

The image features a white background with a subtle pattern of light gray hexagons on the right side. On the left, there are four diagonal lines: a blue line at the top, a thin gray line, a light gray line, and a blue line at the bottom. The main title is centered in a bold, dark gray font.

Manufacturing Showcase



**Add Your Machining
Knowledge Into
CAMWorks**

How is CAMWorks Different?

- Feature based CAM system
- Technology Database saves operation parameters, tooling, material and machines
- Toolpaths can be created automatically from Technology database and the recognised features



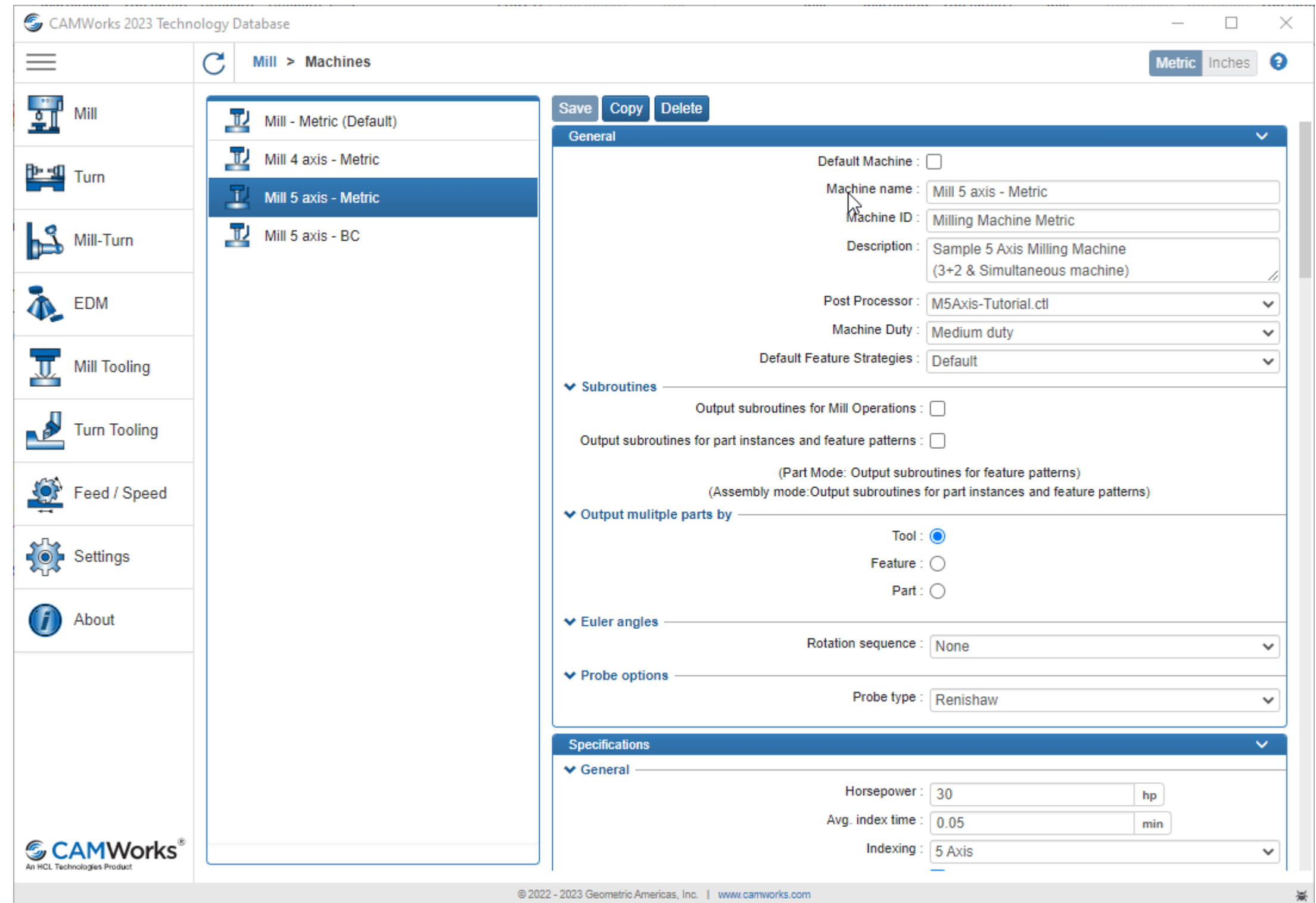
What's the difference between CAMWorks and SOLIDWORKS CAM?

Function	SOLIDWORKS CAM Standard*	SOLIDWORKS CAM Professional*	CAMWorks Standard	CAMWorks Milling Standard	CAMWorks Turning Standard	CAMWorks Milling Professional	CAMWorks Turning Professional	CAMWorks Premium	CAMWorks Bundle Add-Ons
2.5 Axis Milling Plus*	X	X	X	X	X	X	X	X	
Cimco Editor/DNC	X	X	X	X	X	X	X	X	
2.5 Axis VoluMill		X	X	X	X	X	X	X	
Probing		X	X	X	X	X	X	X	
4/5 Axis Indexing		X	X	X	X	X	X	X	
Turning		X	X	X	X	X	X	X	
3 Axis Milling – L1*		X	X	X	X	X	X	X	
Sub-Spindle			X	X	X	X	X	X	
Rotary Milling			X	X	X	X	X	X	
3 Axis Milling – L2*				X		X		X	
Mill-Turn					X	X	X	X	
3 Axis Milling – L3*						X		X	
Synchronous Machining for Lathes							X	X	X
Virtual Machine Standard							X	X	X
4 Axis Milling (Add-On to Milling Pro only)								X	X
5 Axis Simultaneous								X	



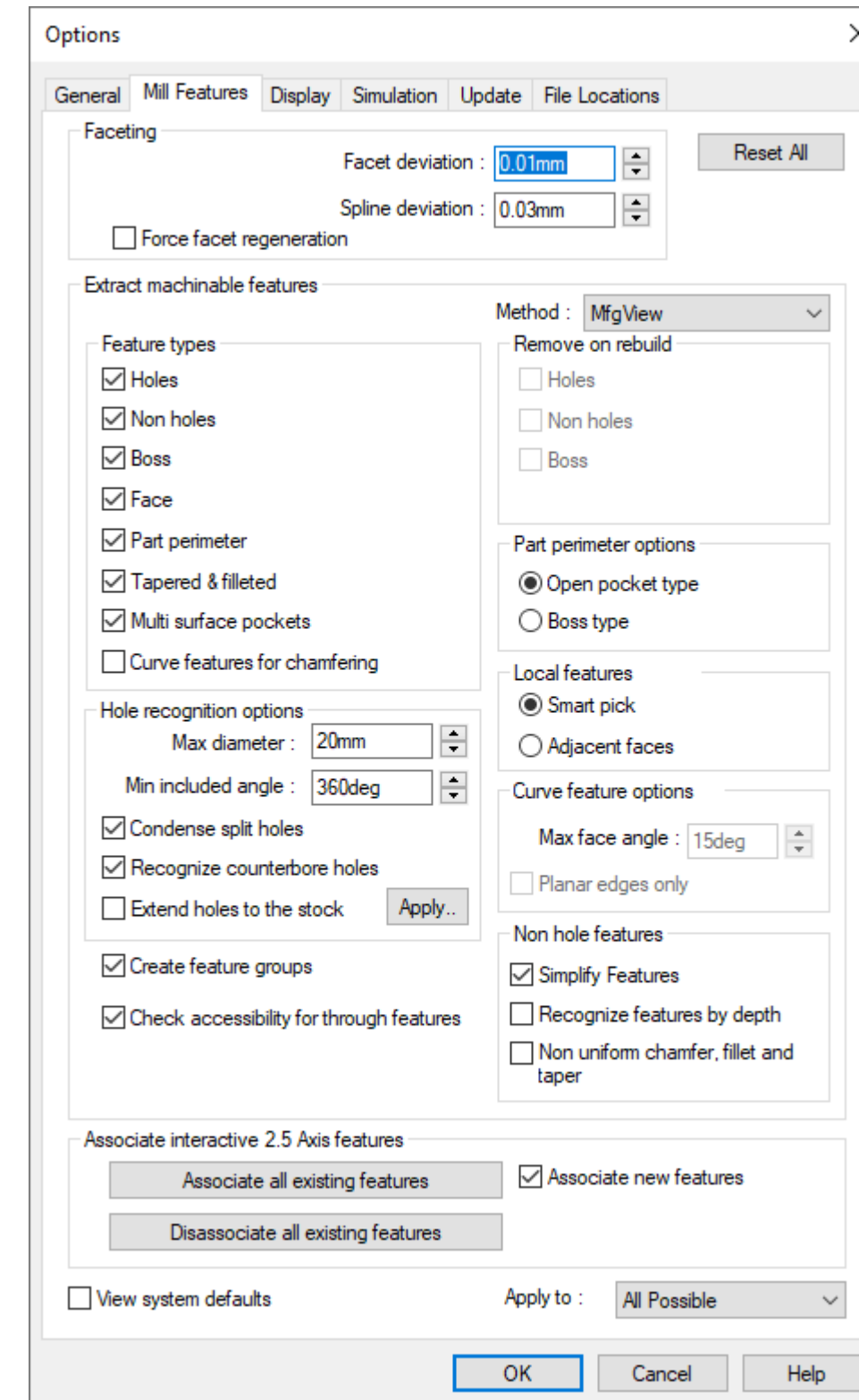
Have you setup your machine?

