

Siemens PLM Software

NX CAM 12.0: Skip Cut Areas Where Engages Do Not Fit

Avoid cut areas that are too small for Helical or Ramp on Shape engages.

About NX CAM

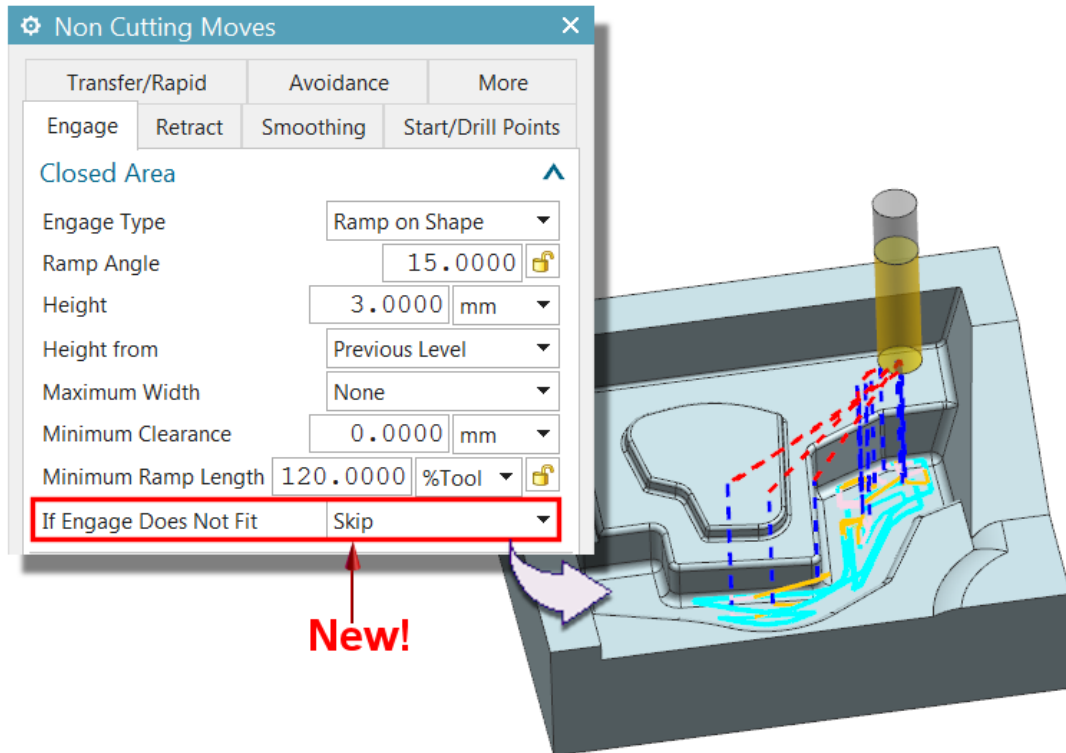
NX™ CAM software has helped many of the world's leading manufacturers and job shops produce better parts faster. You can also achieve similar benefits by making use of the unique advantages NX CAM offers.

This is one of many hands-on demonstrations designed to introduce you to the powerful capabilities in NX CAM 12.0. In order to run this demonstration, you will need access to NX CAM 12.0.

Visit the [NX Manufacturing Forum](#) to learn more, ask questions, and share comments about NX CAM.

Hands-on Demonstration: Skip Cut Areas Where Engages Do Not Fit

You can now avoid cutting areas that are too small to safely use the specified Ramp on Shape or Helical engage.



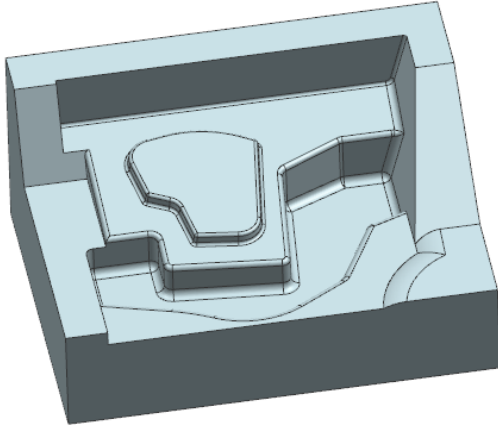
Previously, the system always attempted to plunge into these small areas which resulted in a cutting move that was sometimes inappropriate for the tool.

