



TEAMCENTER

Service Engineering

Service Lifecycle Management 2412

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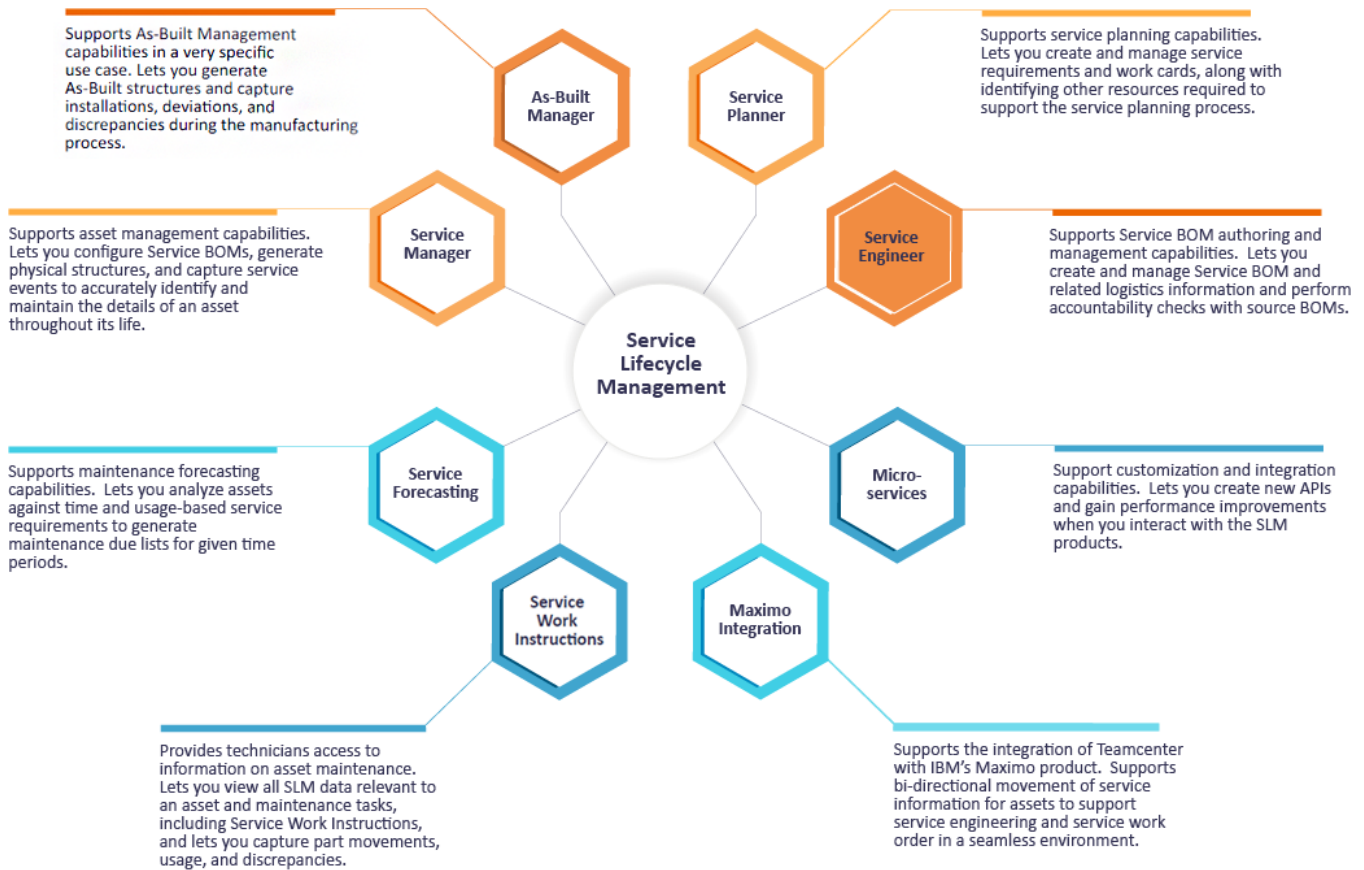
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1. Service Lifecycle Management

Service Engineering

Capitalize on the re-use of product knowledge from engineering and manufacturing to improve service planning and execution. Provide feedback to engineering to improve product designs for serviceability and reliability. Communicate and coordinate operational activities for greater compliance, faster service, and lower costs.



Service Lifecycle Management products

Select a link below to access the help documentation for each product.

[Service Lifecycle Management on web client](#)

[Service Work Instruction](#)

[Service Manager](#)

[As-Built Manager](#)

Service Planner

Maximo Integration

Microservices for Service Lifecycle Management Integration

2. Service Engineering

Service Engineering is a service bill of material (sBOM) management application.

Service Engineering provides the following functionality:

- Full BOM support for engineering bill of materials (eBOM), sBOM, and CAD BOM, and part BOM alignment.
- Definition of **Part Logistic Form (PLF)** attributes.
- Creation and assignment of **Characteristics**.
- Creation of **Fault Codes**.
- Definition of **Lots**.
- Comparison of structures.

3. What's new in Service Engineering

What's new in Service Engineering 6.3

- You are now able to **set part logistic form (PLF) conditions** by **individual occurrences** of the part.
- In certain cases, line items such as technical reports, and phantom nodes that have no CAD model themselves but are containers for other physical parts, are **not needed in a physical structure**.
- You can **set the part logistic form (PLF) property Skip Part for Physical Structure** to omit the line item from any subsequently created physical structure.
- **Accountability check indicators** provide information about the assignment of parts in both the engineering bill of material (eBOM) and the service bill of material (sBOM).
- You **define EOL criteria** on the neutral part and you can also define EOL criteria on a specific occurrence of the part. **Occurrence-specific EOL criteria** is applied to parts that have different specifications.
- **Enable and create a lot** in which you can group physical parts that are associated in some way. For example, all of the parts might be from a particular manufacturer.
- You are now able **create and assign characteristics** in Service Engineering.

What's new in Service Engineering 6.0

- You **create a work package** within the Service Engineering application to define and manage engineering bills of material (eBOM) and service bills of material (sBOM).

4. Service Engineering Installation

Service Engineering installation steps

To install Service Engineering, you must follow these basic steps:

- Install the Service Engineering template.
- Install the Service Engineering client template, with or without publishing to **Gateway**.
- Create the **Collaboration Context** object in Teamcenter.

Install Service Engineering template

You can deploy Service Engineering and **Service Engineering Client** feature templates at the same time, but the procedures are explained separately for clarity. Learn how to install the **Install the Service Engineering client template** in the next procedure.

Note:

The directory paths shown in this procedure are examples and need to be adjusted for your implementation.

1. Stop the following services, if they are running:
 - **Teamcenter Process Manager**
 - **Teamcenter Service Manager Pool A**
 - **Active Indexing Service**
 - **Weblogic tc Adminserver**

2. Run the **tem.bat** as administrator.

You can find the tem.bat file in the Teamcenter root directory, for example **c:\apps\tc\tc13\TR**.

3. Click **Configuration Manager**.
4. Click **Perform maintenance on an existing configuration**.
5. Click **TC**.
6. Click **Add/Remove Features**.

7. Select the **Service Engineering** check box.
8. Click **Next**.
9. Click **Finish/Install**.

Note:

The installation of the Service Engineering template takes approximately two and one half to three hours.

Once this installation is completed, proceed to **Install the Service Engineering client template** if you did not perform them simultaneously.

Install the Service Engineering client template

Note:

You can deploy Service Engineering and **Service Engineering Client** feature templates at the same time, but the procedures are explained separately for clarity.

Complete the installation of the **Service Engineering template** before proceeding with this installation procedure, if you did not perform them simultaneously.

1. Start the Teamcenter Process Manager service.
2. Run the **tem.bat** as administrator.

You can find the tem.bat file in the Active Workspace install directory, for example **c:\apps\tc\tc13\Clientslaw\install**.

3. Click **Configuration Manager**.
4. Click **Perform maintenance on an existing configuration**.
5. Click **TC**.
6. Click **Add/Remove Features**.
7. Select the **Service Engineering Client** check box.
8. Click **Next**.

Note:

If you are installing Service Engineering without publishing to Gateway, continue to the next section titled **Installing without publishing to Gateway**.

If you are installing Service Engineering and publishing to Gateway, continue to the section titled **Installing and publishing to Gateway**.

Installing without publishing to Gateway

1. Clear the **Publish to Gateway** check box.
2. Click **Next**.
3. Click **Start**.

Note:

The installation of the Service Engineering client template takes approximately three to five minutes.


5. About the Service Engineering interface

Set the role and workspace in Service Engineering

In order to create or manage a service bill of materials (sBOM), you must set the role to **Service Engineer** and the workspace to **SBOM Management**.


Note:

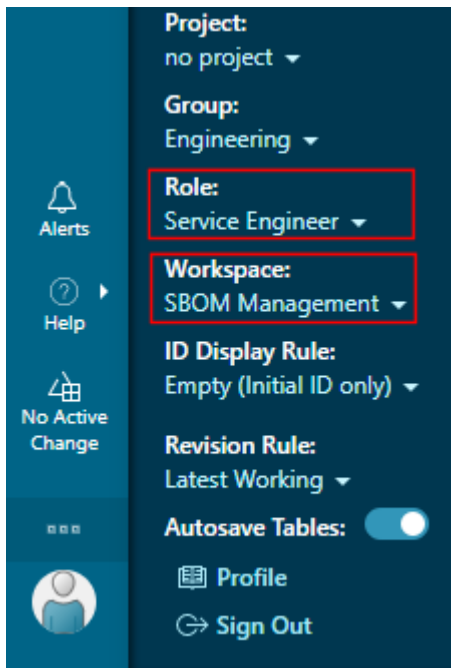
SBOM Management is the default workspace unless other workspaces are defined. The option to change the workspace is therefore only available if two or more workspaces are defined.

1. Click the  **Person** icon.
2. Change the **Role** to **Service Engineer**.

Note:


Once you select the role of **Service Engineer**, the page is refreshed. The **Workspace** is automatically set to **SBOM Management** unless other **Workspaces** are defined. If the **Workspace** is not automatically set, proceed to the next step.

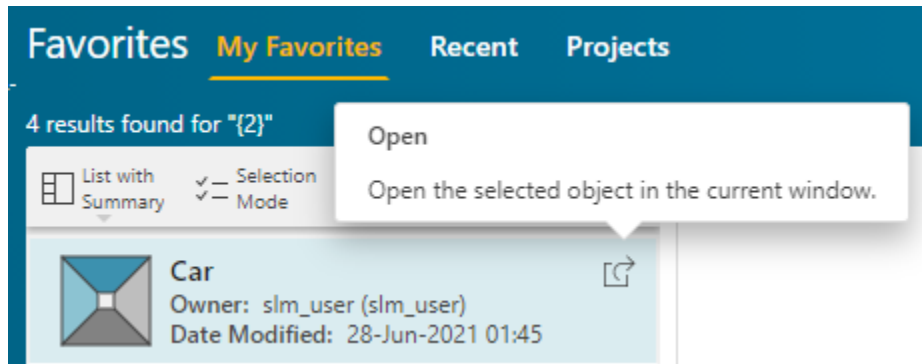
3. Click the  **Person** icon.
4. Change the **Workspace** to **SBOM Management**.




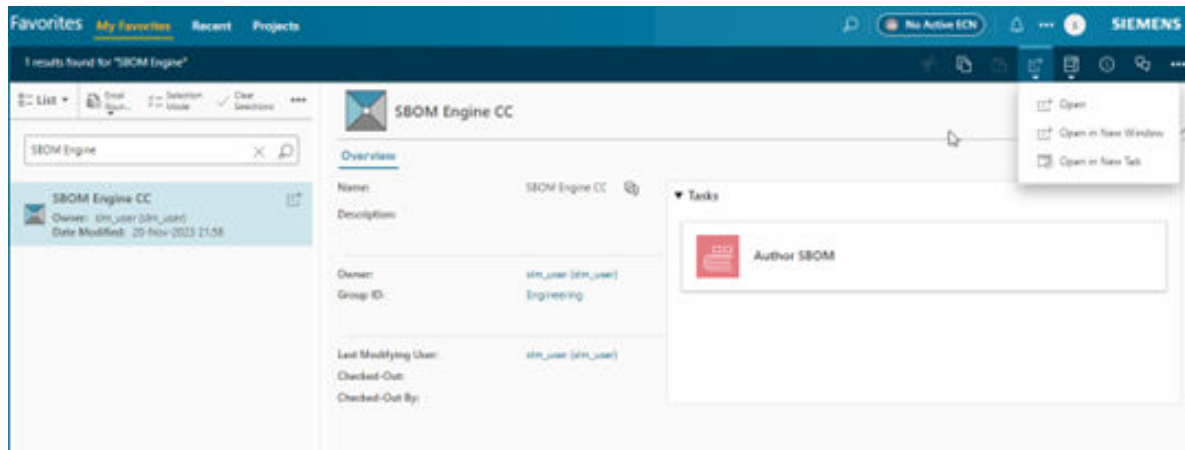
Open a work package in Service Engineering

You open a work package in one of several ways in Service Engineering:

- Click the  **Open** icon in the work package node.



- Highlight the work package node and click  in the **Primary Toolbar**, and then choose one of these:
 - **Open in New Window.**
 - **Open in New Tab.**



6. Create and modify work packages

Work packages

You create a work package within the Service Engineering application to define and manage engineering bills of material (eBOM) and service bills of material (sBOM).

You must set the **Role** to **Service Engineer**, and the **Workspace** to **SBOM Management** to be able to create a work package.

