



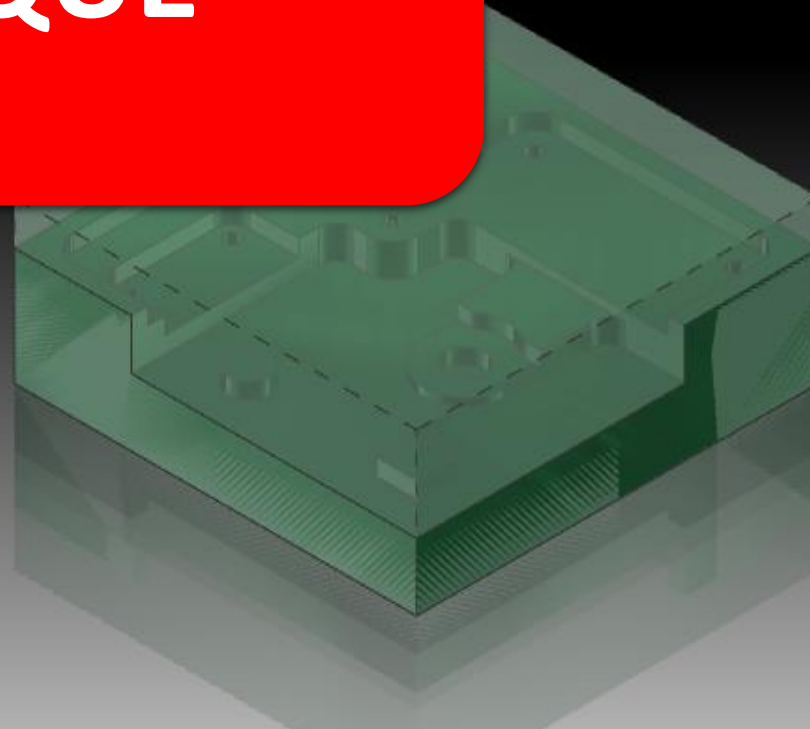
PLM Software

SIEMENS

NX

PARACHOQUE

Edgard Gonçalves Cardoso
www.professoredgard.com

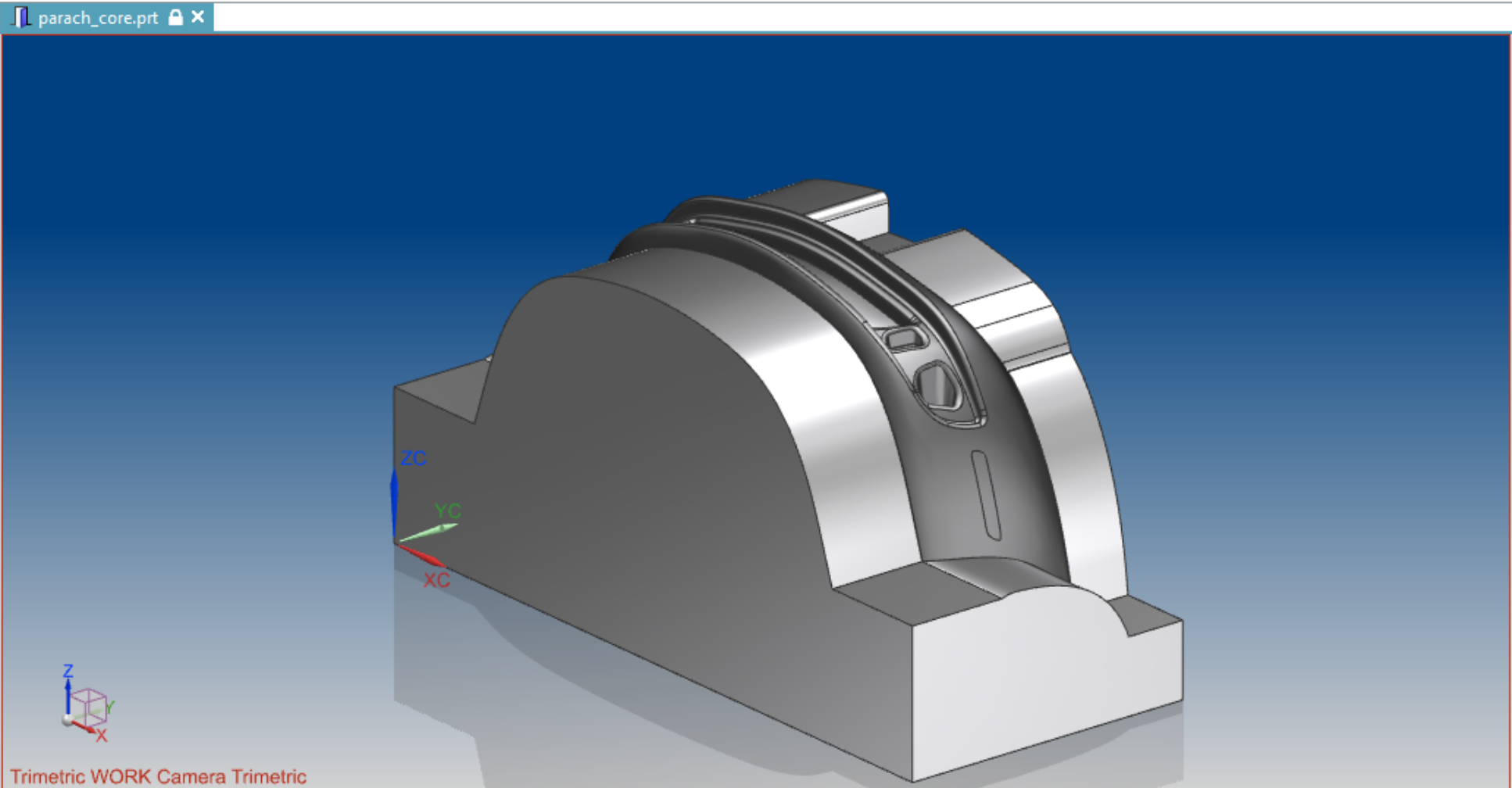


Assembly Navigator

| Descriptive Part Name | Info | R. |
|-----------------------|------|----|
| Sections | | |
| parach_core | | |

