determines which roles may view and edit fields. This is accomplished by defining a security configuration (which states, roles, business units, and persons are included) and then determining which fields are editable, read only, or restricted. New configurations may be added, and inherent security configurations may be extended in a limited capacity.

When observing the Field Security section, the fields are displayed in a "flat" formation by default; this means that the fields are grouped together in one long, alphabetical list. If you deselect the "Flat" toggle, the fields are sorted into group drop-downs.

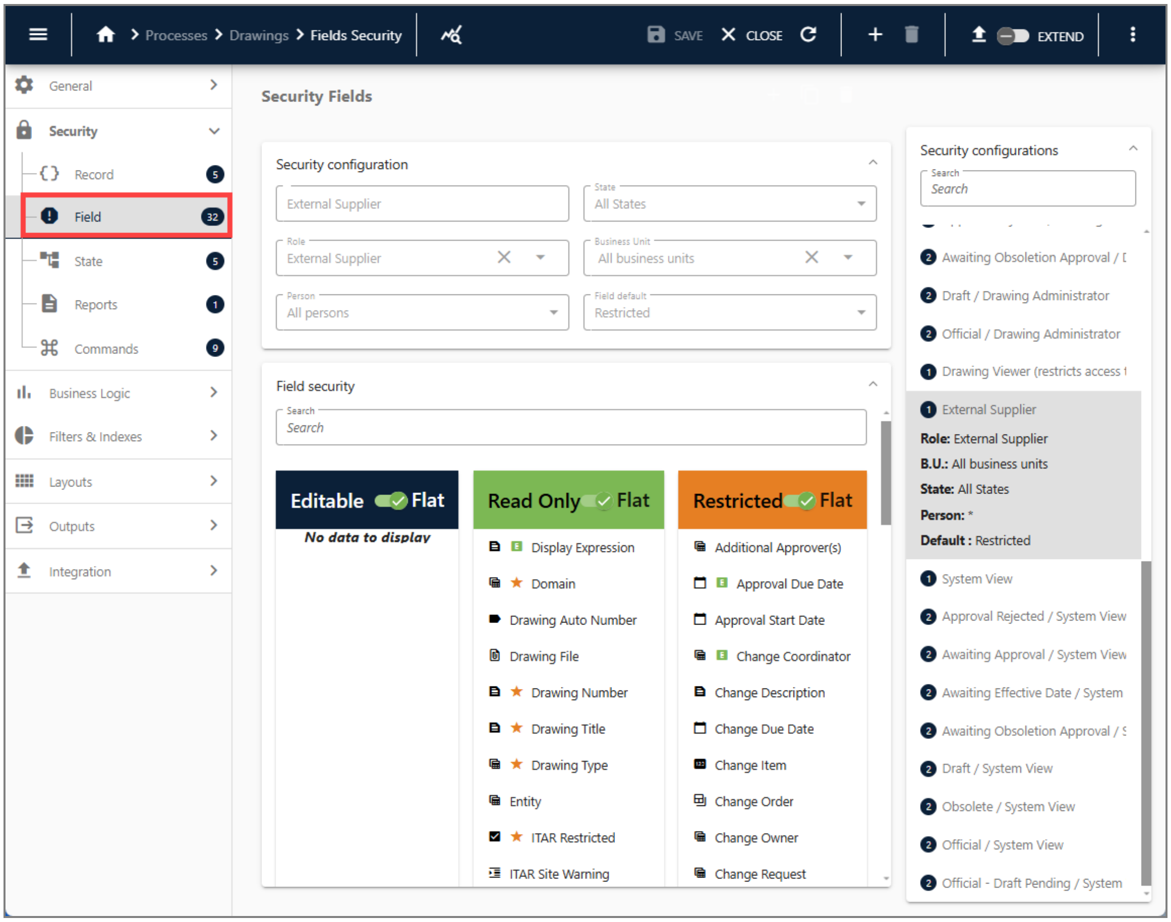
This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 18: Field contextual toolbar



- **Add New Item.** Add a new field security record.
- **Copy Selected Item.** Copy the settings of the selected field security record and apply it to a new custom configuration.
- **Remove Selected Item.** Delete a user-created field security record.
- **Override.** Click this icon to override the system and allow changes to the inherited security configuration.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited configurations to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new configurations added before clicking this icon will remain.

Fig. 19: Field Security screen



Extending Field Security

Changing Field Visibility and Editability

Inherent security configurations are mostly sealed, but the Field Security section can be extended.

1. Click the Override button to make the configuration extendable.
2. In the Field Security section, find the field that you want to move. You can use the Search field to find the field directly or sort through the lists on your own.
3. Click the field, then drag and drop it into the desired column.
    a. **Editable.** Fields in this column can be edited by the users defined in the security configuration.
    b. **Read Only.** Fields in this column can be viewed but not changed by the users defined in the security configuration.
    c. **Restricted.** Fields in this column cannot be seen or changed by the users defined in the security configuration. The fields will not appear on their screen at all.

4. To move multiple fields at once, press the CTRL button on your keyboard and then click multiple fields. Then, drag and drop the fields in the preferred column.
5. Once all desired changes have been made, save the process.

Changing Field Security for Multiple Configurations

It is possible to make an extension that affects more than one security configuration. Press the CTRL button on your keyboard, then click multiple configurations in the item menu. Selected configurations expand and turn gray.

The fields of every selected configuration appear in the Field Security columns. Italicized items imply that the field does not possess the same settings across all selected configurations; however, once you drag and drop that item, the settings become unified.

For example: You are working in the Audits process and you select three different security configurations. Two of them hold the "Nonconformances" field in the **Restricted** column, while the third configuration holds "Nonconformances" in the **Read Only** column. You want "Nonconformances" in the **Editable** column for all three configurations.

Grab either of the "Nonconformances" items and drag it to the **Editable** column, then save the record. The new column location is unified across all three configurations, there is only one "Nonconformances" item, and it is no longer italicized.

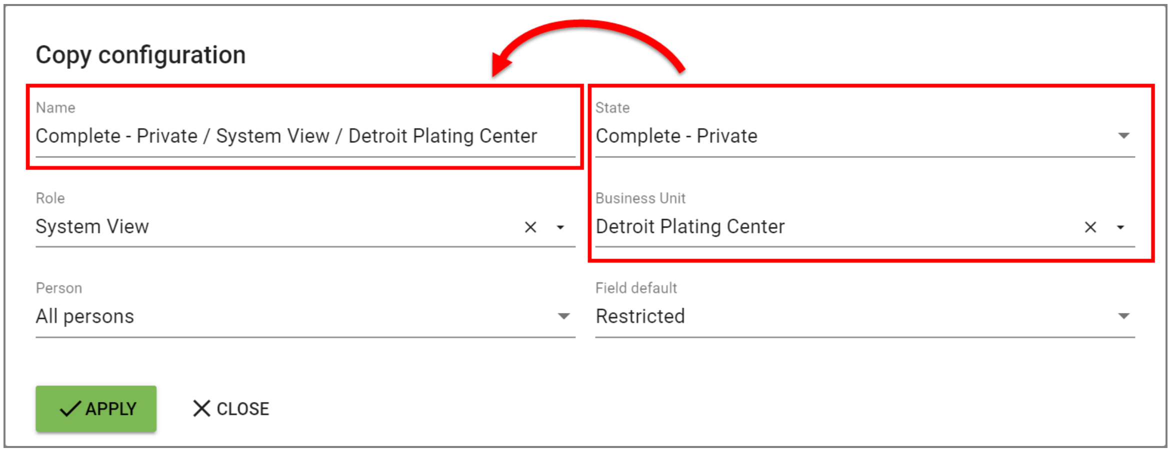
Copying an Inherent Field Security Configuration

You have the option of copying an inherent configuration to create a new one. Two identical configurations cannot exist, but as long as enough details are changed to make the copy unique, it can be made. From there, you can customize the field security to your preferred settings.

1. Select the desired security configuration from the item menu, then click the Copy Selected Item button. A new window appears, displaying the copied information.
2. In the new window, use the drop-down fields to select a new configuration. Each selection automatically renders in the Name field.

   When the "The same configuration exists" warning label disappears, the APPLY button lights up and the new configuration can continue. See the figure below.

Fig. 20: Copy Configuration screen



3. Click Apply. The window disappears and the new configuration screen appears.
4. In the Field Security section, note that all the fields are located in one column. This is due to the Field Default selection in the security configuration. For example, if you selected "Restricted", then all fields appear in the Restricted column.
5. Find the fields that you want to move. You can use the Search field to find the field directly or sort through the list on your own.
6. Click a field, then drag and drop it into the desired column.
   a. **Editable.** Fields in this column can be edited by the users defined in the security configuration.
   b. **Read Only.** Fields in this column can be viewed but not changed by the users defined in the security configuration.
   c. **Restricted.** Fields in this column cannot be seen or changed by the users defined in the security configuration. The fields will not appear on their screen at all.
7. To move multiple fields at once, press the CTRL button on your keyboard and then click multiple fields. Then, drag and drop the fields in the preferred column.
8. Once all desired changes have been made, save the process.

Adding a New Field Security Configuration

You have the option of creating a new field configuration. New field configurations contain no sealed fields, but two identical configurations cannot exist, so the new one must be unique.

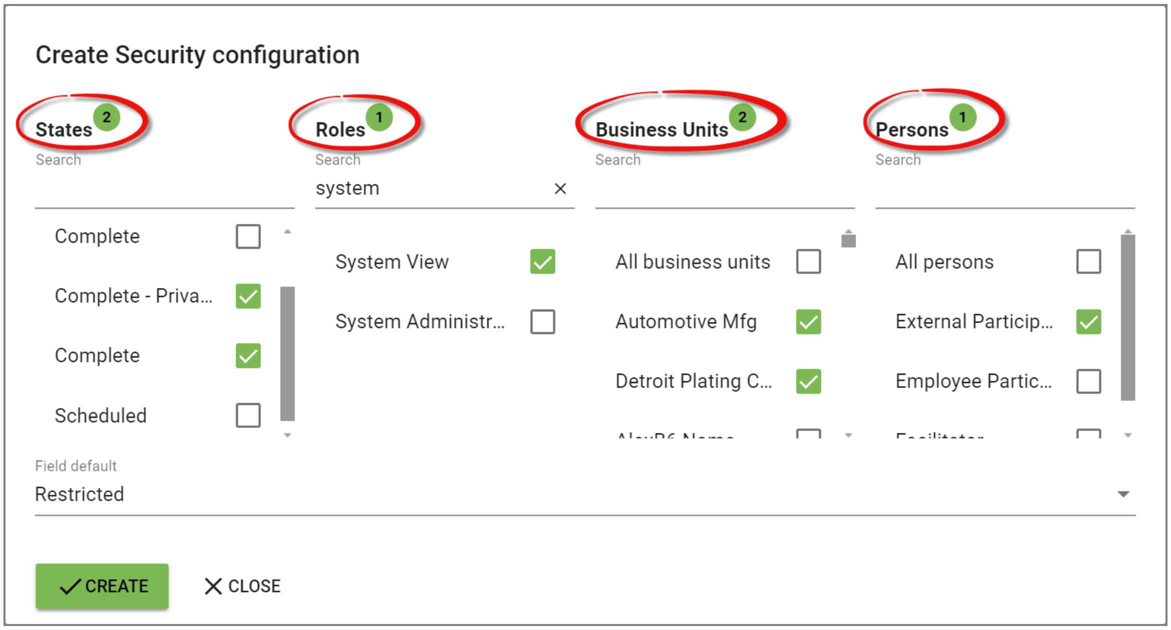
1. Click the Add New Item button in the contextual toolbar. A new window appears.
2. In the new window, select each state, role, business unit, and person that you want to include in a configuration, then click Create. Each possible combination will create a unique configuration record; the number of unique records can be easily calculated by multiplying the numbers above each column.

   For example, in the figure below, there are two states, one role, two business units, and one person selected. 2 x 1 x 2 x 1 = 4. So four new configurations will be created:

   - **Complete** / System View / **Automotive Mfg** / CustomerParticipants_f
   - **Complete - Private** / System View / **Automotive Mfg** / CustomerParticipants_f

- **Complete** / System View / **Detroit Plating Center** / CustomerParticipants_f
- **Complete - Private** / System View / **Detroit Plating Center** / CustomerParticipants_f

Fig. 21: Create Security Configuration screen



3. In the Field Security section, note that all the fields are located in one column. This is due to the Field Default selection in the security configuration. For example, if you selected "Restricted", then all fields appear in the Restricted column.
4. Find the fields that you want to move. You can use the Search field to find the field directly or sort through the list on your own.
5. Click a field, then drag and drop it into the desired column.
    a. **Editable.** Fields in this column can be edited by the users defined in the security configuration.
    b. **Read Only.** Fields in this column can be viewed but not changed by the users defined in the security configuration.
    c. **Restricted.** Fields in this column cannot be seen or changed by the users defined in the security configuration. The fields will not appear on their screen at all.
6. To move multiple fields at once, press the CTRL button on your keyboard and then click multiple fields. Then, drag and drop the fields in the preferred column.
7. Once all desired changes have been made, save the process.

Note: See "Changing Field Visibility and Editability" on page 37 for useful information about changing field security for multiple items at once.