- Defined in the Technology Database
- Allows definition of Kinematic axes
- Tools used
- Post Processor
- Probing type



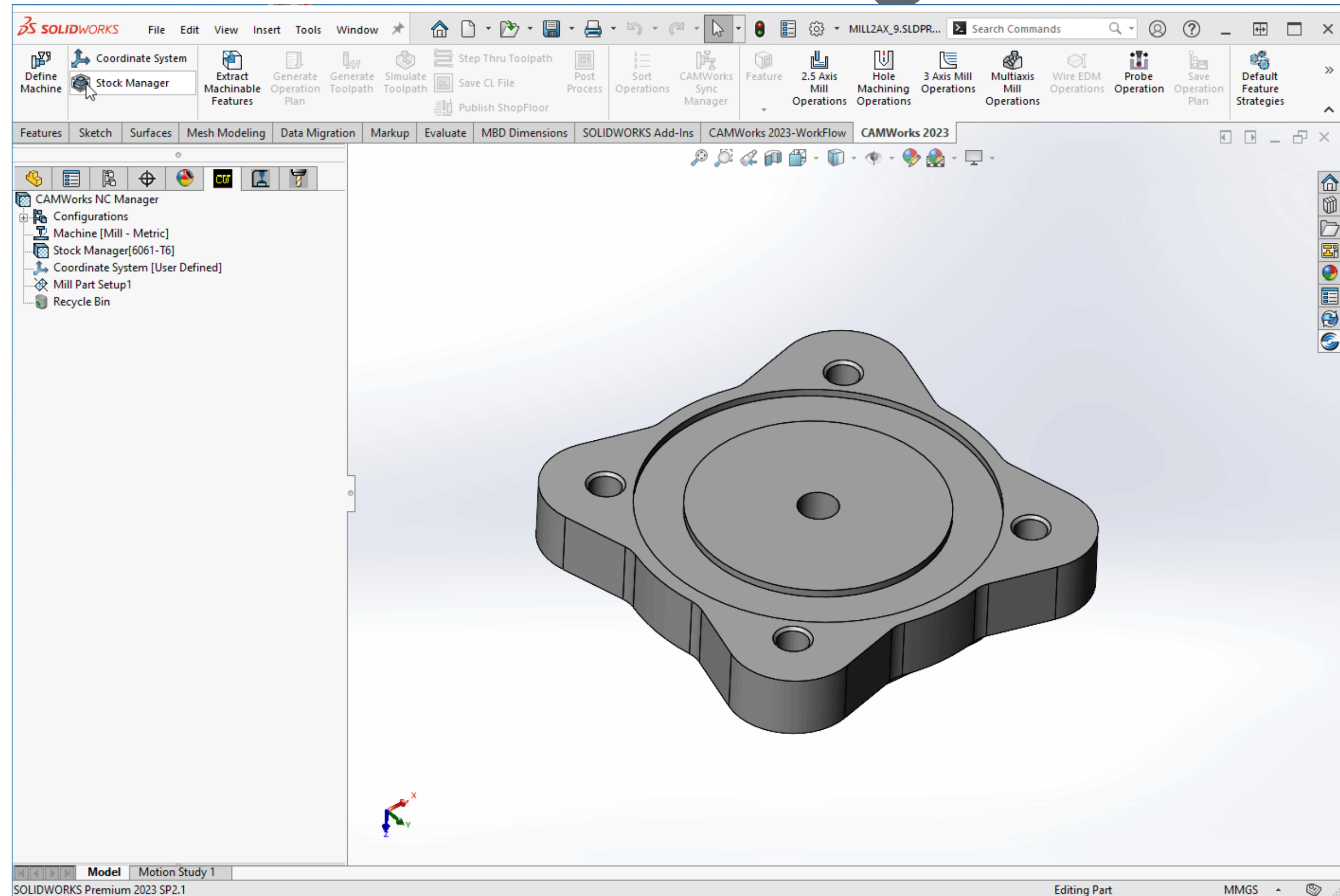
How can I decide what to recognise?

- When selecting Extract Machinable Features
- Saved in CAMWorks Options



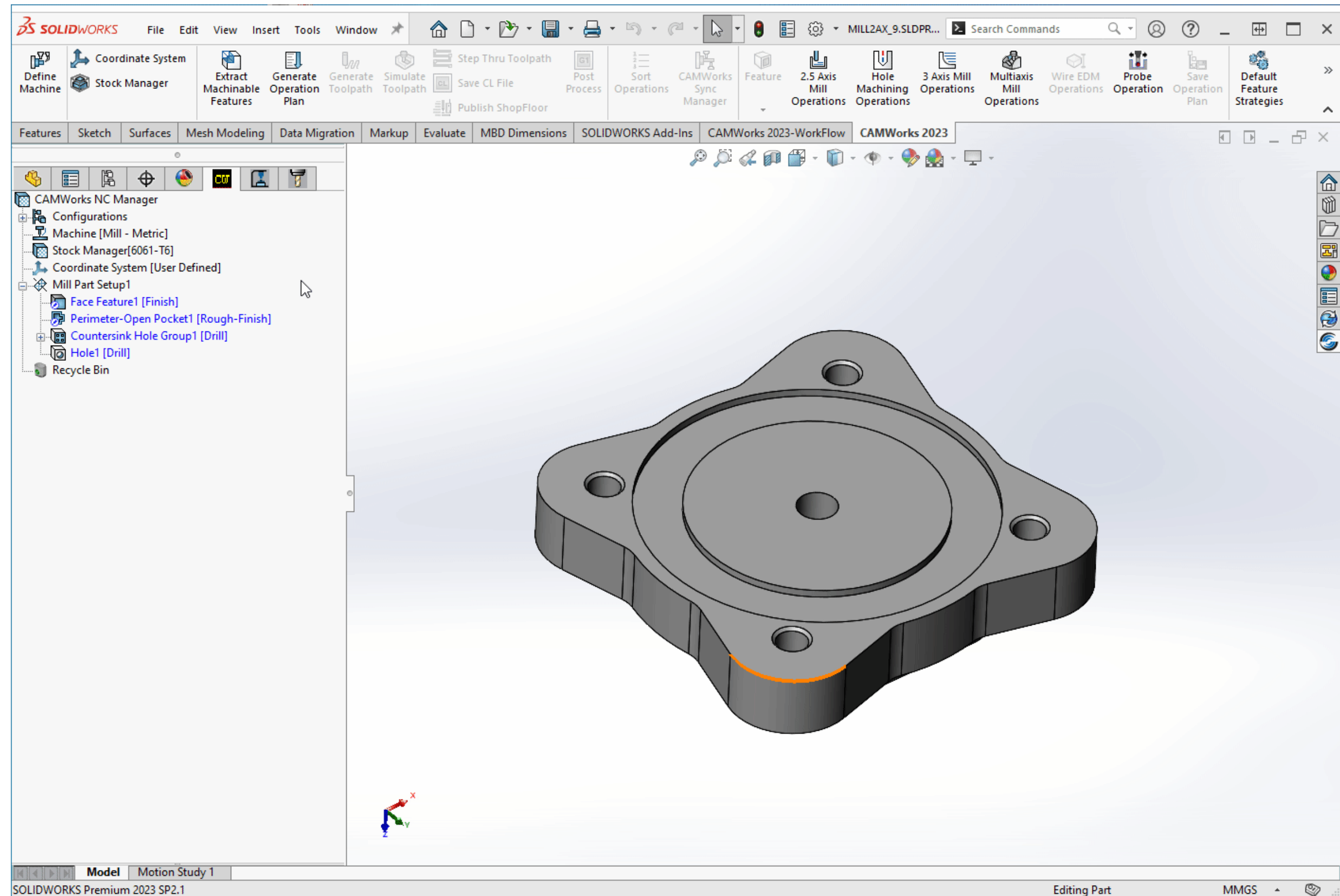
How can I decide what to recognise?

- Right click on a Mill Part Setup
- Recognise Features



How can I decide what to recognise?

- Highlight a face
- Right click a Mill Part Setup
- Recognise local features



Choosing what strategy is used?

- Define default strategies in the Technology Database

The screenshot displays the CAMWorks 2023 Technology Database interface. The main window is titled "Mill > Default Feature Strategies". On the left, a navigation pane lists various manufacturing processes: Mill, Turn, Mill-Turn, EDM, Mill Tooling, Turn Tooling, Feed / Speed, Settings, and About. The central area shows a table of "Default Feature Strategies (ID =1)".

