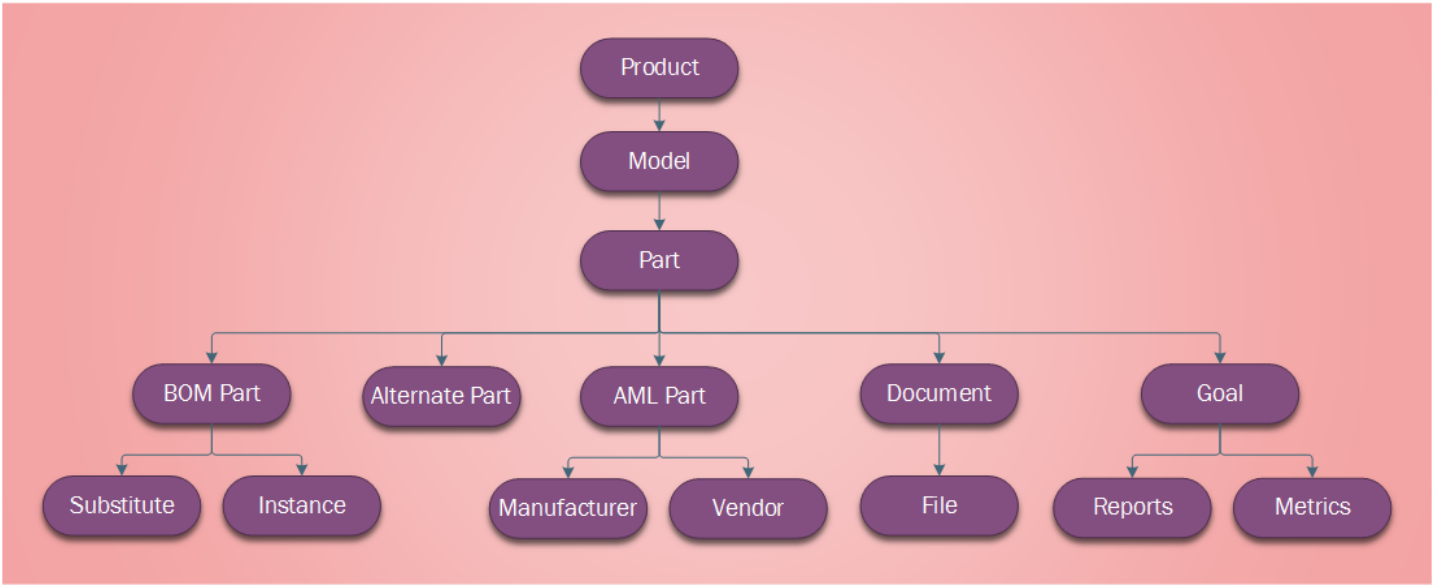
# Parts

Parts are the basic component of any Bill of Materials (BOM) management application. Parts can have a classification, such as Assembly, Component, Material or Software. A part can be bought or made in-house. It can be associated with other items. It can have alternate or substitute parts. It can have a list of approved manufacturers (AML) for making the part, and a list of approved vendors (AVL) for purchasing the part. It can have associated documentation, such as drawings and specifications. It can have a Bill of Material (BOM) and/or it can be part of another part's BOM. It can be the top-level assembly for a product model.

The following figure shows the underlying Data Model for a Part. Each of the relationships shown in the figure is described in detail in the following sections.




Each part has a life cycle associated with it. Refer to Part Life Cycle, Manual Promotion and Revise  and Change Management for details.