State

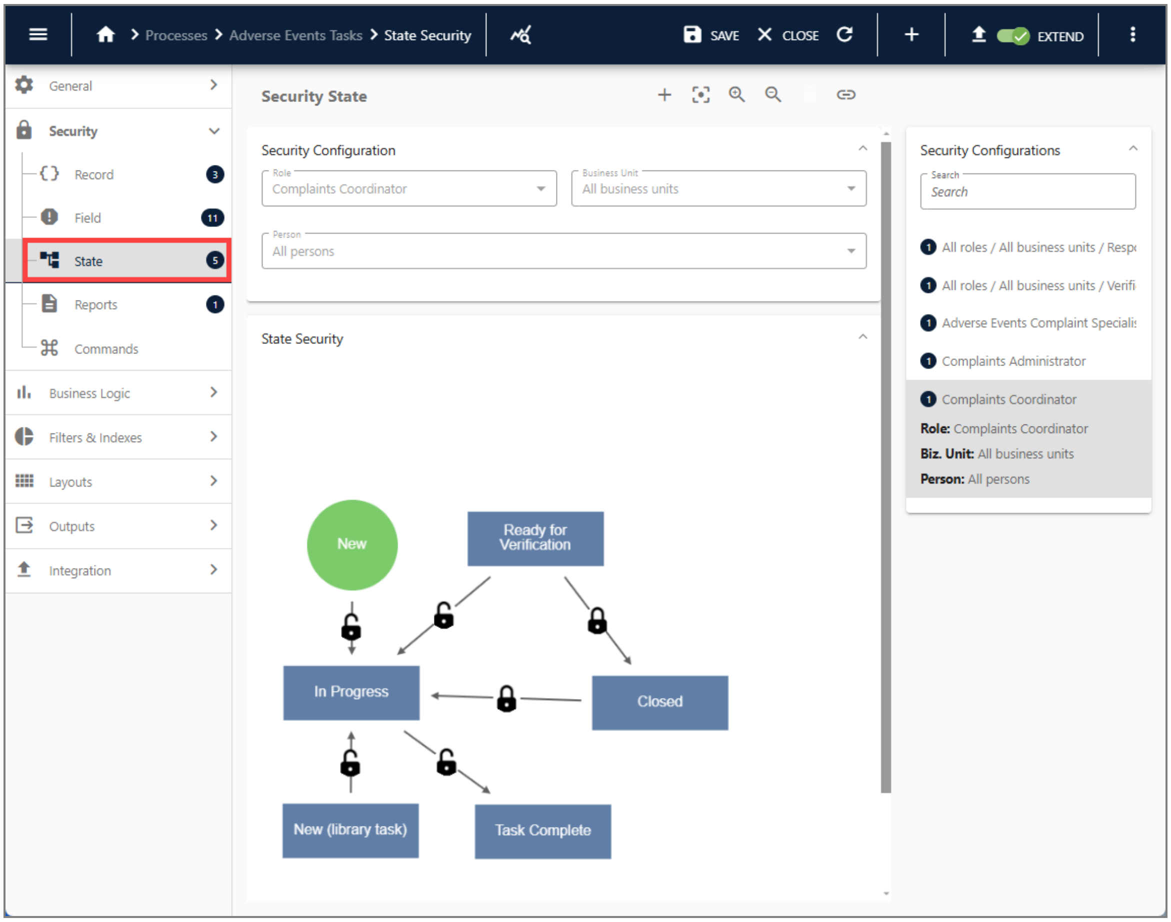
The Security State item establishes which roles have the ability to transition states. State security is controlled by lock icons within the map: an open lock means the selected role has the ability to transition the states along that path, while a closed lock means the selected role cannot perform that transition. New securities may be added, and inherent security configurations may be extended in a limited capacity.

This screen contains its own separate toolbar, which contains icons for adjusting the view of the States screen and for extending the process.

Fig. 22: State contextual toolbar

- **Add New Item.** Adds a new state security configuration, ready to be formatted.
- **Center Workflow Map.** Adjusts the state map to its default size and moves it to the center of the screen.
- **Zoom In.** Sizes the state map to be larger.
- **Zoom Out.** Sizes the state map to be smaller.
- **Remove Selected Shape.** Deletes the selected state security configuration.
- **Override.** Click this icon to override the system and allow changes to the inherited security configuration.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited configurations to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new configurations added before clicking this icon will remain.

Fig. 23: State security screen



Extending the State Security

Changing State Security for an Inherent Security Configuration

Inherent security configurations are mostly sealed, but the State Security section can be extended.

1. Select a security configuration to extend from the item menu. The configuration appears at the top of the screen, and lock icons appear in the state map.
2. Click a lock icon to change it to open or closed.
   - Open = user can transition the states on this path.
   - Closed = user cannot transition the states on this path.
3. Once all desired changes have been made, save the process.

Adding a New State Security Configuration

You have the option of creating a new state configuration. New state configurations contain no sealed fields, but two identical configurations cannot exist, so the new one must be unique.

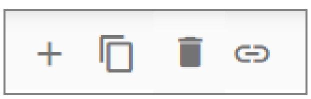
1. Click the Add New Item button in the contextual toolbar.
    a. A new configuration appears in the item menu.
    b. The Security Configuration section is editable and set to "All roles/All business units/All persons".
    c. All lock icons in the state map are closed.
2. Use the drop-down fields in the Security Configuration section to determine which users are included in the configuration. Users can be narrowed by role, business unit, and person.
3. In the state map, click each lock icon to change it to open or leave it closed.
    - Open = user can transition the states on this path.
    - Closed = user cannot transition the states on this path.
4. Once all desired changes have been made, save the process.

Reports

The Reports security item allows you to decide who may view reports in a process. By default, all users can view reports; however, you may want to restrict viewers by role or site. New security configurations may be added, and inherent security configurations may be extended in a limited capacity.

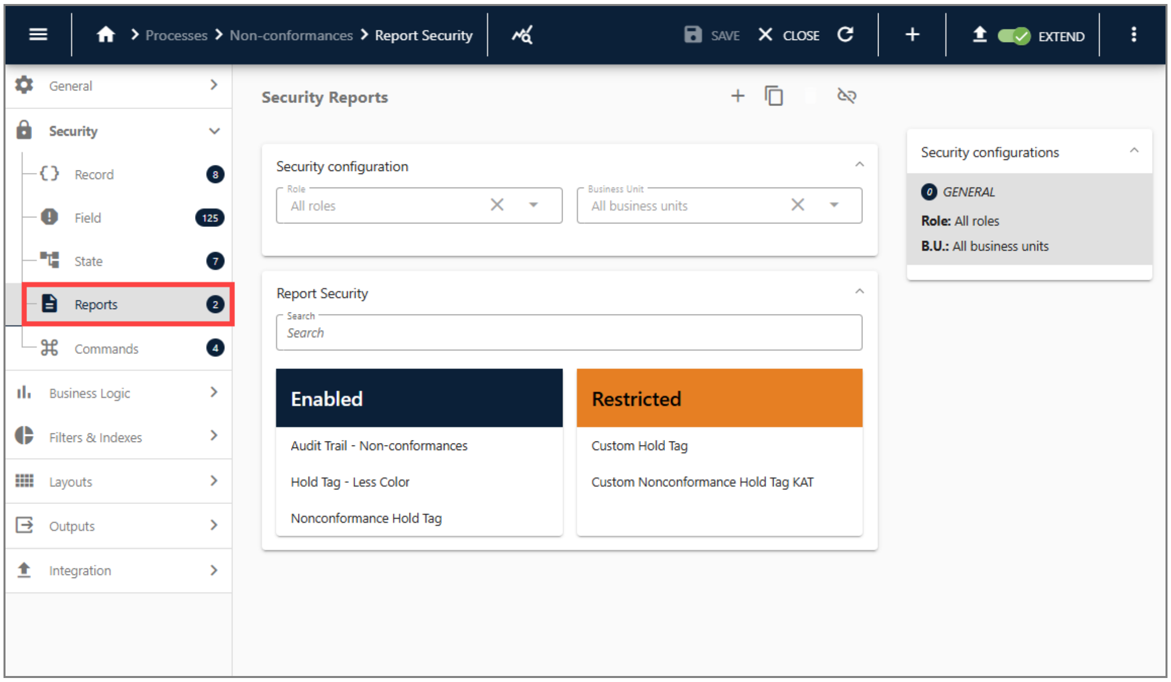
This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 24: Reports contextual toolbar



- **Add New Item.** Add a new security report configuration.
- **Copy Selected Item.** Copy the settings of the selected security record configuration and apply it to a new custom configuration.
- **Remove Selected Item.** Delete a user-created security record.
- **Override.** Click this icon to override the system and allow changes to the inherited security configuration.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited. Click this icon to return the inherited configurations to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new configurations added before clicking this icon will remain.

Fig. 25: Reports security screen



Extending Report Security

Changing Report Visibility

Inherent security configurations are mostly sealed, but the Report Security section can be extended.

1. Click the Override button to make the configuration extendable.
2. In the Report Security section, find the report that you want to move. You can use the Search field to find the report directly or sort through the list on your own.
3. Click the report, then drag and drop it into the desired column.
    a. **Enabled.** Reports in this column are visible to the users defined in the security configuration.
    b. **Restricted.** Reports in this column are **not** visible to the users defined in the security configuration.
4. To move multiple reports at once, press the CTRL button on your keyboard and then click multiple fields. Then, drag and drop the reports in the preferred column.
5. Once all desired changes have been made, save the process.

Copying an Inherent Report Security Configuration

You have the option of copying an inherent configuration to create a new one. Two identical configurations cannot exist, but as long as enough details are changed to make the copy unique, it can be made. From there, you can customize the report security to your preferred settings.

1. Select the desired security configuration from the item menu, then click the Copy Selected Item button. A new window appears, displaying the copied information.

2. In the new window, use the drop-down fields to select a new configuration. When the "The same configuration exists" warning label disappears, the APPLY button lights up and the new configuration can continue.
3. Click Apply. The window disappears and the new configuration screen appears.
4. In the Report Security section, note that all the reports are in the same columns as they were placed in the original configuration. You can leave the reports where they are, or drag and drop them into different columns.
5. Once all desired changes have been made, save the process.

Adding a New Report Security Configuration

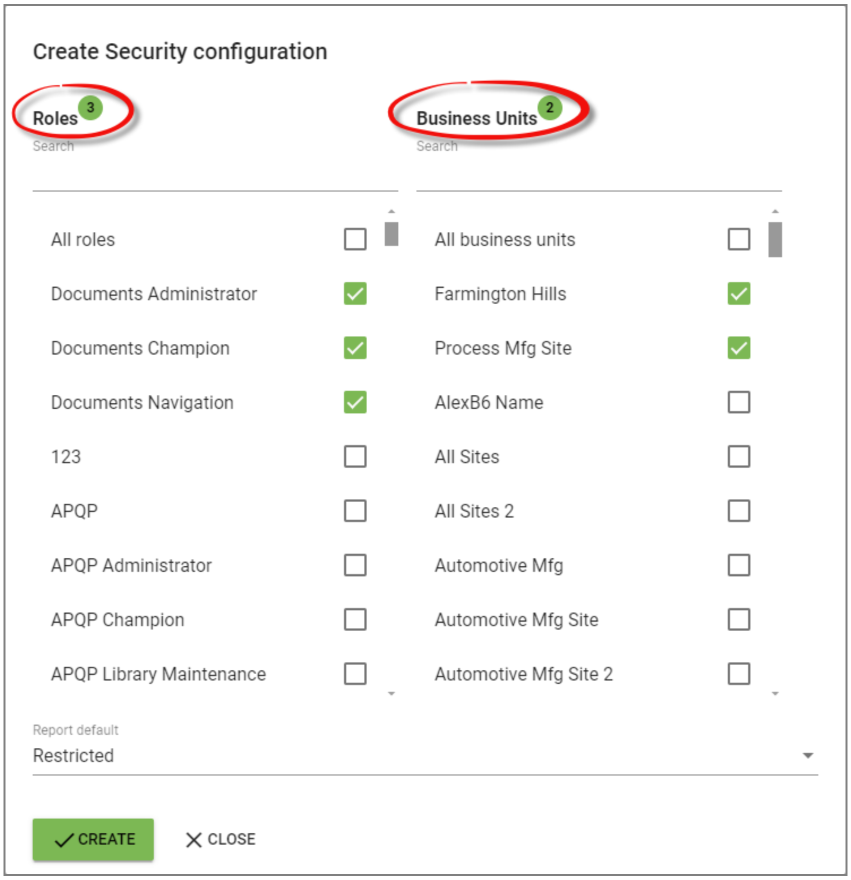
You have the option of creating a new report configuration. New report configurations contain no sealed fields, but two identical configurations cannot exist, so the new one must be unique.

1. Click the Add New Item button in the contextual toolbar. A new window appears.
2. In the new window, select each role and business unit that you want to include in a configuration, then click Create. Each possible combination will create a unique configuration record; the number of unique records can be easily calculated by multiplying the numbers above each column.

   For example, in the figure below, there are three roles and two business units. 2 x 3 = 6. So six new configurations will be created:

   - Documents Administrator / Farmington Hills
   - Documents Champion / Farmington Hills
   - Documents Navigation / Farmington Hills
   - Documents Administrator / Process Mfg Site
   - Documents Champion / Process Mfg Site
   - Documents Navigation / Process Mfg Site

Fig. 26: Create Security Configuration screen



3. In the Report Security section, note that all the reports are located in one column. This is due to the Report Default selection in the configuration. For example, if you selected "Restricted", then all reports appear in the Restricted column.
4. Find the reports that you want to move. You can use the Search field to find the report directly or sort through the list on your own.
5. Click the report, then drag and drop it into the desired column.
    a. **Enabled.** Reports in this column are visible to the users defined in the security configuration.
    b. **Restricted.** Reports in this column are **not** visible to the users defined in the security configuration.
6. To move multiple reports at once, press the CTRL button on your keyboard and then click multiple fields. Then, drag and drop the reports in the preferred column.
7. Once all desired changes have been made, save the process.

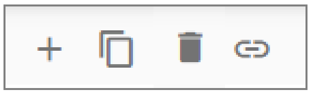
Commands

The Commands security item determines who may see and use commands in a process. Commands execute pre-set system actions, such as starting a new version, importing records, or updating linked information. New configurations may be added, and inherent security configurations may be extended in a limited capacity.

Not every process contains commands, but for those that do, security can be defined to set who (which states, roles, business units, and persons) can see and utilize each command. This can be useful to restrict the use of commands that conflict with system rules. In the example below, the configuration is set for documents in the Official state and restricts commands that are intended for documents in other states, such as "Delete Current Draft Document".

