

DS\_ComplexTask.xml template created from XMetaL Task.xml  
template (<http://www.xmetal.com>)

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# Managing Consumables

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You can manage consumables by adding or removing them from machines, robots, or transfer activities. Consumables help to complete tasks since they are objects that the action uses to the point of depletion during a simulation. Consumables can include batteries, welding rods, sanding discs, magnets, castors, and wheels.

Open a scenario that includes a machine or a robot and a transfer activity.

## Related Topics:

- [Context Menus](#)
- [Adding Activities](#)
- [Edit Time Distribution Dialog Box](#)

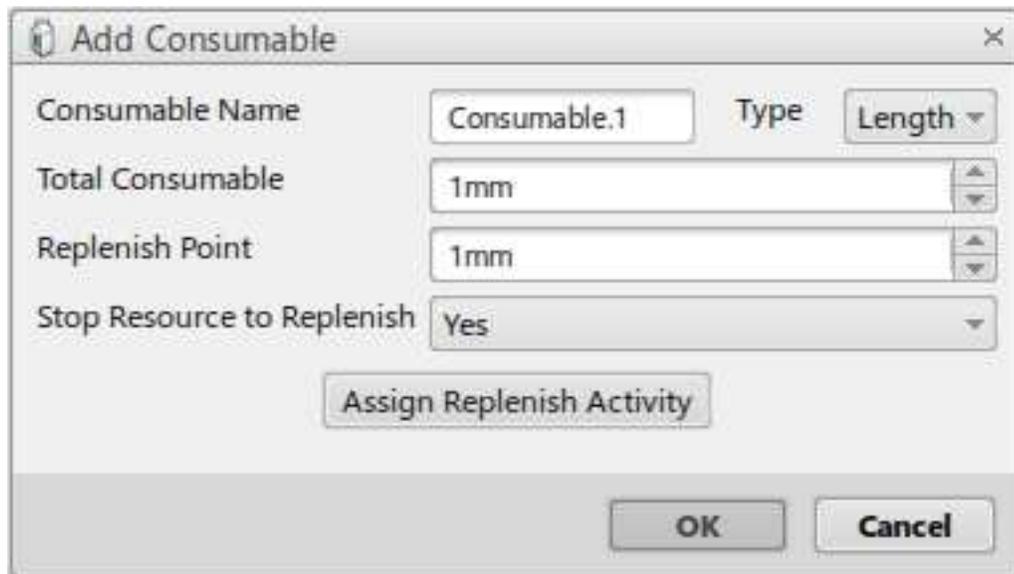


## Adding a Consumable

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You can add a consumable to a machine or a robot with the **Add Consumable** command.

1. Click the **Resource Configuration**  command from the **Programming** section of the **action bar**.
2. In the **Resource Configuration** table that appears, right-click a machine.
3. Mouse over **Consumables** and click **Add Consumable** .
4. In the **Add Consumable** dialog box that appears, define the consumable's attributes.



The screenshot shows the 'Add Consumable' dialog box with the following fields and values:

Field	Value
Consumable Name	Consumable.1
Type	Length
Total Consumable	1mm
Replenish Point	1mm
Stop Resource to Replenish	Yes

Buttons: Assign Replenish Activity, OK, Cancel

You can define the following attributes for the consumable:

- **Consumable Name:** The name of the consumable.

- **Type:** The measurement unit in length, width, or volume.
- **Total Consumable:** The total consumable value.
- **Replenish Point:** The replenish point for the consumable.
- **Stop Resource to Replenish:** Allows you to specify whether or not the resource stops to replenish consumed materials.