Preview

Dependencies



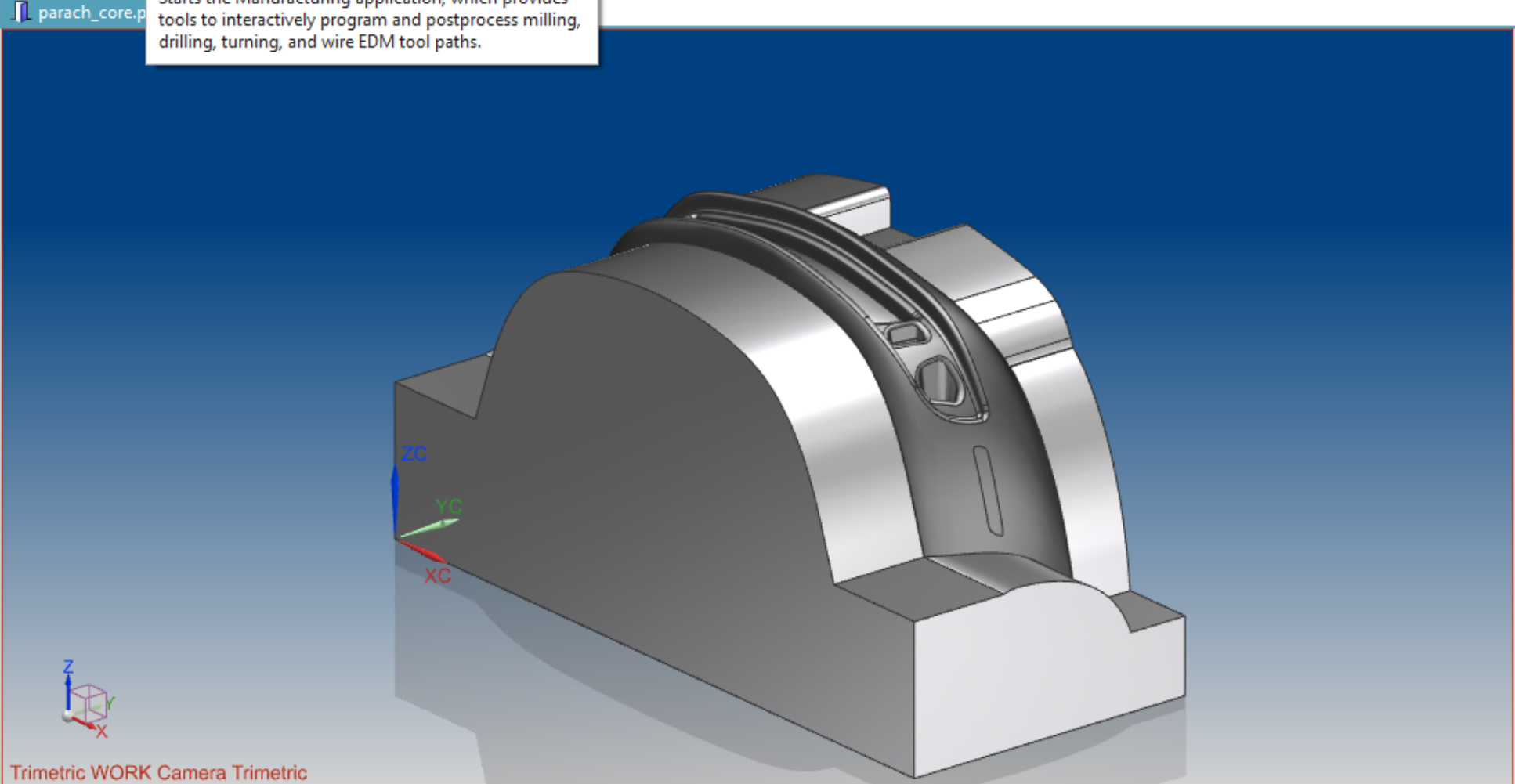
Modeling Sheet Metal Shape Studio Drafting Layout DMU PMI Assemblies Manufacturing Additive Manufacturing Line Designer Pre/Post Motion Design Electrical Mechanical Logical Routing Progressive Die Electrode Design Engineering Die Mold Process Specific

Manufacturing (Ctrl+Alt+M)
 Starts the Manufacturing application, which provides tools to interactively program and postprocess milling, drilling, turning, and wire EDM tool paths.

Assembly Navigator

| Descriptive Part Name | Info | R. |
|-----------------------|------|----|
| Sections | | |
| parach_core | | |

Preview Dependencies



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu No Selection

Machining Environment

CAM Session Configuration

- cam_express
- cam_express_part_planner
- cam_general**
- cam_library
- cam_native_rm_library
- cam_part_planner_library
- cam_part_planner_mrl
- cam_teamcenter_library

Browse for a Configuration File

CAM Setup to Create

- mill_planar
- mill_contour**
- mill_multi-axis
- mill_multi_blade
- mill_rotary
- hole_making
- turning
- wire_edm

Browse for a Setup Part

OK Cancel

Assembly Navigator

| Descriptive Part Name | Info | R. |
|---|------|----|
| Sections | | |
| <input checked="" type="checkbox"/> parach_core | | |