Work package process flow

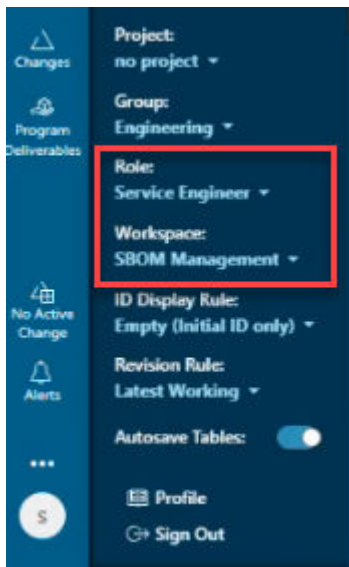
| | |
|-----------------------------------|--|
| Create new work package | You create a work package from the SBOM Management Workspace . The work package must include a source BOM and a service BOM. A collaboration context is created simultaneously. |
| Add eBOM and sBOM in work package | You can add an existing eBOM to the Source BOM section and add a new or existing sBOM to the Service BOM section of the work package. |
| Edit the work package | You open a work package for editing by searching for it, or opening it from the Favorites list, provided it was added as a favorite. The work package is then available to edit. For example, you can edit any field, or remove an eBOM or an sBOM from the work package. |

Create new work package

Create a new work package from the **SBOM Management Workspace**.

Procedure

1. Set the **Workspace** to **SBOM Management**.
2. Set the **Role** to **Service Engineer**.



After you change the **Role** and **Workspace**, the **New Work Package** tile is displayed.



3. Click the **New Work Package** tile.

The **New Work Package** dialog box displays.

New Work Package

New

▼ Type

MECollaborationContext

MECollaborationContext

▼ Properties

★ Name:

Required

Description:

Cancel Create

4. Choose **MECollaborationContext** from the **Type** menu.
5. Type a **Name** for the work package.
6. (Optional) Type a description in the **Description** field.
7. Click **Create**.

The **Manage Work Package** panel is displayed.

Manage Work Package EBOM_SBOM_WP

Overview

Description: description

Master Work Package:

Alternative Work Packages:

Owner: slm_user (slm_user)

Group ID: Engineering

Last Modifying User: slm_user (slm_user)

Checked-Out:

Checked-Out By:

Content

Source BOM

Add

Service BOM

Add a Source BOM before adding an SBOM.

Product Variants

Configurator Context

Unless manually set, the configurator context will be pulled from the EBOM or from a BOP structure.

Tasks

Author SBOM

Add an eBOM to a work package

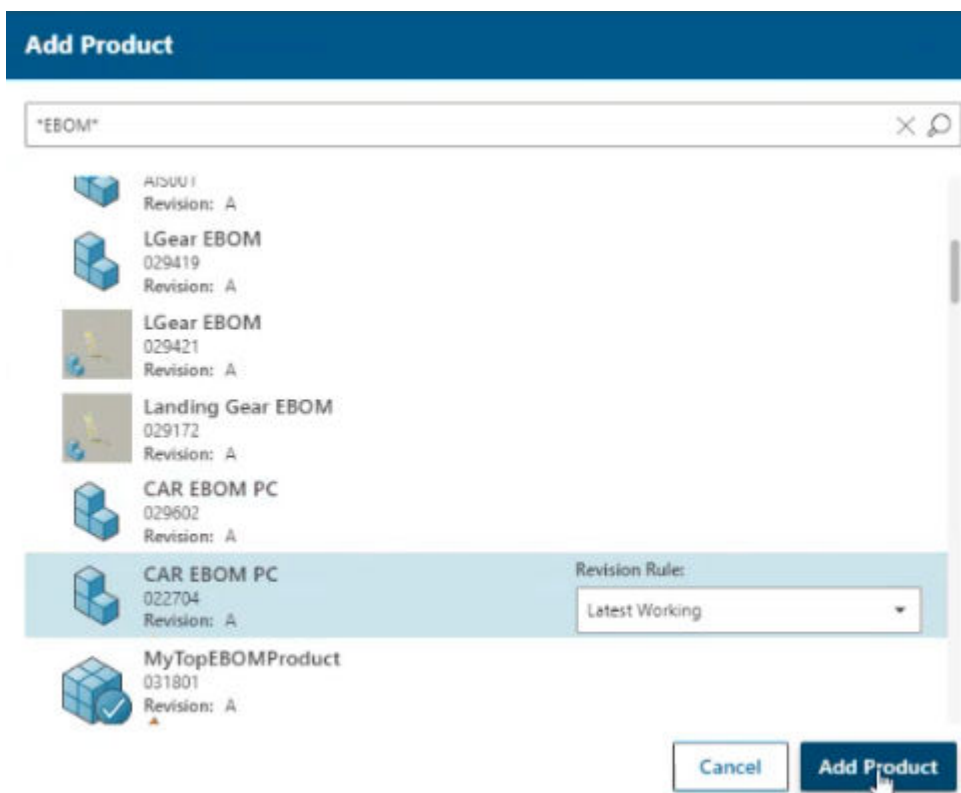
As a service engineer, you can search for and add a part or an engineering bill of material (eBOM) to the **Source BOM** section of the work package.

Procedure

1. Either **create a new work package** or open an existing one.
2. Click **Add** ⊕ in the **Source BOM** section of the **Content** work area.

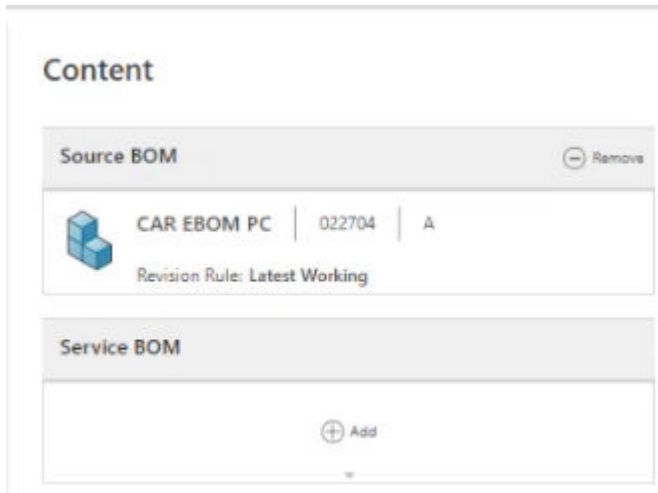
The **Add Product** dialog box is displayed.

3. Type a search string in the search box.
4. Select the eBOM you want to add to the work package.
5. (Optional) Select the revision rule to use for the eBOM.



6. Click **Add Product**.

The **Source BOM** section of the **Content** work area is updated to display the selected eBOM, including the revision rule.



Add a new sBOM to a work package

As a service engineer, you can add a new service bill of material (sBOM) in the **Service BOM** section of a work package.

Procedure

1. Either **create a new work package** or open an existing one.
2. Click **Add** ⊕ in the **Service BOM** section of the **Content** work area.
3. Select **Create New SBOM**.
4. The **Create Product** dialog box is displayed.

Create Product

New

▼ Type

Item

▼ Properties

★ ID:

031948

★ Revision:

A

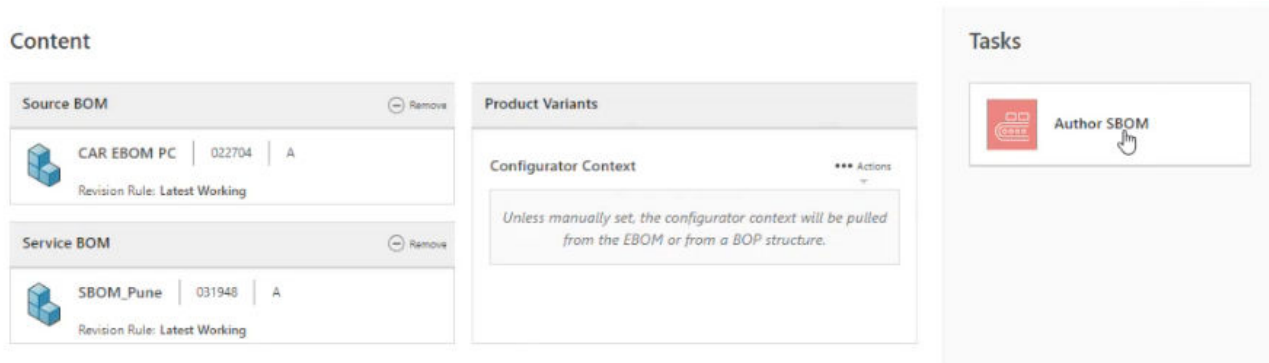
★ Name:

Required

Cancel Create

5. Select a type from the **Type** menu if one is not already selected.
6. Type an ID for the new sBOM or accept the default ID.
7. Type a revision value or accept the default revision.
8. Type a name for the new sBOM.
9. Click **Create**.

The **Service BOM** section of the **Content** work area is updated to display the new sBOM including the revision rule, and the Author sBOM task is available.

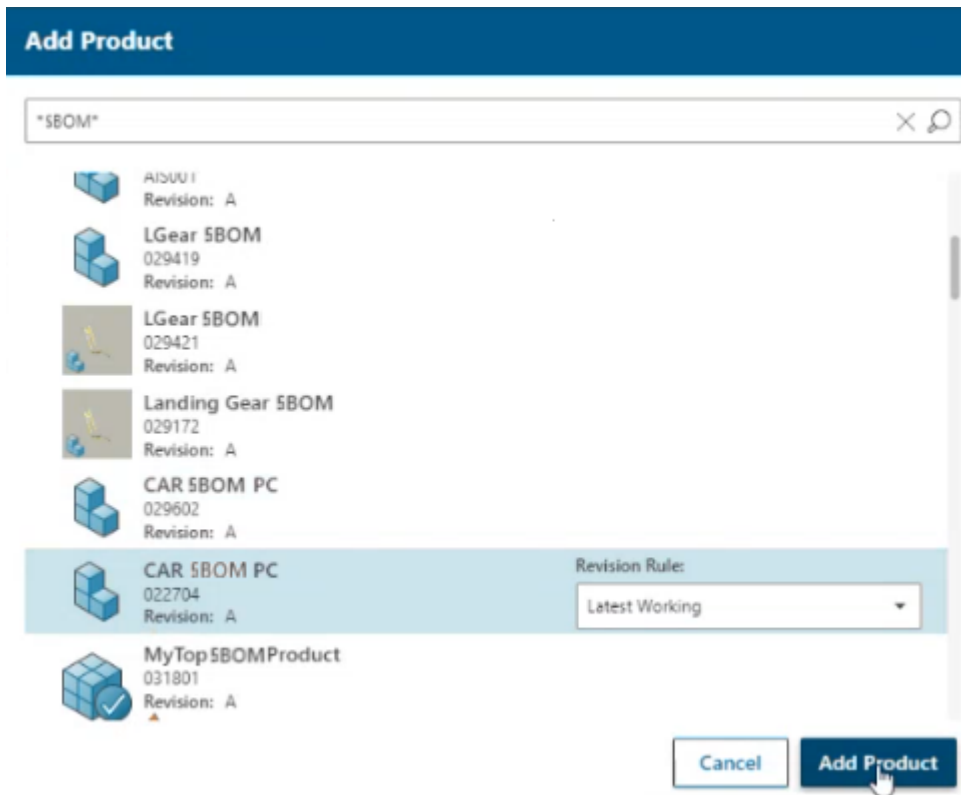


Add an existing sBOM to a work package

As a service engineer, you can add an existing service bill of materials (sBOM) to the **Service BOM** section of a work package.

Procedure

1. Either **create a new work package** or open an existing one.
2. Click **Add** ⊕ in the **Service BOM** section of the **Content** work area.
3. The **Add Product** dialog box is displayed.
4. Type a search string in the search box.
5. Select the sBOM you want to add to the work package.
6. (Optional) Select the revision rule to use for the sBOM.
7. Click **Add Product**.



The **Service BOM** section of the **Content** work area is updated to display the selected sBOM, including the revision rule, and the Author sBOM task is available.

Content

| Source BOM | Product Variants |
|--|---|
| <div style="text-align: right;">Remove</div> <div style="border: 1px solid #ccc; padding: 5px;"> CAR EBOM PC 022704 A Revision Rule: Latest Working </div> | <div style="text-align: right;">*** Actions</div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <i>Unless manually set, the configurator context will be pulled from the EBOM or from a BOP structure.</i> </div> |
| Service BOM | |
| <div style="text-align: right;">Remove</div> <div style="border: 1px solid #ccc; padding: 5px;"> SBOM_Pune 031948 A Revision Rule: Latest Working </div> | |

Tasks

Author sBOM

7. Manage the end of life of neutral parts

Managing end of life criteria on sBOM parts

As a service engineer, you determine whether a neutral part has a limit to its usability, either because of a warranty or another criteria, and you define the time duration of its usability. The time duration is measured from the manufacturing date or the installation date, which you also define.

The end of life (EOL) information is used to manage the identification of parts that have a limit to their life. You can easily identify where such parts are used or stored, and when you must replace or remove them from the asset or inventory.

You define EOL criteria on the neutral part and you can also define EOL criteria on a specific occurrence of the part. Occurrence-specific EOL criteria is applied to parts that have different specifications.

The screenshot displays the SAP SBOM interface for 'SBOMTop1'. The main table lists elements with columns for ID, Revision, Revision Name, Occurrence Number, Occurrence Series, End of Life, and Traceable. Red boxes highlight specific settings:

- Row 1: sChild2 (ID 000343) has 'End of Life' set to '10 Years'.
- Row 2: eChild11 (ID 000332) and eChild2 (ID 000337) have occurrence-specific end of life settings.