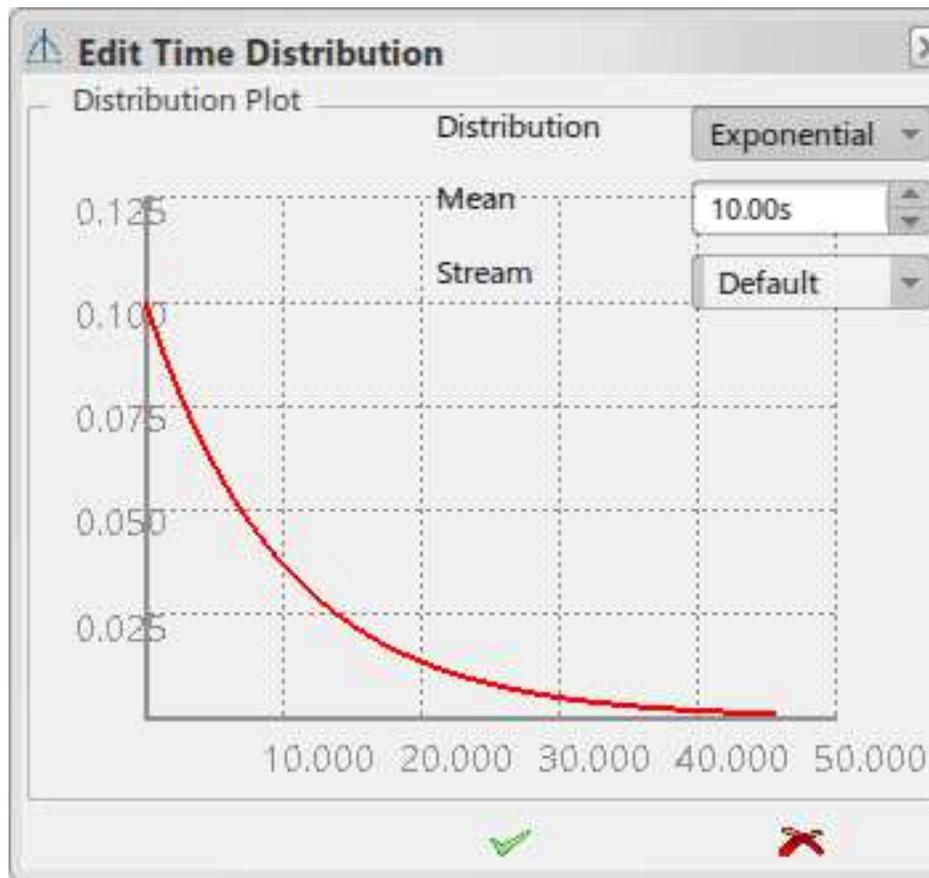
**5. Click Assign Replenish Activity** and edit the activity's attributes.

The screenshot shows a software dialog box titled "Add Consumable". It contains several input fields and a sub-dialog. The main dialog fields are: "Consumable Name" (text box with "Consumable.1"), "Type" (dropdown menu with "Length" selected), "Total Consumable" (spin box with "1mm"), "Replenish Point" (spin box with "1mm"), and "Stop Resource to Replenish" (dropdown menu with "Yes" selected). Below these is a sub-dialog titled "Generic.2" with fields: "Name" (text box with "Replenish.2"), "Duration" (spin box with "10.00s" and a normal distribution icon, with "Normal( 10s, 1s )" text to the right), "Start Position" (dropdown menu with "None" selected), and "End Position" (dropdown menu with "None" selected). Below the sub-dialog is a section titled "Assigned resource pools" with a right-pointing arrow. At the bottom of the main dialog are "OK" and "Cancel" buttons.

