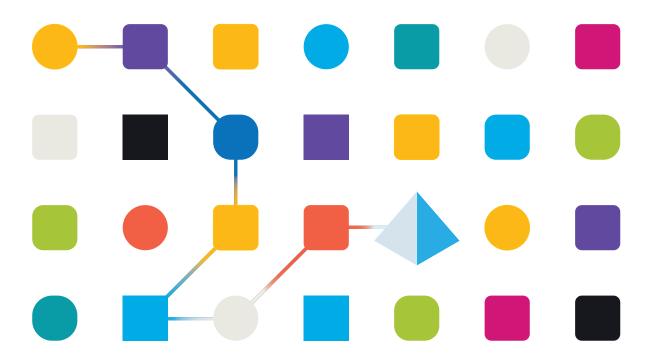
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Automation Lifecycle Management 4.1

User Guide

Document Revision: 1.0



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Automation Lifecycle Management (ALM)

This guide outlines functionality and usage of the Automation Lifecycle plugin. By utilizing ALM, business analysts can capture and document the business process definitions along with the applicable applications and any business exceptions. It is assumed as part of this guide that the user is familiar with Blue Prism digital workfers and has experience with components such as Hub and Blue Prism.

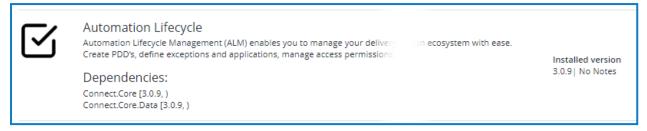
Overview

The Blue Prism digital workers provide an unparalleled skill and capability set, with further use cases being addressable with each new release. Whilst capability is important, usability has been equally considered during the delivery cycle, ensuring enterprises are provided with guard rails to ensure best practices are met. The Robotic Process Automation (RPA) and Intelligent Automation (IA) industry has a multitude of methodologies and operating models however these are contained in documents and training materials only. With the development of Blue Prism Automation Lifecycle Management (ALM) capability within Hub, enterprises early on in their RPA/IA journey can benefit from application driven controls to ensure the key milestones of a successful delivery are met.

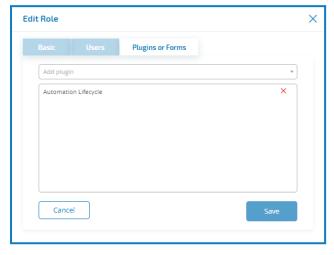


Installation and access

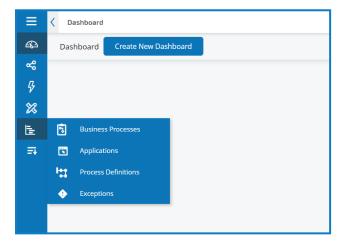
To access Automation Lifecycle Management (ALM) the Automation Lifecycle plugin must be installed by an administrator.



Once the plugin has been installed it needs to be added to a role and a user then assigned to that role. The plugin can be assigned to the default user role if required or a custom role can be created.



The full functionality of ALM is accessible through the Automation Lifecycle menu from the sidebar menu.





The following options are available:

- Business Processes;
- Applications;
- Process Definitions
- Exceptions.

All the options under the Automation Lifecycle menu leverage the same table customization options as with other Hub plugins. This include items such as changing the columns being displayed, hiding filters and saving and retrieving stored views. These are all accessible through the settings cog on each option page.

The typical flow through the Automation Lifecycle Management functions is as follows:

- 1. Identify the organization's business processes and determine whether they are suitable candidates for automation.
- 2. Capture the applications that these processes use.
- 3. Define the process using Process Definition.
- 4. Capture the low-level steps of the process.
- 5. Exceptions that may apply to one or more of the Business Processes is performed.

Though this is a typical flow, once several items have been captured and defined, ALM allows the reuse of parts of a process. This means that common elements can be defined as templates and reused as required. For example, the login process into say Salesforce is the same whether you are creating a new user or creating a new account. Therefore, the defined process steps for Login to Salesforce can be defined as a template and used in both processes.



Business processes

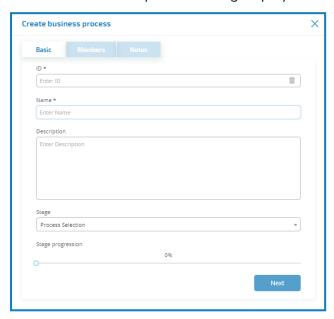
The Business Processes option allows you to define the business processes within your organization.

Add a business process

1. Select the Business Process tab and click Add New.



2. The Create business process dialog displays.





- 3. In the Basic section add the required basic information about the business process:
 - **ID** A unique number to identify the Business Process. Companies can define their own identification system which could assist in identification of processes for different departments, e.g. Finance, Sales, etc. or just a unique identification across the organization's processes generally.
 - Name A name for the business process.
 - **Descriptions** An optional description of the Business Process.
 - Stage The stages involved in capturing the Business Process:
 - Process Selection, (default option)
 - Deep Dive
 - Design
 - Development
 - Internal UAT
 - External UAT
 - Live Proving
 - Live
 - **Stage Progression** A slider that allows you to set the how much of the stage has been completed as a percentage.
- 4. Click Next.
- 5. In the Members section add any key stakeholders that will contribute towards the automation of the business process throughout the lifecycle. If you create a business process you will be automatically added as a member.
- 6. Click Next.
- 7. In the Notes section add information about the business process. Only the person who created the Business Process will have write privilege, everyone else will only have read privileges.
- 8. Click Save.
- 9. If the save has been successful, a notification displays in the top right corner. Once the data has been added it can be viewed, edited or retired using ellipsis that displays for each added business process.