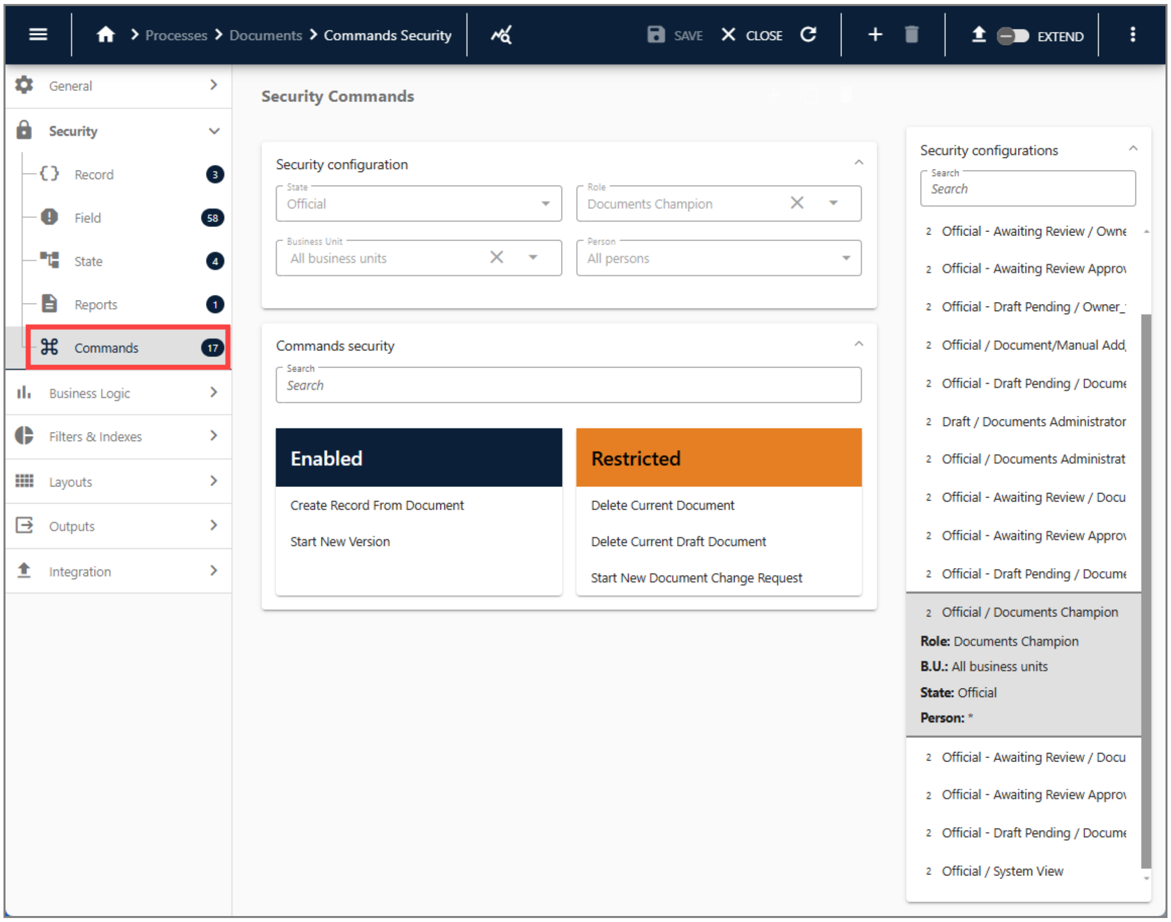
This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 27: Commands contextual toolbar



- **Add New Item.** Add a new command security configuration.
- **Copy Selected Item.** Copy the settings of the selected command security configuration and apply it to a new custom configuration.
- **Remove Selected Item.** Delete a user-created command security item.
- **Override.** Click this icon to override the system and allow changes to the inherited security configuration.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited configurations to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new configurations added before clicking this icon will remain.

Fig. 28: Command Security Screen



Extending Command Security

Changing Command Visibility and Editability

Inherent security configurations are mostly sealed, but the Command Security section can be extended.

1. Click the Override button to make the configuration extendable.
2. In the Command Security section, find the command you want to move. You can use the Search field to find the command directly or sort through the lists on your own.
3. Click the command, then drag and drop it into the desired column.
    a. **Enabled.** Commands in this column can be viewed and utilized by the users defined in the security configuration.
    b. **Restricted.** Commands in this column **cannot** be seen or utilized by the users defined in the security configuration.
4. To move multiple commands at once, press the CTRL button on your keyboard and then click multiple commands. Then, drag and drop the fields in the preferred column.
5. Once all desired changes have been made, save the process.

Copying an Inherent Command Security Configuration

You have the option of copying an inherent configuration to create a new one. Two identical configurations cannot exist, but as long as enough details are changed to make the copy unique, it can be made. From there, you can customize the command security to your preferred settings.

1. Select the desired security configuration from the item menu, then click the Copy Selected Item button. A new window appears, displaying the copied information.
2. In the new window, use the drop-down fields to select a new configuration. When the "The same configuration exists" warning label disappears, the APPLY button lights up and the new configuration can continue.
3. Click Apply. The window disappears and the new configuration screen appears.
4. In the Command Security section, note that all the commands are in the same columns as they were placed in the original configuration. You can leave the commands where they are, or drag and drop them into different columns.
5. Once all desired changes have been made, save the process.

Adding a New Command Security Configuration

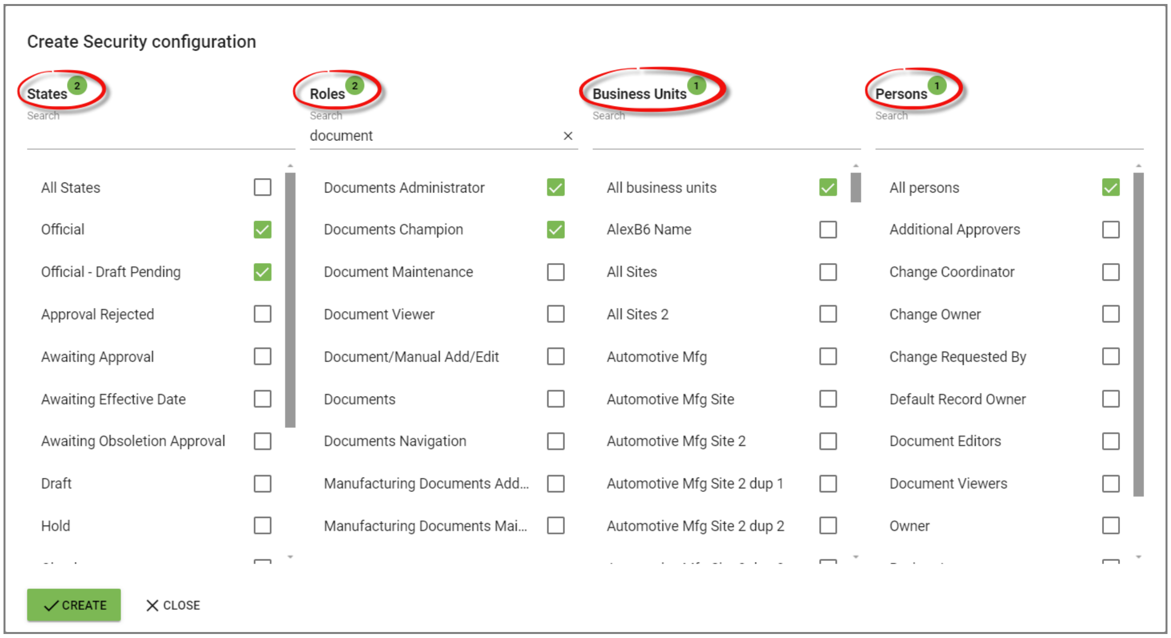
You have the option of creating a new command configuration. New configurations contain no sealed fields, but two identical configurations cannot exist, so the new one must be unique.

1. Click the Add New Item button in the contextual toolbar. A new window appears.
2. In the new window, select each state, role, business unit, and person that you want to include in a configuration, then click Create. Each possible combination will create a unique configuration record; the number of unique records can be easily calculated by multiplying the numbers above each column.

   For example, in the figure below, there are two states, two roles, one business unit, and one person selected. 2 x 2 x 1 x 1 = 4. So four new configurations will be created:

   - **Official** / **Documents Administrator** / All business units / All persons
   - **Official** / **Documents Champion** / All business units / All persons
   - **Official – Draft Pending** / **Documents Administrator** / All business units / All persons
   - **Official – Draft Pending** / **Documents Champion** / All business units / All persons

Fig. 29: Create Security Configuration screen



3. Find the commands you want to move. You can use the Search field to find the command directly or sort through the list on your own.
4. Click a command, then drag and drop it into the desired column.
    a. **Enabled.** Commands in this column can be viewed and utilized by the users defined in the security configuration.
    b. **Restricted.** Commands in this column **cannot** be seen or utilized by the users defined in the security configuration.
5. To move multiple commands, at once, press the CTRL button on your keyboard and then click multiple commands. Then drag and drop the fields in the preferred column.
6. Once all desired changes have been made, save the process.

Chapter 4

Setting Up the Business Logic

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Business Logic

The Business Logic contextual group sets the logic for how a process should operate.

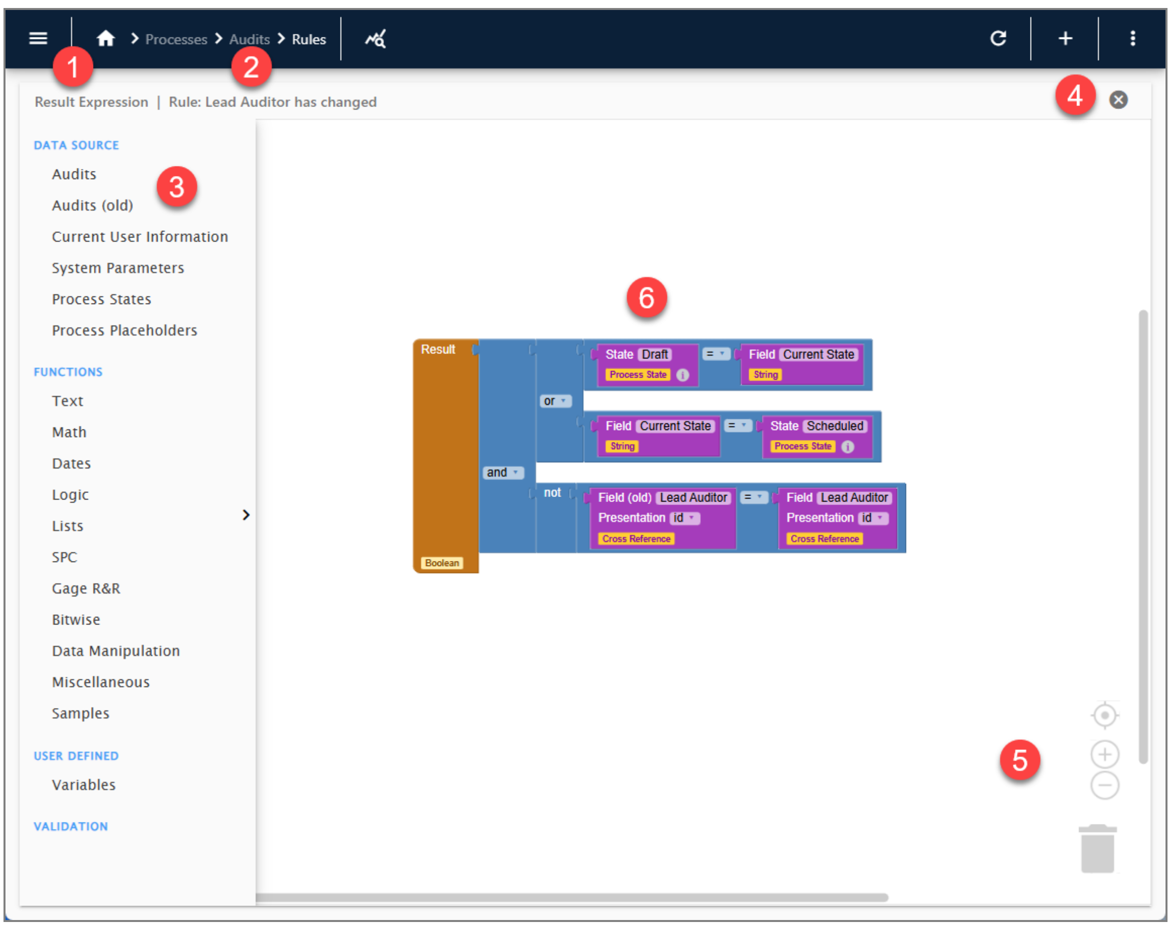
- **Rules.** Expressions that provide the framework for when process operations occur.
- **Inbox Actions.** Messages and actions sent when specified rules are true.
- **Transactions.** System actions that occur when specified rules are true.
- **Execution Plan.** Determines when and how business logic is executed.

Expression Builder

An important part of the Business Logic portion of AppXtender is the Expression Builder, which allows users to create and refine logic in the system, including rules and transactions.

Fig. 30: Expression Builder Toolbar

Fig. 31: Expression Builder



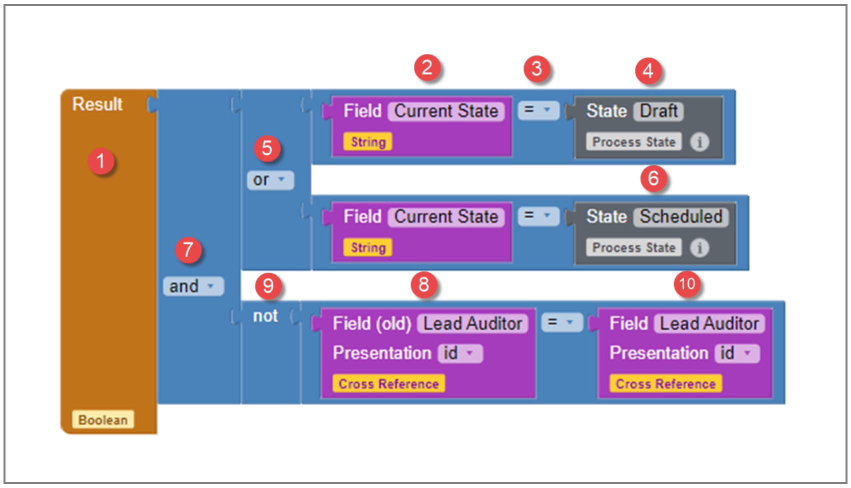
1. **Expression.** Describes the type of expression you are conducting.
2. **Expression Item.** The specific item (rule, transaction, etc.) for which you are building an expression.
3. **Expression Menu.** Contains the building blocks for making expressions. Clicking any item in this menu reveals pieces that can be dragged and dropped into the expression screen.
4. **Expression Toolbar.** The toolbar specific to the expression builder. When creating a new rule, this toolbar contains the following icons:
    a. **Close Editor.** Return to the main item screen.
    b. **Save Expression.** Save all changes made to the expression.
    c. **Validate Expression.** Check the expression's logic to ensure it is functional.
    d. **Undo.** Reverses the last action.
    e. **Redo.** Brings back the previous action, if it was undone.
    f. **Import/Export.** Import brings in the expression from another process, while export sends the current expression to another process.
5. **Screen Controls.** The vertical toolbar that adjusts the view of the expression builder.
    a. **Center.** Adjusts the detail screen to its default size and moves it to the center of the screen.
    b. **Zoom In.** Sizes the detail screen to be larger.
    c. **Zoom Out.** Sizes the detail screen to be smaller.
    d. **Trash.** Drag expression pieces to the trash for deletion.
6. **Detail screen.** Main area where the expression is built.

Using the Expression Builder

Building an expression consists of dragging building blocks from the expression menu onto the detail screen. The expression is read from left to right, top to bottom, with few exceptions.

In the example below, the rule "Lead Auditor has Changed" can be read as "The rule is true when the current state is equal to Draft or Scheduled, and the previous Lead Auditor is NOT the current Lead Auditor".