ID	Feature	Strategy
1	Hole	Drill
2	Countersunk Hole	Drill
3	Counterbore Hole	Drill
4	Rectangular Pocket	Rough-Rough(Rest)- Finish
5	Circular Pocket	Rough-Rough(Rest)- Finish
6	Irregular / Wrapped Pocket	Rough-Rough(Rest)- Finish
7	Rectangular Slot	Rough-Rough(Rest)- Finish
8	Irregular / Wrapped Slot	Rough-Rough(Rest)- Finish
9	Rectangular Corner Slot	Rough-Rough(Rest)- Finish
10	Irregular Corner Slot	Rough-Rough(Rest)- Finish
11	Circular Boss	Finish
12	Irregular / Wrapped / Perimeter Boss	Finish
13	Open Pocket / Perimeter Feature	Rough-Finish
14	Open Profile / Wrapped Open Profile	Finish
15	Rectangular Boss	Finish
16	Face Feature	Finish
17	Multi Surface Feature	Area Clearance, Pattern Project
18	Obround Pocket	Rough-Finish

Below the main table, there is a section titled "Assigned to the following machines" with a table listing machine configurations:

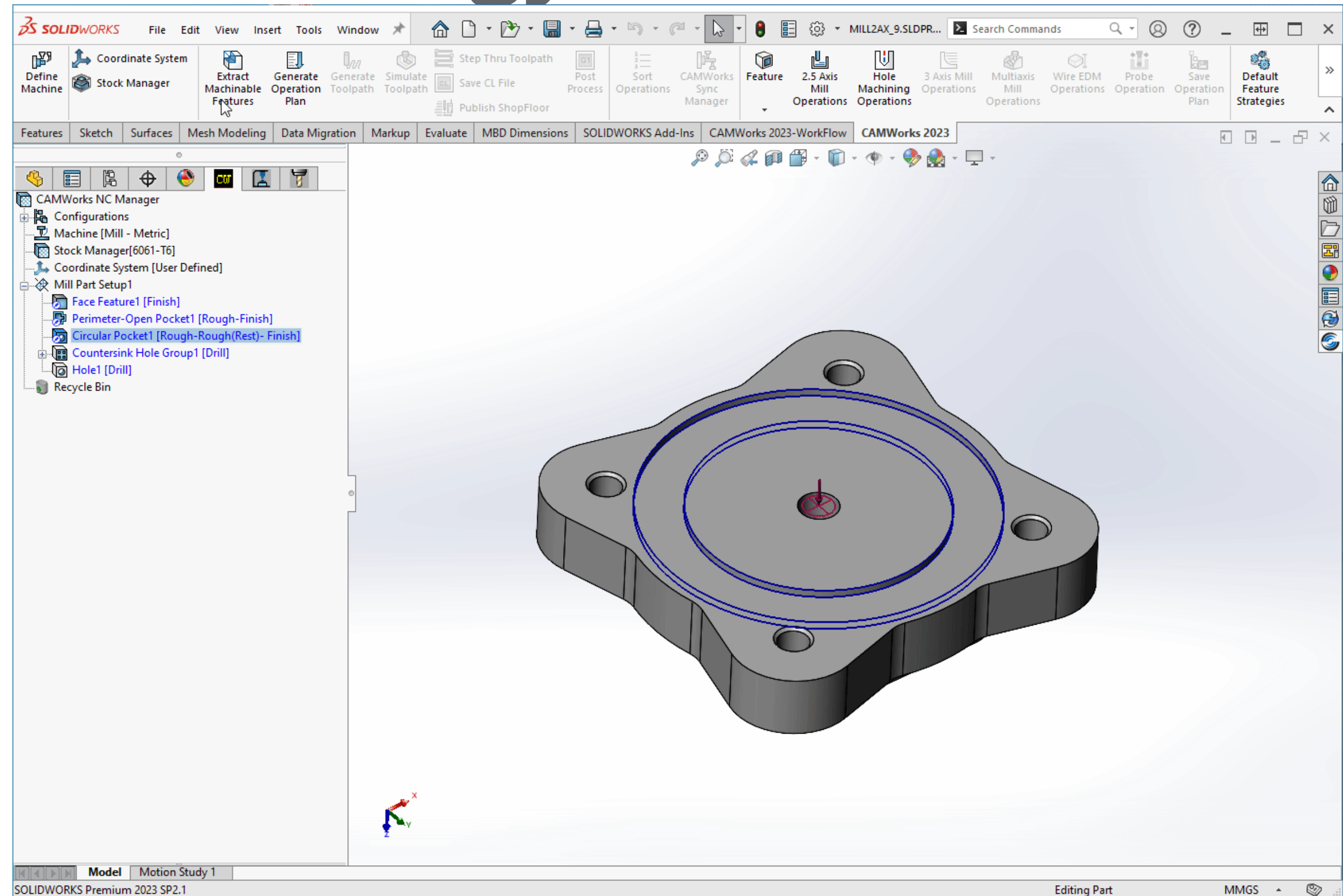
ID	Name	Description
5	Mill 4 axis - Metric	Sample 4 Axis Milling Ma...
6	Mill 5 axis - Metric	Sample 5 Axis Milling Ma...
7	Mill 5 axis - BC	Sample 5 Axis Milling Ma...
1	Mill-Turn Single Tu...	Sample Single Turret Mill...
2	Mill-Turn Dual Turr...	Sample Dual Turret Mill...
3	Mill-Turn Single Tu...	Sample Single Turret Mill...
4	Mill-Turn Dual Turr...	Sample Dual Turret Mill...
5	Mill-Turn Multi Turr...	Sample Multi Turret Mill...
6	Mill-Turn Multi Turr...	Sample Multi Turret Mill...

The interface also includes a sidebar with icons for Mill, Turn, Mill-Turn, EDM, Mill Tooling, Turn Tooling, Feed / Speed, Settings, and About. The bottom of the window shows the CAMWorks logo and copyright information: © 2022 - 2023 Geometric Americas, Inc. | www.camworks.com



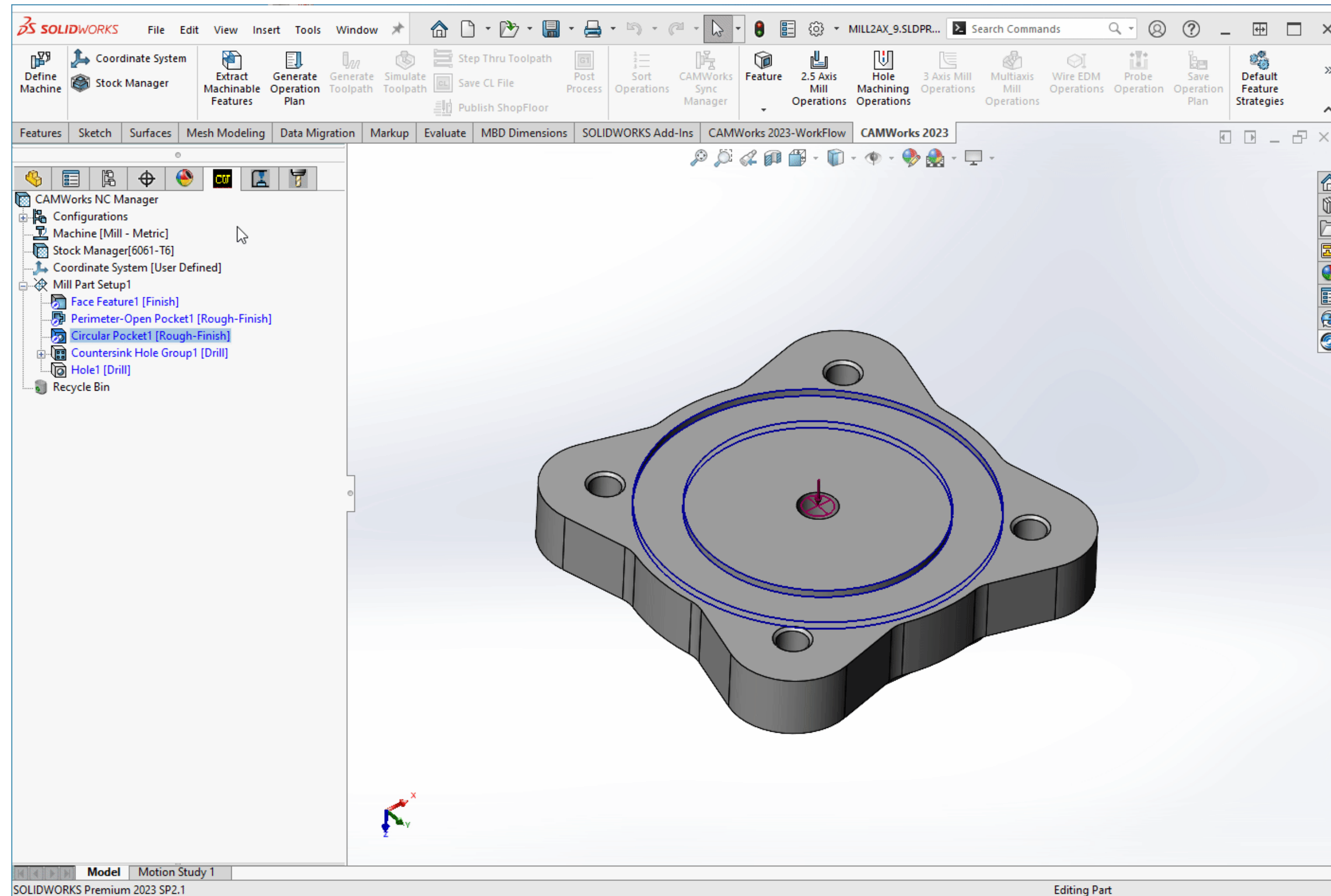
Choosing what strategy is used?