 The list can be filtered to show all existing business processes or only those that the logged in user created.



Applications

The Application tab for Automation Lifestyle Management (ALM) allows the definition of applications and their access and permissions attributes.

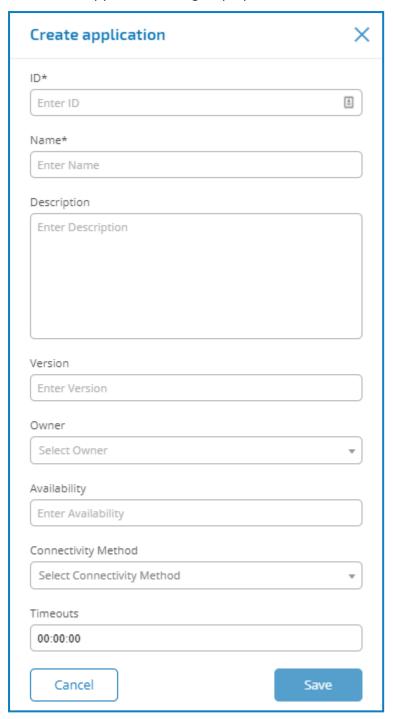
Add an application

1. Select the Application tab and click Add New.





2. The Create Application dialog displays.



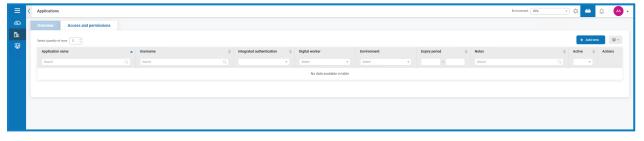


- 3. Complete the following fields:
 - **ID** A unique number to identify the Application. Companies can define their own identification system which could assist in identification of applications within different departments, e.g. Finance, Sales, etc. or just a unique identification across the organization's applications generally.
 - Name The application name.
 - **Description** An optional description of the application.
 - Version The version number of the application.
 - **Owner** –The person in your organization responsible for the version deployed and in operation. This could be the Finance Director for applications that are specific to the Finance team and not just an individual who oversees IT.
 - Availability The availability of the application. You could set the application to be constantly available or limit its availability to a specific day and/or time. For example, only between 09:00 to 17:30 on business days. This can be used to ensure that backups and maintenance periods are included in the definition of the application.
 - Connectivity Method The method of access for the application. Options include:
 - Web Access (Internet Explorer)
 - Web Access (Chrome)
 - Desktop Application
 - Citrix (Application)
 - Citrix (Desktop Application)
 - Remote Application
 - Remote Desktop Application
 - **Timeouts** The period of time after which the application will timeout and exit if unused.
- 4. Click **Save** to store the information in the Hub database. A notification displays to confirm a successful save and the application is added to the list in the Application tab.

Use the ellipsis for the required row to edit or retire an application from the list.

Pressing Save, stores the information into the Hub database and a popup in the top right corner will confirm success. Once the data has been added it can be edited or retired by using the menu alongside the Application.

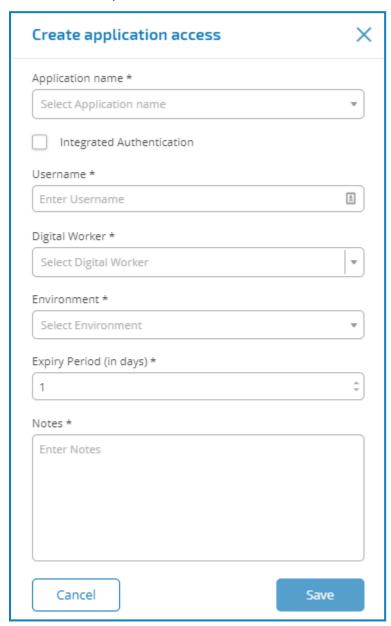
Once an application has been added the Access and Permissions tab can then be used to define access rights. To navigate to Access and Permission select the Access and Permission tab.



Like the other forms, selecting Add New provides you with the options as detailed below:



- Application Name allows you to select a defined application;
- Integrated Authentication if Single Sign-On is enabled for the digital workers then this option should be ticked. This will enable the digital worker to directly authenticate inside the application without the need to complete username fields;
- **Environment** allows you to select the environment that the credentials apply to, i.e. Production, Development, etc.;
- Digital Workers this allows you to select the digital workers that will be accessing the application;
- Expiry Period is the period defining the frequency that the password is updated. Most
 organizations utilize Active Directory and Group Policy to define a password expiration date, this
 field is used to notifying the password expiration period;
- **Notes** this field allows the user to capture any additional information relating to the application access or permissions.



For the On-premise version of the product the Access and Permissions capability is non-operational. This functionality will be re-introduced in a later version.



Process definitions

The Process Definitions option under ALM allows the creation of electronic versions of the Process Definition Document (PDD) and their attributes.