Preview Dependencies

NX 12 - Manufacturing

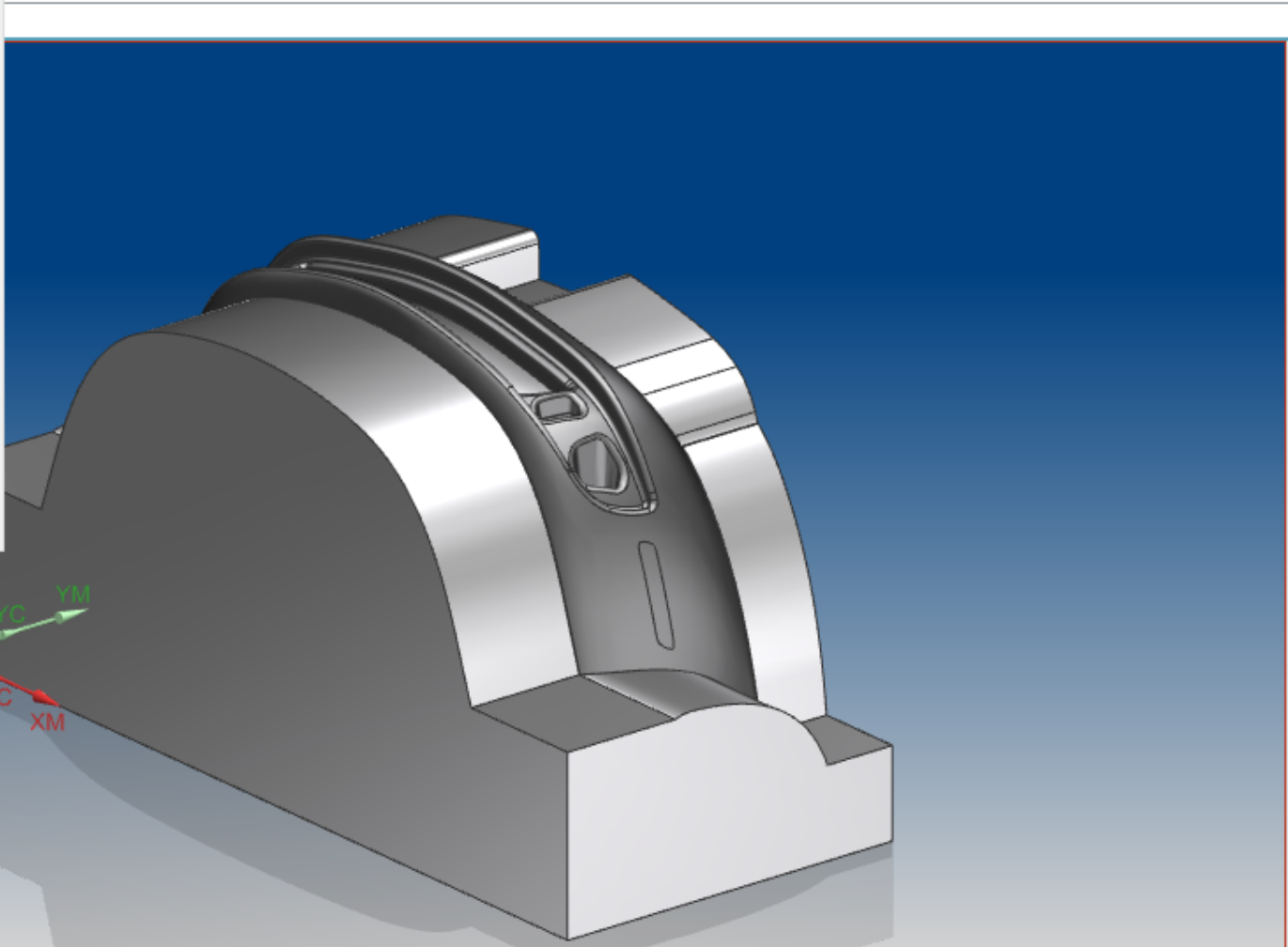
Find a Command

Speed 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Choose a CAM Setup to initialize

NX 12 - Manufacturing

SIEMENS

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

File

Edit

View

Insert

Format

- Layer Settings... Ctrl+L
- Layer Visible in View...
- Layer Category...
- Move to Layer...
- Copy to Layer...

Tools

Assemblies

Information

Analysis

Preferences

Window

Help

Reference Sets...

Group

Parts List Levels...

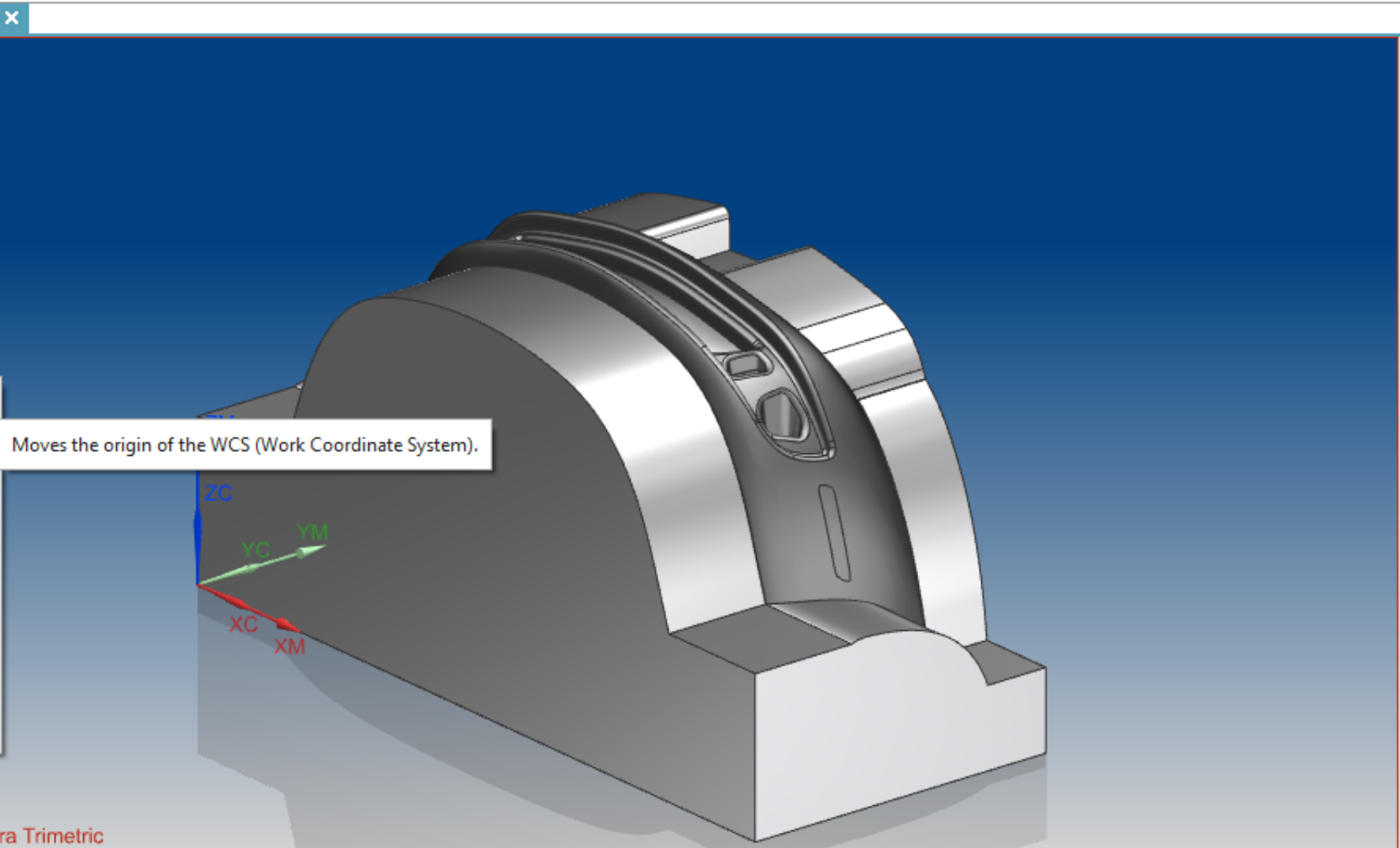
Dependencies

Details

parach_core.prt

WCS

- Dynamics...
- Origin... Moves the origin of the WCS (Work Coordinate System).
- Rotate...
- Orient...
- Set WCS to Absolute
- Change XC-direction...
- Change YC-direction...
- Display W
- Save



NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

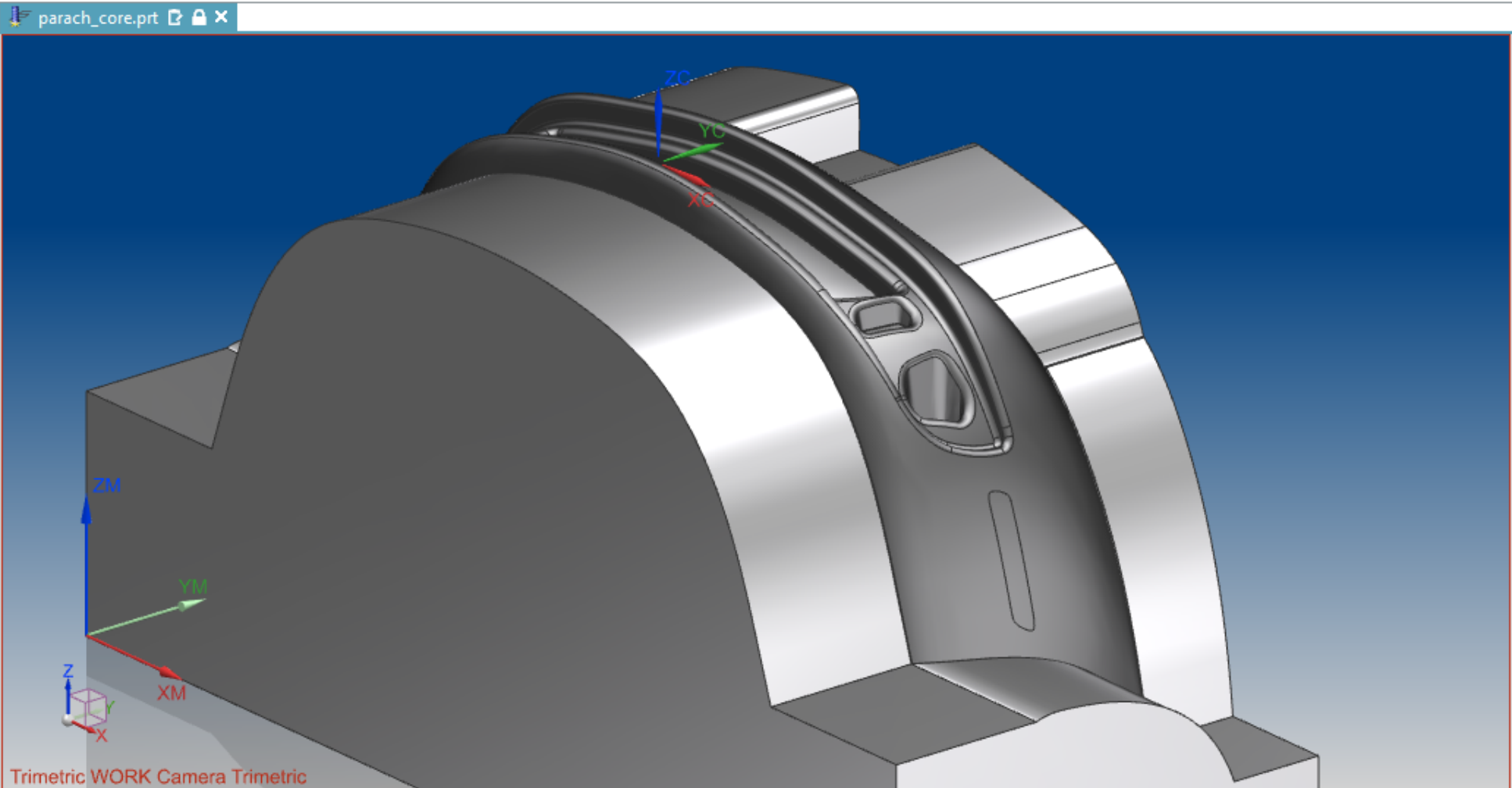
Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_M... | | |
| WOF | | |

- Edit...
- Cut
- Copy
- Delete
- Rename
- Generate
- Parallel Generate
- Replay
- Post Process
- Insert
- Object
- Tool Path
- Workpiece
- Information
- Properties

Dependencies

Details



Edit objects in the Operation Navigator or use Insert to create new objects total 1