- Default Feature Strategies can be reselected for all of the same feature



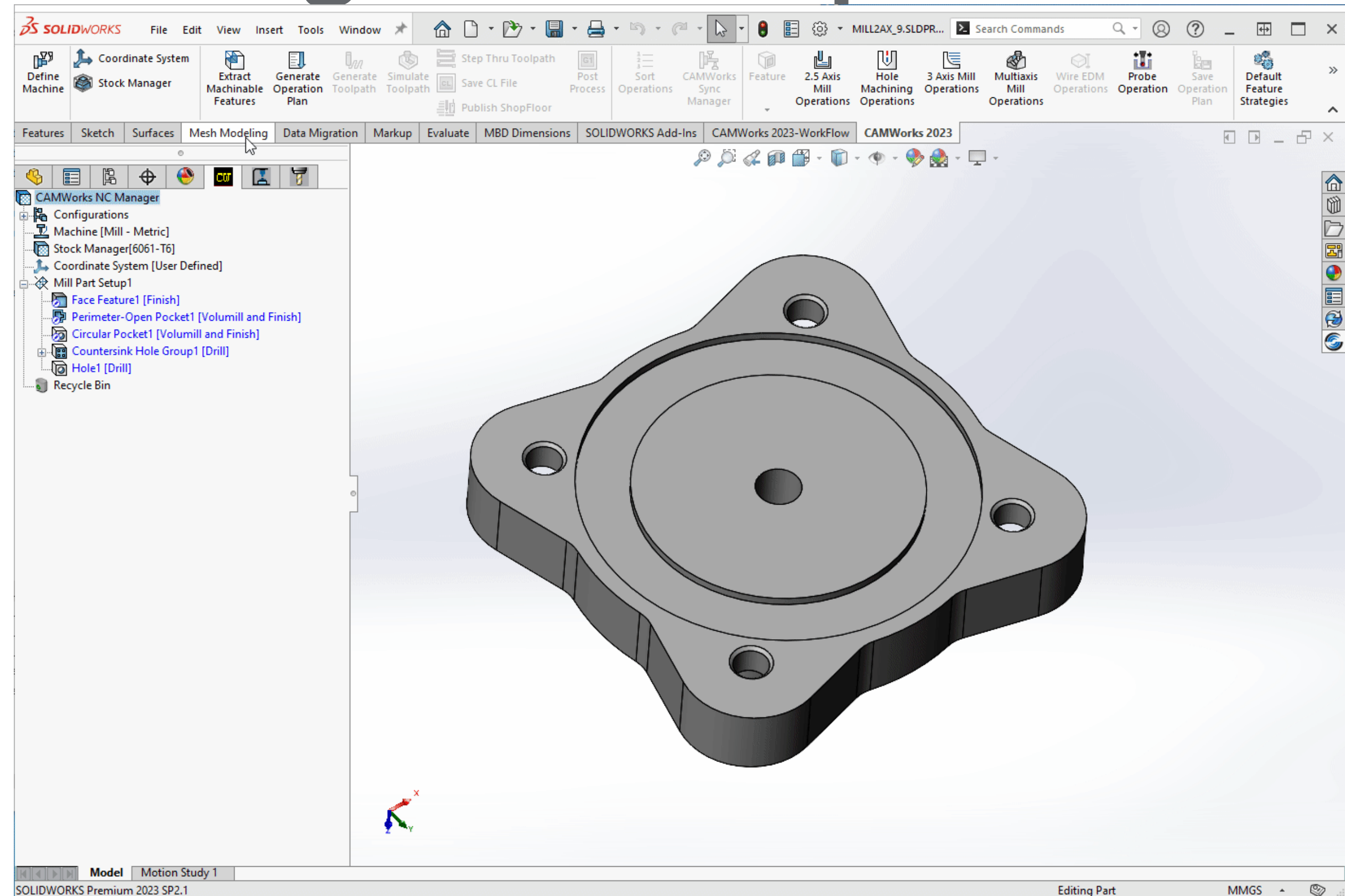
Choosing what strategy is used?

- A singular feature can be changed in its parameters.



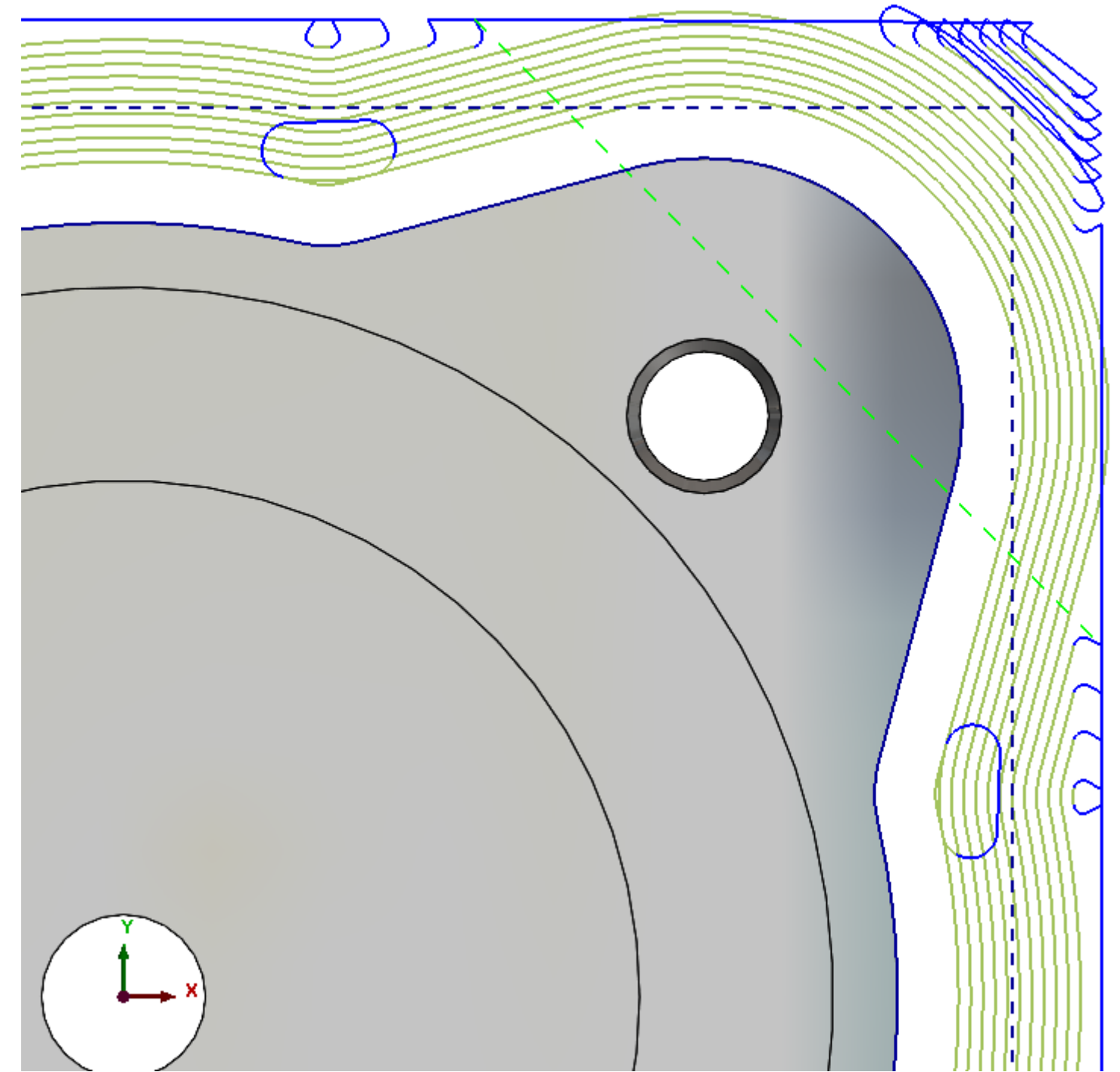
Converting Strategies to Toolpaths

- Simply select Generate Operation Plan and Generate Toolpath.