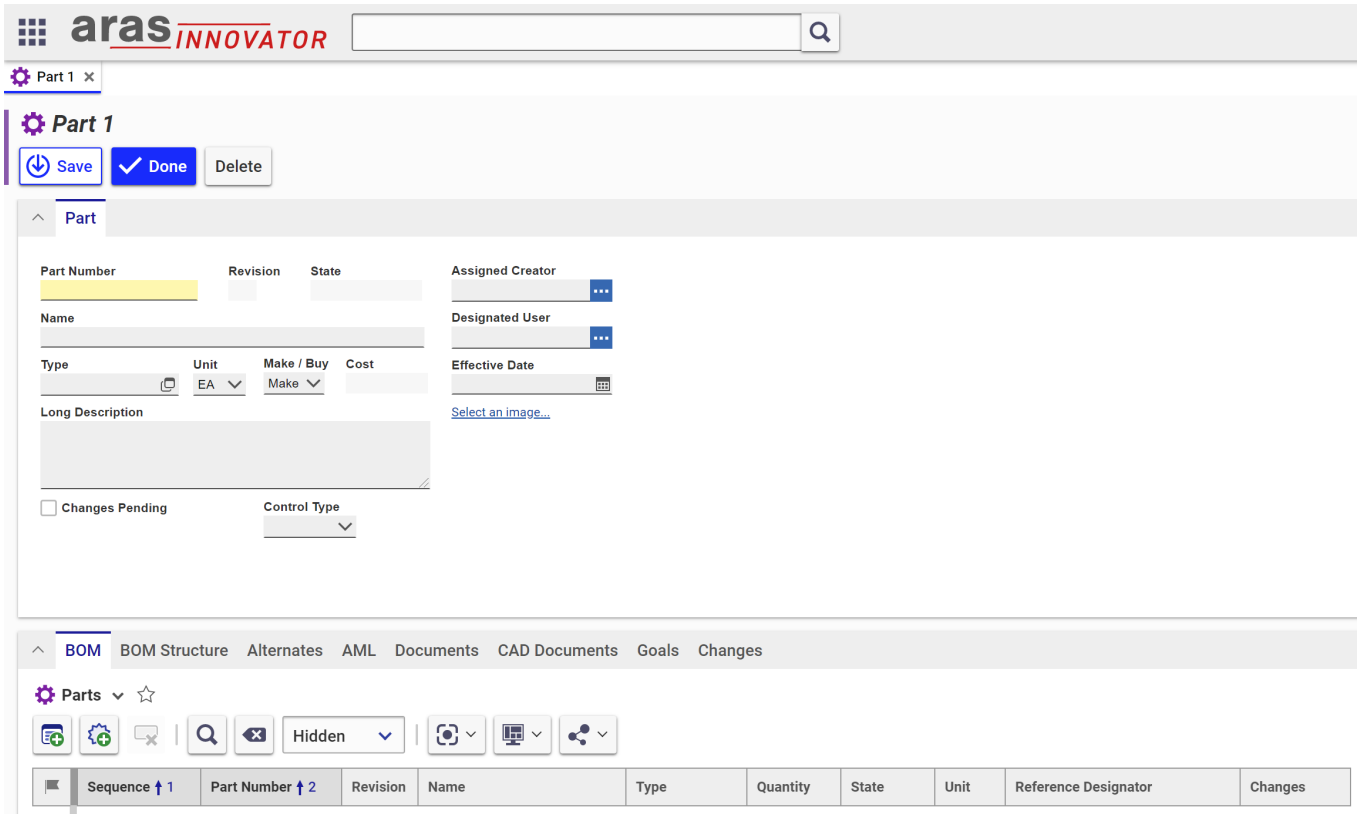
Part reports, such as a Multilevel BOM report or a BOM Costing Report, are available to output information.

## Creating a Part

This section outlines creating a Part in a standard instance of Aras Innovator. Your administrator may configure Parts as part of a different category in the Navigation panel, along with different or additional fields on the Part Form.

To create a Part:

1. Go to **Contents** → **Design** → **Parts**.
2. Click **Create New Part**. A New Part Form will appear. Enter the necessary information.