Fig. 32: Expression for "Lead Auditor has Changed"



1. The rule is true when...
2. ... the current state...
3. ... is equal to...
4. ... Draft...
5. ... or...
6. ... Scheduled...
7. ... and...
8. ... the previous Lead Auditor...
9. ... is NOT...
10. ... the current Lead Auditor.

The building blocks of an expression are located in the expression menu and categorized into drop-down sections. The Data Source category provides fields, states, information, and more that are specific to the current process or user; in the example above, the field and state building blocks originate from the Data Source category. The Functions category provides actions and operations that connect other pieces of the expression; in the example above, the blue building blocks (and/or, not, =) originate from the Functions category.

Data Source

- **Process Name.** Blocks that describe a field or other item specific to the current process at the time that the user clicked Save.
- **Process Name (old).** Blocks that describe a field or other item specific to the current process at the time that it was opened, before any changes were made.
- **Current User Information.** Blocks specific to the current user, such as full name or email address.
- **System Parameters.** Blocks that describe general system variables, such as Employee ID or ITAR Compliant.
- **Process States.** Blocks that describe a state specific to the current process.

Functions

- **Text.** Text-based functions that provide an explanation (item is empty), give a command (make uppercase/lowercase, apply a format), or otherwise describe part of an expression.
- **Math.** Numeric operations and static numbers.
- **Dates.** Units of time and dates, such as the current date or adding a number of days to another block.
- **Logic.** Blocks that describe something (true/false, null), compare two items (equal, not equal, greater than, etc.), connect two items (and/or), or negate part of an expression.

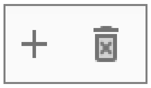
Rules

Rules are expressions that provide the framework for when process operations occur. In other words, they are the catalyst that causes other business logic, such as transactions or inbox actions, to be put in motion. For example, the Audits process contains business logic that dictates that when the lead auditor changes from one user to another, the previous lead auditor is removed from the process. The rule is "Lead Auditor has changed" and the transaction is "Remove Previous Lead Auditor".

New rules can be created, and inherent rules may be extended. They are assigned to inbox actions and transactions in the Execution Plan item; see .

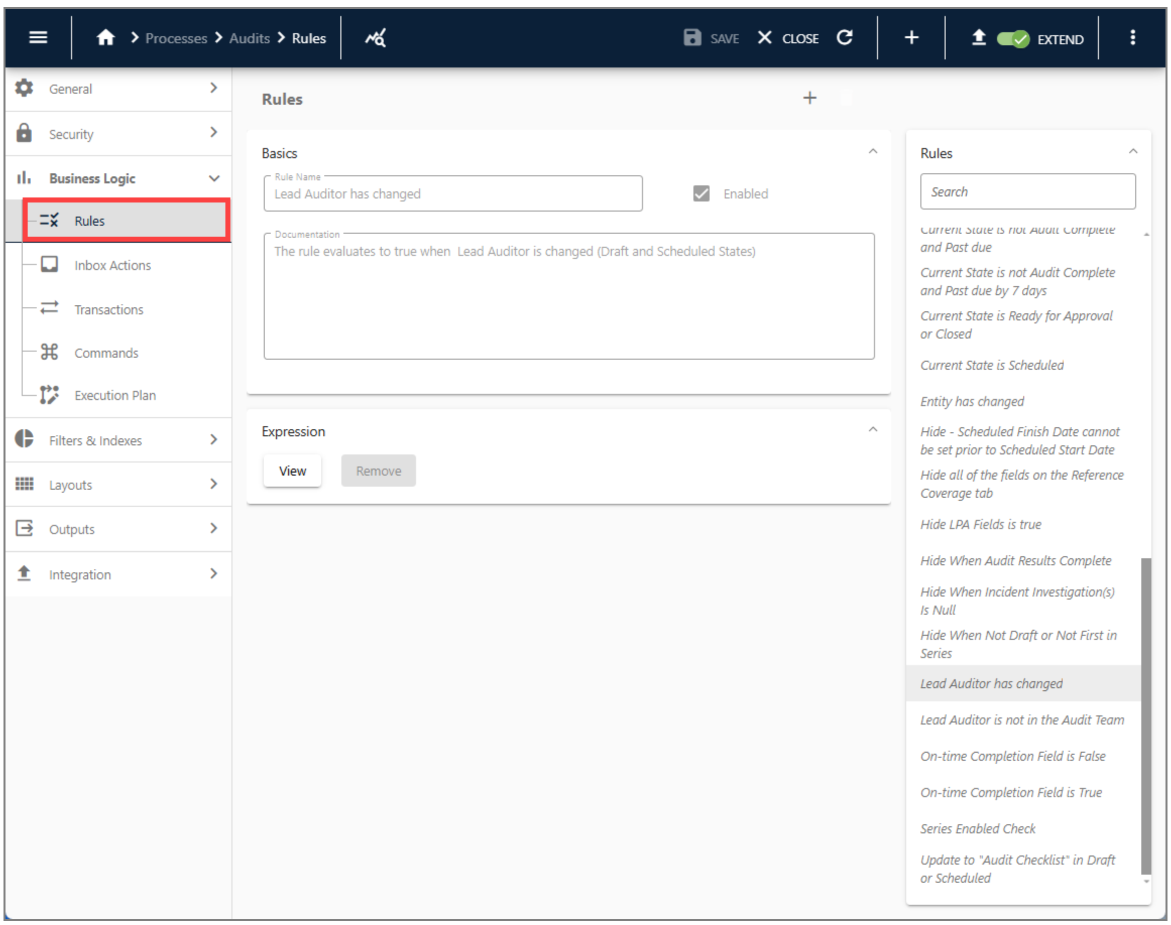
This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 33: Rules contextual toolbar



- **Add New Item.** Add a new rule.
- **Remove Selected Item.** Delete a user-created rule.

Fig. 34: Rules screen



Extending the Rules

Adding a New Rule

1. Click the Add New Item button in the contextual toolbar. A new rule fills the display window and appears in the item menu.

2. Enter a rule name and documentation that explains the rule.
3. If you want the rule to be available for use, then select the "Enabled" check box.
4. Click the Add Expression button to build the rule's logic. See "Using the Expression Builder" on page 53 for information on how to build an expression.
5. Save the process.

Inbox Actions

In the End User Application, the Inbox is the main mechanism used to automate processes throughout the organization; it notifies users when a task awaits them, whether that task is now their responsibility or is merely a notification. These notifications are inbox actions.

In the AppXtender, the Inbox Actions item is designed to create, structure, and house all notifications within a process. They are structured similarly to an email, and can be sent as an email if set up to do so. Once the message is designed and allocated to a group, it is assigned to a user who is responsible to receive it and, if necessary, take action.

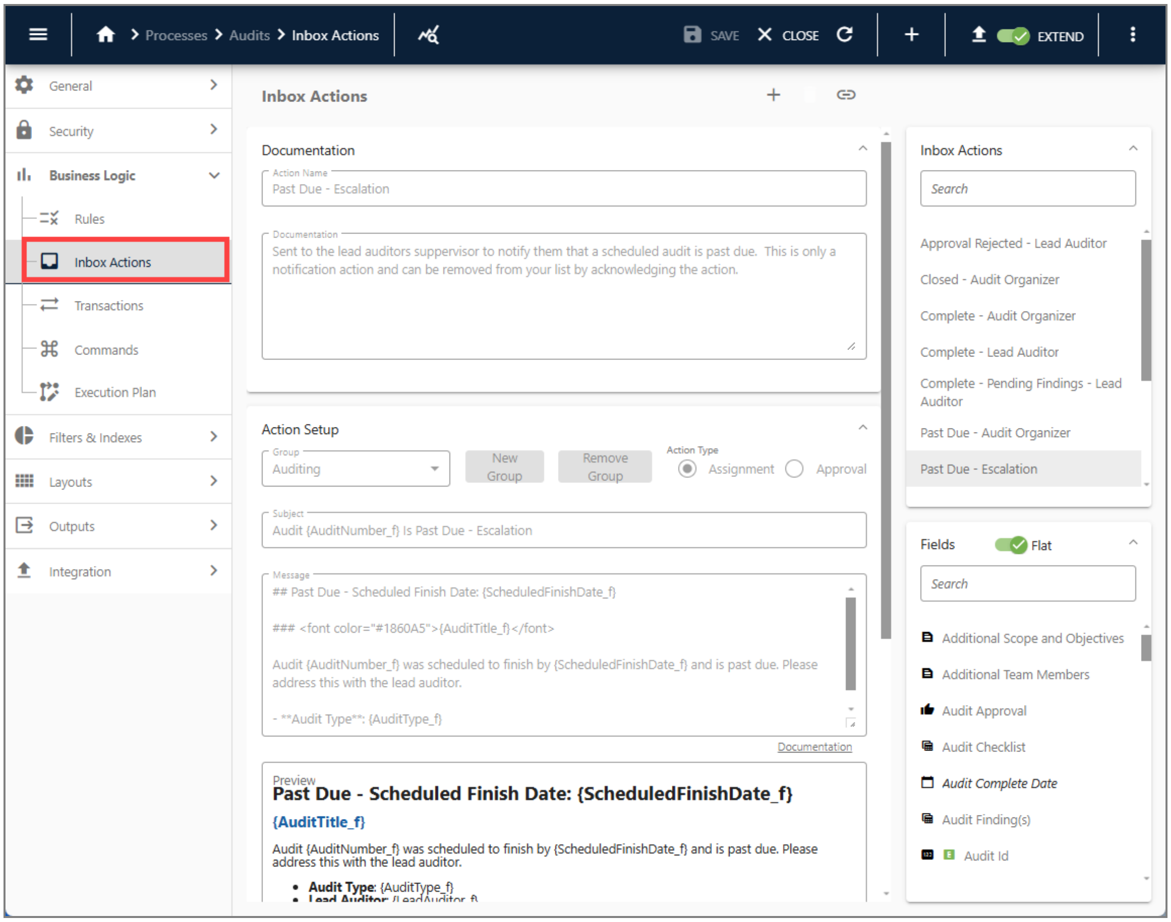
Inbox actions are associated with a rule within the Execution Plan item. When that rule becomes true, the inbox action is sent to the assigned responsibility.

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 35: Inbox Actions contextual toolbar

- **Add New Item.** Add a new inbox action.
- **Remove Selected Item.** Delete a user-created inbox action.
- **Override.** Click this icon to override the system and allow changes to the inherited inbox actions.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited inbox actions to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new inbox actions added before clicking this icon will remain.

Fig. 36: Inbox Actions screen



Extending the Inbox Action

Note: When the Override button is clicked, inherent inbox actions can be fully extended except for the action name and the deeplink/notification check boxes. Action types will always be Assignment.

Adding a New Inbox Action

1. Click the Add New Item button in the contextual toolbar. A new inbox action fills the display window and a new item appears in the item menu.
2. Enter a name and description for the inbox action. The description should explain who the inbox action is sent to and why.
3. Select a group. The inbox typically groups its actions by application, but some exceptions may be made. You have the option of creating a new group.
4. Enter a subject and a message for the inbox action. To reference specific process fields, drag and drop items from the Fields item menu. These will create a placeholder in the message, which will populate with the record-specific information when the inbox action is sent.

Note: You can add markdown to the message for additional formatting, such as bolding words, adding a list, and more. Click the Documentation link in the Preview section of Inbox Actions to see more about markdown.

5. Use either the Responsibility or Role field to select who will receive the inbox action. If you use the Responsibility field, you can escalate the inbox action to a user connected to the responsibility, such as the person that the responsibility reports to.
6. Use the check boxes at the bottom of the screen to adjust how the inbox action is sent.
   - **Time Based Notification.** Provides the recipient with an on-screen prompt about a specific record. The on-screen prompt is a small pop-up window that allows navigation to the specific record. It provides a more urgent prompt compared to just a notification list.
     Note: This notification type is available only for processes with scheduling enabled and for actions where the Time-Based Notification checkbox is selected.
   - **Send Email.** An email is sent to the recipient. This is in addition to the inbox action.
   - **Include Deeplink.** If you selected "Send Email", then you can include a link that directs the user directly to the message within the system.
   - **Notification.** Add an Acknowledge button to the inbox message. Users must click this button before the inbox action can be considered complete.
   - **Obsolete.** The whole inbox action is obsoleted and will not be sent.
7. Save the process.

Transactions

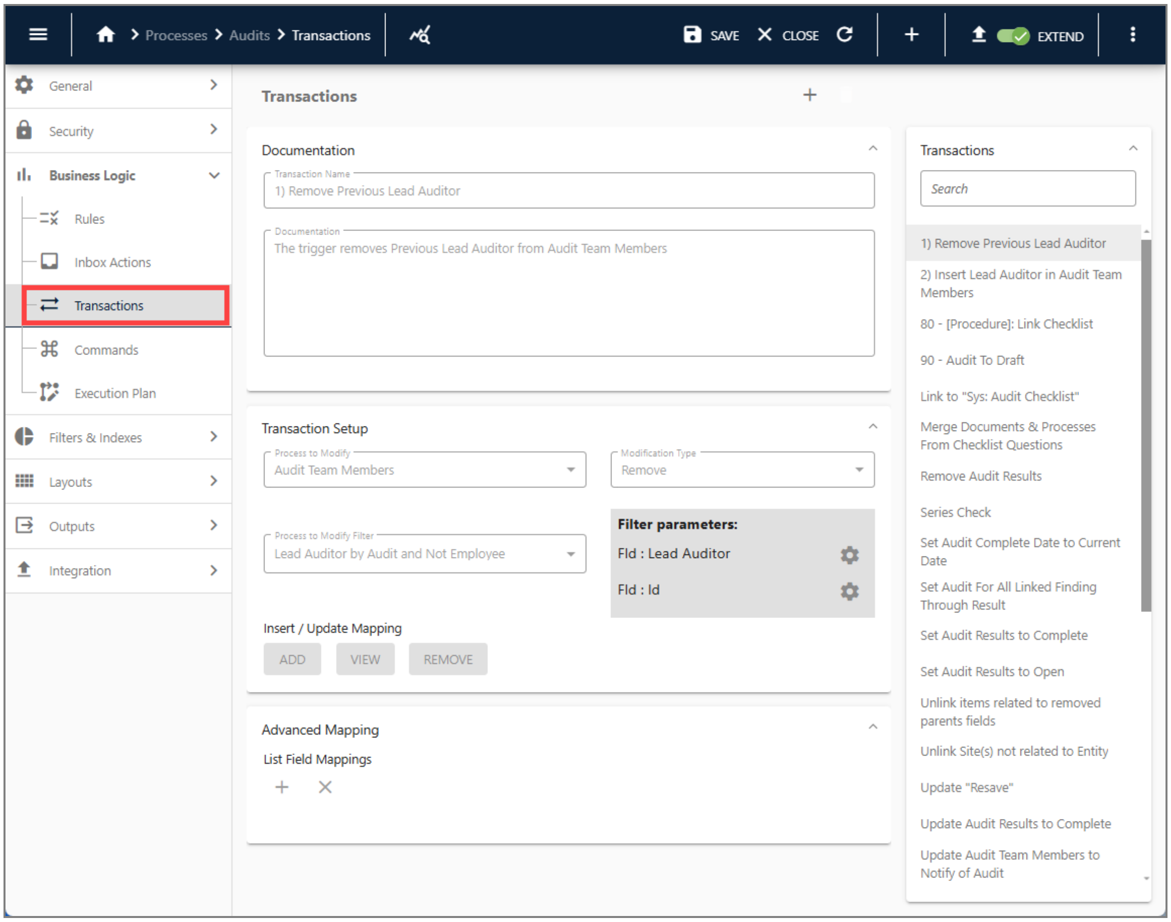
Transactions are event-based changes that occur within the system when a specified rule is met. The Transaction item is intended to define the transaction; the Execution Plan item will assign a rule that directs the transaction to occur. New transactions can be created, but inherent transactions cannot be extended.