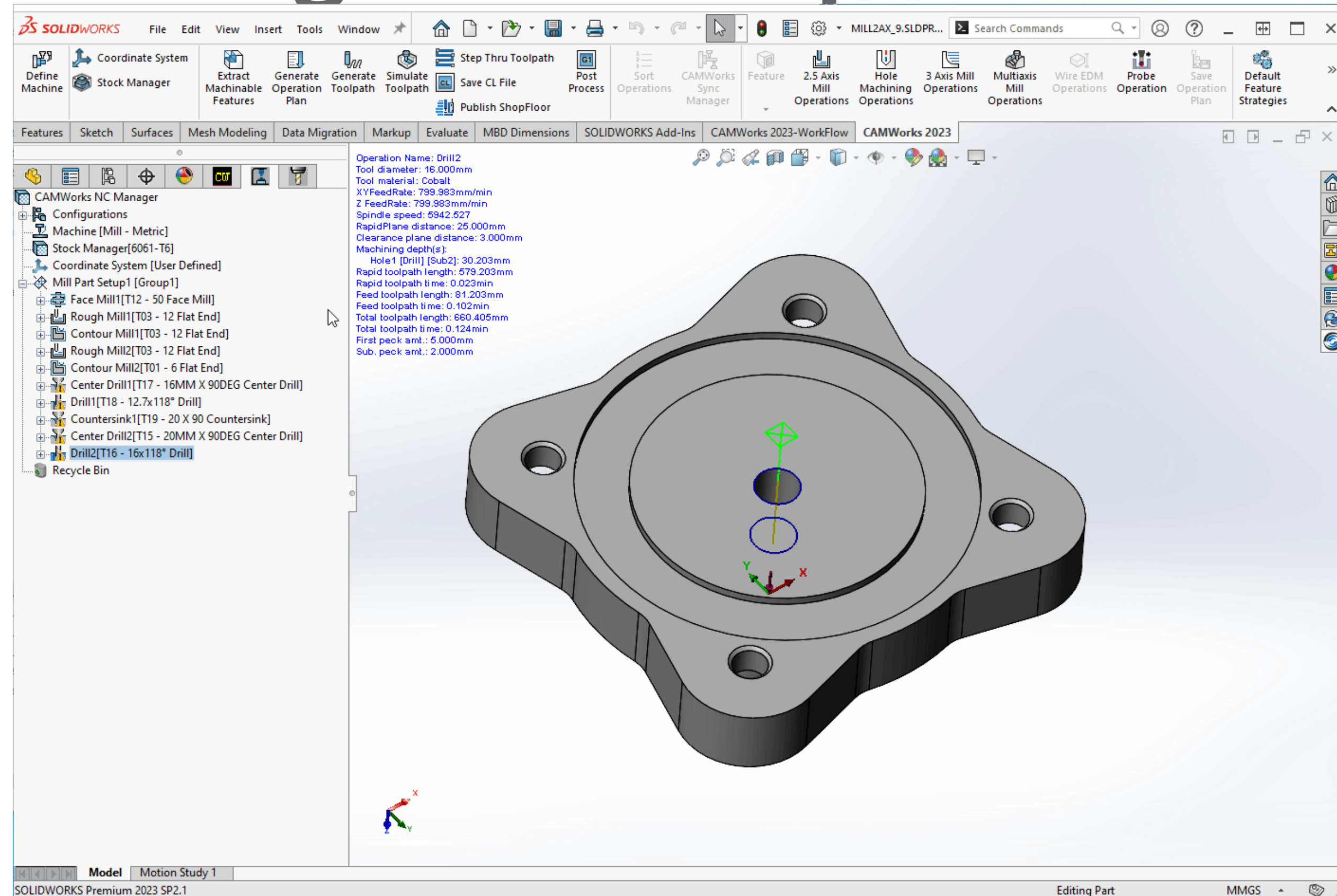
What is Volumill?

- High performance roughing toolpath
- Constant Stepover enables a constant chip thickness to be cut
- Feed and Speed Expert