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Dynamic

Reference CSYS

Reference Absolute - Displayed

Manipulator

Specify Orientation

OK Cancel

Find a Command

Display Animation Workpiece

Speed 5

Show 3D IPW

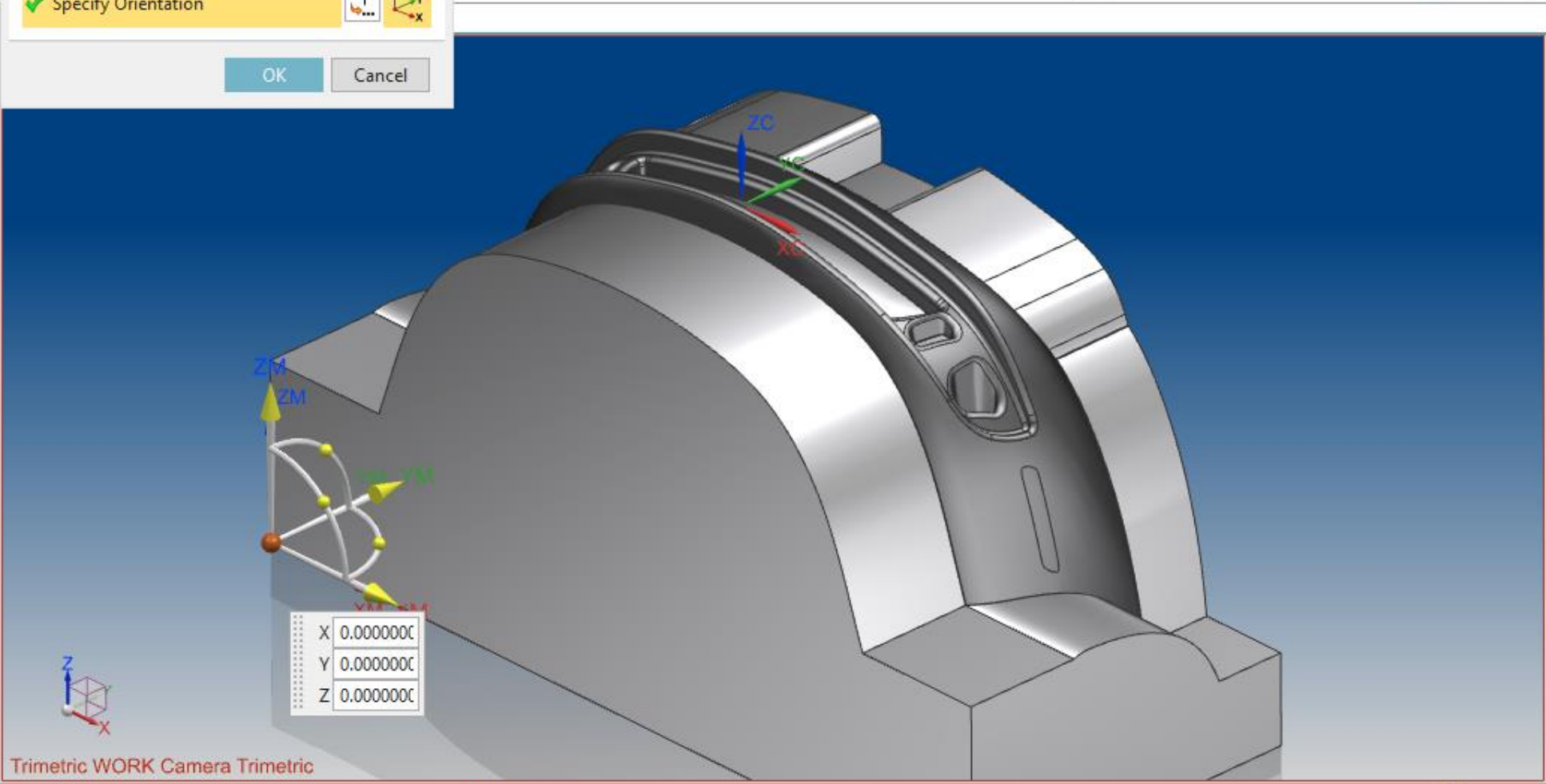
Analysis Geometry Synchronous Modeling Feature Tools

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

Dependencies

Details



Drag a handle or select a handle for direct entry; use Alt key to turn off snapping Translate origin

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Dynamic

Reference CSYS

Reference WCS

Manipulator

Specify Orientation

OK Cancel

Find a Command

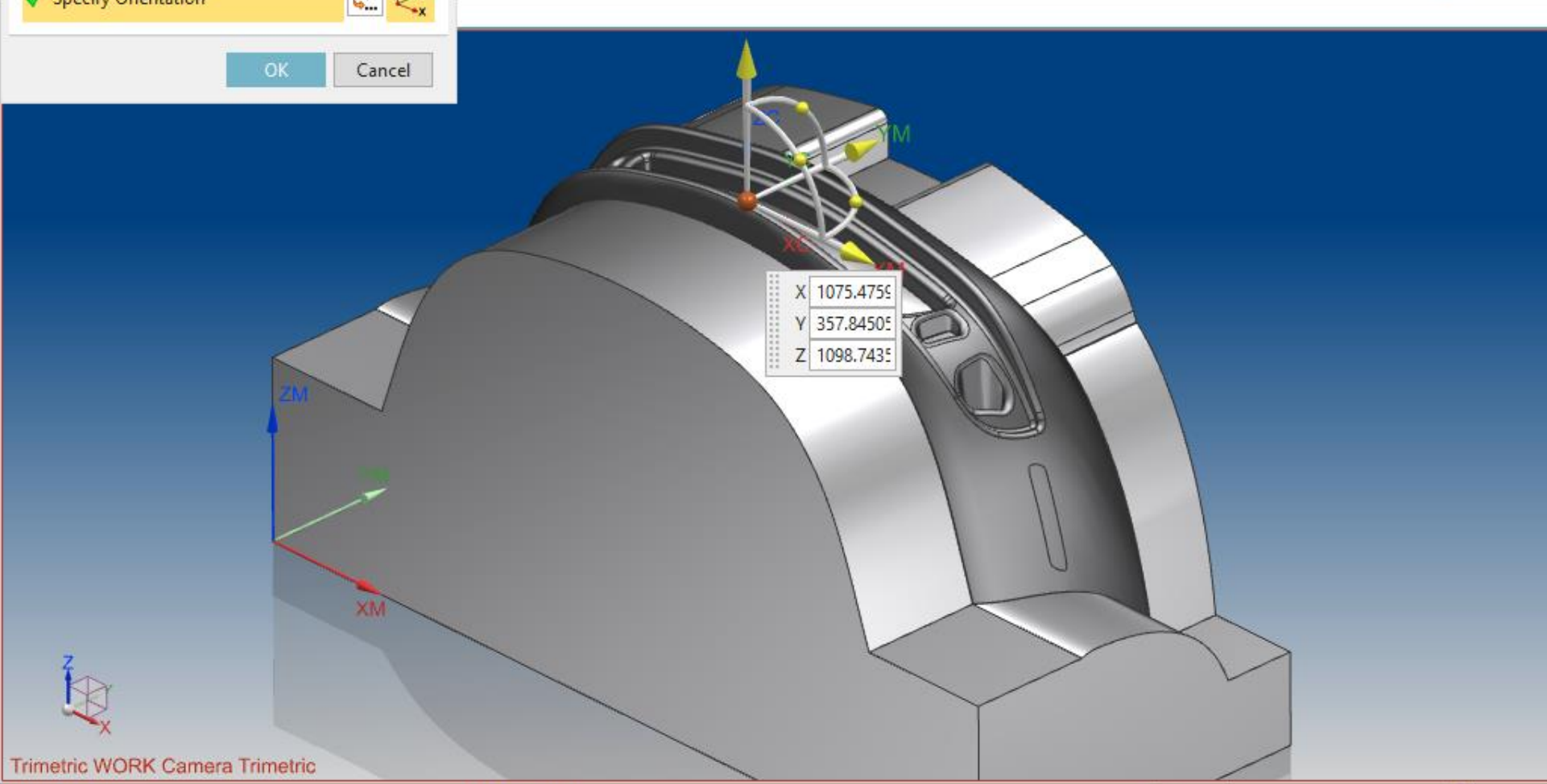
Display Animation Speed 5 Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