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 37: Transactions contextual toolbar

- **Add New Item.** Add a new transaction.
- **Remove Selected Item.** Delete a user-created transaction.

Fig. 38: Transactions screen



Extending the Transaction

Adding a New Transaction

1. Click the Add New Item button in the contextual toolbar. A new rule fills the display window and appears in the item menu.
2. Enter a name and documentation that explains the transaction.
3. Select a process to modify and the modification type.
    - **Insert.** Content is added to the process.
    - **Update.** The process is updated, as well as any other processes related to this transaction.
    - **Remove.** Content is removed from the process.
    - **Self Update.** The process is updated, independent of any other related updates.
4. If you selected Update or Remove, select a filter for the process to modify.
5. The filter you select may require filter parameters, which will appear on the right. Click the Value Definition button to select whether the filter value is a static value, system parameter, or process field. See "Filters" on page 64 to learn more about filter parameters.

6. Click the Add button in the Insert/Update Mapping field. This allows you to build an expression. See "Using the Expression Builder" on page 53 for more information.
7. Save the process.

Execution Plan

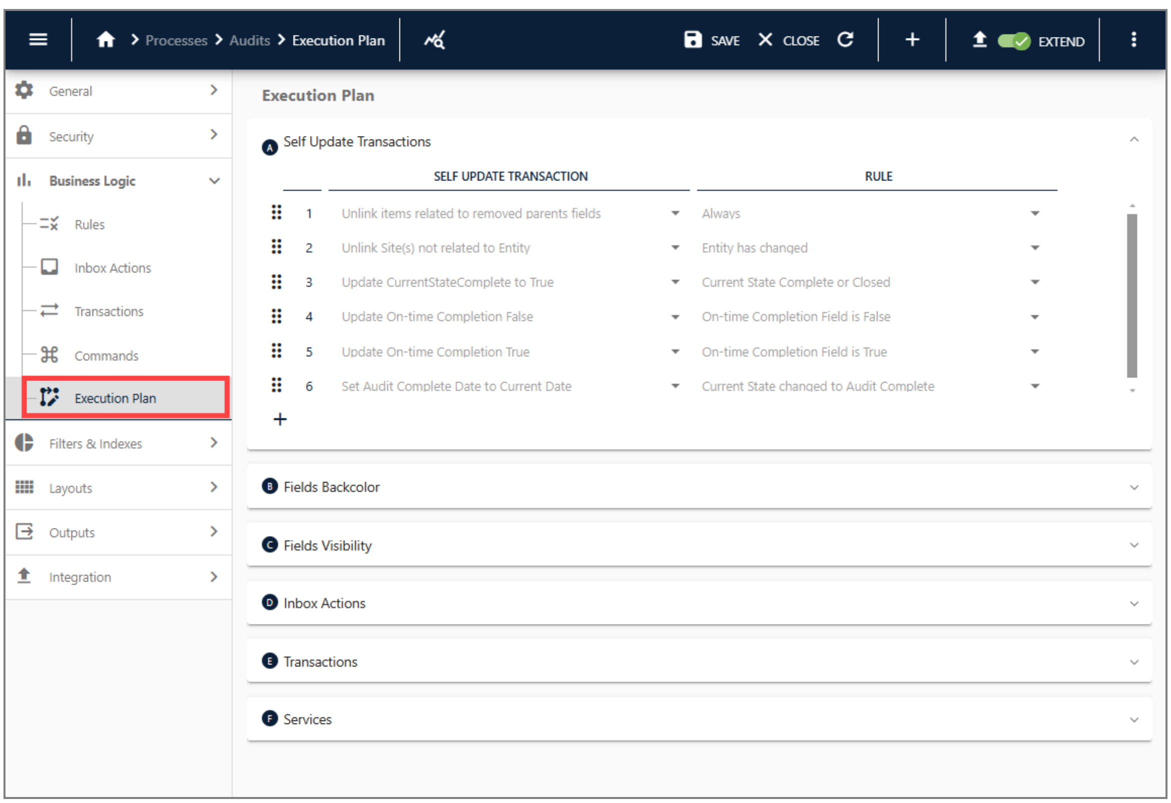
The Execution Plan is the final step to setting up the rules, inbox actions, and transactions. It determines when and how a process' business logic is executed by pairing rules with inbox actions and transactions; organizing the order of operations; assigning a backcolor for fields, which may be set always or when a certain rule is true; and controlling field visibility by rule.

The execution plan is implemented whenever a record is saved (via manual save, esync, transaction, etc.) and occurs in the order of the sections:

1. Self-Update Transactions
2. Fields Backcolor
3. Fields Visibility
4. Inbox Actions
5. Transactions
6. Services

Each section contains its own list; the list items also occur in numerical order. This order is inherent and cannot be changed. However, you can add new items to the list and reorganize these extended items to the top or bottom of a list.

Fig. 39: Execution Plan screen



Extending the Execution Plan

General Extension Rules

- Inherent line items cannot be extended in any way, but extended line items can be created, edited, moved, removed, and disabled.
- Grab the Reorder icon and drag the line item to move it to a new location within the list. Extended line items can be moved around each other, to the bottom of the list, or to the top of the list; they cannot be moved in between inherent items.
- Hover over the line item to reveal the Disable and Remove buttons. Disable prevents the line item from being enforced when the execution plan occurs. Remove deletes the line item.

Adding New Line Items to an Execution Plan List

This task applies to all sections of the Execution Plan except for the Fields Backcolor section. See "Adding Field Backcolor" below.

1. Each line item contains two drop-down fields: one for the section type (e.g. transactions or fields visibility) and one for the rule that, when true, will cause the line item to go into effect.
2. In the appropriate section, click the Plus button. A new line item appears.
3. Select a new section item for the execution plan.
4. Select a rule that applies to the section item.

   Note: Section items cannot be repeated, but rules can.

5. Save the process.

Adding Field Backcolor

Fig. 40: Fields Backcolor

1. In the Fields Backcolor section, click the Plus button. A new line item appears.
2. Select a color for the field.

3. Select which field will receive the backcolor.
4. Select a rule that, when true, will cause the backcolor to go into effect.

   Note: Fields cannot be repeated, but rules can.

5. Save the process.

Chapter 5

Setting Up Filters

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Filters

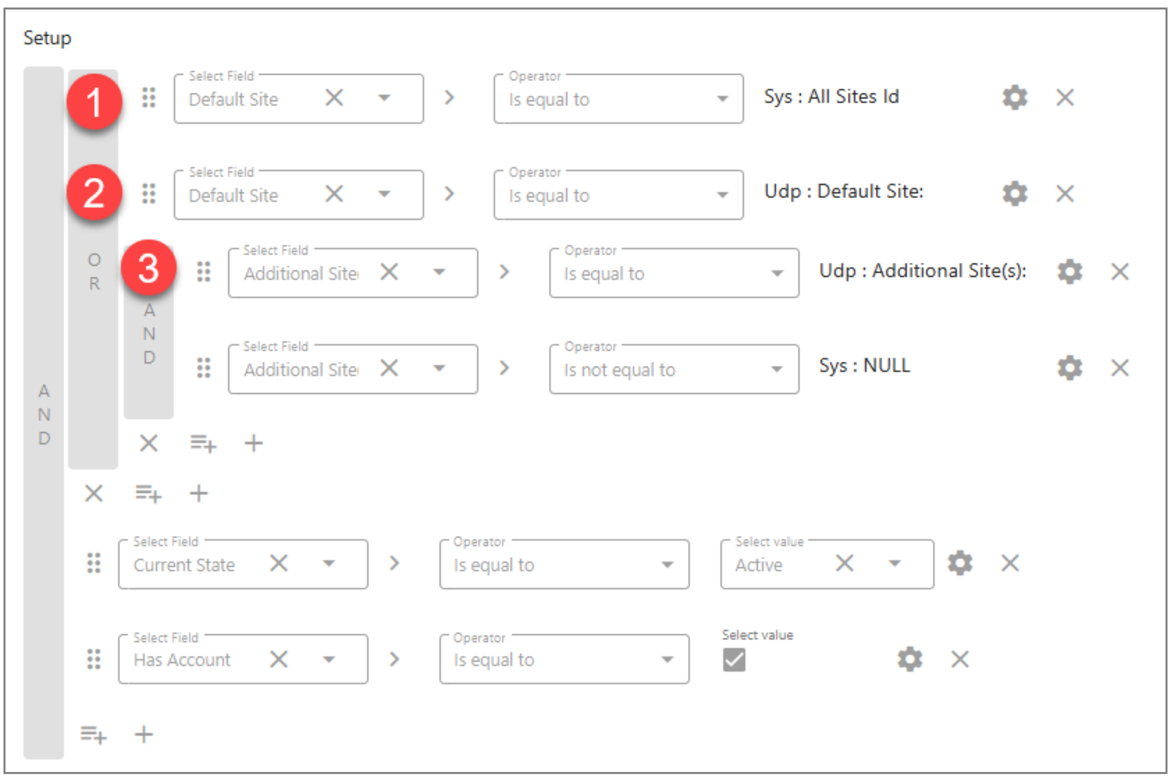
In the End User Application, filters can be added to a search screen to adjust the information that appears in the grid, which is useful when you are looking for specific items or when you want to remove certain data from the list. Filters can be as broad or narrow as you need them to be.

In the AppXtender, the Filters item is designed to create, structure, and house all filters within a process. The setup is similar to Expression Builder, in that the logic is constructed with parameters connected by "AND/OR" columns and "Is equal to/Is not equal to" operators. Once the setup is complete, it can be read from left to right, top to bottom.

For example, the Employees process contains a filter titled "Active has Account by Site and Additional Site and Additional Site Not NULL". In essence, this filter displays employees who are active and have an account, and whose site falls under one of three categories:

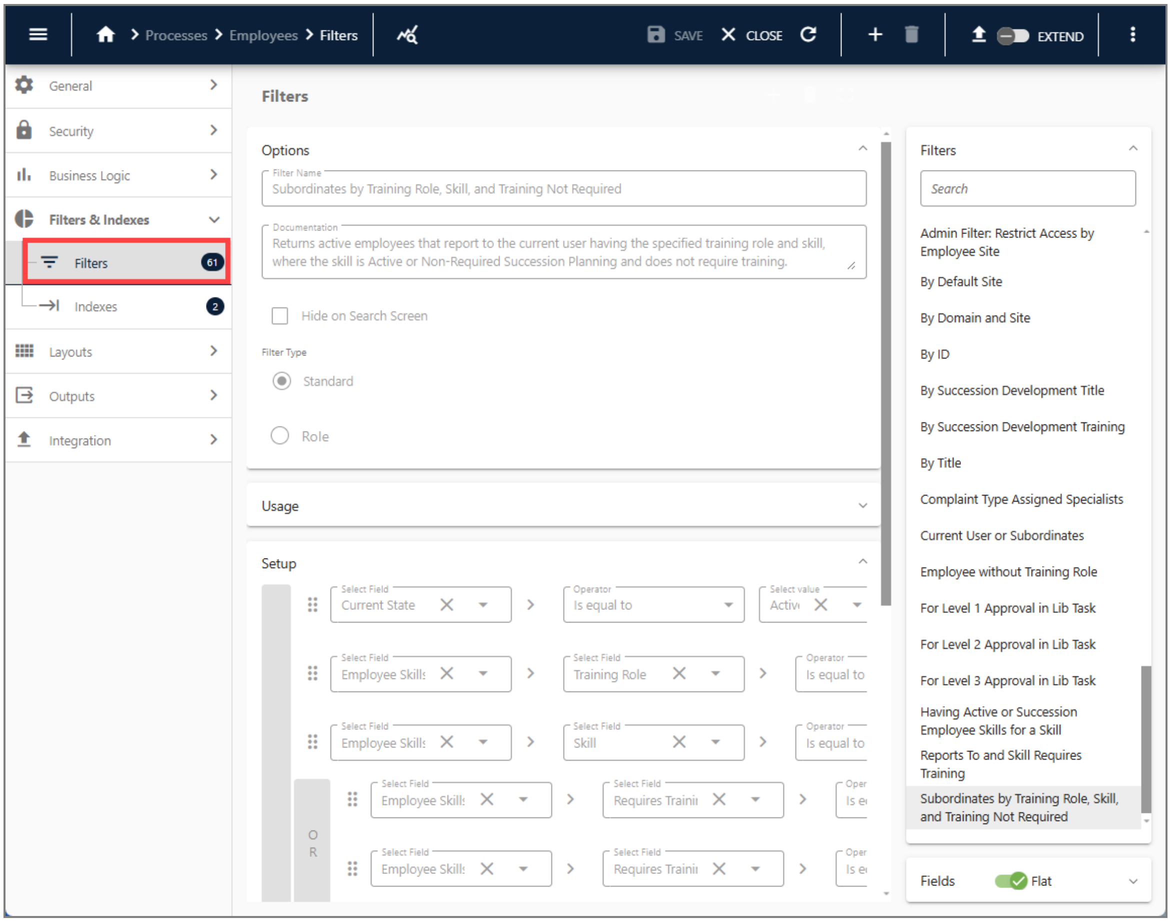
1. Default site is equal to "All - All Sites"
2. Default site is equal to "Udp: Value for Default Site:"
3. Additional site is equal to "Udp: Value for Additional Sites" AND the additional site is not NULL.