A Process Definition is a document, whether a physical document or an electronic version, that describes in detail a business process. A Process Definition Document (PDD) should consist of the following:

- A summary of what the overall process and solution is;
- Definitions of unique language used within the business process;
- Scope and expectations as to what the automation should achieve;
- Volumes, how many instances of this task are going to be ran each day;
- Interact design to dictate what the solution would visually look like;
- A list of applications that your automation will interact with as well as their versions;
- A high-level process map of what the goal is;
- Low level steps, keystroke level details of the process;
- Inputs, triggers and outputs relevant to the automation; and
- Exceptions, what varying scenarios should you expect and handle.

The Process Definition is the core tool for the automation developer role, its accuracy and consistency will mean the difference between an average and great automation so ensure the information is complete before starting your work. The build of an automation shouldn't commence without a process definition and so we emphasize the importance of this document.

In the process definition section of ALM the following attributes for a process definition can be collected:

- Process name Name of the Process Definition, the name is inherited from the Business Process.
- **Process active** Based on whether the Business Process is active. If it is then this value would have a tick, else, it would have a cross.
- Version The version number of the Process Definition.
- Latest This column by default is filtered by latest, by not filtering by latest, all previous Process Definition versions will be on display.
- **Updated by** Who was the last user to update the Process Definition.
- Update date The latest date the Process Definition was updated.
- **Sections** Different sections that make up the Process Definition.
- Locked by User who currently has the Process Definition "open".
- Owners List of users who are owners of the Process Definition.
- Contributors List of users who are contributors.
- **Group sign off** Have all required members signed off the Process Definition. If so, there will be a tick, else, a cross is displayed.
- My access The access the users have on the Process Definition.
- **Signed off** The sign off status (hyphen do not need to sign off, cross have not signed off, tick signed-off).



Versioning

Versioning is the method used to manage the creation and management of multiple releases of process definitions. As they are developed, improved, upgraded or customized users can save versions to capture versions at particular points in time.

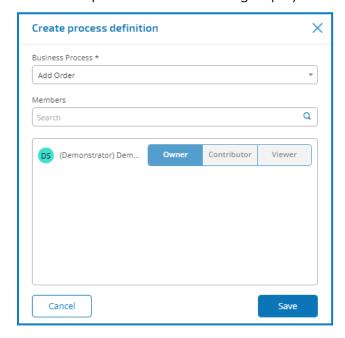
There are two versions levels, minor and major versions. A minor version of the process definition is captured every time you save the document. Only an owner/contributor can update to the major version. This would be used typically when a milestone has been reached and the process definition is being sent for review. More details on versioning are included in Process Definition Sign-off.



The remove filter icon, next to the Add New button removes the default setting of the Latest flag. By default, the Latest field is ticked and only the latest versions of each process definitions displays. Earlier versions are hidden to provide a clean view. Users can either select the Remove Filter icon or change the status on the Latest column to see previous saved versions.

Add a process definition

- 1. Select the Process Definition tab and select Add New.
- 2. The Create process definition dialog displays.





3. Select the following tabs to add users appropriate to each level of access:

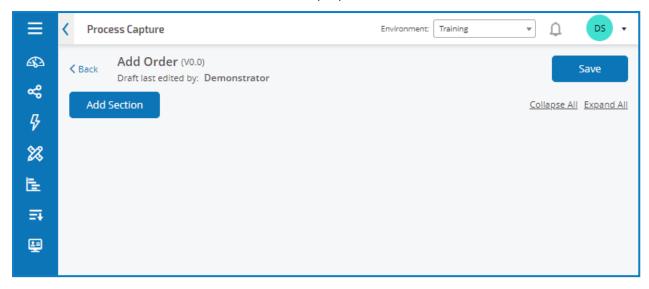
Access Level	Description		
Owner	With this level of access you can read, write, delete and initiate sign-off of the Process Definition. The user who created the Process Definition will automatically be given Owner rights. In detail they can perform the following:		
	• Edit Definition – allows the user to edit the Process Definition, if it's not locked by another user.		
	• Increase Major – allows the user to increase the major version of the Process Definition.		
	• View – allows the user to view the Process Definition, you will not be able to edit the Process Definition in this mode.		
	• Edit Access Control – from here the user can alter the access privileges of different members. Members are aware of their access change via a notification.		
	 Sign off Options – this will give the user three options: Submit for sign off – Sends a notification to members letting them know that they need to sign-off on the PDD. 		
	• Redact Sign-off – Owner can redact the sign-off.		
	 Member Sign off – View the different members who have and have not signed off. 		
	• View Update Note – Allows the user to see the latest update note, date it was updated and the user who updated.		
	Delete – Reverts the Process Definition to the previous version.		
Contributer	With this level of access you can read, write and delete the PDD. In detail:		
	• Edit Definition – Allows the user to edit the Process Definition, if it's not locked by another user.		
	• Increase Major – Allows the user to increase the major version of the Process Definition.		
	• View – Allows the user to view the Process Definition, you will not be able to edit the Process Definition in this mode.		
	• View Update Note – Allows the user to see the latest update note, date it was updated and the user who updated.		
Viewer	With this level of access the user can read the PDD. In detail the user can:		
	• View – Allows the user to view the Process Definition, you will not be able to edit the Process Definition in this mode.		
	• View Update Note – Allows the user to see the latest update note, date it was updated and the user who updated.		