Below the table, the 'Service Properties' section shows the 'End of Life' table with the following data:

| Name | Revision ID | Description | Release statuses | From Date | Duration | Duration Unit |
|----------|-------------|------------------------|------------------|--------------------|----------|---------------|
| Warranty | A | Expires after 10 years | | Manufacturing Date | 2 | Years |


- (1) Part with end of life value set to 10 years
- (2) Parts with occurrence-specific end of life setting


(3) List of end of life settings and values assigned to a selected part

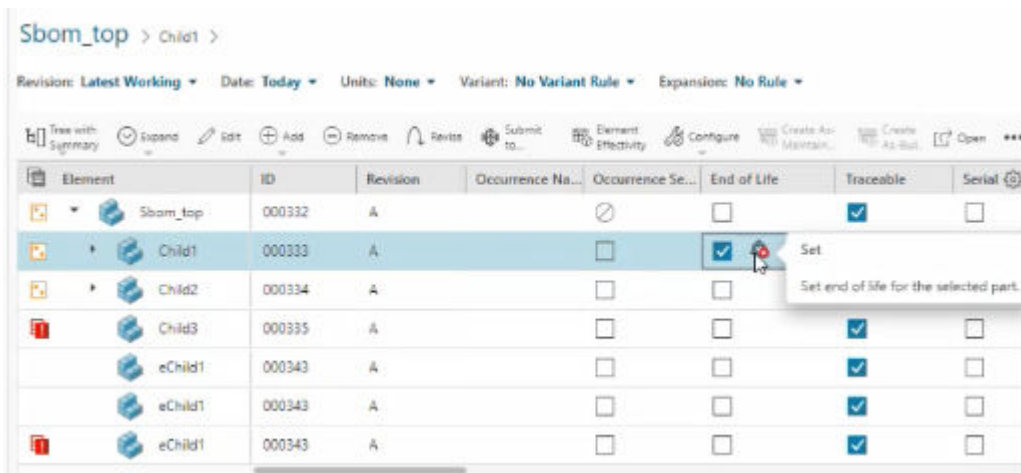
Define end of life criteria for neutral parts in sBOM

As a service engineer, you define end of life (EOL) criteria for neutral parts.

Procedure

1. From the **Service BOM (SBOM) Alignment** page, click **Edit** .
2. Select the part in the SBOM to which you want to add EOL criteria.
3. Select the **End of Life** check box.

The **End of Life**  indicator is added on the selected part BOM line.



| Element | ID | Revision | Occurrence Na... | Occurrence Se... | End of Life | Traceable | Serial |
|----------|--------|----------|------------------|------------------|-------------------------------------|-------------------------------------|--------------------------|
| Sbom_top | 000332 | A | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Child1 | 000333 | A | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Child2 | 000334 | A | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Child3 | 000335 | A | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| eChild1 | 000343 | A | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| eChild1 | 000343 | A | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| eChild1 | 000343 | A | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

4. Click **End of Life**  to set the EOL criteria.

The **Set End of Life** dialog box is displayed.

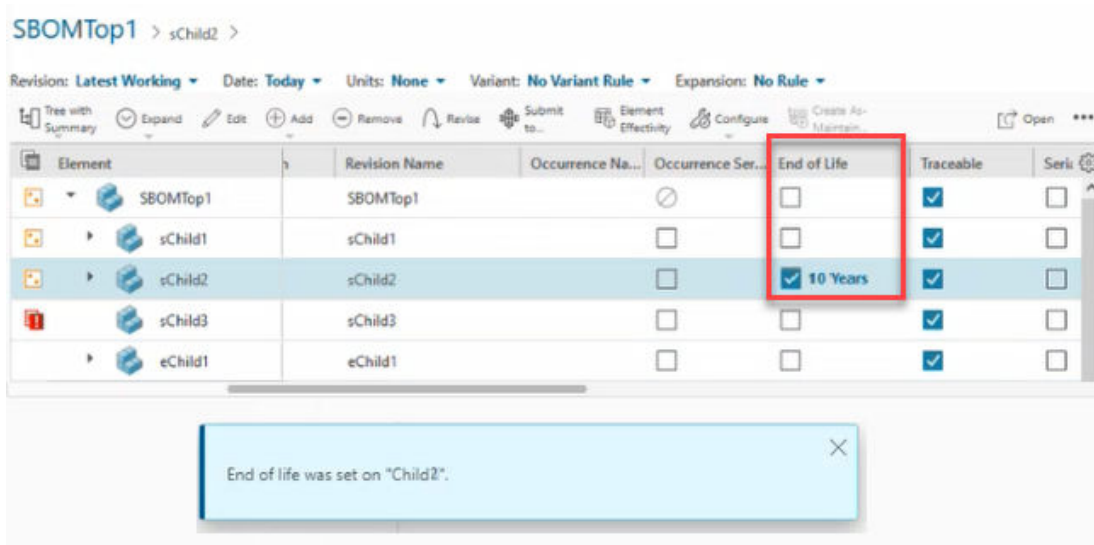
5. Enter the following information.

Name: * (Required) Alpha-numeric characters
Revision ID: Alpha characters
Description: Alpha numeric characters
From Date: * (Required) Choose **Manufacturing Date** or **Installation Date**
Duration: * (Required) Numeric value
Duration Unit: * (Required) Choose **Years, Months, Weeks, Days, or Hours**

6. Click **Set**.

- Click **Save Edits** .

A message confirms the EOL criteria is set for the selected part. The duration is also displayed on the selected part BOM line.





Define occurrence-specific end of life criteria

You define end of life (EOL) criteria on the neutral part, and you can also define it on a specific occurrence of the part. Occurrence-specific EOL criteria is applied to parts that have different configuration or specifications.

If you change the EOL criteria of a part that has more than one occurrence in the service bill of material (SBOM), it is changed for all occurrences.

If you need to change the EOL settings for only one of the occurrences, you must first set the **Occurrence PLF** property to **True**.

Procedure

- On the **Service BOM (SBOM) Alignment** page, click the **Edit**  icon.
- Select the part in the SBOM to which you want to add occurrence-specific end of life criteria.
- Select the **Occurrence PLF** check box.
- Click the **Save Edits**  icon.

Note:

You can continue to set any EOL criteria on that occurrence and it will not affect any other occurrences.

See [Define end of life criteria for neutral parts in sBOM](#) for information on setting EOL criteria.

| Element | ID | Revision | Revision Name | Occurrence Na... | Occurrence Se... | End of Life |
|----------|--------|----------|---------------|------------------|-------------------------------------|-------------------------------------|
| Sbom_top | 000332 | A | Sbom_top | | <input type="checkbox"/> | <input type="checkbox"/> |
| Child1 | 000333 | A | Child1 | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Child2 | 000334 | A | Child2 | | <input type="checkbox"/> | <input type="checkbox"/> |
| Child3 | 000335 | A | Child3 | | <input type="checkbox"/> | <input type="checkbox"/> |
| eChild1 | 000343 | A | eChild1 | | <input type="checkbox"/> | <input type="checkbox"/> |
| eChild1 | 000343 | A | eChild1 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| eChild1 | 000343 | A | eChild1 | | <input type="checkbox"/> | <input type="checkbox"/> |

- If EOL criteria are already assigned to a part with multiple occurrences, and **Occurrence PLF** is set to **False**, setting the **Occurrence PLF** to **True** removes the EOL criteria from that part.
- You can change the occurrence-specific setting to **False** by first clearing the EOL criteria that was assigned to the part with the **Occurrence PLF** check box set to **True**.

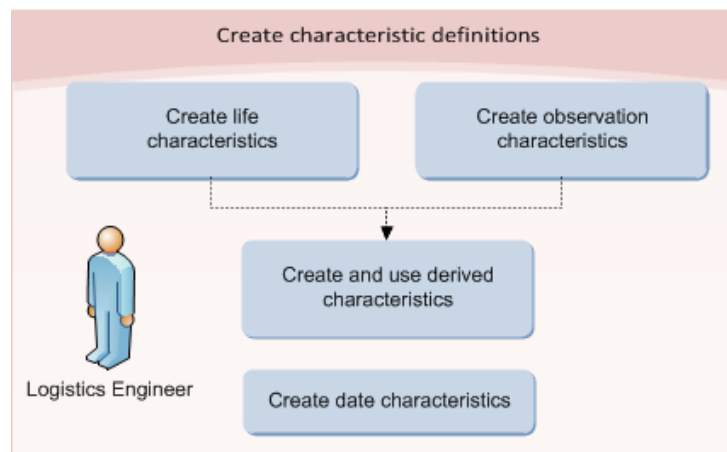
8. Create and assign characteristics

Characteristic definition

A *characteristic definition* is information related to a neutral part that is important for service organizations maintaining mission critical assets. You can create characteristic definitions that contain information such as how many hours a part has been used, the date the asset was put into commission, or the operating temperature of the part.

As the following figure shows, you can create characteristic definitions that define life, date, and observation characteristics for a physical part. You can also create derived characteristics which are characteristics values that are calculated by the system based on formulas or expressions. Only life and observation characteristics can be defined as derived characteristics by specifying the evaluation expression.

The characteristic definitions must be assigned to the neutral part. The generated physical part inherits the characteristic definitions that are used for recording utilizations.



Creating characteristic definitions

- Life characteristic definition

A life characteristic defines the individual characteristics that measure the life of a physical part and are cumulated each time they are updated during the life of the physical part. Life characteristics can be propagated throughout an entire physical structure providing the child physical parts share the same life characteristic definitions.

- Date characteristic definition

A date characteristic defines a date when a specific action occurred on a physical part.

- Observation characteristic definition

An observation characteristic defines the operational characteristics observed about a physical part.

- Derived characteristic definition

A derived characteristic value is calculated by the system, and is based on formulas or expressions. You can use existing life or observation characteristics when you define the formula for the derived characteristic.



Create a date characteristic

Create a *date characteristic*, which is used to record certain operational characteristics that a technician observes about a physical part. The value of this operational characteristic is a date.

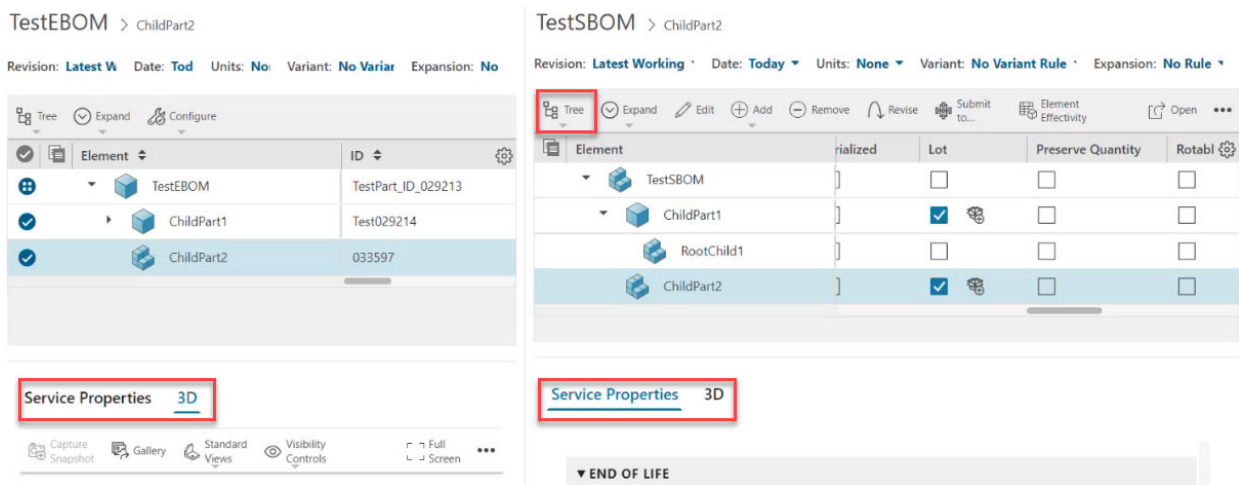
For example, you may want to capture the commission date or warranty date of a physical part.

Note:

Date characteristics do not propagate to child parts or subassemblies.

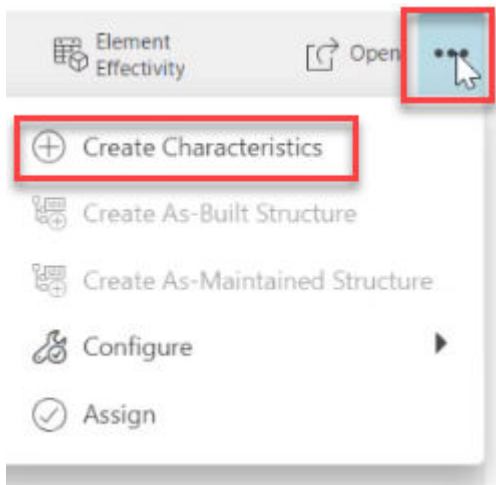
1. On the Source BOM-Service BOM (SBOM) Alignment, page, click **Tree** .
2. Select **Tree with Summary** .

The **Service Property** and **3D** tabs display in the **EBOM-SBOM** page.



The image shows two side-by-side screenshots of the software interface. The left screenshot is titled 'TestEBOM > ChildPart2' and shows a table with columns 'Element' and 'ID'. The table contains three rows: 'TestEBOM' (ID: TestPart_ID_029213), 'ChildPart1' (ID: Test029214), and 'ChildPart2' (ID: 033597). Below the table, there are tabs for 'Service Properties' and '3D', both highlighted with a red box. The right screenshot is titled 'TestSBOM > ChildPart2' and shows a table with columns 'Element', 'Realized', 'Lot', 'Preserve Quantity', and 'Rotabl'. The table contains four rows: 'TestSBOM', 'ChildPart1', 'RootChild1', and 'ChildPart2'. The 'ChildPart1' and 'ChildPart2' rows have a checked box in the 'Lot' column. Below the table, there are tabs for 'Service Properties' and '3D', both highlighted with a red box. At the bottom of the right screenshot, there is a button labeled 'END OF LIFE'.