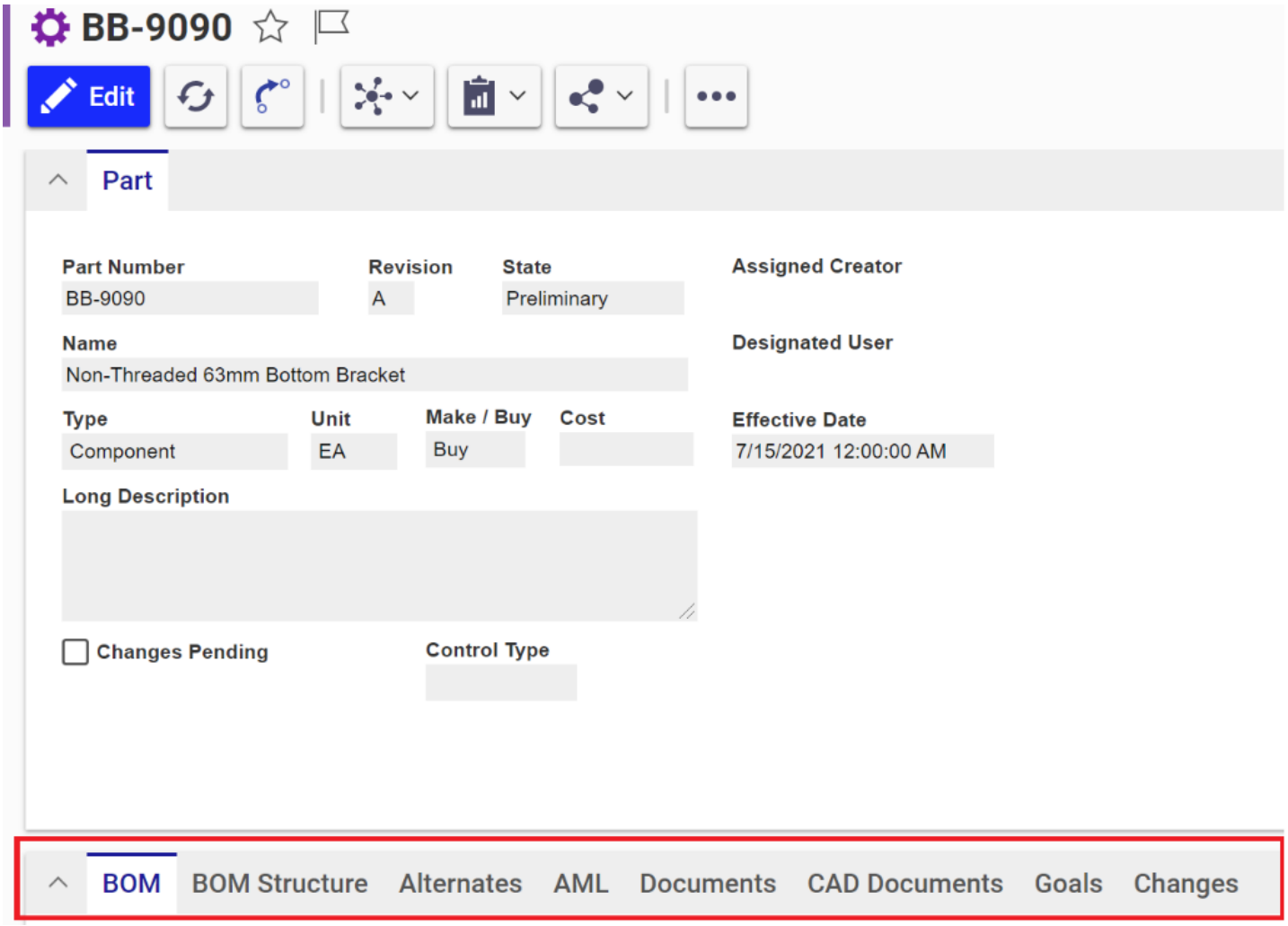

- **Part Number** – (Required) This is the part number. The Part Number must be unique.
- **Name** – This is the name for the Part.
- **Type** – This is the classification type for the Part. The classification dialog displays the Part classification tree. The Part classification tree can be adjusted and extended as needed by an administrator.
- **Unit** – This is the unit of measure for the Part:

- **Make/Buy** – This specifies whether the Part is made in-house or whether it is bought from a manufacturer.
- **Long Description** – This is where you can provide additional information about the Part.
- **Assigned Creator** – This is the user responsible for the design or the content of the Part. The Assigned Creator is often identified as the Owner of the item, who may be different from the user creating the Part in the system.
- **Designated User** – This is the user responsible for the management, usage, and review of the Part.
- **Effective Date** – This is the date when a Part actually goes into production or the process that signifies its availability. His can be different from the Release date, which is when the Part reaches the Released state in its life cycle.
- **Select an image** – This allows you to select an image using the Image Browser to generate a thumbnail for the Part.
- **Extended Classification** – This allows you to assign values to Items based on the Item's extended classification.

3. Once you have entered in the necessary information, click **Save** or **Done** to save your changes and create the Part.

## Part Relationships

A Part can have relationships to other Items. The Relationships accordion keeps these relationships grouped in separate Relationships tabs. Each Relationships tab represents a single relationship type.