Access control can be updated at any time.

5. Click Save.



6. The initial version of the Process Definition is displayed.

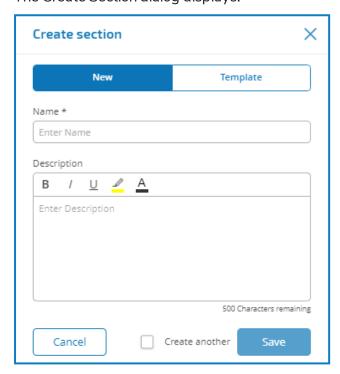


Sections

A section is a group of steps that describe a combined part of the process, for example the 'Login steps' into an application. Using this structured approach enables the users to create 'reuseable' sections which can be stored as Templates and reused in other Process definitions. More on Templates later.

Add sections to a PDD

From the Process Capture screen of a PDD, click Add Section.
 The Create Section dialog displays.

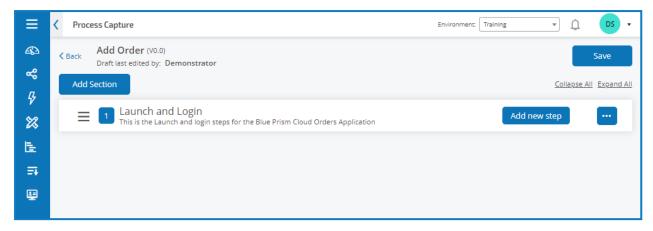


2. Enter a name and an optional description of the section being created.

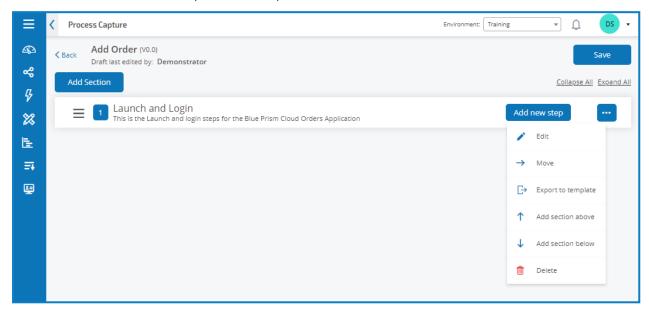


3. Click Save.

The section is added to the Process Definition.



The context sensitive menu (three dots) allow you to edit the information provided, add sections above or below, delete or export to a template.



4. Repeat this process to add further sections.

Steps

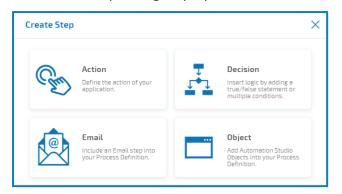
Steps are the tasks that the human worker would undertake to perform the business process. They are the actions, for example, input username, input password, click login button, and then a decision to check that the credentials were correct. There are fours types of steps that we can use, these are:

- Action This allows you to define an action for your application. These include: Input, Read, Select, Launch, Close, Drag and Drop, Click, Double Click, Right Click and Terminate.
- **Decision** This allows you to insert true/false or multiple conditions.
- Email This allows you to include an email step within your process.
- Object This allows you to add Blue Prism Object to your Process Definition.

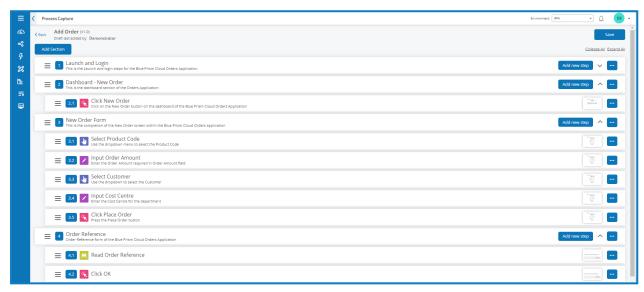


Add steps to a PDD

From the Process Capture screen of a process, click Add New Step.
 The Create Step dialog displays.



- 2. Select the required step type:
 - Action
 - Decision
 - Email
 - Object
- 3. Configure the step.
- 4. Add and define all the required steps until you have built up the complete process.



The final step in a business process must be the steps required to exit the application and the final step needs to include a route to End.

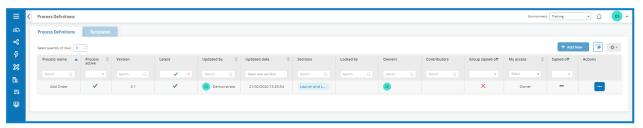
5. Click **Save** to create a minor version of the process definition. See Versioning for further information. The Increase minor dialog displays.



6. Enter a description to remind you where you are up with the process and click Save.



The Process Definition screen displays, updated to show the latest version of the process definition.



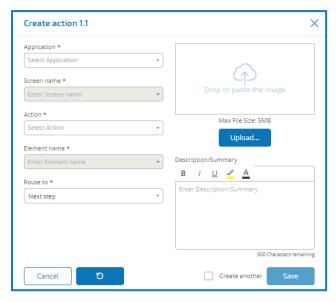


Step types

There are four step types that can be configured.