3. Select the part to which you want to add a characteristic.
4. From the **Service BOM (SBOM)** panel, click **...**, and select **Create Characteristics**.



The **Create** dialog box appears.

5. Select **Date Characteristic**.

The **Create** dialog box is updated with the input fields for date characteristics.

6. Enter the following information for the date characteristic.

| Field name | Definition | Valid values |
|-------------|---------------------------------|---------------------------------|
| Name | Name of the date characteristic | Alphanumeric (1–128 characters) |

7. Click **OK** to create the date characteristic.



Create a life characteristic

Create a *life characteristic*, which is used to record characteristics that measure the life of a physical part and are cumulated each time they are updated during the life of the physical part.

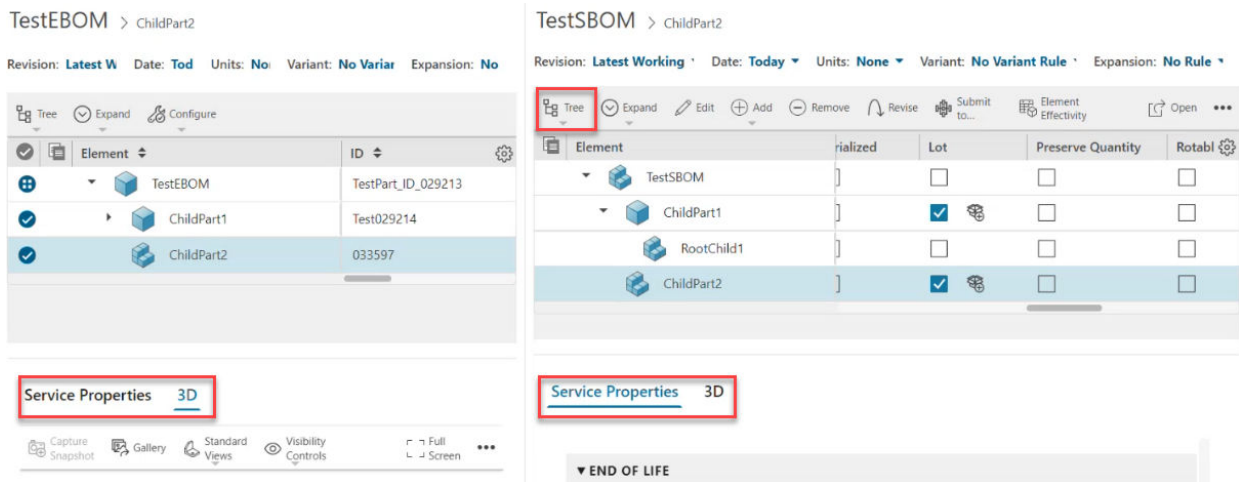
For example, you may want to track the number of landings for an aircraft using a life characteristic. When the number of landings reaches a specific value, scheduled maintenance on the aircraft is performed.

Note:

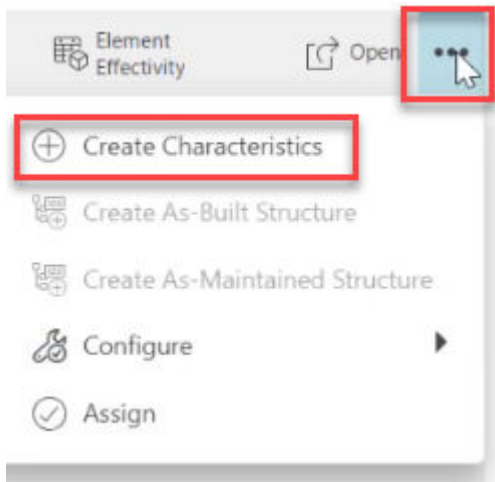
Life characteristics are propagated to child parts and assemblies that have the characteristic. If an assembly has a life characteristic, and one of its subassemblies does not have that characteristic but a child of that subassembly does, then the child part will not record a value because the parent, the subassembly, breaks the propagation chain.

1. From the Source BOM - Service BOM (SBOM) Alignment page, click **Tree** .
2. Select **Tree with Summary** .

The **Service Property** and **3D** tabs display on the **EBOM-SBOM** page.



3. Select the part to which you want to add a characteristic.
4. From the **Service BOM (SBOM)** panel, click **...**, and select **Create Characteristics**.



The **Create** dialog box appears.

5. Select **Life Characteristic** from the **Create** dialog box.

The **Create** dialog box is updated with the input fields for life characteristics.

6. Enter the following information for the life characteristic.

| Field name | Definition | Valid values |
|------------------------------|---|---------------------------------|
| Characteristic Name * | Name of the life characteristic (Required) | Alphanumeric (1–128 characters) |
| Unit * | Unit of measure for the recorded value (Required) | Alphanumeric (1–128 characters) |
| Precision | The number of decimal places | Integer |

- Click **Add** to create the life characteristic. Alternatively, click **Cancel** to exit.



Create a numeric observation characteristic

Create a *numeric observation characteristic*, which is used to record certain operational characteristics that a technician observes about a physical part. The value of this operational characteristic is numerical.

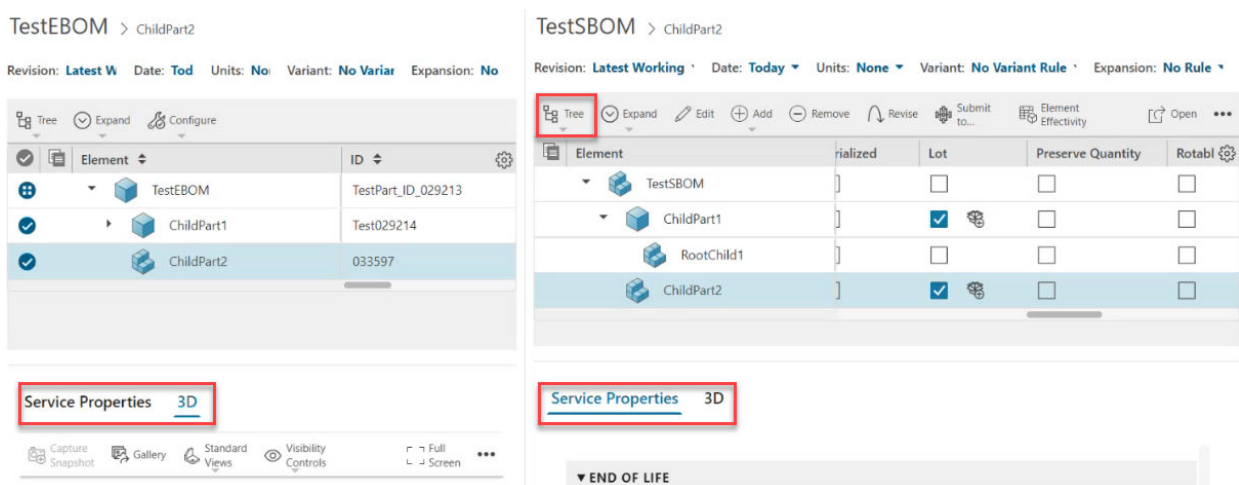
For example, you may need to record any cracks or record the operating temperature for a specific physical part. When the gap distance or operating temperature exceeds certain values, maintenance must be performed.

Note:

Numeric characteristics do not propagate to child parts or subassemblies.

- From the Source BOM-Service BOM (SBOM) Alignment, page, click **Tree** .
- Select **Tree with Summary** .

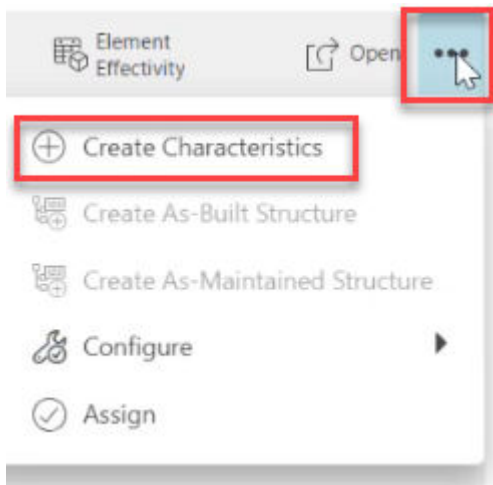
The **Service Property** and **3D** tabs display on the **EBOM-SBOM** page.



The image shows two side-by-side screenshots of the SAP interface. The left screenshot is titled 'TestEBOM > ChildPart2' and shows a table with columns 'Element' and 'ID'. The table contains three rows: 'TestEBOM' (ID: TestPart_ID_029213), 'ChildPart1' (ID: Test029214), and 'ChildPart2' (ID: 033597). Below the table, there are tabs for 'Service Properties' and '3D'. The right screenshot is titled 'TestSBOM > ChildPart2' and shows a table with columns 'Element', 'Realized', 'Lot', 'Preserve Quantity', and 'Rotabl'. The table contains three rows: 'TestSBOM', 'ChildPart1', and 'ChildPart2'. The 'ChildPart2' row has a checked box in the 'Lot' column. Below the table, there are tabs for 'Service Properties' and '3D'. In both screenshots, a red box highlights the 'Tree' icon in the top toolbar and the 'Service Properties' and '3D' tabs in the bottom toolbar.

- Select the part to which you want to add a numeric observation characteristic.

- From the **Service BOM (SBOM)** panel, click **...**, and select **Create Characteristics**.



The **Create** dialog box appears.

- Select **Observation Characteristic Definition**.

The **Create** dialog box is updated with the input fields for numeric observation characteristics.

- Enter the following information for the observation characteristic.

| Field name | Definition | Valid values |
|----------------------------|--|---------------------------------|
| Characteristic Name | Name of the observation characteristic | Alphanumeric (1–128 characters) |
| Type of Value | Numeric, Logical, or Textual | |
| Unit | Unit of measure for the recorded value | Alphanumeric (1–128 characters) |
| Precision | The number of decimal places | Integer |



- Click **OK** to create the observation characteristic.

Create a logical observation characteristic

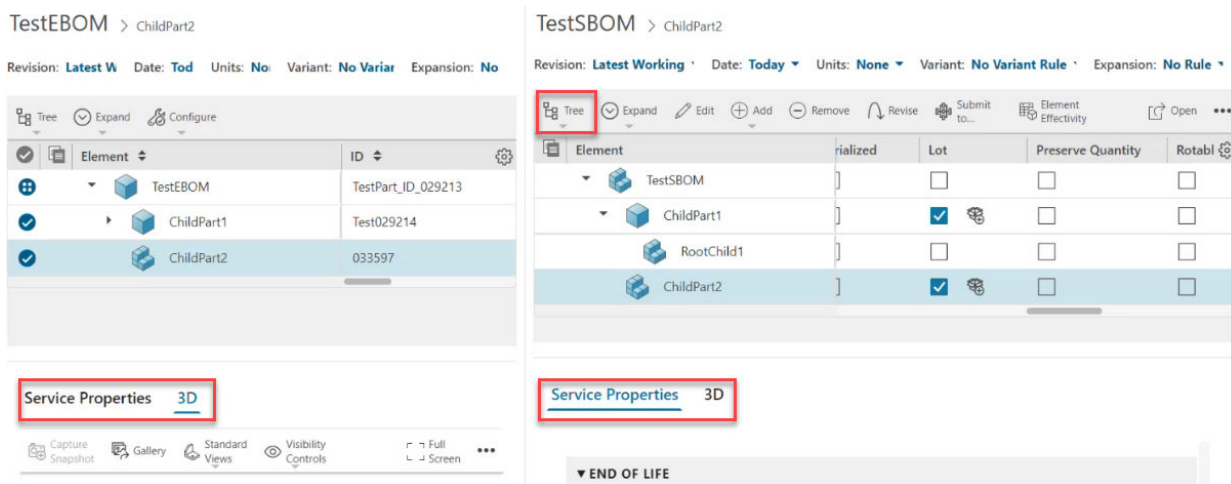
Create a *logical observation characteristic*, which is used to record certain operational characteristics that a technician observes about a physical part. The value of this operational characteristic is either a true or false condition. For example, the value of this characteristic for a pump can be **on** or **off**.

Note:

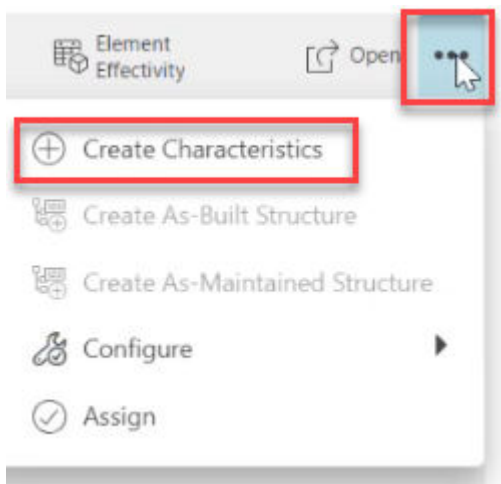
Logical characteristics do not propagate to child parts or sub-assemblies.

1. From the Source BOM-Service Bom (SBOM) Alignment page, click **Tree** .
2. Select **Tree with Summary** .

The **Service Property** and **3D** tabs display in the **EBOM-SBOM** page.



3. Select the part to which you want to add a characteristic.
4. From the **Service BOM (SBOM)** panel, click **...**, and select **Create Characteristics**.



The **Create** dialog box appears.