The replenish activity is a generic activity type. You can define the following attributes for the replenish activity:

- **Name:** The name of the replenish activity.
- **Duration:** The duration of the replenish activity.
  - **Time Distribution** : Opens the **Edit Time Distribution** dialog box, where you can edit the time distribution for the **Duration**

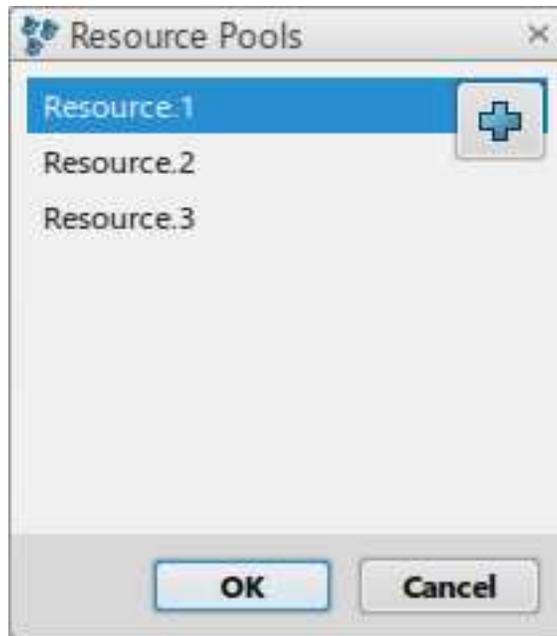
attribute.



- **Start Position:** The start position for the replenish activity.
- **End Position:** The end position for the replenish activity.

**6. Click Assigned resource pools → Assign.**

**7.** In **Resource Pools** dialog box that appears, select a single resource from the list, or select multiple resources by holding **Ctrl** while selecting several resource pools.



**8.** Click **OK** to close the dialog box.

The assigned resource pool is listed in the **Assigned resource pools** section of the **Add Consumable** dialog box.

**9.** Define the newly assigned resource pool's attributes in the dialog box.

**Add Consumable**

Consumable Name: Consumable.1    Type: Length

Total Consumable: 1mm

Replenish Point: 1mm

Stop Resource to Replenish: Yes

**Generic.2**

Name: Replenish.2

Duration: 10.00s    Normal( 10s,1s)

Start Position: None

End Position: None

**Assigned resource pools**

Resource Pool	Start Position	End Position
Resource.1	None	None

Assign    UnAssign

OK    Cancel

You can define the following attributes for the assigned resource pool:

- **Start Position:** The start position for the resource pool.

- **End Position:** The end position for the resource pool.

You can use also the **Assign** command to add more resource pools and the **Unassign** command to remove resource pools from the replenish activity.

#### 10. Click **OK**.

The dialog box closes and you have added the consumable to the machine or robot.

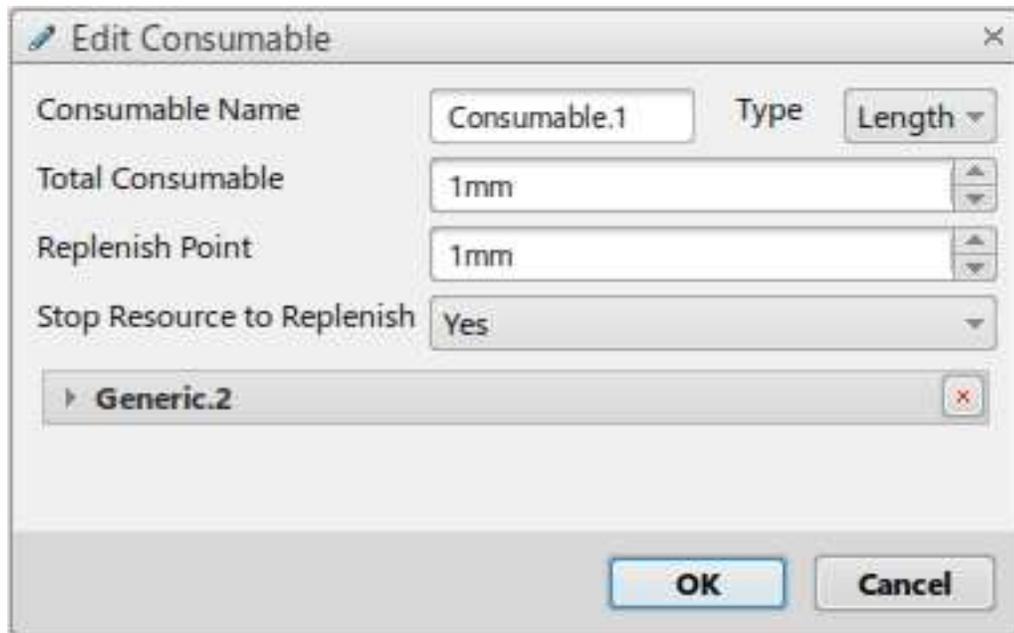
 **Note:** Every time you create a consumable, the command automatically creates a replenish activity that is a generic activity type. This activity appears in the generic activities node under the machine or robot with a consumable. When you delete a consumable, the command deletes the consumable's generic activity as well. You can only delete the consumable's generic activity when you delete the consumable.