Action

Actions are used to configure the steps a user would perform in a screen such as input data into a field, click a button, close an application.



An action step is configured using the following fields:

- Application Select the required action from the drop-down. Each currently defined application is available.
- Action The type of action the step will perform:
 - Input Used to input data into a field.
 - Read Reads data from a form or field.
 - Select Selects an option, i.e. dropdown menu item.
 - Launch Launches an application.
 - Close Closes an application.
 - Drag and Drop Allows a data item to be moved between two applications.
 - Click Presses a button or file menu item.
 - Double Click Double click a button.
 - **Right Click** Right click on a button.
 - Validate Checks a data item.
- Screen name The name that the user will give to the screen in the application on which the action will occur. As the user starts to type the screen name a list of possible names will appear of those that have been created earlier. If reusing an existing screen name the user can select from the list. If a new name, type the name and then moving to the next field will create the new screen name.
- **Element name** Enter a name for the element that will enable the automation developer to recognize the field that the digital worker has to interact with, i.e. username, password, or login button.

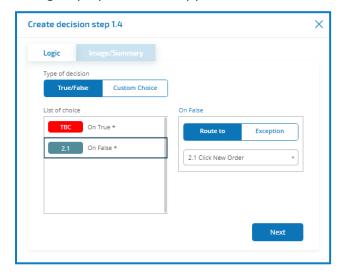


- **Route to** Determines what happens when the step is complete:
 - Next step Moves to the next step in the process.
 - TBC A placeholder that is useful if the required step has not yet been configured.
 - End The end of the process. Each process must finish with a step that routes to End.
- Image Take a snapshot of the application showing the fields and the buttons. The automation developer can then review this during the build to ensure that they are on the correct screen within the application. This also ensures they can recognize fields and buttons correctly.
- **Description/summary** An optional description of the step.

To quickly add the next step in the process, select the **Create another** checkbox before saving. When you click save the dialog will refresh allowing you to quickly configure the action.

Decision

A decision determines what option should be taken if more than one outcome is available. The process can continue to the next step or another defined step. In the example below, a decision has been added after the login button has been pressed. The decision checks whether the incorrect username or password dialog displays. If neither appears then a decision needs to be made as to the next step undertaken.



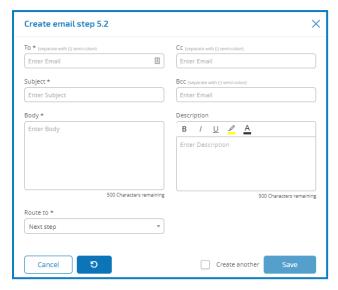
A decision step is configured using the following fields:

- **Type of decision** The options that are available for the decision. This could be true/false or a custom choice.
- **List of choice** The options available. Once selected, configure what will happen when the outcome of the choice occurs, such as progress to a specified stage.



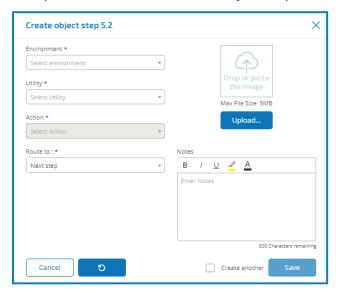
Email

If a business process includes sending an email, configure the contents and recipients in an email step.



Object

Incorporate Blue Prism business objects in process capture.



An object step is configured using the following fields:

- Environment The Blue Prism environment in which the business object/utility file is located in.
- **Utility** The name of the business object/utility file that the automation developer will use to call the required action.
- Action The required action that the developer will use from the business object/utility file.
- Route to Determines what happens when the step is complete.



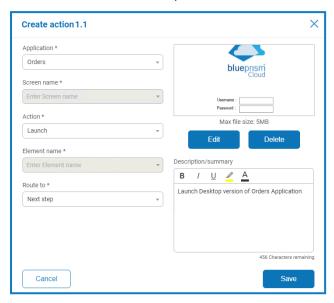
Login example

This example demonstrates how to create the steps for a simple application login.

Launch the application

Open the selected application on the login screen and proceed to the next step:

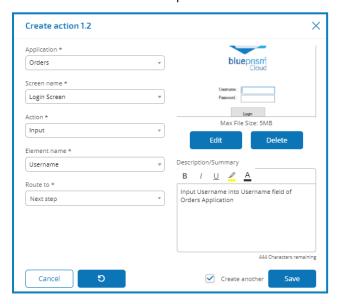
- Action Launch
- Application As required
- Route to Next step



Enter a username

Enter a username in the Username field on the Login screen and proceed to the next step:

- Action Input
- Application As required
- Screen name Login screen
- Element name Username
- Route to Next step

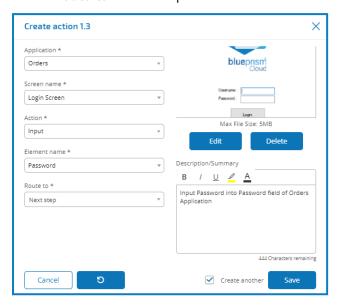




Enter a password

Enter a password in the Password field on the Login screen and proceed to the next step:

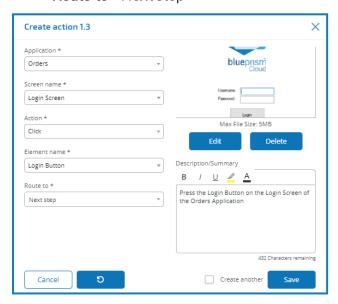
- Action Input
- Application As required
- Screen name Login screen
- Element name Password
- Route to Next step



Click the login button

Click the Login button and proceed to the next step:

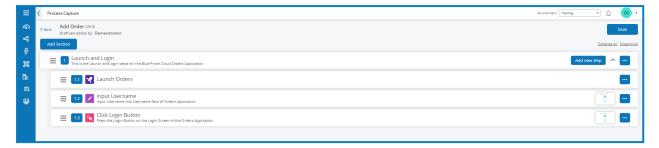
- Action Click
- Application As required
- Screen name Login screen
- Element name Login button
- Route to Next step





Process complete

All the required actions have been completed and are listed in the Process Capture screen.

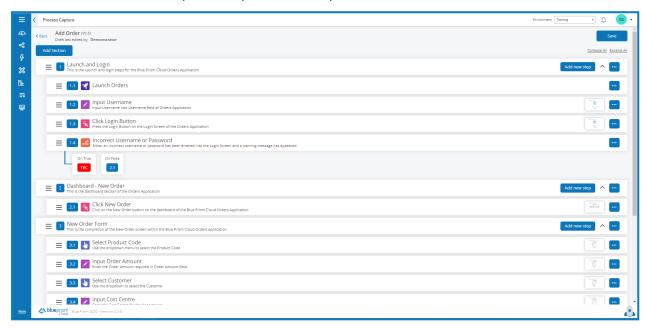


Add an exception to a PDD

Exceptions can be added to a process to cater for unexpected occurrences when running a process.

For information about creating exceptions, see ALM exceptions.

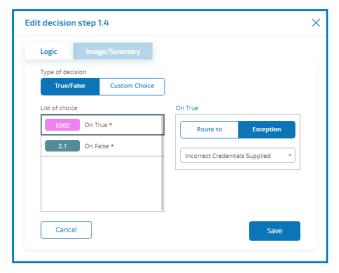
- 1. From the Process Definitions tab, edit the latest release of the required process definition.
- 2. Locate the and edit the step that requires an exception.



3. Select the required step choice and select the **Exception** tab.

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4. Select the required exception for this choice. In the example, we are adding the Incorrect Credentials Supplied exception to the incorrect login credentials step.



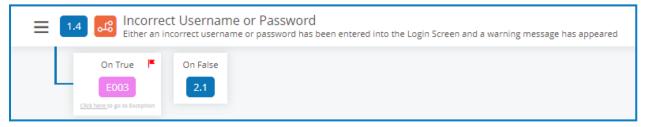
If the required exception has not yet been created, you can create the skeleton of an exception by selecting **Add New Extension** and following the prompts. For further information, see Exception Pending.



5. Click Save.

Exception pending

If you have added selected **Add New Exception** for a step choice, when you save the step a flag is added to the step in the PDD to show that it references an exception that has not yet been populated.



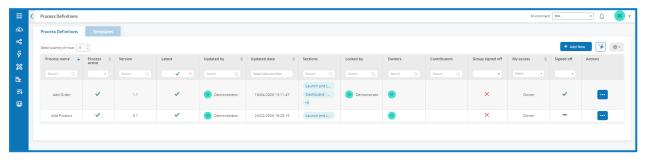
Click the **Click here** link in the flagged step and configure the exception as described in ALM – Exceptions.



ALM - Process definition table

The Process Definition table has a few important columns that you will need to be aware of.

- **Sections** A list of high-level sections that make up the PDD.
- Locked by Displays the user who is currently accessing the a process capture.
- **Group sign off** The status of the sign-off. A tick displays in the column when all required business process members have signed off.
- My Access Displays the access level you have for a PDD.
- Sign off The status of the sign-off:
 - A tick indicates you have signed the PDD off.
 - A hyphen indicates that you do not have to sign off the PDD
 - A cross indicates that you have redacted your sign off





Exceptions

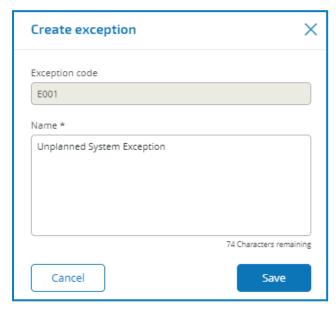
The Exceptions option under ALM allows the creation of Exceptions and their attributes.

Create an exception

1. Select the Exceptions tab and click Add New.



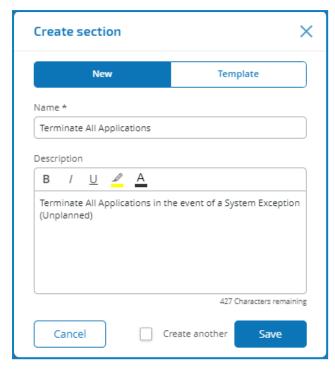
The Create section dialog displays.