5. Select **Observation Characteristic Definition** from the **Create** dialog box.

The **Create** dialog box is updated with the input fields for logical observation characteristics.

6. Enter the following information for the logical observation characteristic.

| Field name | Definition | Valid values |
|----------------------------|--|---|
| Characteristic Name | Name of the observation characteristic | Alphanumeric (1–128 characters) |
| Type of Value | Numeric, Logical, or Textual | |
| Value | True or False | Alphanumeric (1–128 characters) The default values, if no other values are entered, are True and False . |

7. Click **OK** to create the logical observation characteristic.

Create a textual observation characteristic

Create a *textual observation characteristic*, which is used to record certain operational characteristics that a technician observes about a physical part. Predefined text strings are used to define the value of this operational characteristic.



For example, a service engineer needs to record conditions that define a pump failure. Use the textual observation to define a list of values (LOV), such as:

- No power
- Intake blockage

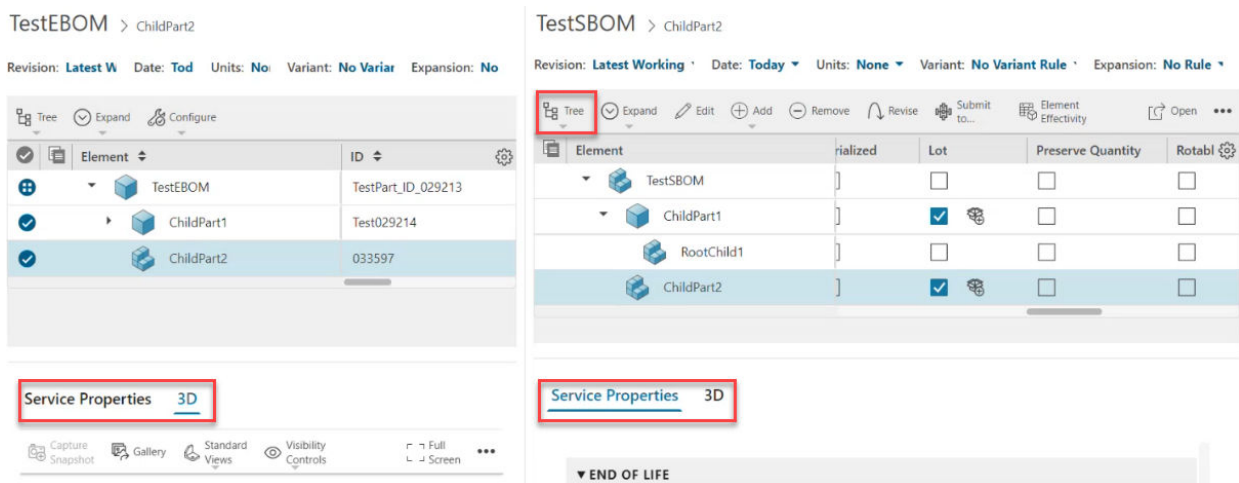
- Impeller frozen
- Motor failed

Note:

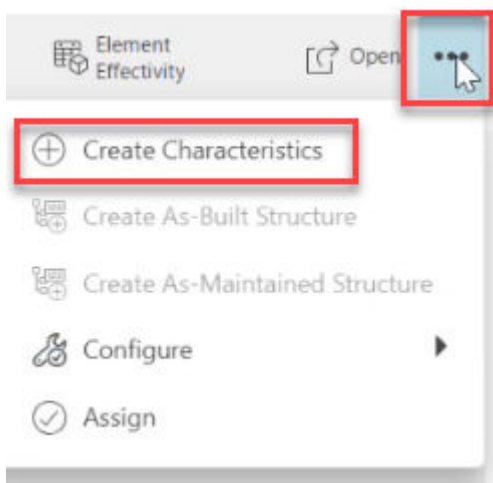
Textual characteristics do not propagate to child parts or subassemblies.

1. From the Source BOM-Service BOM (SBOM) Alignment , page, click **Tree** .
2. Select **Tree with Summary** .

The **Service Property** and **3D** tabs display on the **EBOM-SBOM** page.



3. Select the part to which you want to add a characteristic.
4. From the **Service BOM (SBOM)** panel, click **...**, and select **Create Characteristics**.



The **Create** dialog box appears.

5. Select **Observation Characteristic Definition** from the **Create** dialog box.

The **Create** dialog box is updated with the input fields for textual observation characteristics.

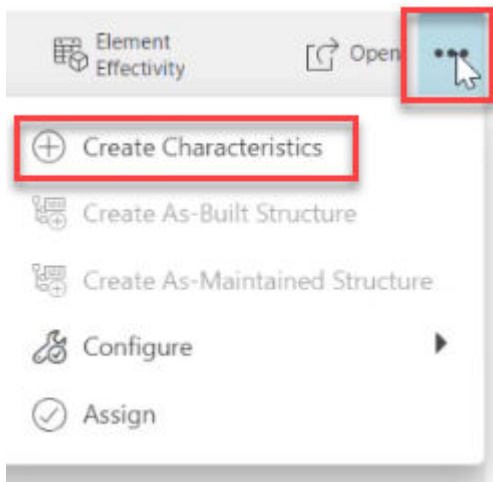
6. Enter the following information for the logical observation characteristic.

| Field name | Definition | Valid values |
|----------------------------|--|---------------------------------|
| Characteristic Name | Name of the observation characteristic | Alphanumeric (1–128 characters) |
| Type of Value | Numeric, Logical, or Textual | |
| Values | Alphanumeric strings | Alphanumeric (1–128 characters) |

7. Click **OK** to create the textual observation characteristic.

Assign characteristics to a neutral part

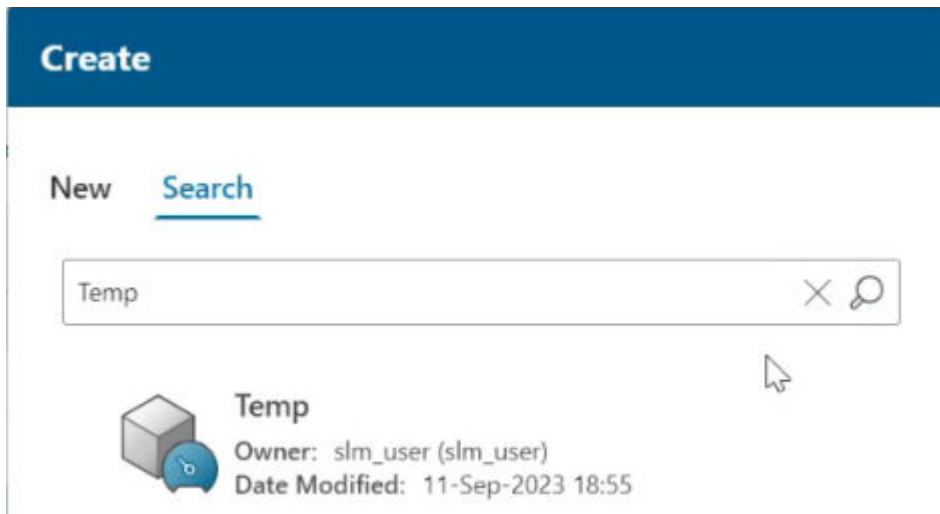
1. Select one or more neutral parts from the SBOM panel to which you want to assign the characteristic definition.
2. From the **Service BOM (SBOM)** panel, click **...**, and select **Create Characteristics**.



The **Create** dialog box appears.

3. Select the **Search** tab.
4. Type a search string into the **Search** box.

All existing characteristics that match the text string, and that are of the type selected, are listed.



5. Select the existing characteristic that you want to add to the selected neutral part.
6. Click **Add**.

A message confirms the characteristic was assigned to the neutral part.

9. Managing eBOMs and sBOMs

Assign part from eBOM to sBOM

You consume parts and usages from the engineering bill of material (eBOM) into the service bill of material (sBOM).

Note:

Be sure the **Role** is set to **Service Engineer** and the **Workspace** is set to **SBOM Management**.

1. **Open a work package** in Service Engineering.

The assembly eBOM and service sBOM are displayed.

The screenshot shows the 'Align | EBOM-SBOM' interface. On the left is the 'Car_eBOM' table, and on the right is the 'Car_sBOM' table. Both tables list hierarchical elements with their IDs, revisions, and names. The 'Car_sBOM' table includes additional columns for 'Occurrence...', 'Quantity', and a checkmark column.

| Element | ID | Revision | Revision Name |
|-------------------|--------|----------|-------------------|
| Car_eBOM | 029151 | A | Car_eBOM |
| Engine | 029152 | A | Engine |
| Clutch | 029153 | A | Clutch |
| Steering | 029154 | A | Steering |
| Brakes | 029155 | A | Brakes |
| Battery | 029156 | A | Battery |
| Suspension System | 029157 | A | Suspension System |

| Element | ID | Revision | Revision Name | Occurrence... | Quantity | |
|-------------------|--------|----------|-------------------|---------------|----------|-------------------------------------|
| Car_sBOM | 029167 | A | Car_sBOM | | | <input checked="" type="checkbox"/> |
| Body | 029168 | A | Body | | | <input checked="" type="checkbox"/> |
| Engine | 029170 | A | Engine | | | <input checked="" type="checkbox"/> |
| Steering | 029171 | A | Steering | | | <input checked="" type="checkbox"/> |
| Brakes | 029172 | A | Brakes | | | <input checked="" type="checkbox"/> |
| Battery | 029173 | A | Battery | | | <input checked="" type="checkbox"/> |
| Suspension System | 029174 | A | Suspension System | | | <input checked="" type="checkbox"/> |

Note:

The **MEAlignedPropertiestoExcludeFromInitialization** preference defines the list of BOM line properties that are not copied to an aligned target occurrence when it is initialized.

2. Select the part from the eBOM that you wish to add to the sBOM.

Note:

You cannot link an sBOM structure contained in a composition structure context to an eBOM structure.

Teamcenter links the eBOM root and the sBOM root. When these structures are linked, all further assignments to the sBOM from the eBOM create logically equivalent sBOM occurrences. The occurrences in the eBOM and sBOM are associated based on the in-context ID (IDIC) and on the defined properties copied from the eBOM to the sBOM.

3. Select a node in the sBOM.

4. Click **Assign** .

The part is added to the sBOM and the **Assigned**  indicator is displayed next to the added part in the eBOM.

| Car_eBOM > Clutch | | | | | Car > Car_sBOM > Body | | | | | | |
|-------------------|-------------------|--------|----------|-------------------|-----------------------|-----|--------|-------------------|--------|----------|-------------------|
| View | Element | ID | Revision | Revision Name | Edit | Add | Remove | Element | ID | Revision | Revision Name |
| | Car_eBOM | 029151 | A | Car_eBOM | | | | Car_sBOM | 029167 | A | Car_sBOM |
| | Engine | 029152 | A | Engine | | | | Body | 029168 | A | Body |
| | Clutch | 029153 | A | Clutch | | | | Engine | 029170 | A | Engine |
| | Steering | 029154 | A | Steering | | | | Steering | 029171 | A | Steering |
| | Brakes | 029155 | A | Brakes | | | | Brakes | 029172 | A | Brakes |
| | Battery | 029156 | A | Battery | | | | Disc Brakes | 029161 | A | Disc Brakes |
| | Suspension System | 029157 | A | Suspension System | | | | Drum Brakes | 029162 | A | Drum Brakes |
| | | | | | | | | Battery | 029173 | A | Battery |
| | | | | | | | | Suspension System | 029174 | A | Suspension System |
| | | | | | | | | Clutch | 029153 | A | Clutch |

Note:

If you assign a line containing children from the eBOM source to the sBOM target, only the parent line is given an IDIC. If you remove that parent line from that sBOM target, the children move up a level in the hierarchy, but because they do not have an IDIC, they do not show up as a match when you run an accountability check between the two structures. Use the **MCreateIdInContextforAssignedchildlines** preference to specify that Teamcenter assigns an IDIC to the child lines when you assign the parent from the eBOM source to the sBOM target.

Accountability check indicators

Accountability check indicators provide information about the assignment of parts in both the engineering bill of material (eBOM) and the service bill of material (sBOM). Hover over an indicator to see details of that BOM line.

Accountability check works on both packed and unpacked parts during assignment activities.

Assignment indications of source BOM



Assigned—*The part is assigned to the sBOM.*







The part in the source BOM is assigned to the sBOM once.

Click the indicator to highlight the assigned part in the sBOM.






Partially Assigned by Descendants—*Some descendants still need to be assigned.*

The parent part in the source BOM, to which some, but not all, of the child parts are assigned once in the sBOM.

| | | |
|---|---|--|
|  | Fully Assigned by Descendants — <i>All descendants are assigned.</i> | The parent part in the source BOM to which all child parts are assigned once in sBOM. |
|  | Over-assigned — <i>The part is assigned to the sBOM more than once.</i> | The part in the source BOM is assigned to the sBOM more than once. Click the indicator to display a list of parents in the sBOM to which the instances of the selected part are assigned. |
|  | Partially Assigned with Over-assigned Descendants — <i>Some of the descendants are assigned, but not all. Some of the descendants are assigned more than once.</i> | The parent part in the source BOM has some of the child parts assigned more than once in the sBOM. |
|  | Completely Assigned with Over-assigned — <i>All descendants are assigned, some more than once.</i> | The parent part in the source BOM has all of the child parts assigned, and some are assigned more than once in the sBOM. |
|  | Partially Assigned — <i>Some of multiple occurrences are assigned.</i> | The part in the source BOM has some of instances of a given part assigned, but not all of them. Click the indicator to highlight the assigned part in the sBOM. |
|  | Over-assigned — <i>The part is assigned to the sBOM more than once.</i> | The part in the source BOM is assigned to the sBOM in a greater quantity than exists in the source BOM. Click the indicator to highlight the assigned part in the sBOM. |

Assignment indications of source BOM for packed lines

| | | |
|---|---|---|
|  | Packed: Partially Assigned Occurrences — <i>Some of the packed occurrences are assigned, but not all.</i> | The packed line in the source BOM has a few occurrences that are assigned individually and only once in sBOM. |
|  | Packed: Assigned Occurrences — <i>All packed occurrences are assigned.</i> | The packed line in the source BOM has all occurrences assigned individually and only once in the sBOM. Click the indicator to highlight one of the occurrences of the assigned part in the sBOM. |
|  | Packed: Partially Assigned with Over-assigned Occurrences — <i>Some of the packed occurrences are assigned, but not all. Additionally, some of the</i> | The packed line in the source BOM has some occurrences that are assigned individually but more than once in the sBOM. |

occurrences are assigned more than once.