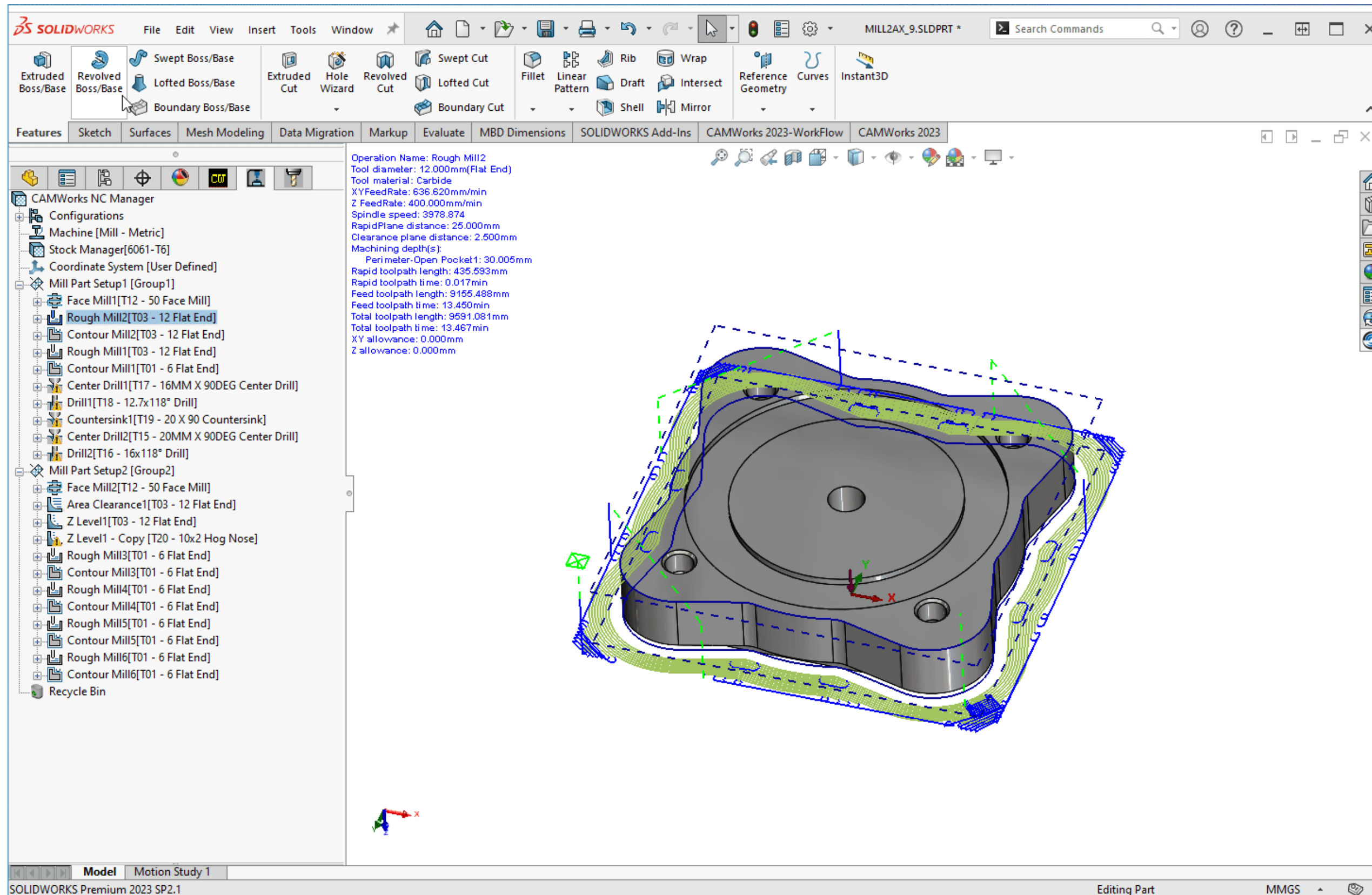


Converting Strategies to Toolpaths

- Operations can still be modified after if wished

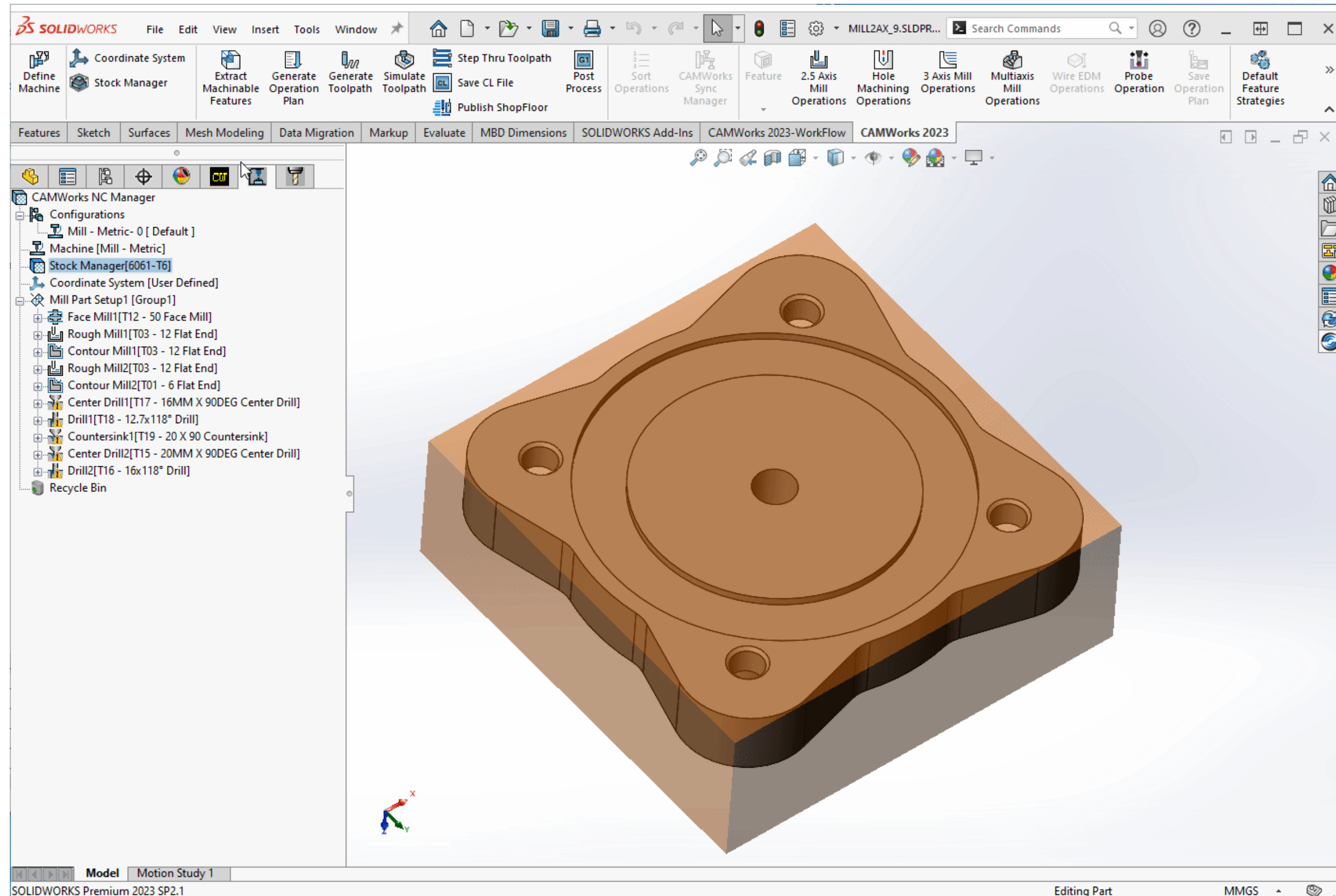


Saving back to the Technology Database



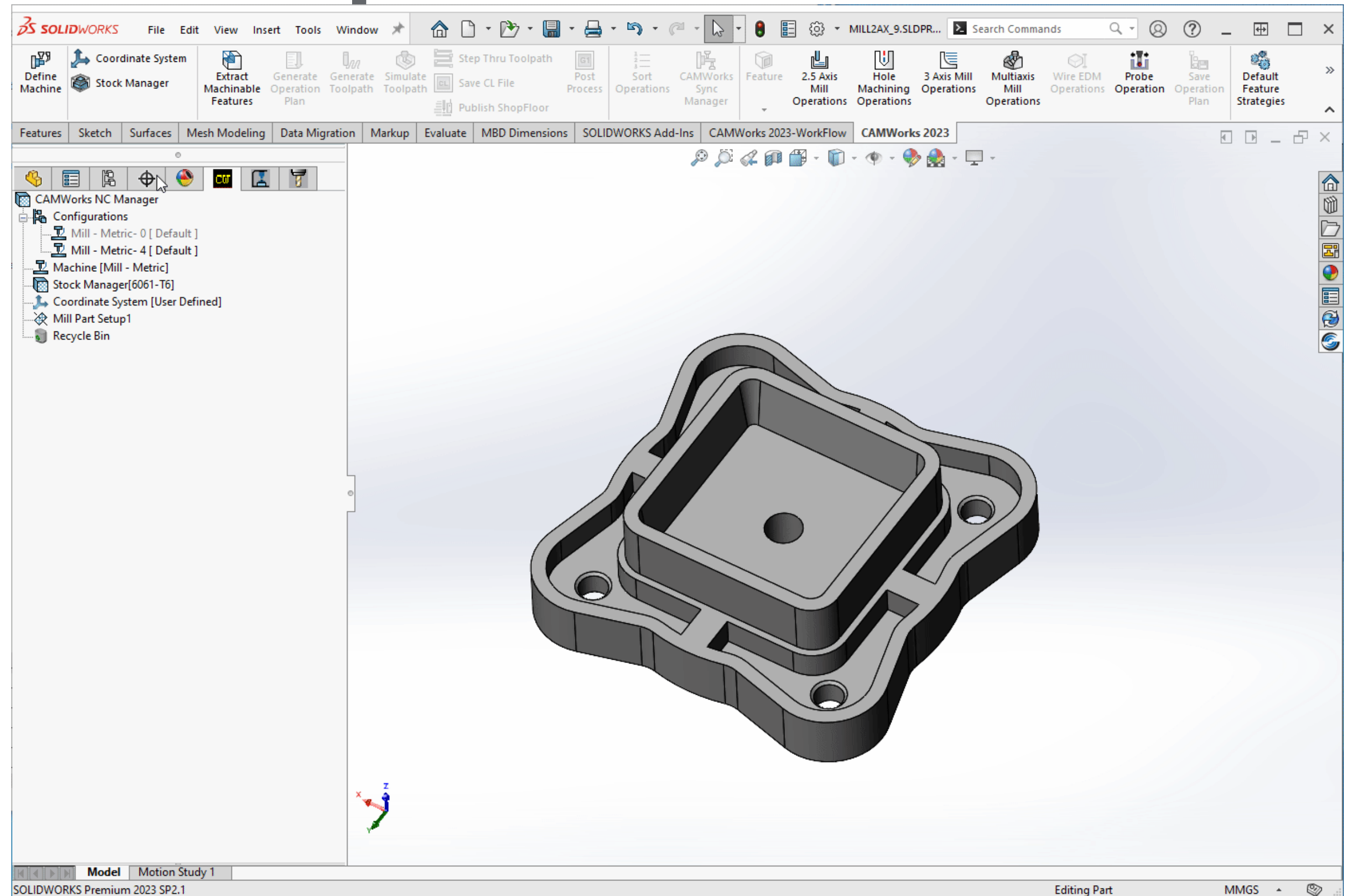
Making a second operation

- WIP Stock can be saved
- Configurations can be created



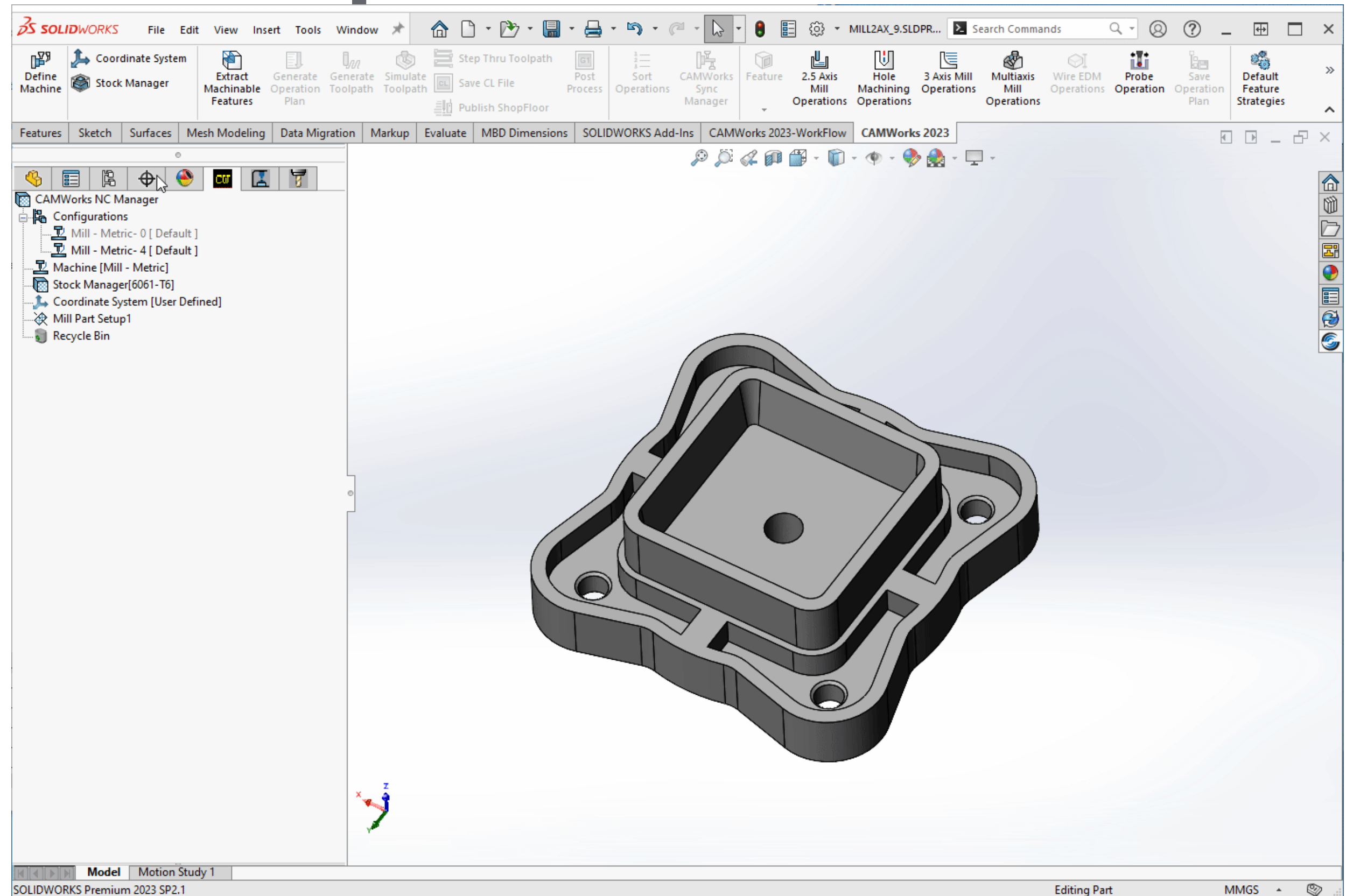
Making a second operation