2. Enter a description for the exception – exception codes are automatically assigned by the system.



3. Follow the prompts to create the necessary sections and steps that must be performed if the exception occurs.



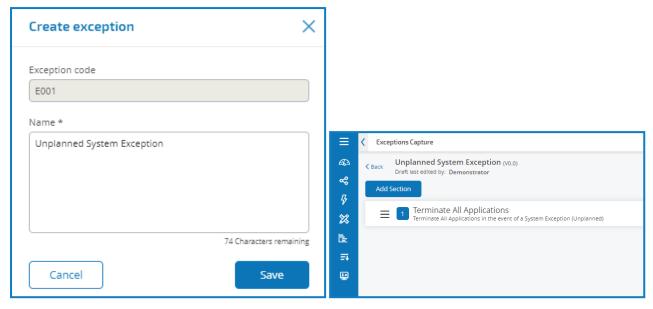
4. Click Save.

The exception can now be used in the steps in a process definition document as described in Add an exception to a PDD.



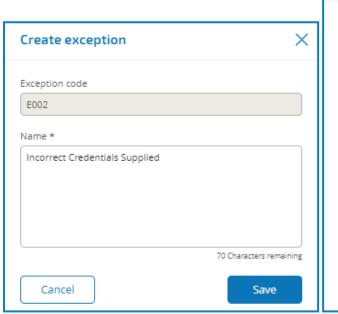
Default exception

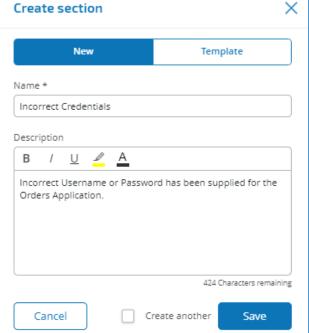
It is recommended that the first Exception created is the default "Unplanned System Exception" and is used as a catch all when something unexpected happens.



As this is the catch all Exception, it must be modified each time a new application is added to support the termination process. Subsequent Exceptions should be specific to the business process and the error that has occurred.

In this example the following is created to handle the incorrect credentials being added.







Templates

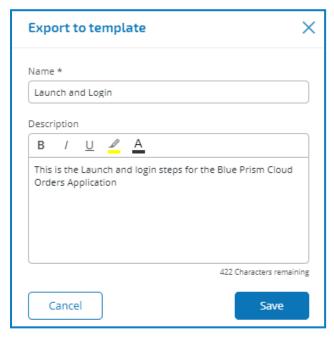
Templates exist in both the process definitions and exceptions options of the Automation Lifecycle plugin. Templates allow you to re-use sections of a process definition or exception as a repeatable block. For example, a login section may be used in multiple proceses and using a template means you will not have to recreate the login section for each.

Export a section as a template

In the Process Capture screen, select Export to Template from the context menu for the section you want to export.



Update the name and description if required.



Click Save.

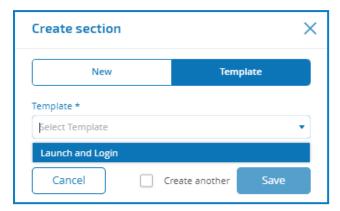
The section is saved as template.



Use a template in a process definition

To use a template in a process definition, go through the process as normal, creating a business process and a new process definition.

When you are creating a section, choose to import a template rather than creating a new section from scratch.



Click **Save** to create the first section of the process from the saved template.



Templates can also be used in Exceptions in the same way.



Other features

A number of other feature are available when you are using the Process Capture screen, as described below:

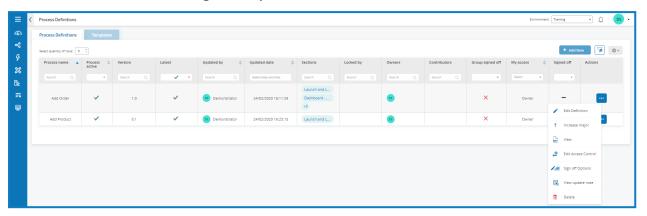
- The up and down arrows allow you to collapse or expand sections.
- The Collapse All and Expand All links expand or collapse all aections.
- The context sensitive menu allows you to Edit, Move, Add Step Above, Add Step Below or Delete a step that has been created.
- Grabbing the three horizontal bars at the front of the step or section allows you to drag and drop the item to update the order.
- The following text areas are embedded with WYSIWYG (What You See Is What You Get) capabilities:
 - Create Business Process > Notes
 - Add Section
 - Add New Step > Action, Decision, Email, Object
 - Save Minor
 - Save Major
- You can view notes saved on a PDD upon updating your major/minor version by selecting the context sensitive bar and selecting **View update note**.
- When navigating to business process, your default view will be to see the business process that you are a member of. To view all business processes, select the drop-down menu located above the business process table and select **All Business Processes**.



Process definition sign-off

In the Automation Lifecycle plugin the users with the Process Definition Owner role can initiate the sign-off procedure. This workflow usually occurs when all the sections and steps in a business process have all been captured.

To initiate the process definition sign-off procedure, select Sign-off the owner can select the context sensitive menu and the click **Sign-off Options**.