Packed: Completely Assigned with Over-assigned Occurrences—All packed occurrences are assigned, and some or all are assigned more than once.

A packed line in the source BOM has all occurrences assigned and some or all are assigned more than once in the sBOM.

Click the indicator to highlight one of the occurrences of the assigned part in the sBOM.

Mismatch indications of source BOM



Mismatch—A different revision of the part is assigned to the sBOM.

A part in the source BOM is assigned to sBOM with a different revision.



Contains Mismatches—Contains parts that are assigned to the sBOM with a different revision.

A parent part has child parts assigned with a different revision to sBOM.



Mismatching Occurrences—The sBOM instance is different than the source BOM for some or all of the assigned packed occurrences.

The packed line in the source BOM has a few or all occurrences assigned individually with a different revision in the sBOM.

Mismatch or missing indications of sBOM



Missing in Source BOM—The part is not included in the Source BOM.

A new part in the sBOM that is not present in source BOM.



Mismatch—The source BOM contains a different revision of this part.

A part in the sBOM that is assigned from the source BOM with a different revision.



Contains Mismatches—Contains assignments that either have different revisions in the source BOM or are missing completely.

The parent part that has a child part which is missing in source BOM, or is assigned with a different revision than the revision in the source BOM.

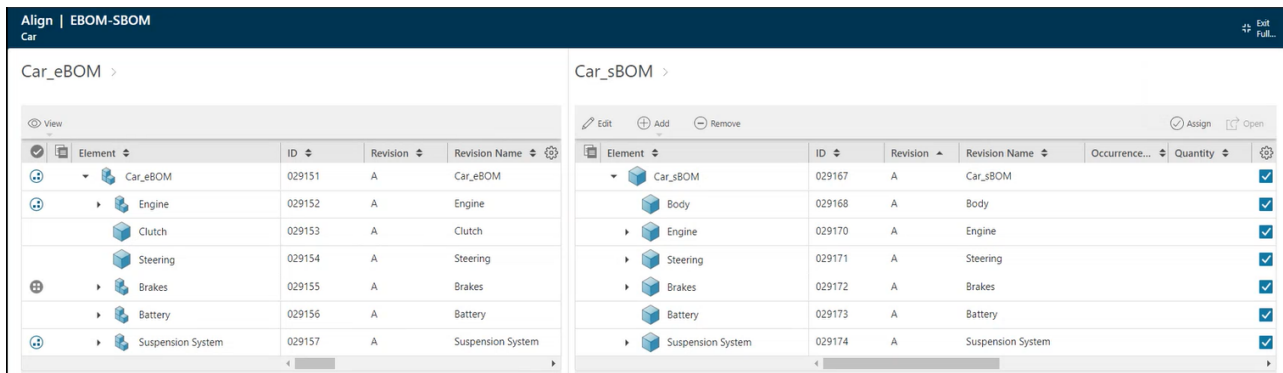
Add child part to sBOM

Note:

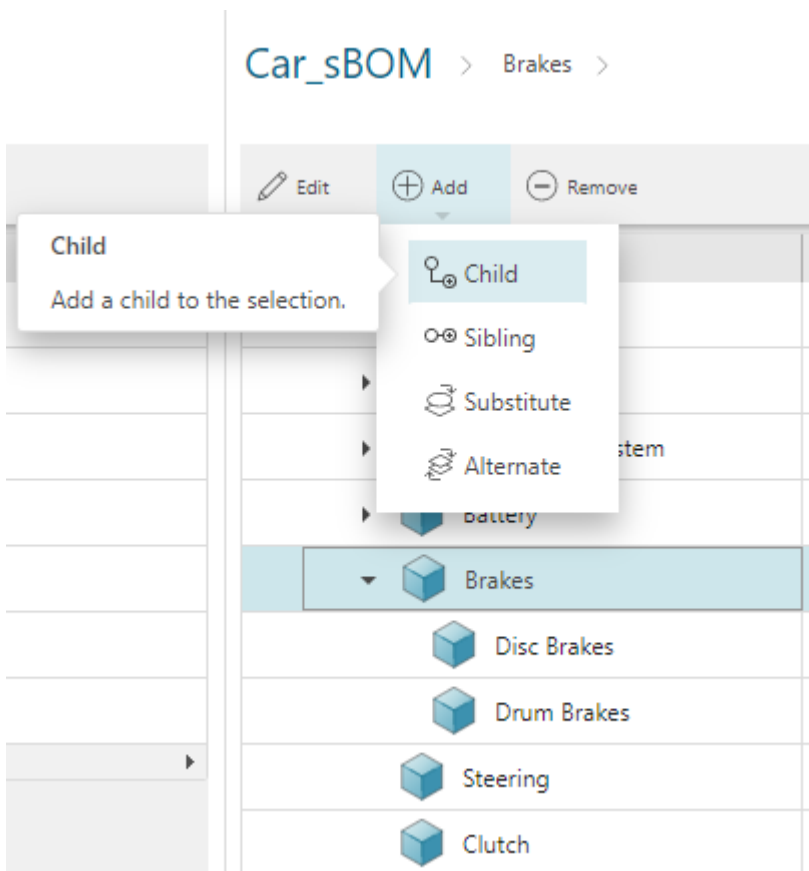
Be sure the **Role** is set to **Service Engineer** and the **Workspace** is set to **SBOM Management**.

1. **Open a work package** in Service Engineering.

The assembly engineering bill of materials (eBOM) and service bill of materials (sBOM) are displayed.




2. Select a node in the assembly in the sBOM window.
3. Click **Add** (+) icon and select **Child**.



4. Select the part to add by choosing **New**, **Palette**, or **Search** and completing the information in the **Add** dialog box, and then click **Add**.

Add Pin Panel Close

TO

 **Brakes**
029193
Revision: A

New **Palette** **Search**

PART

PROPERTIES

ID: *

Revision: *

Name: *

Description:

Unit of Measure:

Design Required:

Make/Buy:

Add

The new part is added to the selected node.

| | | | | |
|-------------|--------|---|-------------|-------------------------------------|
| Brakes | 029193 | A | Brakes | <input checked="" type="checkbox"/> |
| Disc Brakes | 029161 | A | Disc Brakes | <input checked="" type="checkbox"/> |
| Drum Brakes | 029162 | A | Drum Brakes | <input checked="" type="checkbox"/> |
| Calipers | 029207 | A | Calipers | <input checked="" type="checkbox"/> |

Add sibling part to sBOM

Note:

Be sure the **Role** is set to **Service Engineer** and the **Workspace** is set to **SBOM Management**.

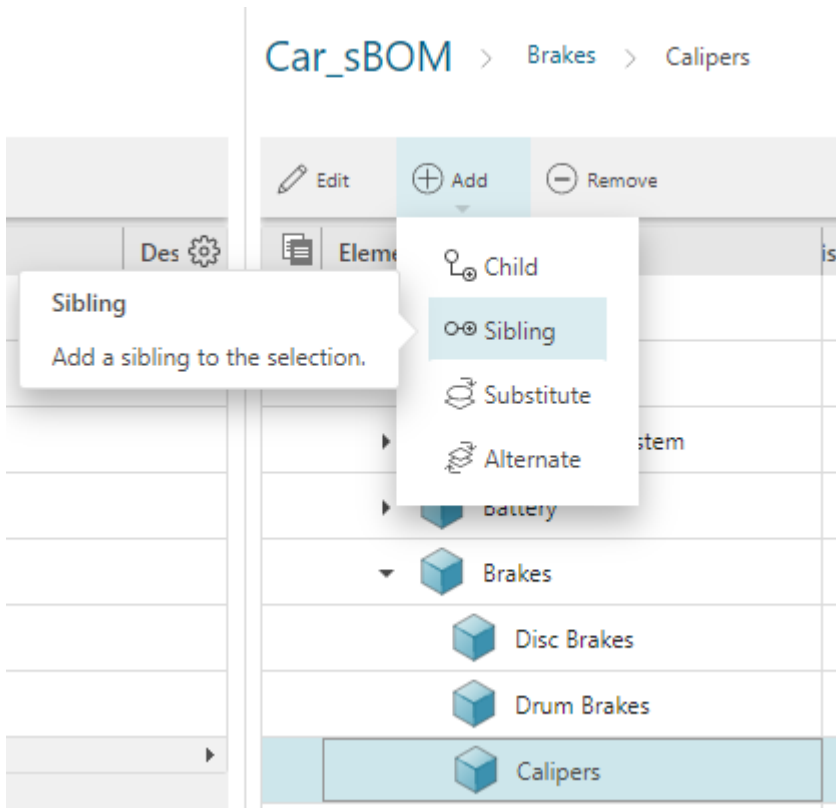
1. **Open a work package** in Service Engineering.

The assembly engineering bill of materials (eBOM) and service bill of materials (sBOM) are displayed.

| Element | ID | Revision | Revision Name |
|-------------------|--------|----------|-------------------|
| Car_eBOM | 029151 | A | Car_eBOM |
| Engine | 029152 | A | Engine |
| Clutch | 029153 | A | Clutch |
| Steering | 029154 | A | Steering |
| Brakes | 029155 | A | Brakes |
| Battery | 029156 | A | Battery |
| Suspension System | 029157 | A | Suspension System |

| Element | ID | Revision | Revision Name | Occurrence... | Quantity |
|-------------------|--------|----------|-------------------|---------------|----------|
| Car_sBOM | 029167 | A | Car_sBOM | | |
| Body | 029168 | A | Body | | |
| Engine | 029170 | A | Engine | | |
| Steering | 029171 | A | Steering | | |
| Brakes | 029172 | A | Brakes | | |
| Battery | 029173 | A | Battery | | |
| Suspension System | 029174 | A | Suspension System | | |


2. Select a node in the assembly in the sBOM window.
3. Click **Add** (+) and select **Sibling**.



4. Select the part to add by choosing **New**, **Palette**, or **Search** and completing the information in the **Add** dialog box, and then click **Add**.

Add Pin Panel Close

TO

 **Brakes**
029193
Revision: A

New **Palette** **Search**

PART

PROPERTIES

ID: *

Revision: *

Name: *

Description:

Unit of Measure:

Design Required:

Make/Buy:

Add

The new part is added as a sibling to the selected node.

| | | | |
|-------------|-------------|-------------------------------------|-------------------------------------|
| ▼ Brakes | Brakes | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Disc Brakes | Disc Brakes | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Drum Brakes | Drum Brakes | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Calipers | Calipers | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Brake Rotor | Brake Rotor | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

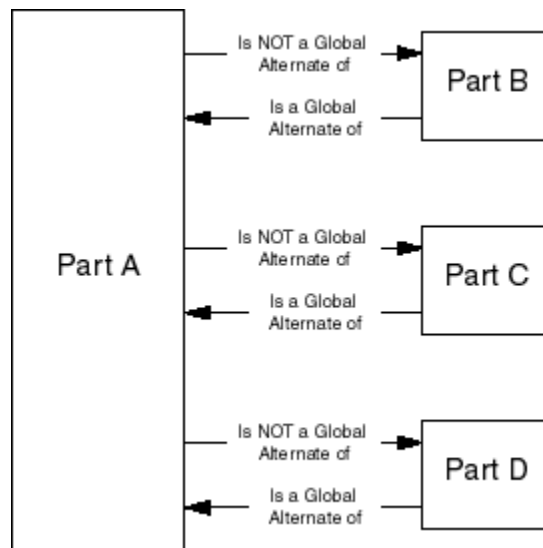
Global alternates overview

A *global alternate* part is interchangeable with another part in *all* circumstances, regardless of where the other part is used in the product structure. A global alternate applies to any revision of the part and is independent of any views.

Note:

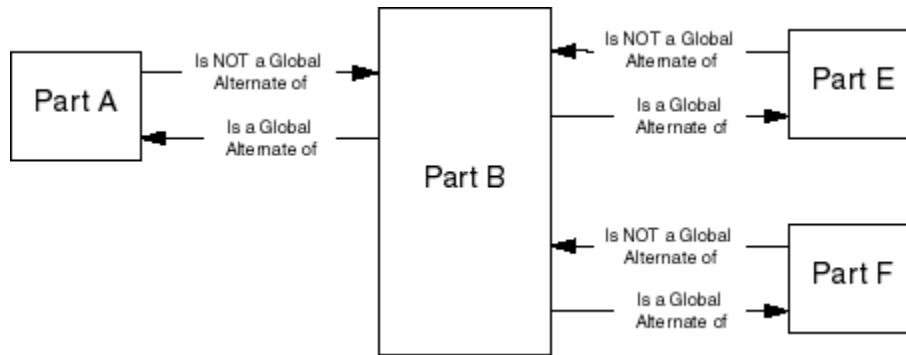
If the parts are interchangeable only in specific products or assemblies, use *substitutes* rather than global alternates.