Dependencies

Details



Drag a handle or select a handle for direct entry; use Alt key to turn off snapping

Translate origin

Pessoas

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

Dependencies Details

Machine Coordinate System

Specify MCS

Details

Purpose: Local

Special Output: None

Fixture Offset: 1

Save MCS

Reference Coordinate System

Clearance

Clearance Option: Automatic Plane

Safe Clearance Distance: 10.0000

Lower Limit Plane

Avoidance

Tool Axis

Tool Axis: +Z of MCS

Description

Layout and Layer

OK Cancel

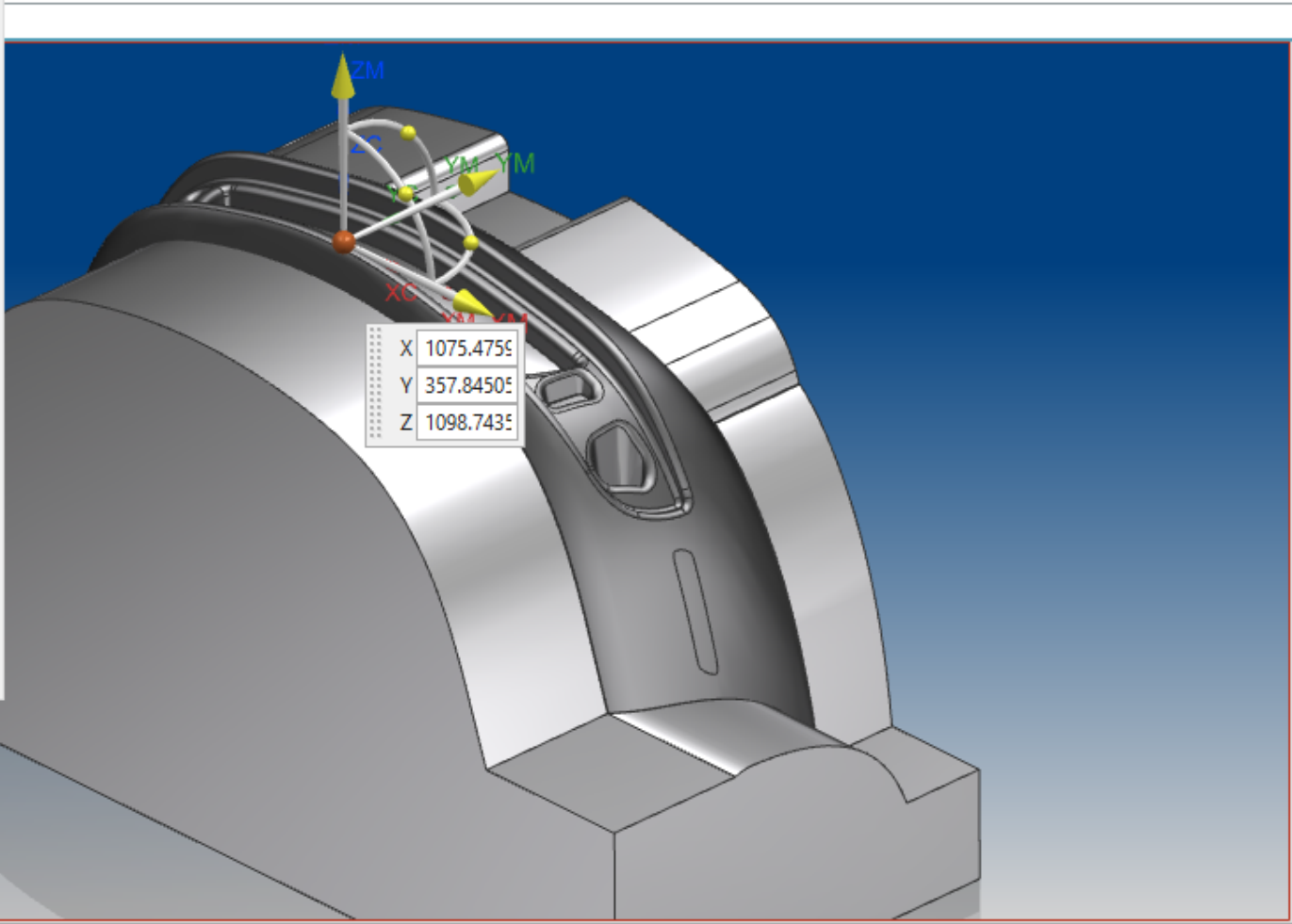
Find a Command

Display Animation Workpiece

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



NX 12 - Manufacturing

SIEMENS

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

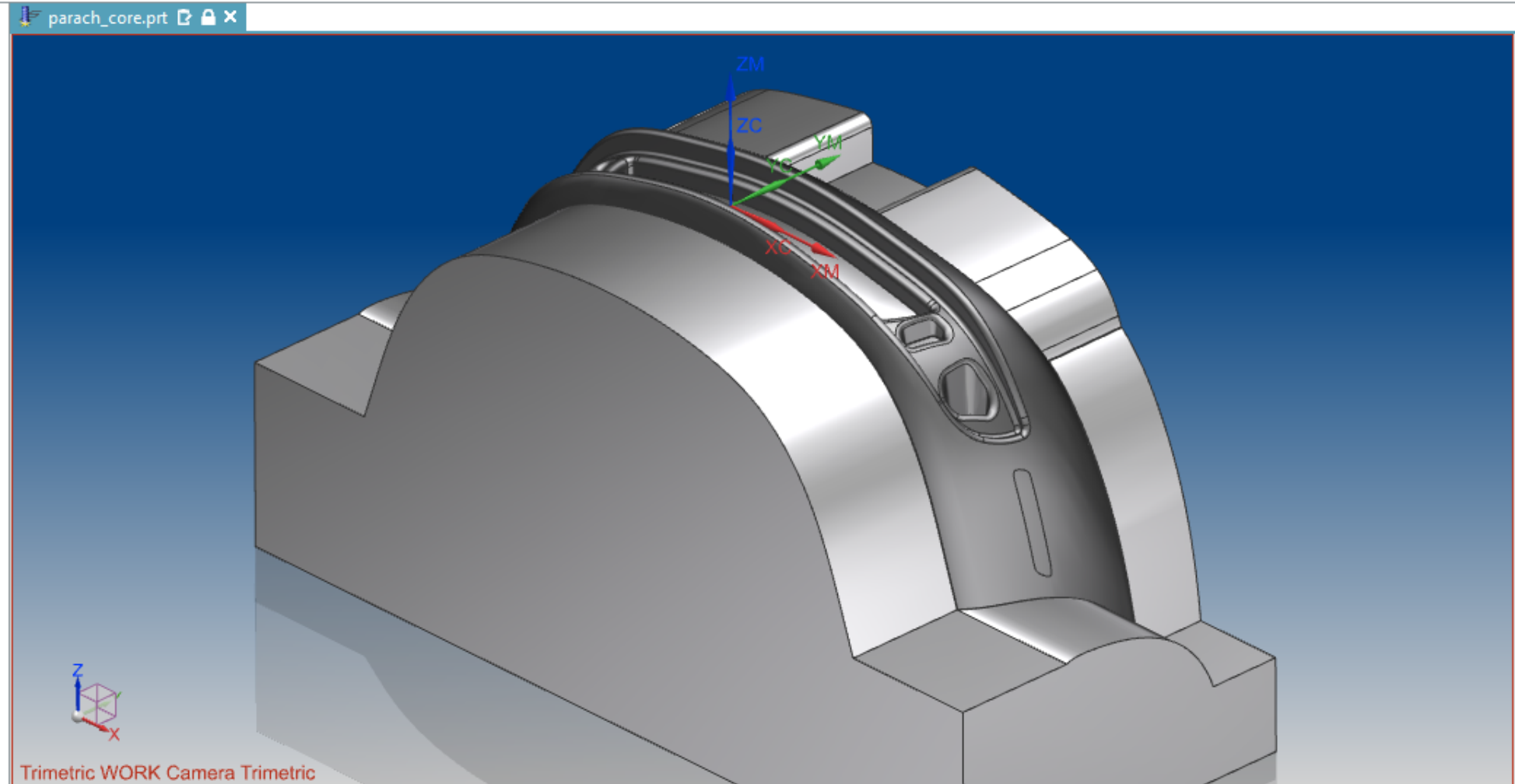