You have added a consumable to a machine or robot.

## Edit a Consumable

You can edit an existing consumable in the **Resource Configuration** table.

1. Click the **Resource Configuration**  command from the **Programming** section of the **action bar**.
2. In the **Resource Configuration** table that appears, right-click a consumable and click **Edit** .
3. Use the **Edit Consumable** dialog box that appears to edit the consumable.



The screenshot shows the 'Edit Consumable' dialog box. The title bar includes a pencil icon and the text 'Edit Consumable'. The dialog contains the following fields and controls:

- Consumable Name:** A text box containing 'Consumable.1'.
- Type:** A dropdown menu with 'Length' selected.
- Total Consumable:** A text box with '1mm' and up/down arrow buttons.
- Replenish Point:** A text box with '1mm' and up/down arrow buttons.
- Stop Resource to Replenish:** A dropdown menu with 'Yes' selected.
- Consumable List:** A list box containing 'Generic.2' with a red 'x' icon to its right.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

4. Click **OK** to close the dialog box.

The edited consumable is listed in the **Resource Configuration** table.

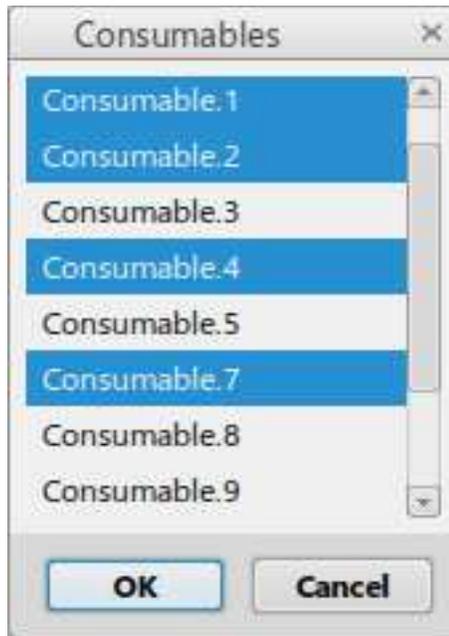
You have edited an existing consumable.

## ▽ Assigning a Consumable to a Transform Activity

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You can assign a consumable to a transform activity