Parts and their global alternates are related only in a single direction. For example, if part **A** has three global alternates (parts **B**, **C**, and **D**), then **B**, **C**, and **D** are each a global alternate of **A**. However, part **A** is not an alternate of **B**, **C**, or **D**, as shown next.



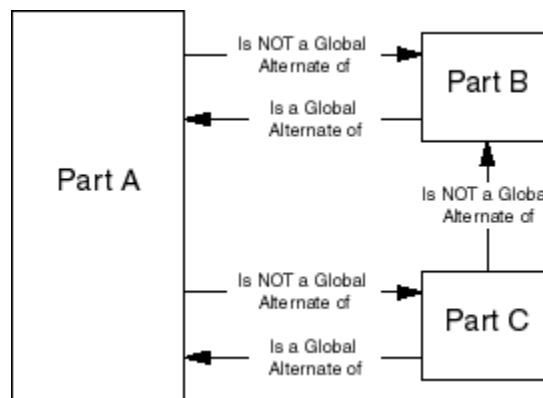
Global alternates – single direction

One part can be a global alternate of more than one other part. For example, part **B** may be a global alternate of parts **E** and **F**, as well as a global alternate of part **A**, as shown next.



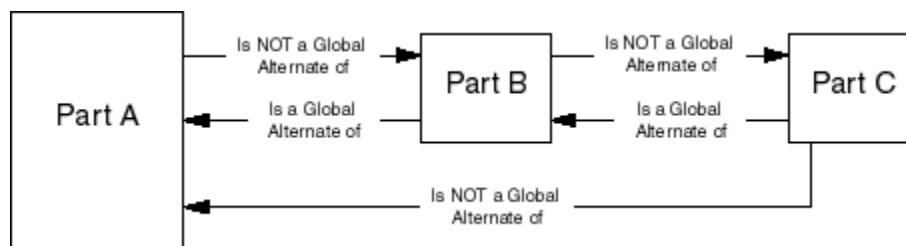
Global alternates – multiple alternates

Global alternate relationships are not shared. For example, part C is not a global alternate of part B, even though they are both global alternates of part A, as shown next.



Global alternates – nonsharing

Likewise, global alternate relationships are not chained. For example, if part B is a global alternate of part A, and part C is a global alternate of part B, part C is not a global alternate of part A, as shown next.

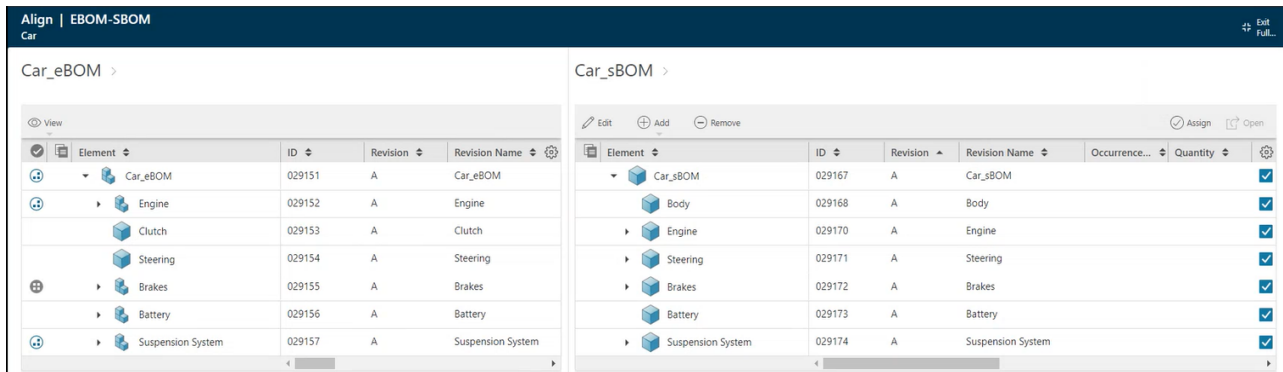



Global alternates – chaining

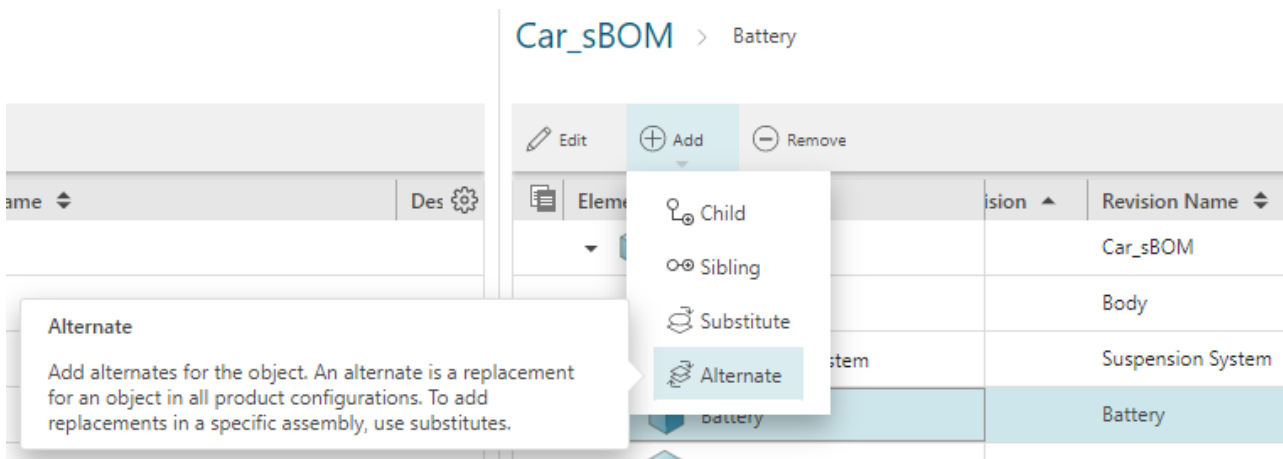
Add alternate part to sBOM

1. **Open a work package** in Service Engineering.


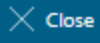
The assembly engineering bill of materials (eBOM) and service bill of materials (sBOM) are displayed.



- Select a node in the assembly in the sBOM window.
- Click **Add**  and select **Alternate**.



- Select the part to add by choosing **New**, **Palette**, or **Search** and completing the information in the **Add** dialog box, and then click **Add**.

Add  Pin Panel  Close

New **Palette** **Search**

ITEM

PROPERTIES

ID: *

Revision: *


Name: *

Description:


Unit of Measure:

OWNING PROJECT

PROJECTS

 Add Project

Add

The new part is designated as a **Global Alternate**, as indicated by the  Global Alternates icon.

| Element | Preserve Quantity | Rotable | Consumable | Type |
|-------------------|--------------------------|--------------------------|--------------------------|---------------|
| Car_sBOM | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision |
| Body | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision |
| Suspension System | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision |
| Battery | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision |

Global Alternates (1):
029209-Battery - Heavy Duty

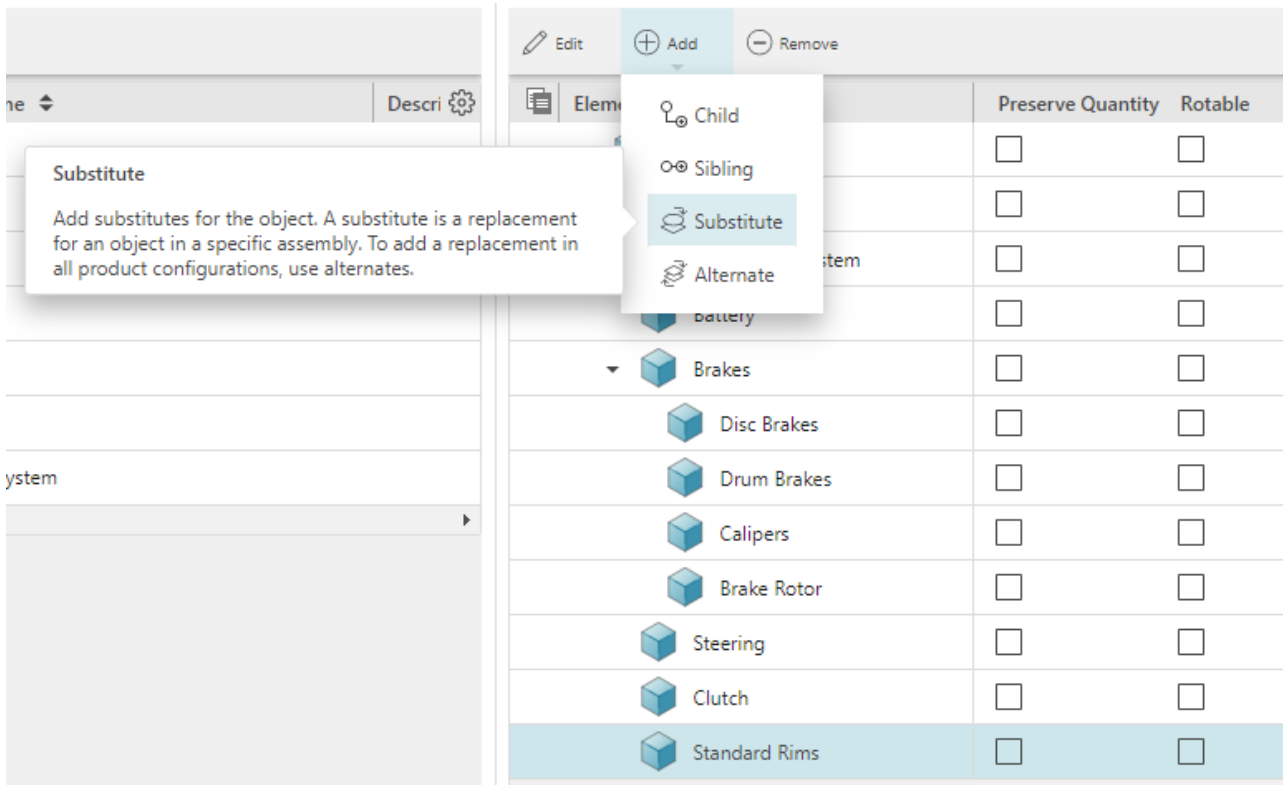
Add substitute part to sBOM

1. **Open a work package** in Service Engineering.

The assembly engineering bill of materials (eBOM) and service bill of materials (sBOM) are displayed.

| Align EBOM-SBOM | | | | |
|-------------------|-------------------|--------|----------|-------------------|
| Car | | | | |
| Car_eBOM > | | | | |
| View | Element | ID | Revision | Revision Name |
| + | Car_eBOM | 029151 | A | Car_eBOM |
| + | Engine | 029152 | A | Engine |
| + | Clutch | 029153 | A | Clutch |
| + | Steering | 029154 | A | Steering |
| + | Brakes | 029155 | A | Brakes |
| + | Battery | 029156 | A | Battery |
| + | Suspension System | 029157 | A | Suspension System |
| Car_sBOM > | | | | |
| Edit | Element | ID | Revision | Revision Name |
| + | Car_sBOM | 029167 | A | Car_sBOM |
| + | Body | 029168 | A | Body |
| + | Engine | 029170 | A | Engine |
| + | Steering | 029171 | A | Steering |
| + | Brakes | 029172 | A | Brakes |
| + | Battery | 029173 | A | Battery |
| + | Suspension System | 029174 | A | Suspension System |

2. Select a node in the assembly in the sBOM window.
3. Click **Add** (+) and select **Substitute**.



4. Select the part to add by choosing **New**, **Palette**, or **Search** and completing the information in the **Add** dialog box, and then click **Add**.

Add Pin Panel Close

New Palette Search

PART

PROPERTIES

ID: *

Revision: *

Name: *

Description:

Unit of Measure:

Design Required:

Make/Buy:

IMDS Object: *

Semi-Component:

OWNING PROJECT

Add

The new part is designated as a **Substitute** as indicated by the  substitute icon.

| | | | | | |
|---|--------------------------|--------------------------|--------------------------|---------------|------|
|  Brake Rotor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision | each |
|  Steering | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision | each |
|  Clutch | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision | each |
|  Standard Rims | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Part Revision | each |

Substitutes (1):
 029212/A;1-Alloy Rims

Editing properties of an sBOM

You can edit the following properties from the service bill of material (sBOM) simply by making changes in the cell for a given node.

- **Revision Name**
- **Occurrence Name**
- **Quantity**
- **Unit of Measure** (via menu)

Editing PLF properties of an sBOM

You can edit the following part logistics form (PLF) properties from the service bill of materials (sBOM) simply by selecting or clearing the check box in the cell for a given node.

- **Traceable**
- **Serialized**
- **Lot**
- **Preserve Quantity**
- **Rotable**
- **Consumable**

Occurrence-specific PLF values behavior

It is not unusual for a physical structure to contain multiple occurrences of parts, and the usage of the various occurrences can vary. When you set **Occurrence PLF** to **True**, you are able to set part logistic form (PLF) conditions by individual occurrences of the part.

Normally, PLF values are attached to the neutral part or item.

- **Occurrence PLF set to False**

When you set **Occurrence PLF** to **False** on a part that has multiple occurrences within the physical structure, the changes you make to the PLF properties of that part are reflected in all occurrences of the part.

- **Occurrence PLF set to True**

When you set **Occurrence PLF** to **True** on a part that has multiple occurrences within the physical structure, the changes you make to the PLF properties of that part are not reflected in any other occurrences of the part. That is because the PLF values are attached to the physical part.

- You can reset the **Occurrence PLF** to **False** if no PLFs have been changed and saved.
- After you set the **Occurrence PLF** to **True** for a neutral part, and set and save any of the PLF values for that neutral part, you cannot set the **Occurrence PLF** to **False**. The option is unavailable after the edit of the PLF is saved.