Menu No Selection Filter Entire Assembly

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

Dependencies

Details



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Bounding Block

Orientation

Limits

| | | | |
|-----|--------|-----|--------|
| XM- | 0.0000 | XM+ | 0.0000 |
| YM- | 0.0000 | YM+ | 0.0000 |
| ZM- | 0.0000 | ZM+ | 0.0000 |

IPW Position

OK Cancel

Find a Command

Speed 5

Display Animation Workpiece

Single Face Single Curve Single Body

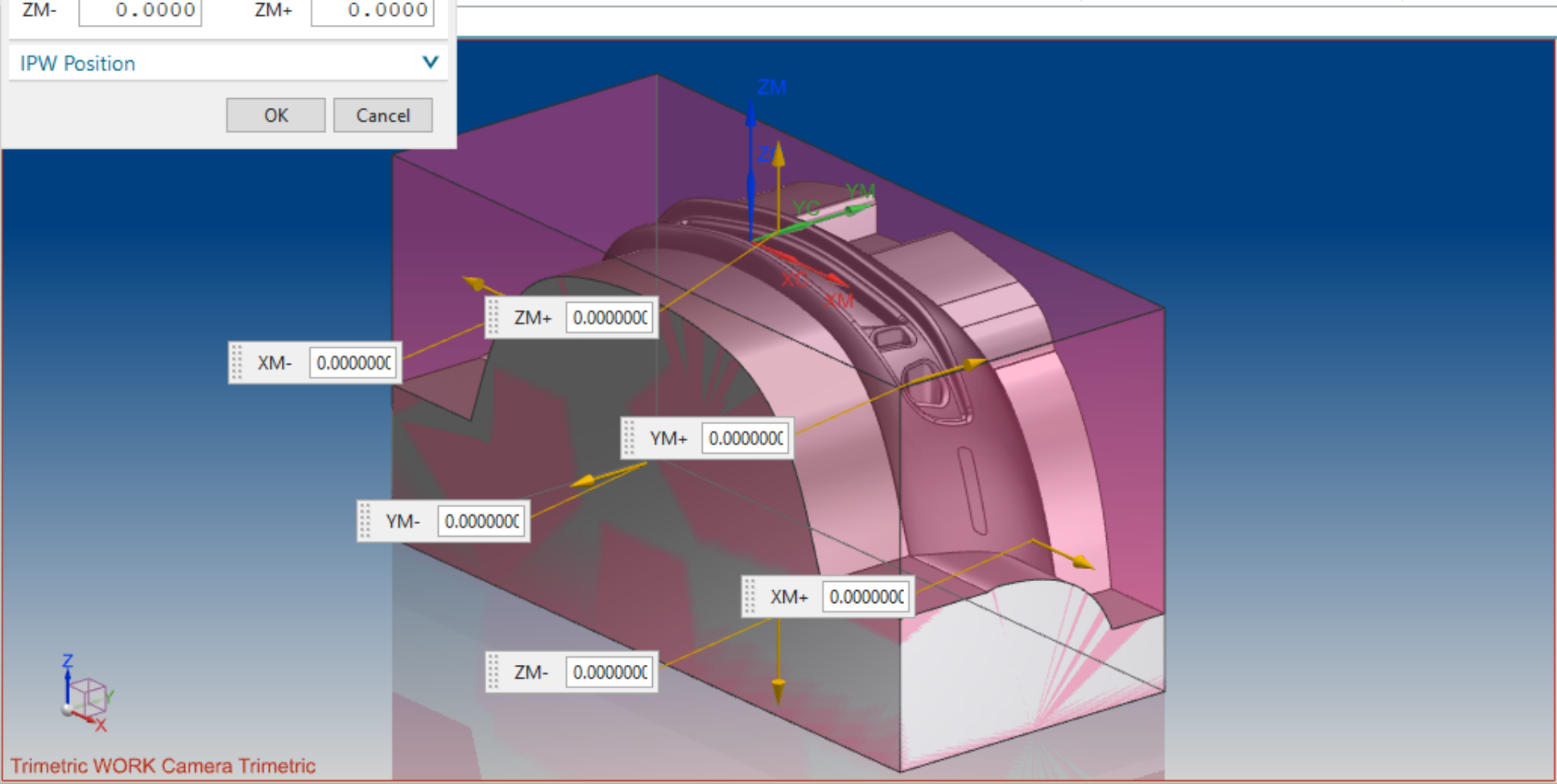
Analysis Geometry Synchronous Modeling Feature Tools

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

Dependencies

Details



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Create Tool

Type: mill_contour

Library: Retrieve Tools from Library, Retrieve Devices from Library

Tool Subtype: [Icons]