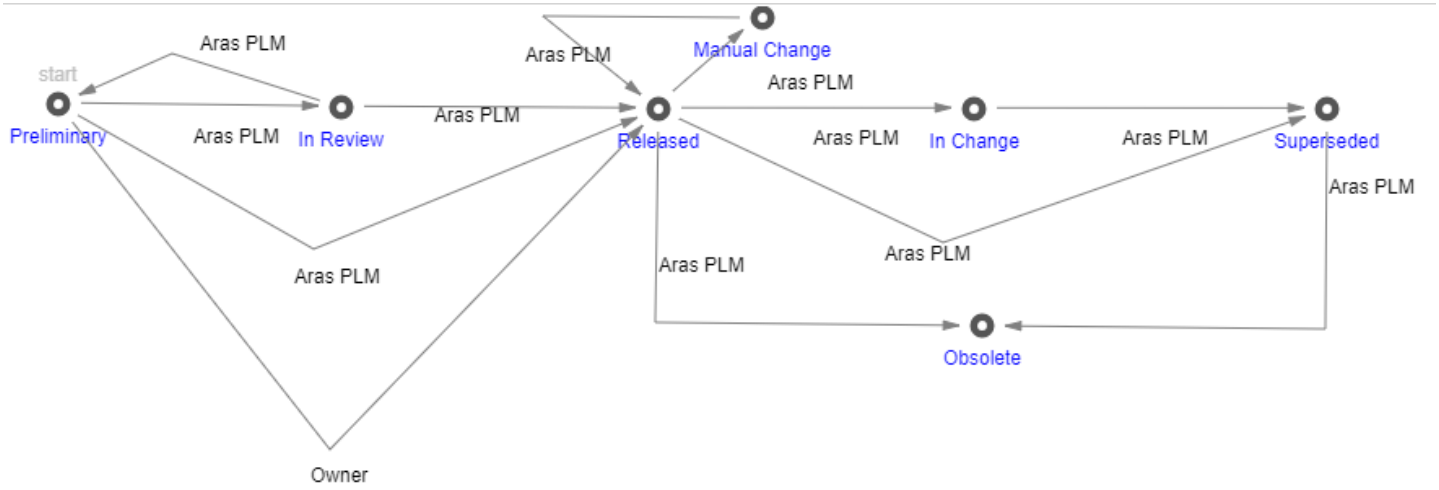



- **BOM** – A single-level BOM editor that enables you to view and manage the direct children of a Part. For more details, refer to section Part BOM Relationships .
- **BOM Structure** – A multi-level, read-only view of the Part's BOM. For more details, refer to section BOM Structures.
- **Alternates** – A list of alternate Parts for a Part. For more details, refer to section Alternates .
- **AML** – An Approved Manufacturing List for a Part. For more details, refer to section Approved Manufacturer List (AML).
- **Documents** – A list of documents for a Part. For more details, refer to section Managing Part Documents.
- **CAD Documents** – A list of CAD documents, such as 2D/3D models and drawings for a Part. For more details, refer to section Managing CAD Documents in Parts.
- **Goals** – The Goals set for this Part. For more details, refer to section Design Goals.

- **Changes** – Displays a list of change items, such as Problem Report, ECR or ECN, where the Part is an affected item. For more details, refer to section Change Management.

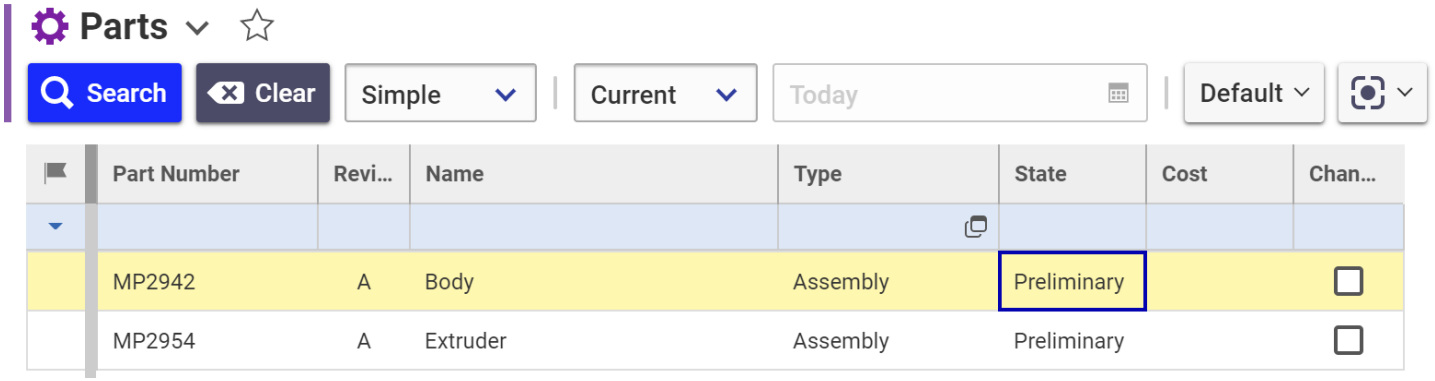
## Part Life Cycle

Each Part has a Life Cycle associated with it. The following figure shows the default Life Cycle Map of a Part. A newly created Part is assigned the Preliminary state by default. It can be released manually or via a change process. Refer to the Manual Promotion and Revise section for the details on manual release. The Product Engineering application provides change management processes, which are used to release Parts after appropriate reviews and approvals. During the change processes, a Part goes through different life cycle states depending on the step in the workflow. For more details, refer to section Change Management.