Note:

When you generate a physical structure, the PLF properties that you define in the neutral part are applied to the physical structure, whether they are item level PLF properties or occurrence PLF properties.

Example:

Consider an assembly that contains two wheels:

Neutral assembly:

Wheel One—**Occurrence PLF** is set to **False** and **Serialized** is set to **False**

Wheel Two—**Occurrence PLF** is set to **True** and **Serialized** is set to **True**

Physical assembly generated from the above neutral structure:



Wheel One—Non-serialized part and PLF with item level PLF values

Wheel Two—Serialized part with occurrence-specific PLF values

Enable occurrence-specific PLF values

You can set occurrence-specific part logistics form (PLF) properties by setting the **Occurrence PLF** to **True**.

1. Select a single occurrence of a physical part in the SBOM.

2. Click **Edit**  from the SBOM panel.
3. In the row of the physical part to which you want to add occurrence-specific PLF values, set the **Occurrence PLF** to **True**.
4. Set any of the PLF settings that will impact only that specific occurrence.
5. Click **Save Edits** .

Enable and assign lots on neutral parts

Enable lot on neutral part

Create a lot in which you can group physical parts that are associated in some way. For example, all of the parts might be from a particular manufacturer.

A *lot* contains a group of physical parts controlled by the same lot number. You can define the maximum number of parts that a lot can contain. Based on this information, you can assign lot numbers to the physical parts that make up the physical structure.

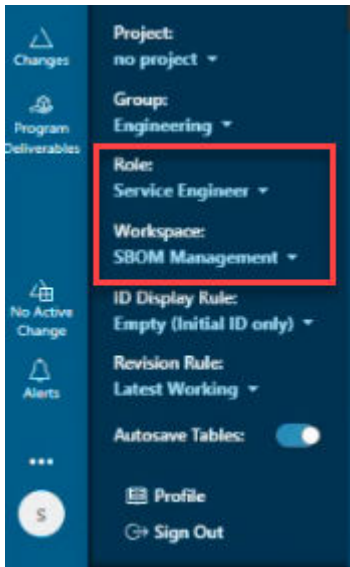
The lot usage value increments for every physical part assigned to that lot. When the lot usage is more than the maximum number of parts available, the lot cannot be used further. You can also define an expiration date for the lot.



Note:

Lots can be assigned only if the part logistics **Lot** property is **True** for the neutral part.

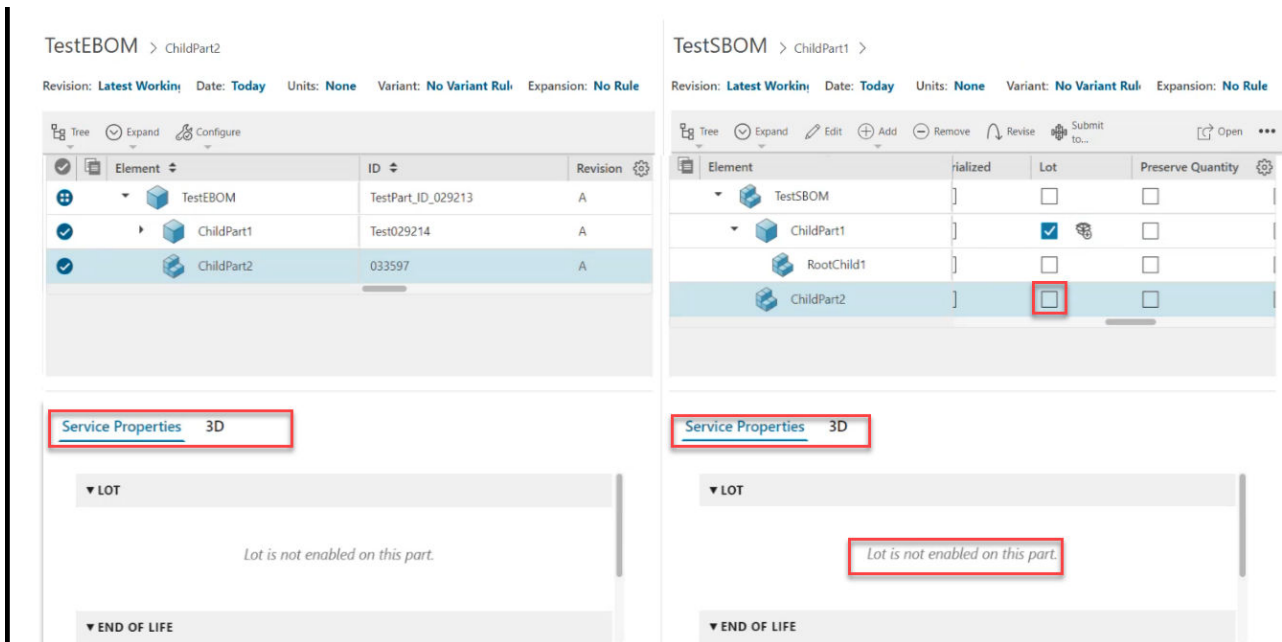
Procedure

1. Set the **Workspace** to **SBOM Management**.
2. Set the **Role** to **Service Engineer**.




3. Click **Tree** .
4. Select **Tree with Summary** .

The **Service Properties** and **3D** tabs display on the **EBOM-SBOM** page.



Note:


The part logistics **Lot** property for the selected part is in the default state of **False**.

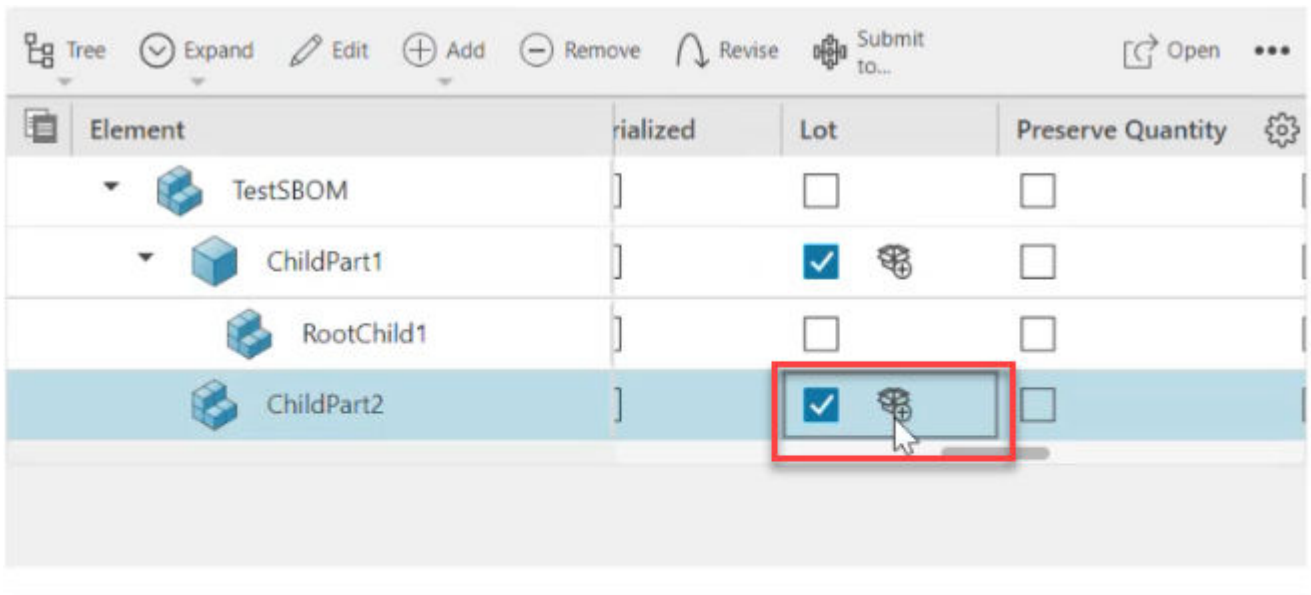
5. On the **Service BOM (SBOM)** panel, click **Edit** .

- Select the **Lot** check box of the neutral part for which you want to register a lot.

The part logistics **Lot** property is set to **True**.

- Click **Save Edits** .

The **Lot Enabled**  indicator is displayed on the BOM line.





Service Properties 3D





Create lot on neutral part

Create a lot on a neutral part in the service bill of material (SBOM).

There are two ways that you can create a lot on a neutral part. The first is by selecting **Lot Enabled**  on the SBOM neutral part. The second way that you can create a lot is by selecting **Create Lot**  in the **Service Properties** tab of the SBOM.


Procedure

1. Either click **Lot Enabled**  on the SBOM neutral part or click **Create Lot**  in the **Service Properties** tab of the SBOM.

The **Create Lot** dialog box is displayed.

-

2. Enter the following information for the new lot.

| Field name | Definition | Valid values |
|--------------------------|----------------------------|---|
| Lot Number | Unique lot ID number | Alphanumeric (1–32 characters) |
| Manufacturer's ID | Lot manufacturer ID | Alphanumeric (1–128 characters) |
| Lot Size | Number of items in the lot | Integer To set the lot size to infinite, set the lot size value to 0 (zero) or leave it blank.. |
| Expiration Date | Lot expiration date | Click the Set Date  button and select a date from the calendar. |

3. Click **Create**.

A message confirms the lot is created.

The lot is created and it is listed in the **Service Properties** tab of both the EBOM and SBOM.

TestEBOM > ChildPart2
 Revision: Latest Working | Date: Today | Units: None | Variant: No Variant Rule | Expansion: No Rule

| Element | ID | Revision |
|------------|--------------------|----------|
| TestEBOM | TestPart_ID_029213 | A |
| ChildPart1 | Test029214 | A |
| ChildPart2 | 033597 | A |

TestSBOM > ChildPart2
 Revision: Latest Working | Date: Today | Units: None | Variant: No Variant Rule | Expansion: No Rule

| Element | Serialized | Lot | Preserve Quantity |
|------------|--------------------------|-------------------------------------|--------------------------|
| TestSBOM | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ChildPart1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| RootChild1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ChildPart2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

LOT

| Lot Number | Manufacturer's ID | Lot Size | Expires |
|------------|-------------------|----------|-----------|
| Lot5 | Argor-Heraeus SA2 | 100 | 30-Sep-20 |

[Lot5] was added.

Omitting line items from an SBOM

In certain cases, line items in a neutral structure are not needed in a physical structure. For example, items such as technical reports, and phantom nodes that have no CAD model themselves but are containers for other physical parts, are not needed in a physical structure.

When a physical structure is created, you can control how these line items are addressed in the physical structure by Service Lifecycle Management.

When you set the part logistic form (PLF) property **Skip Part for Physical Structure** to **True**, the line item is not included in any subsequently created physical structure.

- If the skipped line item has children, the children are added to the physical structure one level higher.

Example:

The PLF property **Skip Part for Physical Structure** is set to **True** for line items **Tyre** and **Driveline**.

SBOMTruck > TYRE

Revision: Latest Working Date: Today Units: None Variant: No Variant Rule

Tree Expand Save Edits Cancel Edits Add Remove Revise Submit to...

| Element | et | Quantity | Skip Part for ... |
|-------------------|----|----------|-------------------------------------|
| SBOMTruck | | | <input type="checkbox"/> |
| TYRE | | | <input checked="" type="checkbox"/> |
| Engine | | | <input type="checkbox"/> |
| Tank | | | <input type="checkbox"/> |
| Part | | | <input type="checkbox"/> |
| DriveLine | | | <input checked="" type="checkbox"/> |
| PropellerShaftAsm | | | <input type="checkbox"/> |
| DifferentialAsm | | | <input type="checkbox"/> |

When a physical structure is created from the service bill of material (SBOM), **Tyre** and **Driveline** are omitted. Additionally, the two children of **Driveline** are included, but are moved up one level.

032460/- >

123 Revision: Latest Working Date: Today Owner: slm_user (slm_user) Date Modified: 08-Feb-2023 Release

Tree with Summary Add Record Utilization Edit Structure Alerts Show Pendi... Find Filter Synchronize

| Element | Revision | Revision Name |
|----------|----------|-------------------|
| 032460/- | A | SBOMTruck |
| 032435/- | A | PropellerShaftAsm |
| 032396/- | A | Engine |
| 032436/- | A | DifferentialAsm |
| 032401/- | A | Tank |
| 032407/- | A | Part |

- A comparison of the two structures reflects that the children are still a part of the skipped line item or container.
- If you uninstall a part that is a child of a skipped line item, and then reinstall the part, Service Lifecycle Management retains the association to the skipped line item.

Skip line item in SBOM

To control the contents of a physical structure, identify line items from the neutral structure that serve no purpose in a physical structure.

1. Open a service bill of material (SBOM) that contains line items that you do not need in a physical structure.

2. Set the part logistic form (PLF) property **Skip Part for Physical Structure** to **True** for the line item or items that you want to omit from any subsequently created physical structures.

Note:

Once the **Skip Part for Physical Structure** is set, the result can be observed when a physical structure is created.

3. Select **Create As-Maintained Structure**.
4. Enter information in the **Create As-Maintained Structure** dialog box.
5. Click **Create**.

The physical structure is created and the parts that you set to **Skip Part for Physical Structure** are omitted.

Note:

Any line items that are children of an omitted line item are added to the structure and now exist at the level of the skipped part.

| Element | Revision | Revision Name |
|----------|----------|-------------------|
| 032460/- | A | SBOMTruck |
| 032435/- | A | PropellerShaftAsm |
| 032396/- | A | Engine |
| 032436/- | A | DifferentialAsm |
| 032401/- | A | Tank |
| 032407/- | A | Part |