Fig. 41: Filters Setup Example



New filters can be created, but inherent filters cannot be extended.

Fig. 42: Filters screen



Extending the Filter

Adding a New Filter

1. Click the Add New Item button in the contextual toolbar. A new filter fills the display window and a new item appears in the item menu.
2. Enter a name and description for the filter.
3. Optionally, select the Hide on Search Screen checkbox to prevent the filter from appearing on the search screen when it is not intended for user use.
4. Optionally, select the Use for Action Manager checkbox to limit the records processed by the Action Manager daily. The daily Action Manager typically runs nightly or early in the morning and processes daily actions sent to users, such as notifications for overdue items or items awaiting approval. This option allows you to filter out specific records so they are not included in the daily processing.
5. The Setup section contains an empty line item. Select a field, an operator (is equal to / is not equal to), and a value. The value can be defined one of three ways:
    a. **Static value.** The value equals whatever value you input.
    b. **User defined parameter.** When the user selects the parameter, the system asks

them to make a selection.

c. **System parameter.** The value defaults to the current user's settings.

Fig. 43: Filter Setup, empty line item

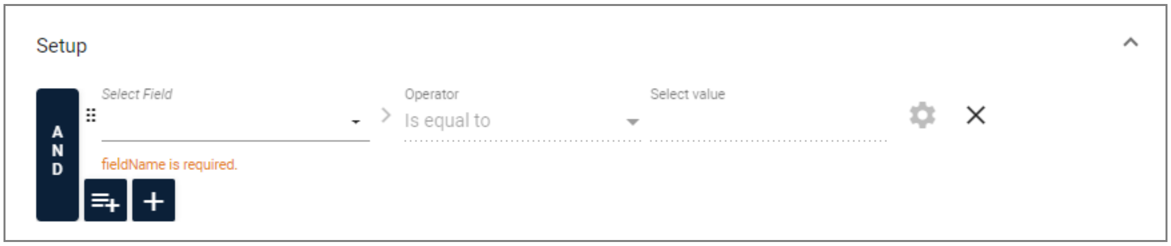
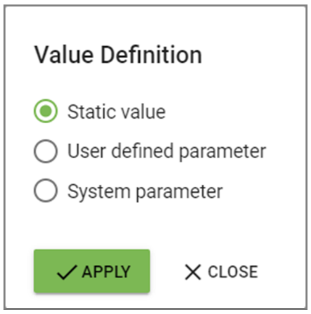


Fig. 44: Value Definition window



6. To add a new line, click the Add Logic Group button or the Add Filter Option button.
    - **Add Logic Group.** Add a new line with a logic group (and/or).
    - **Add Filter Option.** Add a new line as part of the current logic group.
7. Save the process when the setup is complete.

Chapter 6

Setting Up Layouts

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Layouts

The Layouts contextual group creates the default and alternate designs for screens within the End User Application.

- **Details Screens.** The layout for a process' detail screen.
- **Search Screens.** The layout for a process' search screen.

Details Screens

In the End User Application, the details screen is the main screen that users interact with to view and modify data for a process. Though every process has a details screen, the layout of each one is unique to the process.

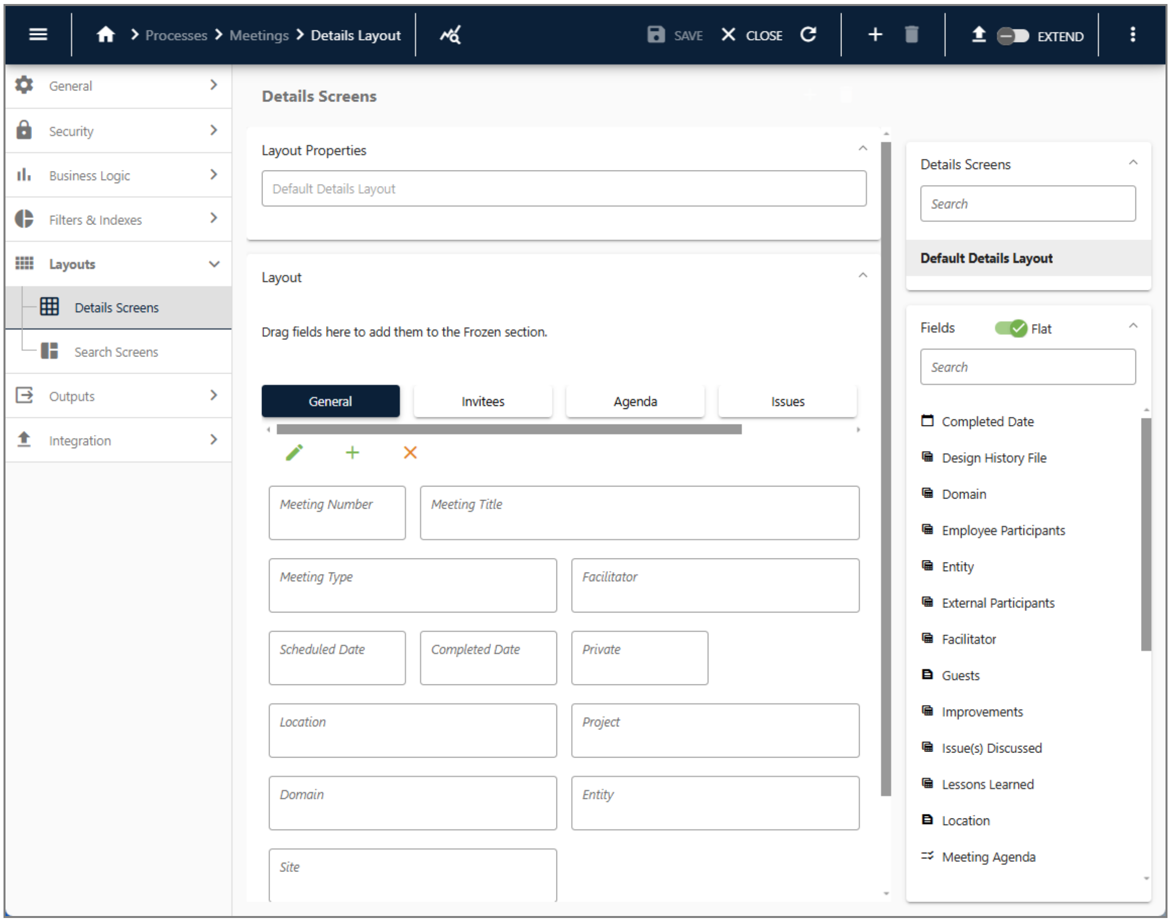
In the AppXtender, the Details Screens item is used to create the layout for a process' details screen. Each process has a system-generated layout by default; you can extend this inherited layout or create a new one from scratch. When organizing a details screen layout, you can drag and drop fields to a specific section, adjust the field's properties, and add new sections.

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 45: Details Screens contextual toolbar

- **Add New Item.** Add a new details screen layout.
    - **Make Layout Active.** When a new item is added, this icon replaces the Override icon. Click this to use the new details screen layout in the End User Application.
- **Remove Selected Item.** Delete a user-created details screen layout.
- **Copy as a new Layout.** Copy an existing details screen layout in any process. This creates an exact copy of the previous layout, which can then be changed, renamed, and made active. This approach allows you to create a custom layout more quickly.
- **Override.** Click this icon to override the system and allow changes to the inherited layout.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited. Click this icon to return the inherited layouts to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new layouts added before clicking this icon will remain.

Fig. 46: Details Screens layouts screen



Extending the Details Screen

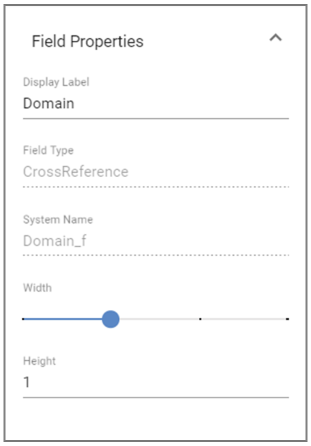
Adding a New Details Screen

Note: When the Override button is clicked, inherent details screen actions can be fully extended.

1. Click the Add New Item button in the contextual toolbar. A new details screen fills the display window and a new item appears in the item menu.
2. Enter a name for the layout.
3. Select whether the layout's sections should appear on one page or on tabs. Sections appear on tabs by default.
4. Click the green plus button to add a new section, then click the green edit button to give the section a name.
5. Drag and drop fields from the Fields item menu to the display window.
   Note: Fields that are already added to a layout are removed from the list of available fields by the system to avoid confusion.
6. Click the new field; a new item menu appears titled Field Properties. Use this menu to adjust the field's appearance.

- **Display Label.** The name of the field as it appears on the details screen.
- **Width.** The width of the field. Width can be selected in 25% increments, with 25% being the default.
- **Height.** The height of the field. The number entered is the number of lines that the field takes up. 1 is the default.

Fig. 47: Field Properties Item Menu



7. Once all sections and fields have been added and organized, click the Make Layout Active button. Then save the process.

Search Screens

In the End User Application, the search screen is the main method used for navigating between records within a particular process, but can also be used to perform simple grouping and filter functions that allow you to locate a specific record.

In the AppXtender, the Search Screens item is used to create the layout for a process' search screen. Each process has a system-generated layout by default; you can extend this inherited layout or create a new one from scratch. When organizing a search screen layout, you can drag and drop fields to make a new column of information, adjust the column's properties, and group the whole layout by one or more columns.

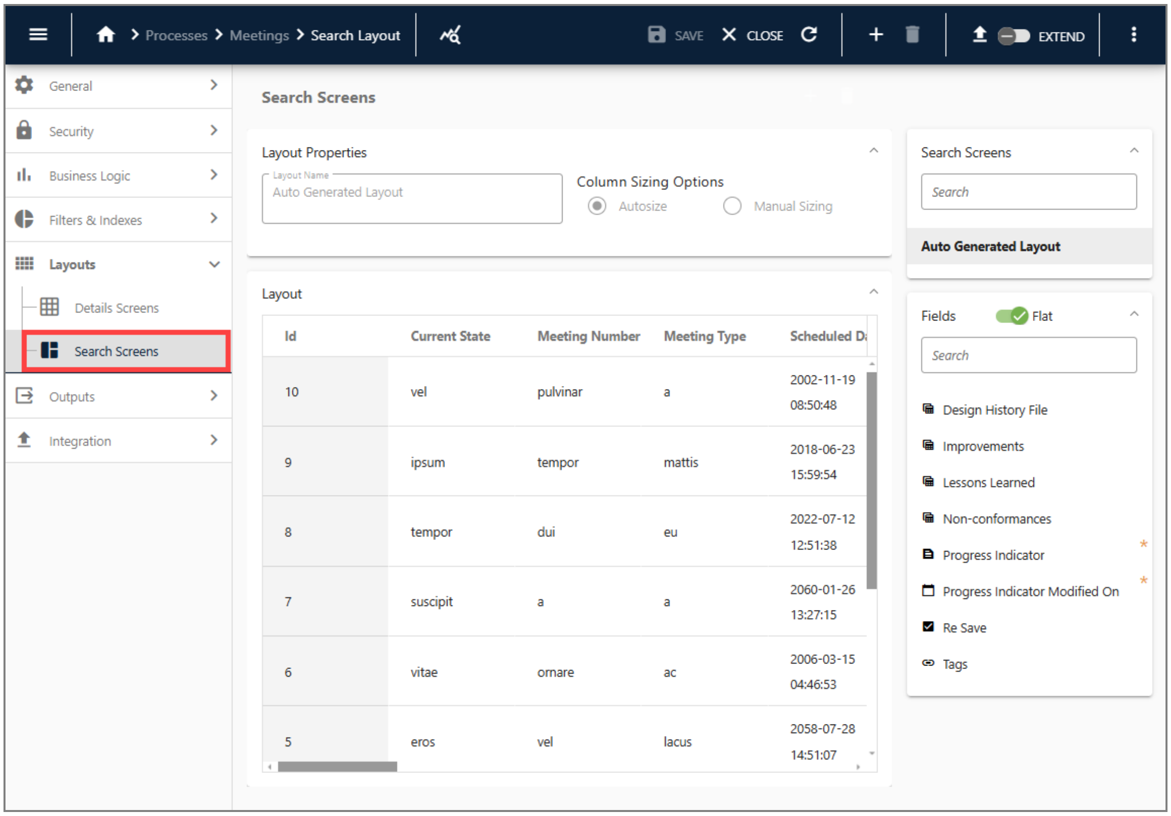
This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 48: Search Screens contextual toolbar

- **Add New Item.** Add a new search screen layout.
  - **Make Layout Active.** When a new item is added, this icon replaces the Override icon. Click this to use the new search screen layout in the End User Application.
- **Remove Selected Item.** Delete a user-created search screen layout.

- **Override.** Click this icon to override the system and allow changes to the inherited layout.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited layouts to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new layouts added before clicking this icon will remain.

Fig. 49: Search Screens layouts screen



Extending the Search Screen

Adding a New Search Screen

Note: When the Override button is clicked, inherent search screen actions can be fully extended.

1. Click the Add New Item button in the contextual toolbar. A new search screen fills the display window and a new item appears in the item menu.
2. Enter a name for the layout.
3. Select whether the layout's column sizing should be automatic or manual.
4. Drag and drop fields from the Fields item menu to the display window. You can adjust the order of the columns if you wish.
5. Click the new column; a new item menu appears titled Column Properties. Use this menu to adjust the column's appearance.

- **Width.** If Manual Sizing is selected, then use the Width toggle to define how wide the column should be.
    - You can also click and drag the column to the desired width.
- **Sort.** The alphanumeric direction in which search screen records should be ordered. Selecting multiple columns for sorting will sort eh lowest number first, followed by the next lowest and so on. Select whether the column should be sorted in ascending or descending order.
- **Group.** Group records on a search screen together (e.g. users who oversee multiple sites often group by site).

6. To group the layout by one column, drag that column to the top of the layout screen. More than column can group the search the screen, but the first column chosen is used first.
7. Once all sections and fields have been added and organized, click the Make Layout Active button. Then save the process.

Chapter 7

Setting Up Outputs

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Outputs

The Outputs contextual group creates reports and gadgets that let you analyze the data in a process.

- **Reports.** Set up the naming and display conventions for a report that you upload.
- **Metrics.** Create gadgets that can display column, line, or pie charts for a selected process.
- **KPIs.** Create key performance indicator gauges that display the metrics of a single process within green, yellow, and red ranges.