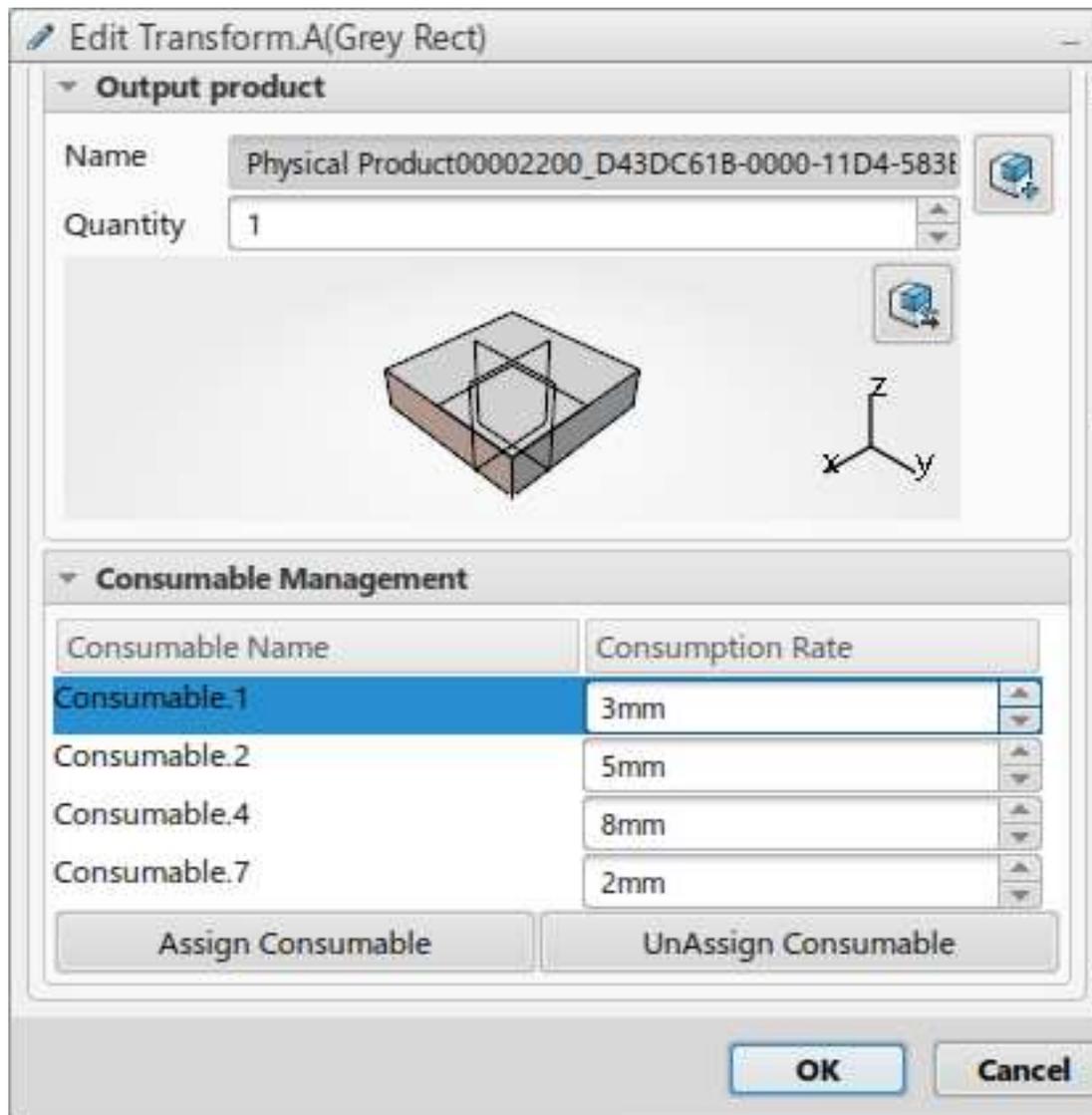
1. Click the **Resource Configuration**  command from the **Programming** section of the **action bar**.
2. In the **Resource Configuration** table that appears, right-click a transform activity and click **Edit** .
3. In the **Edit** dialog box that appears, go to the **Consumable Management** section and click **Assign Consumable**.
4. In the **Consumables** dialog box that appears, select a single consumable or multiple consumables by holding **Ctrl** and selecting several consumables.



5. Click **OK** to close the dialog box.

The consumables that you added to the transform activity are listed in the **Consumable Management** section of the **Edit** dialog box.

6. Edit the consumable's consumption rate by weight with the **Consumption Rate** attribute.



 **Note:** For every execution of the transform activity on a machine or robot, the simulation deducts the defined consumption rate from the total consumable value. When this consumable value presses the replenish point value, the replenish activity begins and the consumable reloads on the

machine. During the replenish activity's execution, whether or not the resource stops depends on what you specified for the **Stop Resource to Replenish** option in the **Edit Consumable** dialog box.