Prerequisites:

1. You will need access to **NX CAM 12.0** in order to run this demonstration.
2. If you haven't done so already, download and unzip **skip_cut_areas.7z**.

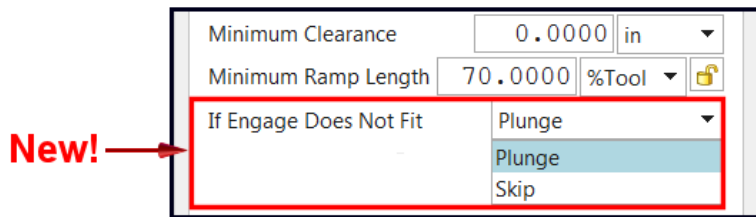
Demo:

1. Open **skip_cut_areas.prt** in NX.



2. Double-click **CAVITY_MILL_SEMI_PLUNGE** to edit the operation.
3. Click **Non Cutting Moves**  and select the **Engage** tab if necessary.

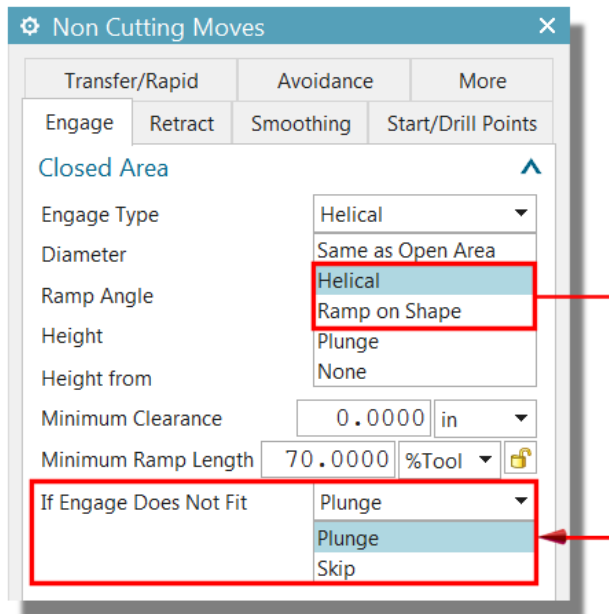
The **If Engage Does Not Fit** option is new.



Plunge retains the behavior from previous releases. This option produces a plunge engage in areas that are too small for the specified Helical or Ramp on Shape engage.

Skip does not attempt to cut areas that are too small for the specified engage. This behavior is new.

The Plunge and Skip options are available only when Engage Type is set to Helical or Ramp on Shape.