Select a sign-off option:

- Submit for Sign Off
- Redact Sign Off
- Member Sign Off



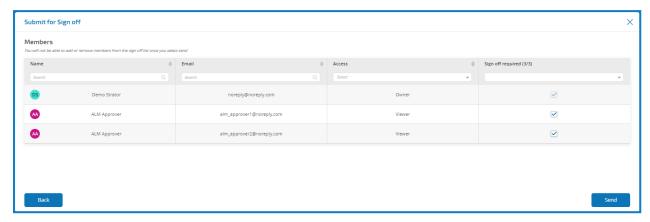


Submit for sign off

Once a process definition has been fully configured, you can send it to be signed off by the appropriate people in your organization. Each person must have a valid login so they can be selected to sign off the PDD.

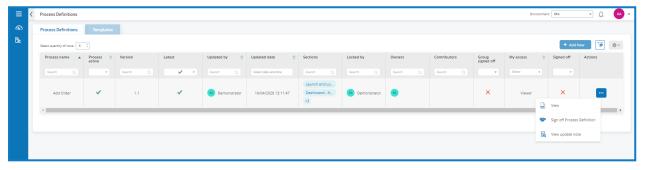
Select the checkbox in the Sign off required column for the members who are responsible for signing off the PDD and click **Send**.

The selected users are sent a notification telling them that the PDD needs to be signed off.



Sign off a PDD

When a business process owner initiates the sigh-off procedure, the required members receive an inproduct notification letting them know that sign off is required. Members must then navigate to the Process Definition screen. Using the context sensitive menu, members can select to view or sign off the process definition and if required, view the update note.

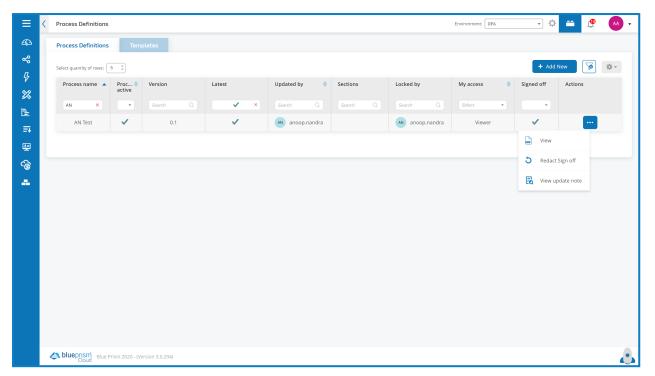


When a member selects to sign the process definition off, a dialog displays asking them to confirm they have reviewed the PDD.



When a member selects to sign a PDD off, a notification is sent to the business process owners. Once signed-off, the member will have the option to redact the PDD. They can do this by selecting the context sensitive button on the Process Definition screen, clicking **Redact Sign-Off** and confirming their decision.





A user cannot redact a process definition once every member has approved and signed it off. In this case the owner of the process definition must redact for all approvers, make the necessary adjustments, and then resubmit for approval.

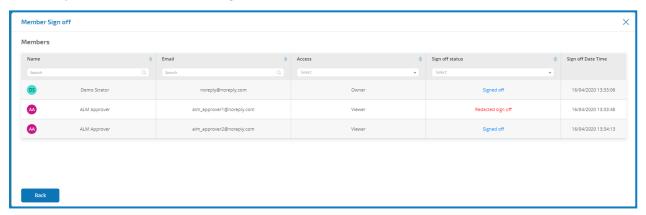
Redact sign off

When a Process Definition has been sent out for review, it is locked for editing. Only an owner can Redact this process. However, a Reviewer can Redact their own review, providing this is done prior to all other reviewers completing their review. Once all Reviewers have either approved or rejected the sign-off process the only individual who can remove the lock, whether through redaction or acceptance is the Owner of the Process Definition.

Member sign off

This option lets you to keep track of the sign-off and check the status of the sign-off for each member. The screen shows the members name, email address, sign-off status and sign-off date time. There are three possible sign off states:

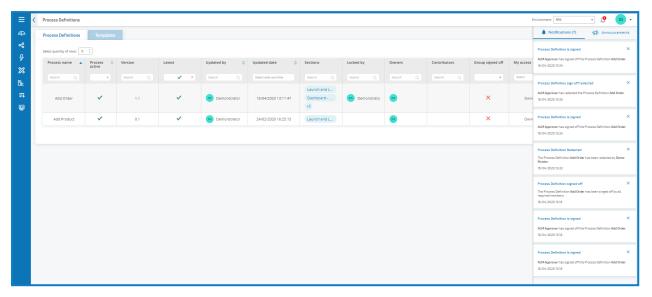
- Awaiting Sign-off Member has not signed-off yet.
- Redacted Sign-off Member had signed-off, however has chosen to redact the initial sign-off.
- Signed-off Member has signed-off.





Triggered notifications

There are several in-built triggers that notify users about specific events throughout the automation life cycle. To view these notifications, select the bell icon located in the top-right corner of your screen. If you have no notifications the notification tray will be empty. This icon is also used to review any future system announcements.



The table below describes each notification type.

Notification	Trigger	Recipients
PDD sign off	The Business Process Owner initiates a PDD sign off.	Members who need to sign off the PDD.
PDD signed off	All required members have signed off a PDD.	Business process owners.
PDD sign off redacted	A required business process member has redacted a PDD that they have previously signed off.	Business process owners.
PDD sign off by Business Process Owner	A business process owner redacts the sign-off process.	Members who need to sign off the PDD.
All required members have signed-off	All required business process members have signed a PDD off.	Business process owners.