7. Assign additional consumables with the **Assign Consumable** command, or remove a consumable from the transform activity with the **Unassign Consumable** command.

8. Click **OK** to close the dialog box.

9. **Optional:** (*commands(Open HTML Report)*) Click **Open HTML Report** .

A report appears that displays each consumable's statistics.

You have assigned a consumable to a transform activity.

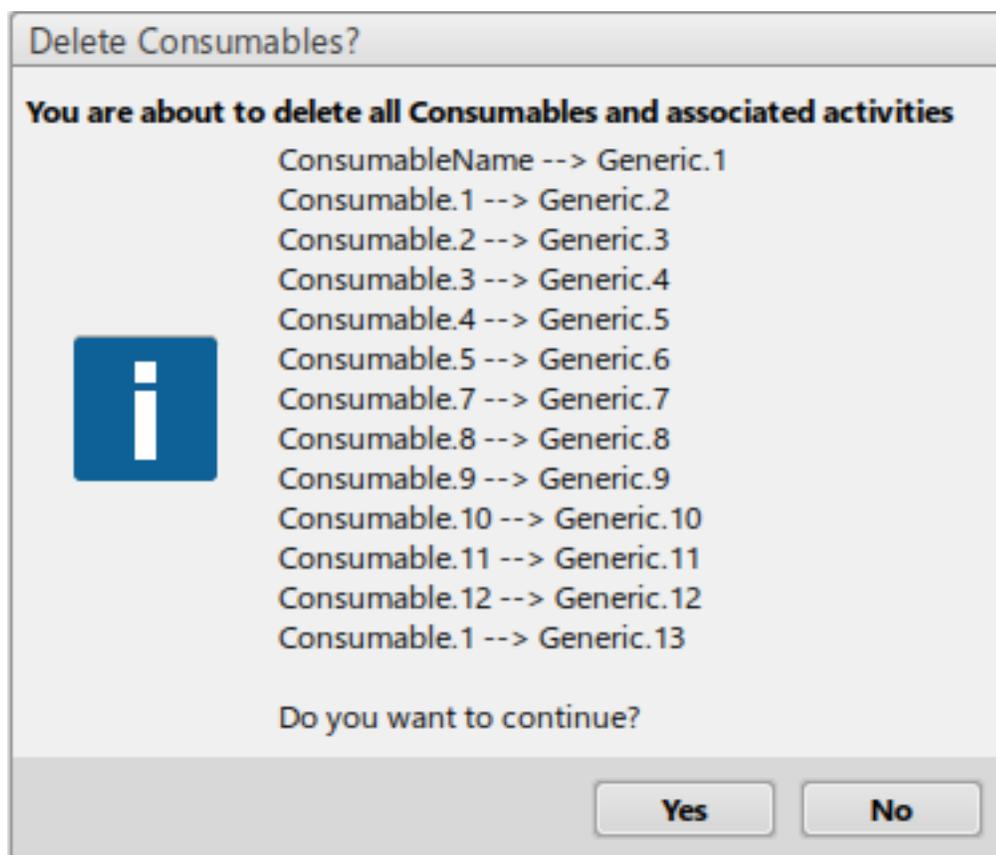


## Removing a Consumable

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You can remove all of the consumables from a machine or a robot with the **Remove all Consumables** command.

1. Click the **Resource Configuration**  command from the **Programming** section of the action bar.
2. In the **Resource Configuration** table that appears, right-click a machine with assigned consumables.
3. Mouse over **Consumables** and click **Remove all Consumables**  and review the list of consumables in the **Delete Consumables?** dialog box that appears.



4. Click **Yes** and close the **Resource Configuration** table.

You have deleted all of the consumables from the machine or robot.