- Recognise Features



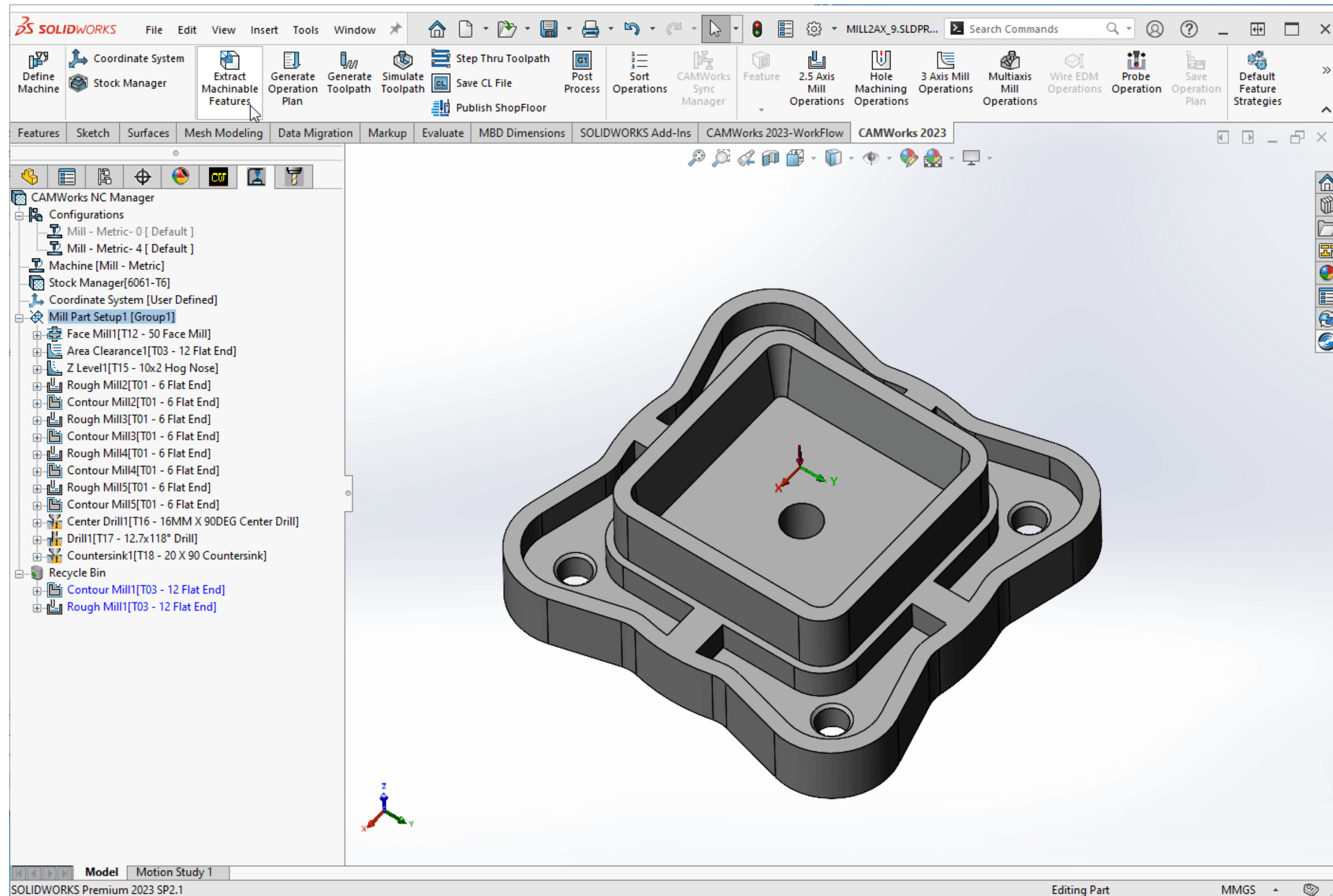
Making a second operation

- Recognise Features



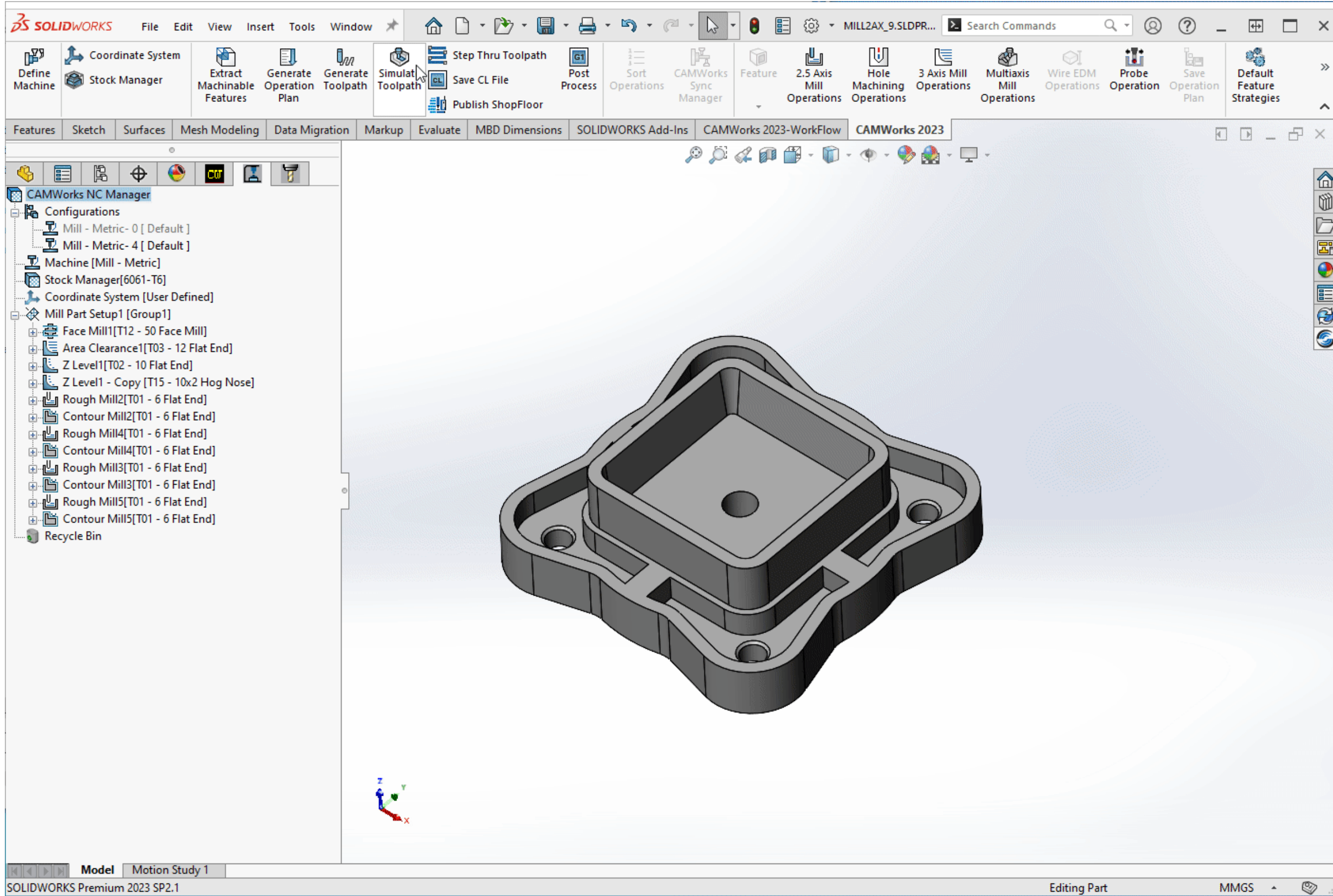
Making a second operation

- In 3 Axis Milling avoid areas can be assigned to skip over unwanted areas



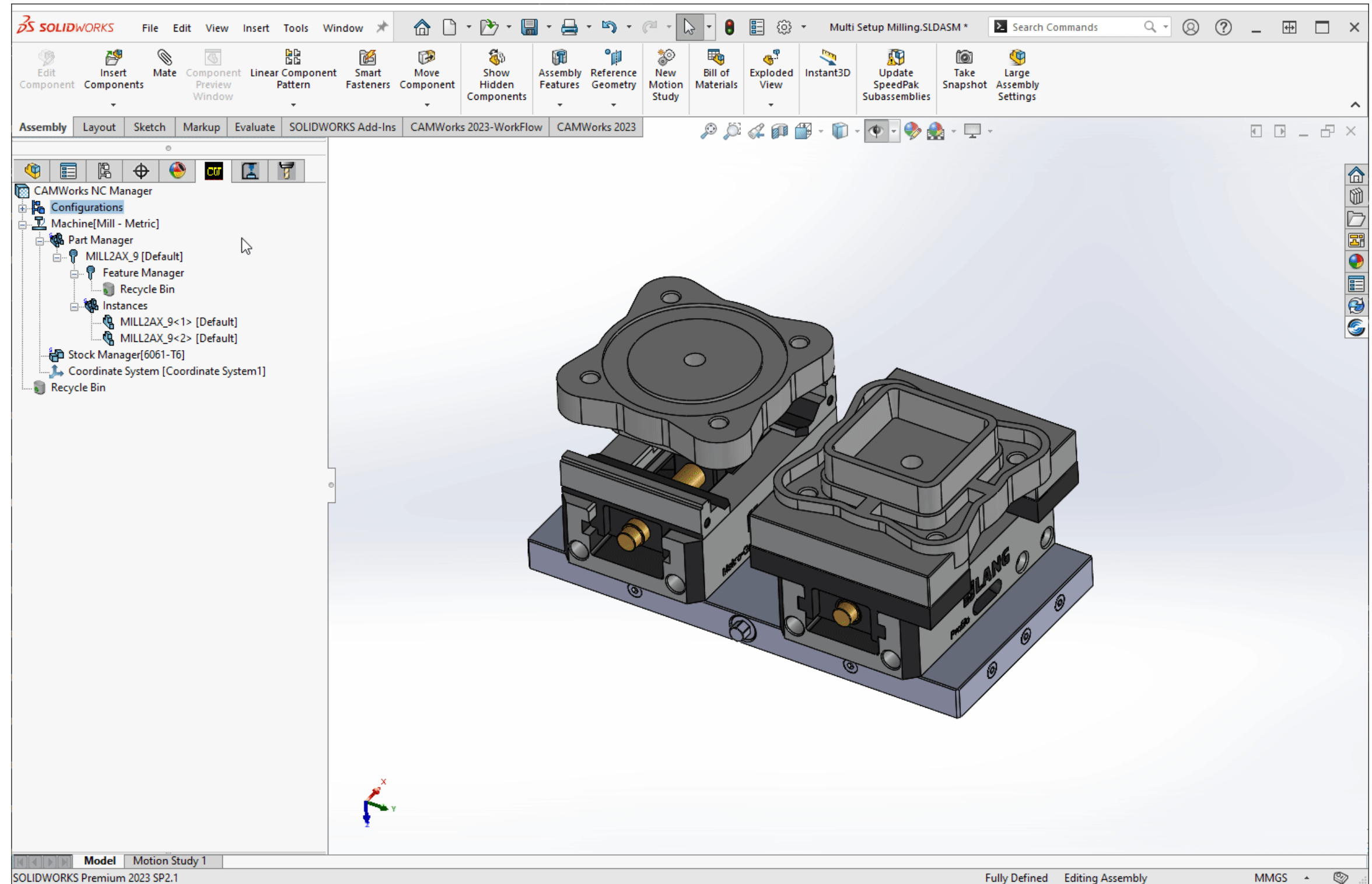
Making a second operation

- Simulating what we have programmed



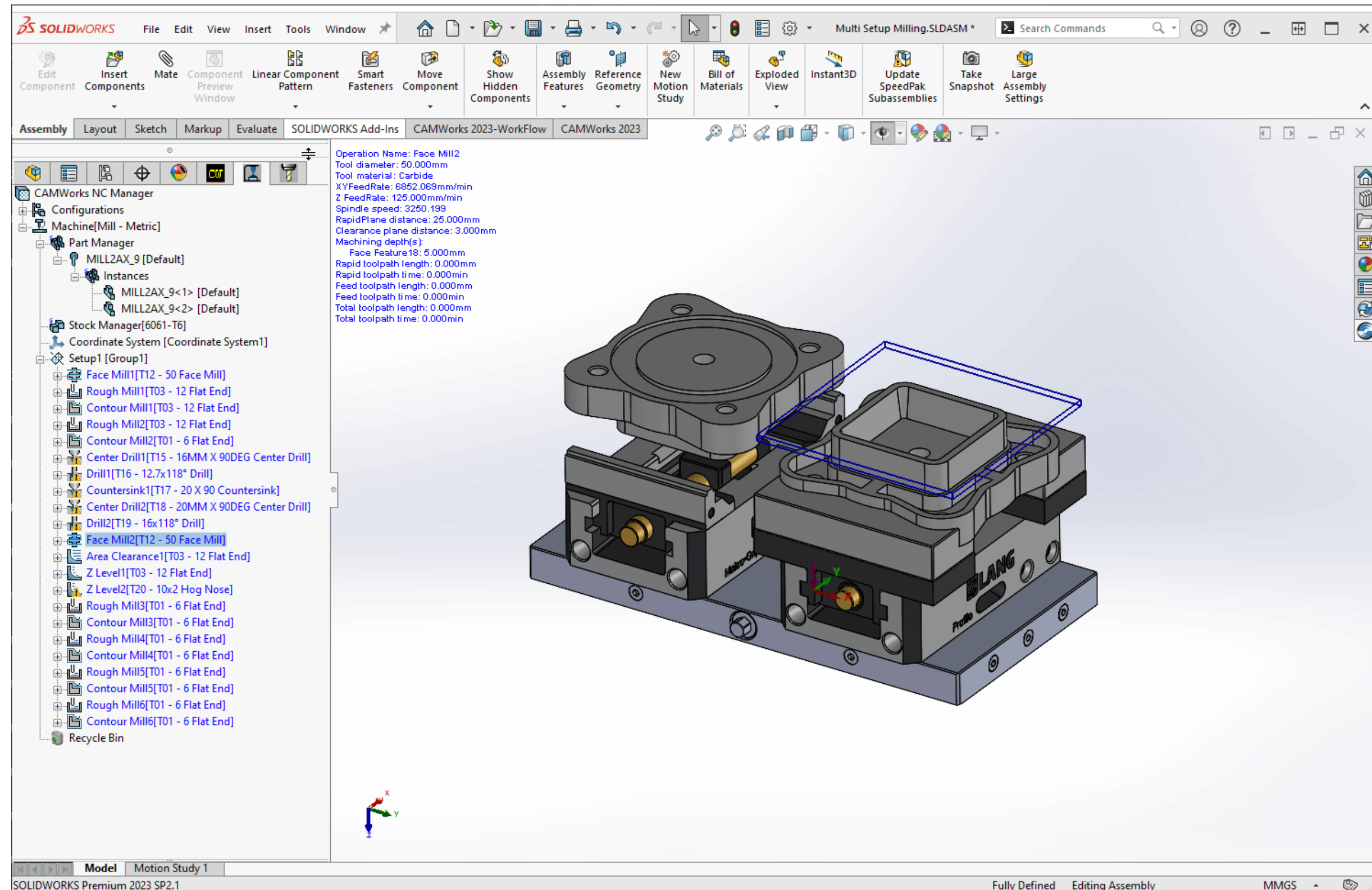