Reports

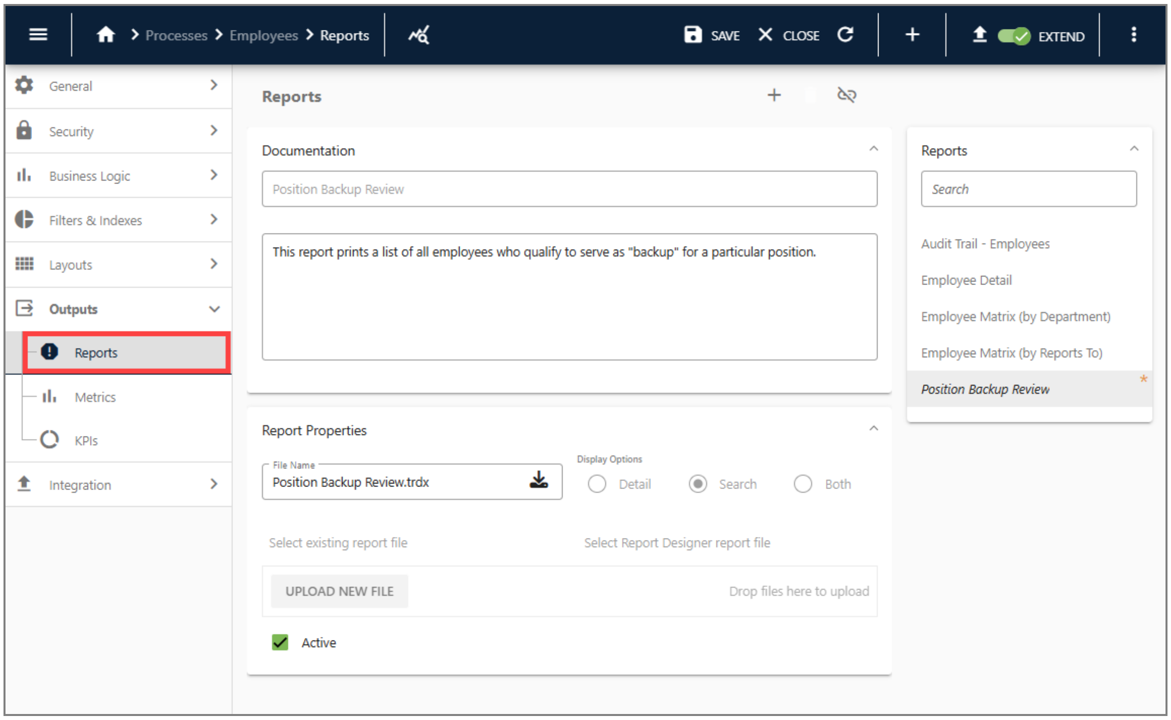
The Reports item allows you to add a report to a process that can be downloaded from the details screen, search screen, or both. Report files must already exist and be saved as a Telerik reporting file (.trdx). Inherent report items can be extended, within limits.

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 50: Reports contextual toolbar

- **Add New Item.** Add a new report.
- **Remove Selected Item.** Delete a user-created report.
- **Override.** Click this icon to override the system and allow changes to the inherited report.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited reports to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new reports added before clicking this icon will remain.

Fig. 51: Reports outputs screen



Extending the Report

Changing an Inherent Report

When you extend the process, you can change the report documentation. Additionally, you can select or deselect the Active check box, which makes the report available for use in the End User Application.

You can click the Download File button in the Report Properties section to download the file currently attached to the report. This can be useful when making your own custom reports, as you can use the existing report as a template. It is best practice to rename the report file to avoid adding a duplicate report file.

A Report Designer is available in the System Admin section of Admin Tools, outside of AppXtender. See the Admin Tools: System Admin and Setup user guide to learn more about the Report Designer.

Adding a New Report

1. Click the Add New Item button in the contextual toolbar. A new report fills the display window and appears in the item menu.
2. Enter a name and documentation that explains the report.
3. Select whether the report should be available to download from the details screen, the search screen, or both.

4. Select a file for the report.
   a. **Select Existing Report File.** Click "Select existing report file". A new window appears with a list of all currently existing reports; choose the one you want, then click Select.
   b. **Select Report Designer Report File.** Click "Select Report Designer report file". A new window appears with a list of all currently existing reports that have been created or edited with Report Designer. Choose the one you want, then click Select.
   c. **Upload New File.** Click "Upload new file". A new window appears, connected to your computer. Navigate to the .trdx file you want, choose it, then click Open.
5. Select the "Active" check box to make the report available for use.
6. Save the process.

Metrics

In the End User Application, metrics are gadgets that can display column, line, or pie charts for a selected process. In AppXtender, the Metrics item allows you to extend and create metrics, specifying the name, related field, function, and more.

The Metric Field drop-down only contains numeric fields, as the field is used to calculate the summary function in all cases except for the Count function. If the metric's summary function is Count, then a Metric Field selection is unnecessary because it simply counts the number of records. Aggregate functions other than Count require a metric field, which you should aggregate. Those functions are:

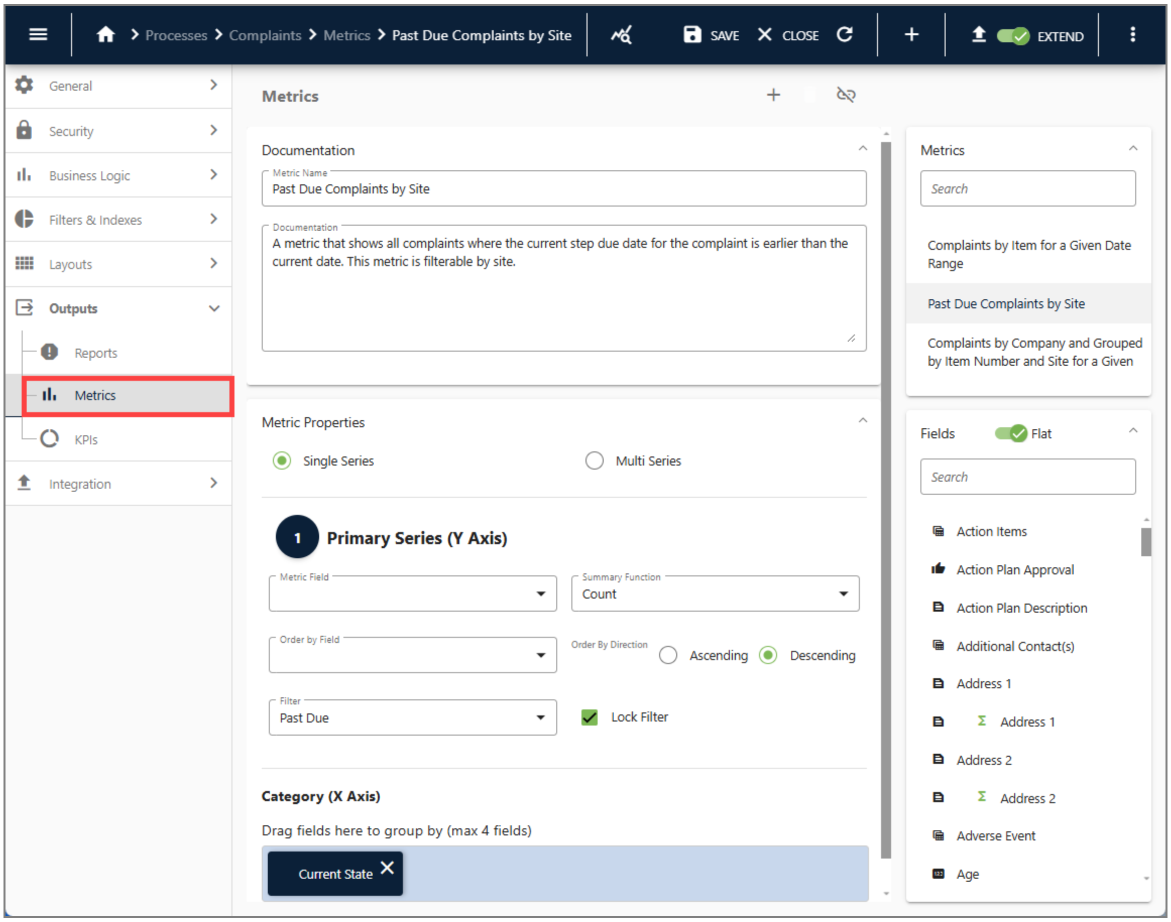
- Average
- Minimum
- Maximum
- Sum

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 52: Metrics contextual toolbar

- **Add New Item.** Add a new metric.
- **Remove Selected Item.** Delete a user-created metric.
- **Override.** Click this icon to override the system and allow changes to the inherited metric.
  - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited metrics to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new metrics added before clicking this icon will remain.

Fig. 53: Metrics outputs screen



Extending the Metric

Adding a New Metric

Note: When the Override button is clicked, inherent metric actions can be fully extended.

1. Click the Add New Item button in the contextual toolbar. A new metric fills the display window and a new item appears in the item menu.
2. Enter a name and documentation for the metric.
3. Determine whether this is a single series (one Y axis) or multi series (two Y axis) metric.
4. Select a metric field and a summary function.
5. Select an order, then choose whether the information is sorted by ascending or descending order.
6. Select a filter for the metric.
7. If you want to group the metric data by a field, then drag and drop up to four fields from the Fields item menu.
8. Save the process.

KPIs

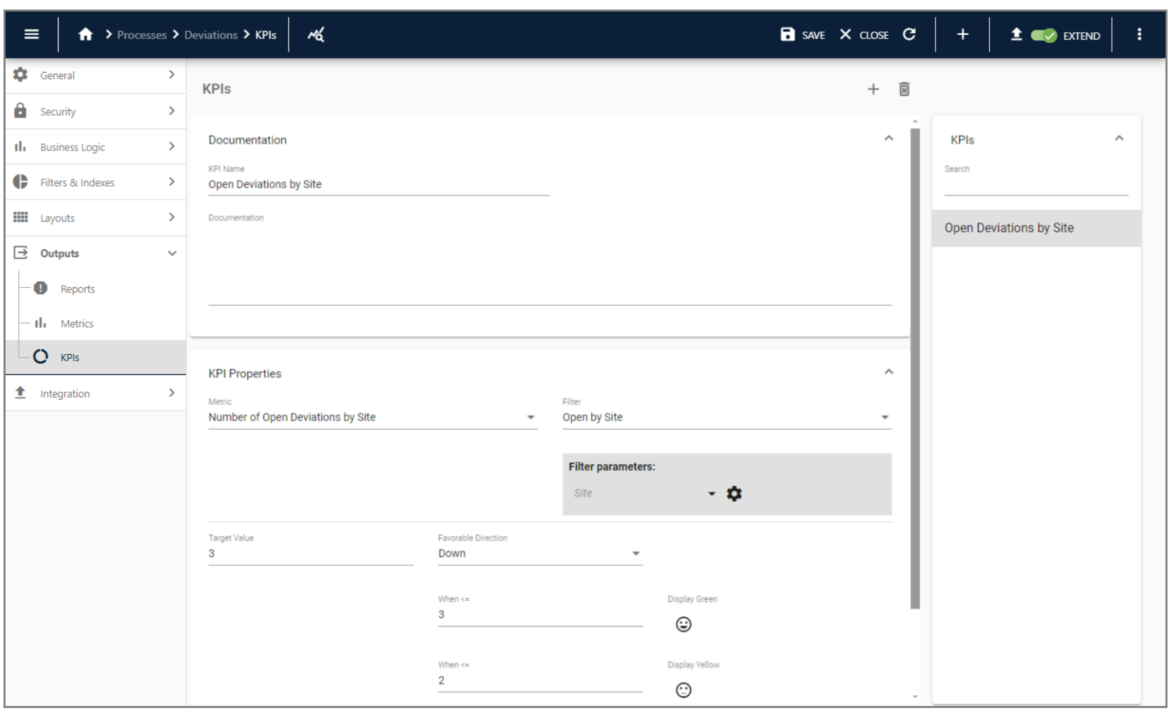
KPI (Key Performance Indicator) gauges allow users to observe the metrics of a single process within ranges of green (ideal), yellow (acceptable), and red (unacceptable). In AppXtender, the KPIs item allows you to extend and create KPIs, specifying the name, related metric, and range of acceptability.

This screen contains its own separate toolbar, which contains icons for adding or removing security.

Fig. 54: KPIs contextual toolbar

- **Add New Item.** Add a new KPI.
- **Remove Selected Item.** Delete a user-created KPI.
- **Override.** Click this icon to override the system and allow changes to the inherited KPI.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited . Click this icon to return the inherited KPIs to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new KPIs added before clicking this icon will remain.

Fig. 55: KPIs outputs screen



Extending the KPI

Adding a New KPI

Note: When the Override button is clicked, inherent KPI actions can be fully extended.

1. Click the Add New Item button in the contextual toolbar. A new KPI fills the display window and a new item appears in the item menu.
2. Enter a name and documentation for the KPI.
3. Select a metric related to the KPI and a filter.
4. Select the target value and whether a value that is higher (up) or lower (down) is favorable.
5. Select the value that best fits a green (ideal), yellow (acceptable), and red (unacceptable) range.
6. Click the Symbol button below each colored display to open a new window. Select an icon to represent this range.
7. Save the process.

Chapter 8

Integration

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Web Services...81

Integration

The Integration contextual group provides various methods to transfer data into and out of the system.

- **Web Services.** Create or call web services that will communicate with other applications.
- **Esync Events.** Create jobs that will load data from an external source into the system on demand or via a schedule.

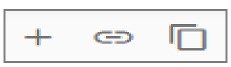
Web Services

The Web Services section allows you to create web services that can be called by external applications. You may also create calls to external web services, which allows the system to communicate with external applications. Both methods can be used to synchronize data between systems. Most web services are conducted by the QAD EQMS team.

Several actions in the Web Services section require the expression builder to map system logic. See "Expression Builder" on page 52 for more information.