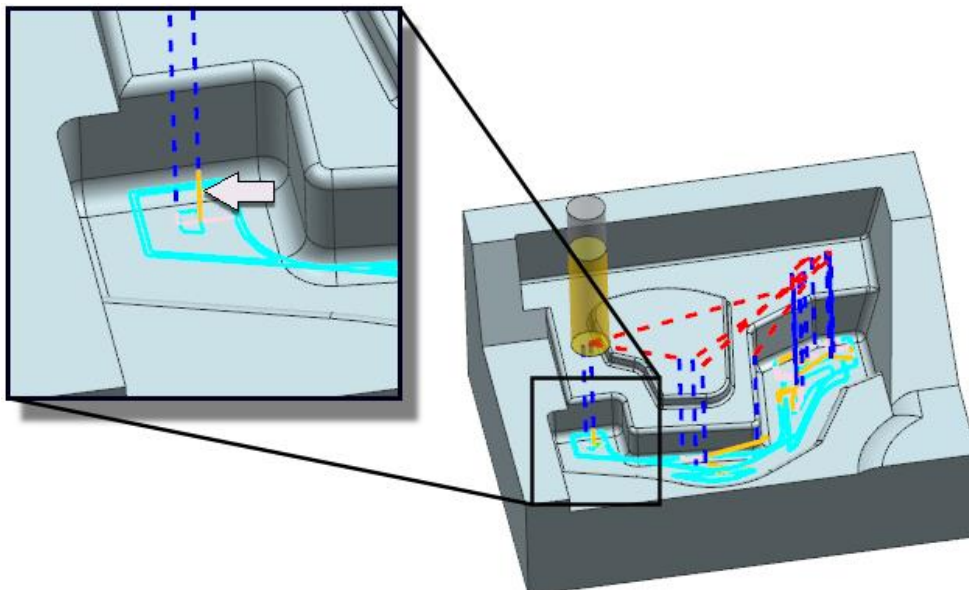


4. Click **Cancel**.

5. Click **Verify** .

6. Click **Play** .

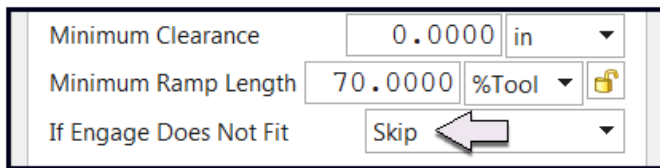
A plunge engage is used in one of the areas because the area is too small to safely use the specified Ramp on Shape engage type. In cases where a plunge engage is not appropriate (i.e. because the tool is not capable of plunge cutting), the area can be skipped.



7. Click **Cancel**.

8. Click **Non Cutting Moves** .

9. Select **Skip** from the **If Engage Does Not Fit** list.

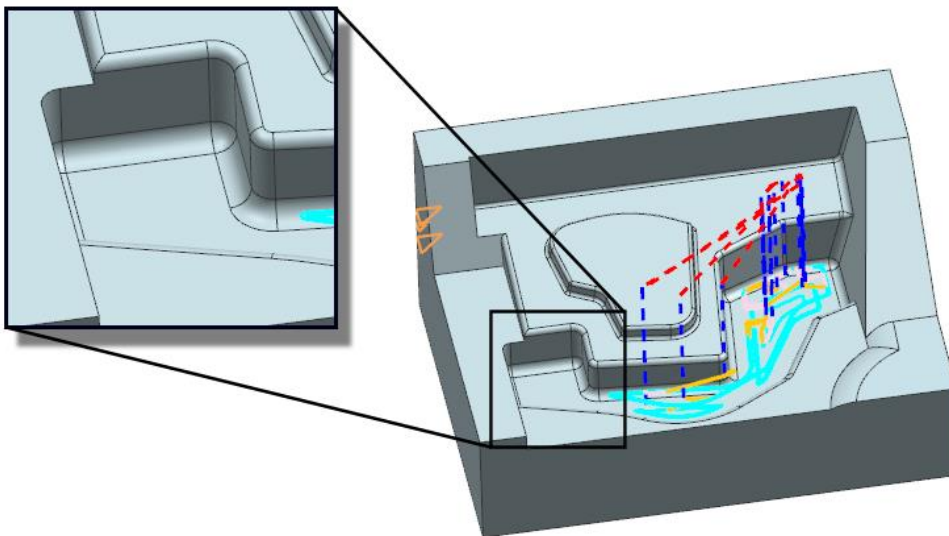


10. Click **OK**.

11. Click **Generate** .

A message displays indicating that the region is not completely cut.

12. Click **OK**.



The operation skips the small area that cannot be accessed using the specified Ramp on Shape engage type. The area can be cut by a subsequent operation that uses a smaller tool or a tool capable of plunging.

13. Continue practicing.

14. When you are finished, close the part without saving.

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