Looking at the Machining Process

- Import multiple setups with different stock
- Add previous machining data



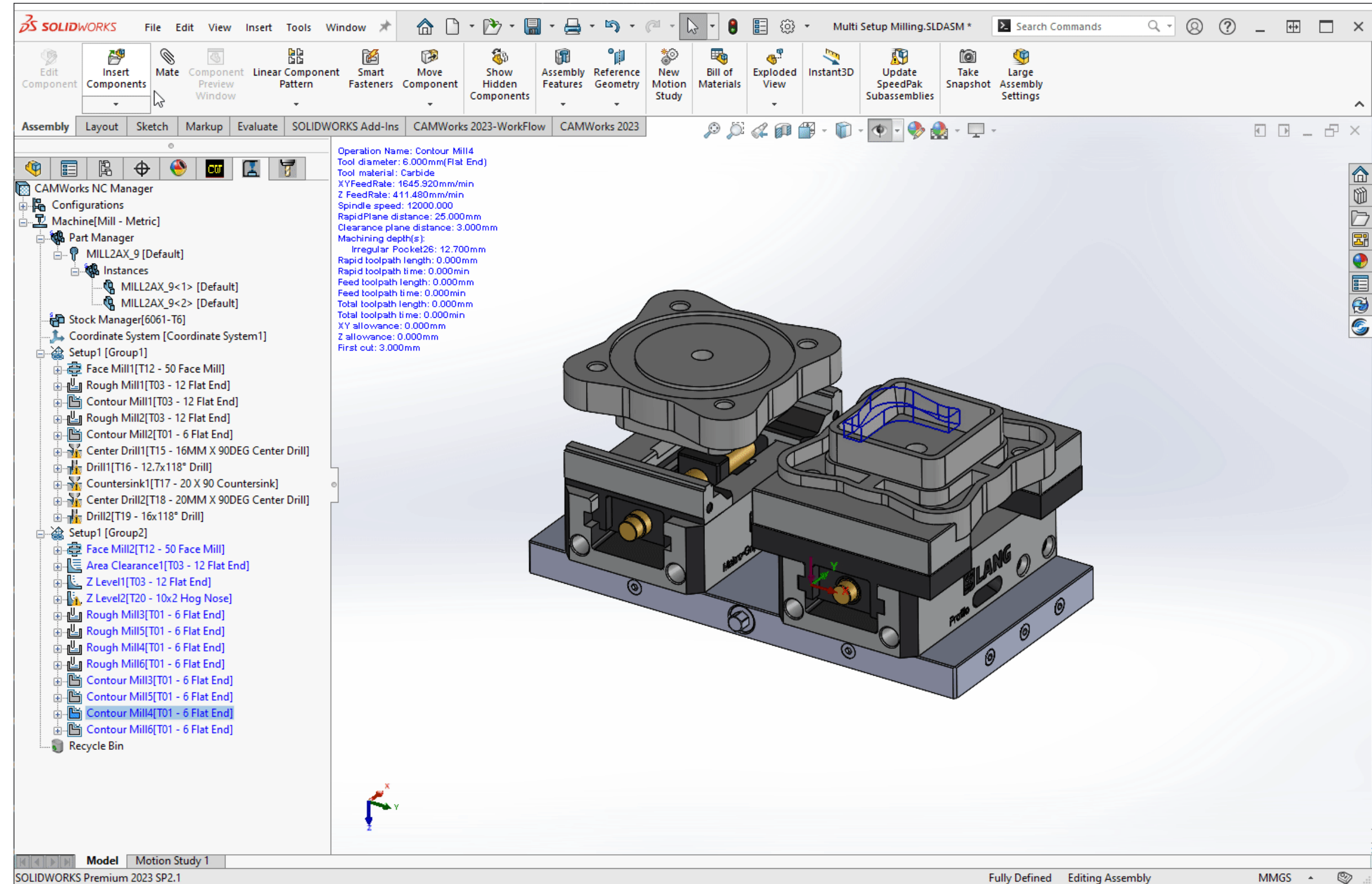
Looking at the Machining Process

- Setup Split allows for additional control
- Simplifies tree structure



Looking at the Machining Process

- Generate toolpaths to complete the setup



Let's Review how this looks in Simulation





**Thank you for
Listening**