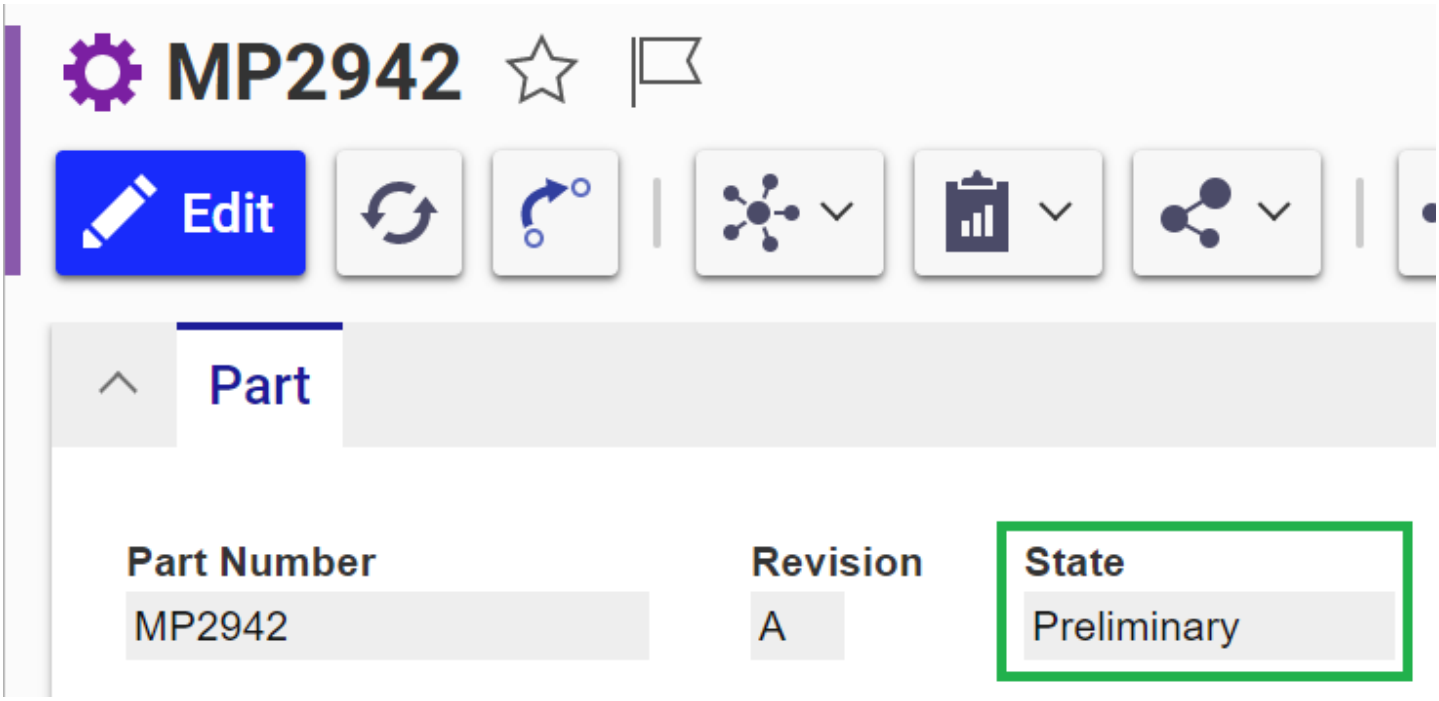



The current State of a Part can be viewed in the following places:

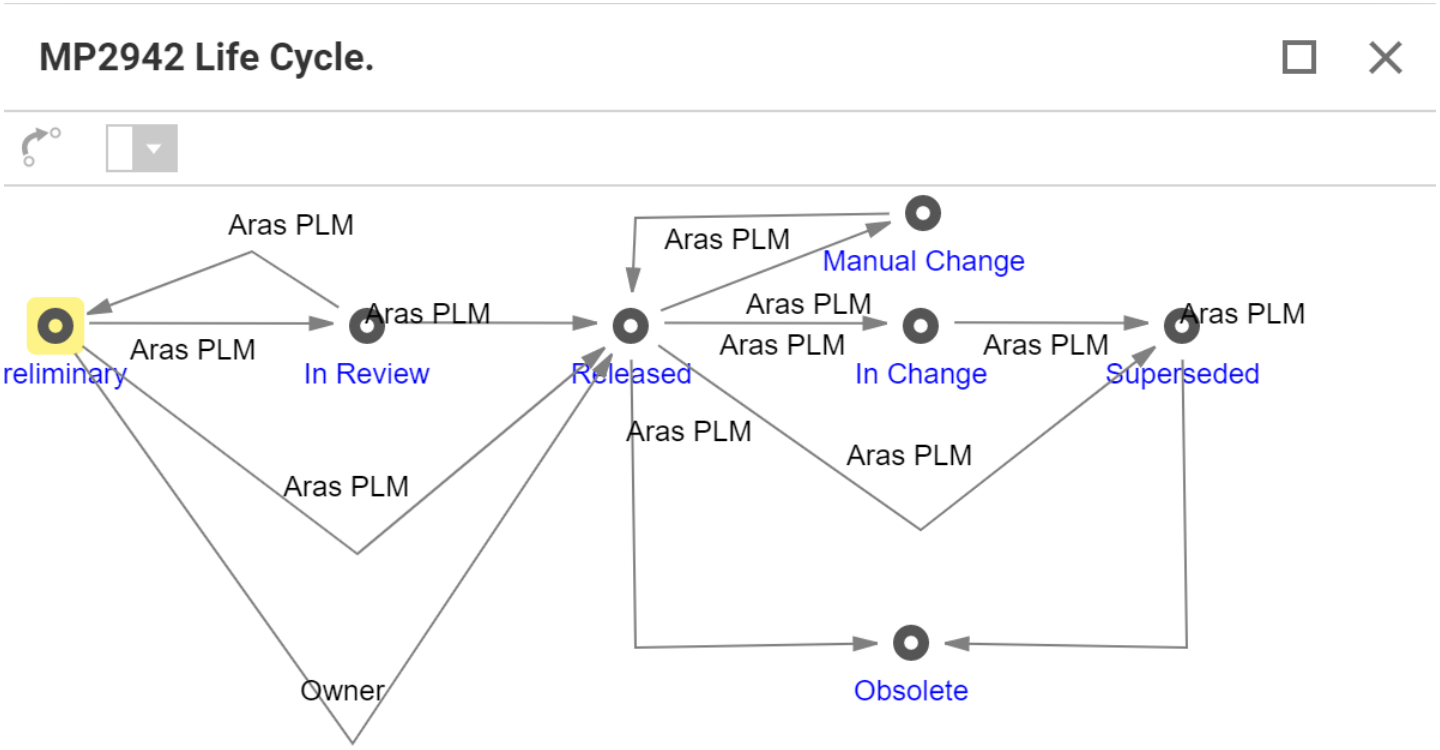
- The **State** column of the Parts Search Grid.




- The **State** read-only property box of the Part form.




- The **Life Cycle** dialog, where the current State is highlighted.




To access the **Life Cycle** dialog for a Part:

1. Open the Part
2. On the Part toolbar, click Navigate null → Life Cycle.

## Part Deletion

It is possible to delete all or some versions of a Part. In the former case, the Part is deleted from Aras Innovator completely. For details on the latter case, refer to section Version Deletion.

To delete a Part completely, a user must have the **Delete** rights granted in Permissions for all Life Cycle states the Part has including the current one. For example, if the Part is currently in the Released state and was in Preliminary before, the user must have the **Delete** rights granted in Permissions for both states. An error message will be provided if the user does not have Delete rights. For details on access rights, refer to section Permissions. This subsection assumes the user has these rights.

You can delete a Part either directly from the Part form, or by using the context menu in the Parts Search Grid.

To delete a Part completely through the Part Form:

1. Open the Part.
2. On the Part toolbar, click More null → Delete → Delete All Versions. A notification dialog appears.
3. Click **OK** to delete the Part completely. Click **Cancel** to cancel.

To delete a Part using the context menu:

1. Go to the Part Search Grid.
2. Right-click the **Part → Delete All Versions**. A notification dialog appears.
3. Click **OK** to delete the Part completely. Click **Cancel** to cancel.