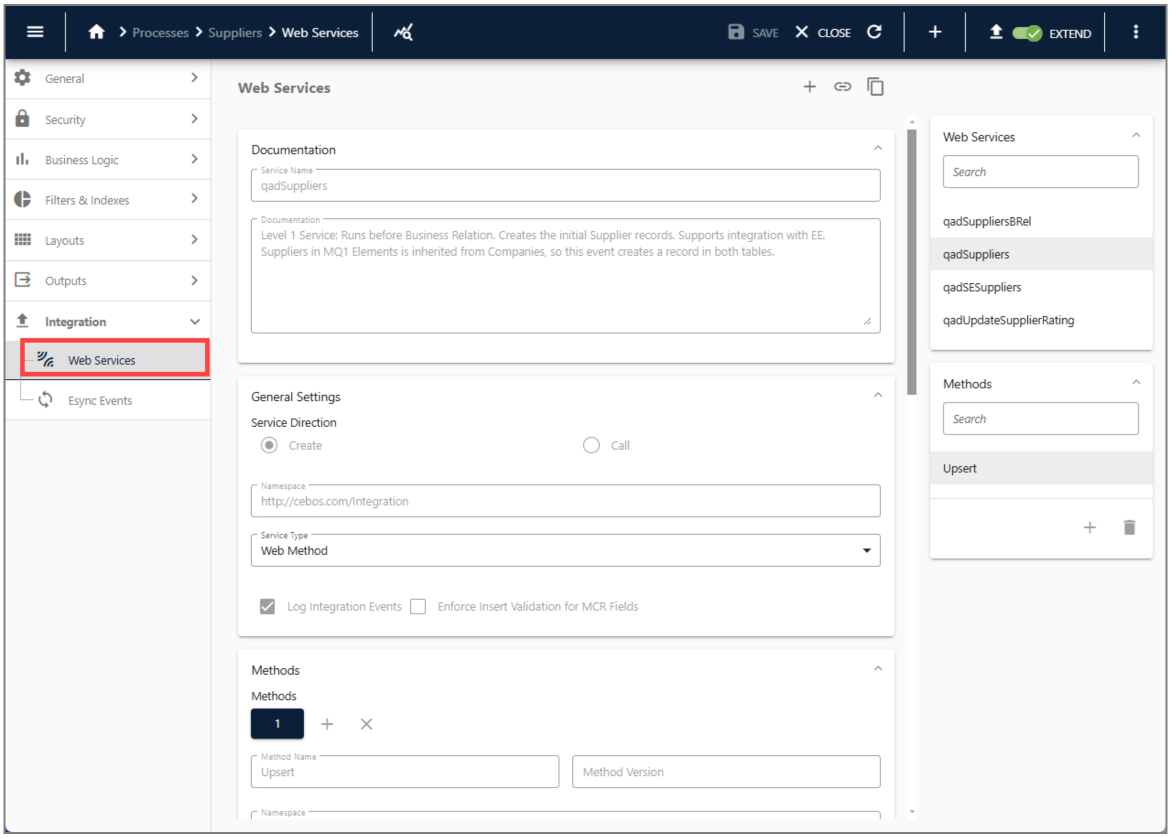
This screen contains its own separate toolbar, which contains icons for adding, removing, and extending records.

Fig. 56: Web Services contextual toolbar



- **Add New Item.** Add a new web service.
- **Override.** Click this icon to override the system and allow changes to the inherited web service.
    - **Restore inherited.** After clicking Override, the icon changes to Restore Inherited. Click this icon to return the inherited configurations to their original nature and disable the ability to change them. Note that this is **not** a full revert button; any new web services added before clicking this icon will remain.
- **Copy as a New Integration Service.** Copy the current integration (REST or SOAP APIs).

Fig. 57: Web Services integration screen



Extending Web Services

Changing an Inherent Web Service

When you extend a web service, you can modify the service's settings so they can be personalized for your specific needs. It is common for endpoints, user names, and passwords to be customized based on your specific requirements.

Creating a New Service

1. In the contextual toolbar, click the Add New Item button. A new web service fills the display window and appears in the Web Services item menu.
2. Enter a name and documentation that explains the web service.
3. In the General Settings section, set the service direction to Create.
4. Enter a namespace and determine if events from this service should be included in the Integration log.
5. In the Methods item menu, click Add Method. You may create as many methods as you need.
6. Enter a name, namespace, username, and password for the method.
7. Select which endpoints, or actions, this service will perform.
    - **Select.** This method will select a record from the system.
    - **Insert.** This method will insert a record into the system.

- **Update.** This method will update an existing record in the system.
- **Remove.** This method will remove a record from the system.
- **Insert or Update.** This method will update an existing record in the system or insert one if it cannot find an existing record.

8. Click the blue Add button under Input Parameters to add a new parameter. Define as many parameters as are needed for this web service.

   Note: Ensure the parameter type matches the type of data you will be using.

9. Click the Add button under Endpoint Mappings to open the expression builder and map the endpoints. See "Expression Builder" on page 52 for more information.
10. Select a result type, if desired, and add the mapping for it.
11. Click the green Add button in the Types section. You may create as many types as you need.
12. Enter a type name and namespace.
13. Click the blue Add button under Fields. Define as many fields as are needed for this web service.

    Note: Ensure the field type matches the type of data you will be using.

14. Click the Save button in the main toolbar.

Calling a New Service

1. In the contextual toolbar, click the Add New Item button. A new web service fills the display window and appears in the Web Services item menu.
2. Enter a name and documentation that explains the web service.
3. In the General Settings section, set the service direction to Call.
4. Determine if events from this service should be included in the Integration log.
5. Select the service type you wish to use. Note that the Web Method type uses the Simple Object Access Protocol (SOAP).
   - **Web Method**
     a. Enter the address, username, and password of the service being called.
     b. Click the Get Description button, which retrieves the Web Service Definition Language (WSDL). It is advised to **not** click this button after the initial setup of the web service because it will break your existing configuration.
     c. Click the Get Methods button.
     d. Select which method to use.
     e. Click the Add button under Parameter Mapping.
     f. Map the parameters using the expression builder. See "Expression Builder" on page 52 for more information.
     g. If needed, click the Add button under Result Mapping.
     h. Map the results using the expression builder.
     i. You may view or edit the service endpoint configuration by using the "Show Advanced Options" menu.
   - **URL**
     a. Select the Call Location and HTTP Method.
     b. Click the Add button under Address.

c. Map the address using the expression builder.
d. Click the blue Add button under Parameter.
e. Define as many parameters as are needed for this web service.
f. For each parameter, click the Add button to map it using the expression builder.

- **REST**
  - General Tab
    a. Click the Edit Expression button under URL.
    b. Map the URL using the expression builder.
    c. Select an HTTP Method.
  - Authorization Tab
    a. Select an authorization type if required.
    b. Fill out the authorization information per your specific requirements.
  - Parameters Tab
    a. Click the blue Add button under Query Parameters.
    b. Define as many query parameters as are needed for this web service.
    c. For each query parameter, click the Add button to map it using the expression builder.
  - Headers Tab
    a. Click the blue Add button under HTTP Headers.
    b. Define as many HTTP headers as are needed for this web service.
    c. For each HTTP header, click the Add button to map it using the expression builder.
  - Request Tab
    a. Select a content type for the request, if needed.
    b. Confirm the content is defined accurately by clicking through the tree of content.
    c. Click the Edit Expression button to map the request.
  - Response Tab
    a. Select a content type for the request, if needed.
    b. Select a response type for the request, if needed.
    c. Click the Edit Expression button to map the response.
  - Json Types Tab
    a. Click the green Add button under Json Types.
    b. Enter a type name and indicate if this type is an array of data.
    c. Click the Add New Field button.
    d. Define as many fields as are needed for this web service. Ensure the type matches the kind of data you will be using.

6. Click the Save button in the main toolbar.

Chapter 9

Publish and Deploy

Publish and Deploy...86

Publish and Deploy

Once you have created extensions that you want your users to begin utilizing, the final step is to publish and deploy those changes. Publishing takes the extensions you have built and compiles them so the rest of AppXtender recognizes them. This is also the time in which the application tests the extensions to ensure they will build properly.

Most users will also select the deploy option at this time. Deploy is the last step in making the extensions available to users. Prior to deploying, the extensions only exist within AppXtender.

Fig. 58: Publish Options window

When you are ready, save the process then click the Publish Current Process icon in the toolbar. You can also click the Publish button in the Home screen or the main navigation menu. A new window appears; click the Deploy toggle, then select Publish. A new window appears.

Fig. 59: Publish Status window

In the new window, you can see the publish status. Every extension made is calculated and appears on this screen. You may choose to refine the level of detail displayed in the log to verbose, detailed, basic, or errors.

When the system is finished, the final line item reads “Publish finished successfully”. You can close the window, or copy the publish status details to your clipboard for your records.

Chapter 10

Extensibility Tables

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Extensibility Capabilities and Restrictions

The following tables serve as a list of supported extensibilities to standard EQMS processes and objects. Each table is separated by contextual groups.

Setup Options

Section	Field	Extendable?	Restrictions
Versioning	Versioning Style	✓	N/A
Versioning	Starting Version Number	✓	N/A
Versioning	When Next Version State Equals	✓	N/A
Versioning	Set Previous Version State To	✓	N/A
Versioning	But Only When Previous Version Is	✓	N/A
Scheduling	Default Frequency	✓	N/A
Scheduling	Default Items Scheduled	✓	N/A
Scheduling	Schedule at State	✓	N/A
Scheduling	Schedule from Date	✓	N/A
Scheduling	Key Field	✓	N/A
Scheduling	Display Scheduled Date	✓	N/A
Scheduling	Also Treat as Scheduled	✓	N/A

Modifying Field Properties

Section	Field	Extendable?	Restrictions
Approval Type	Business Unit	✓	N/A
Approval Type	Add Level	✓	N/A
Approval Type	Remove Level	✓	N/A
Approval Type	Level Role	✓	N/A
Approval Type	Level Person	✓	N/A
Approval Type	Override	✓	N/A
Approval Type	Approval Algorithm	✓	N/A
Approval Type	Allow Delegation	✓	N/A
Approval Type	States	X	N/A
Check Box	True and False Labels	✓	N/A
Check Box	Is Toggle	✓	N/A
Checklist	Allow Ad Hoc Questions	✓	N/A
Checklist	Answer Process Default State	✓	N/A
Checklist	Is Single Question View	✓	N/A
Checklist	Question Process System Name	X	N/A
Checklist	Show Linked Items	✓	N/A
Checklist	Sort Field	✓	N/A
Cross-reference	Allow Add New	✓	N/A

Section	Field	Extendable?	Restrictions
Cross-reference	Allow Clear	✓	N/A
Cross-reference	Allow Recent Version	X	N/A
Cross-reference	Allow View Detail	✓	N/A
Cross-reference	Process	X	N/A
Cross-reference	Display Field Name	✓	N/A
Cross-reference	Display Multiple	X	N/A
Cross-reference	Edit Via Spreadsheet	X	N/A
Cross-reference	Filter Definition	✓	N/A
Cross-reference	Link Field	X	N/A
Cross-reference	Allow Add New	✓	N/A
Cross-reference	Allow Link Unlink	✓	N/A
Display List	Display Field	✓	N/A
Display List	Filter Definition	✓	N/A
File	Cover Page Landscape Report	✓	N/A
File	Cover Page Portrait Report	✓	N/A
File	Watermark Landscape Report	✓	N/A
File	Watermark Portrait Report	✓	N/A
General	Calculated Expression	✓	In general, Calculated Expressions on standard fields are not extendable. However, there are exceptions where QAD EQMS specifically unseals certain standard fields (e.g. Display Expression fields).
General	Field Default Expression Changes	✓	In general, Default Expressions on standard fields are not extendable. However, there are exceptions where QAD EQMS specifically unseals certain standard fields (e.g. Display Expression fields).
General	Allow Localized Data	✓	Only applies to text fields.
General	Documentation	✓	N/A
General	Hide Field Name	X	N/A
General	Include In Filter	✓	N/A
General	Prompt	✓	N/A
General	Is Required	✓	Users can mark fields as required, but cannot unmark required on standard fields.
General	Field Type	X	N/A
General	Deep Copy	X	N/A

Section	Field	Extendable?	Restrictions
Label	Label Text	✓	N/A
Numeric	Maximum / Minimum	✓	N/A
Numeric	Number of Digits	X	N/A
Numeric	Format	✓	N/A
Text	Number of Characters	X	N/A

Other Process Objects

Section	Field	Extendable?	Restrictions
Actions	Documentation	✓	N/A
Actions	Group Name	✓	N/A
Actions	Message	✓	N/A
Actions	Subject	✓	N/A
Actions	Responsibility Field	✓	N/A
Actions	Role Field	✓	N/A
Actions	Additional Email Address Field	✓	N/A
Actions	Send Email Option	✓	N/A
Actions	Obsolete Option	✓	N/A
Command	Command Type	X	N/A
Command	Transaction	X	N/A
Command	Documentation	X	N/A
Data Index	Exclude Removed Items	X	N/A
Filter	Documentation	✓	N/A
Esync	All	✓	N/A
Execution Plan	Order	▲	Users may re-order extended items below the inherent items, but cannot modify the order of inherent items.
Execution Plan	Disable	▲	Users may disable extended items, but cannot disable inherent items.
Metric	Documentation	✓	N/A
Metric	Filter Definition	✓	N/A
Metric	Group Field	✓	N/A
Metric	Order By Field	✓	N/A
Process	Color	✓	N/A
Process	Description	✓	N/A
Process	Documentation	✓	N/A
Process	Icon	✓	N/A
Process	Enable States	X	N/A
Process	Is Tabbed UI	✓	N/A

Section	Field	Extendable?	Restrictions
Process	Name	✓	N/A
Process	System Name	X	N/A
Process	Simple Process	X	N/A
Process	Inherited Process	X	N/A
Report	Description	X	N/A
Report	Display To Users	✓	N/A
Report	File Name	X	N/A
Report	Visibility	✓	N/A
Rule	Documentation	✓	N/A
Rule	Is Active	✓	N/A
Rule	Rule Expression	▲	Users may add new rules with rule expressions, but cannot change inherent rule definitions.
Transaction	Filter Definition	▲	Users may add new transactions, but not extend inherent transactions on system processes.
Transaction	Modification Type	▲	Users may add new transactions, but not extend inherent transactions on system processes.
Transaction	Notes	▲	Users may add new transactions, but not extend inherent transactions on system processes.
Transaction	Stored Procedure Name	X	N/A
Transaction	Transaction Type	▲	Users may only add process transactions, not stored procedure transactions.
Web Services	All	✓	N/A

Security

Section	Field	Extendable?	Restrictions
Field	Can Edit	✓	The standard object security can be extended, but not restricted.
Field	Can View	✓	The standard object security can be extended, but not restricted.
Process	Can Create	✓	The standard object security can be extended, but not restricted.

Section	Field	Extendable?	Restrictions
Process	Can Delete	✓	The standard object security can be extended, but not restricted.
Layout	Can Move	✓	The standard object security can be extended, but not restricted.

Layouts

Section	Field	Extendable?	Restrictions
Detail Layout	Field Position	✓	N/A
Detail Layout	Field Width	✓	N/A
Search Screen Layout	Field Position	✓	N/A
Search Screen Layout	Auto Generated / Custom	✓	N/A
Search Screen Layout	Is Default	✓	N/A
Search Screen Layout	Sorting and Grouping	✓	N/A