Location: Tool: GENERIC_MACHINE

Name: veker

OK Apply Cancel

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

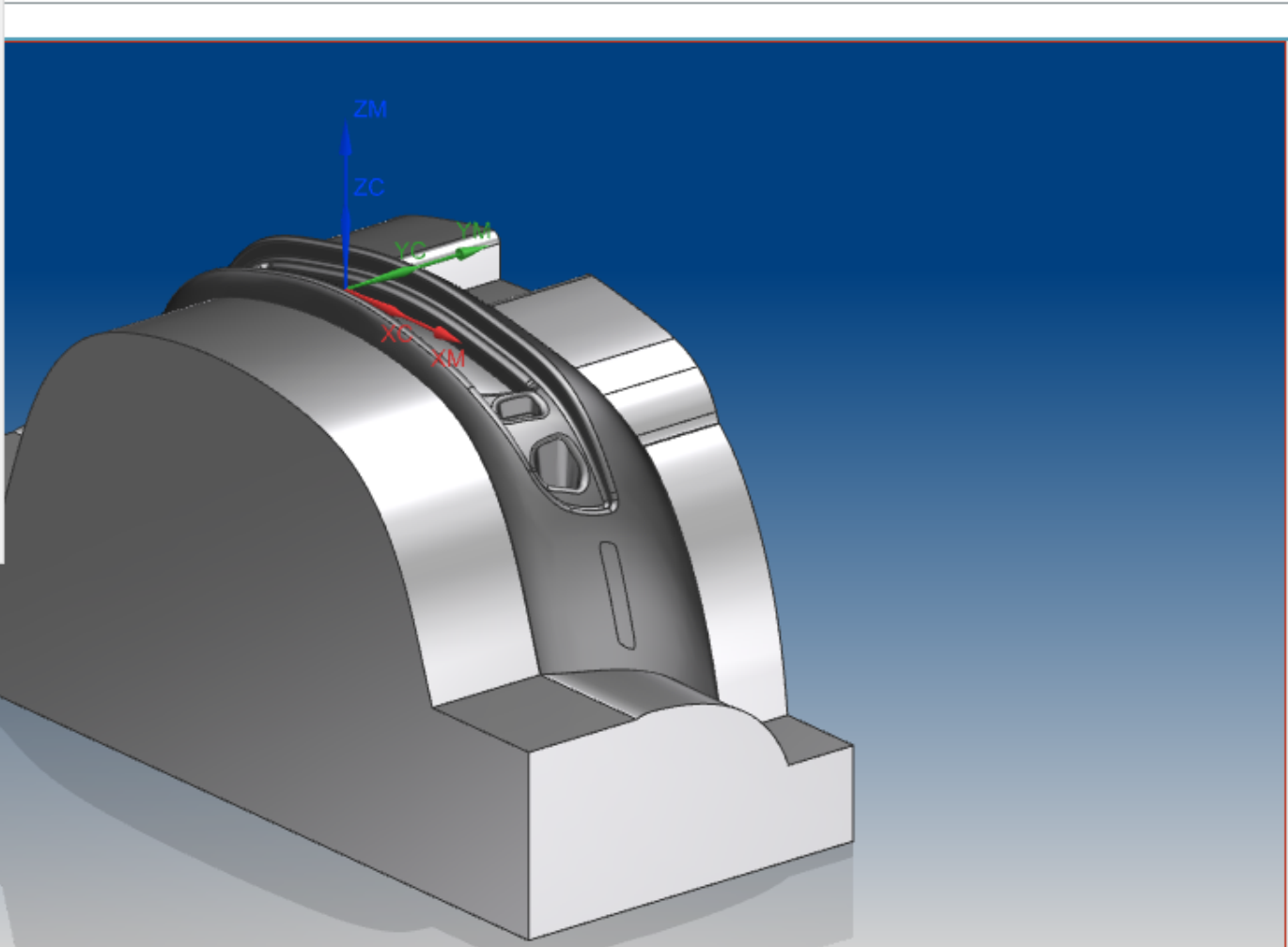
Dependencies Details

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools



Choose type, location, group and specify tool name or retrieve a tool from the library Current: VEKER

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu No Selection

Create Tool

Type: mill_contour

Library: Retrieve Tools from Library, Retrieve Devices from Library

Tool Subtype: [Icons]

Location: Tool: VEKER

Name: MCT_POCKET_01

OK Apply Cancel

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |

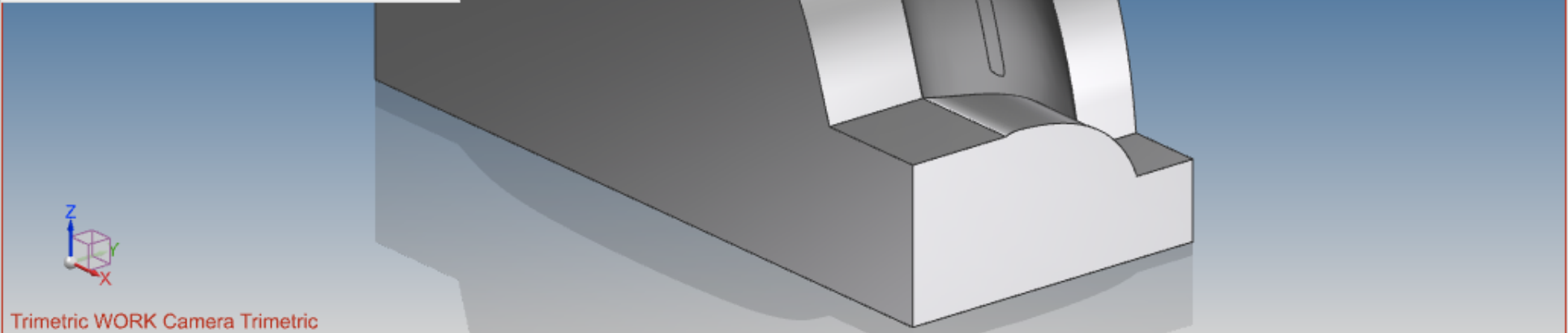
Dependencies Details

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools



Choose type, location, group and specify tool name or retrieve a tool from the library

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Pocket: Pocket ID

Pocket Number: 1

Pocket ID: Pocket Number

Numbers Holding Systems Capacity

OK Cancel

NX 12 - Manufacturing

SIEMENS

Find a Command

Display Animation Workpiece

Speed: 5

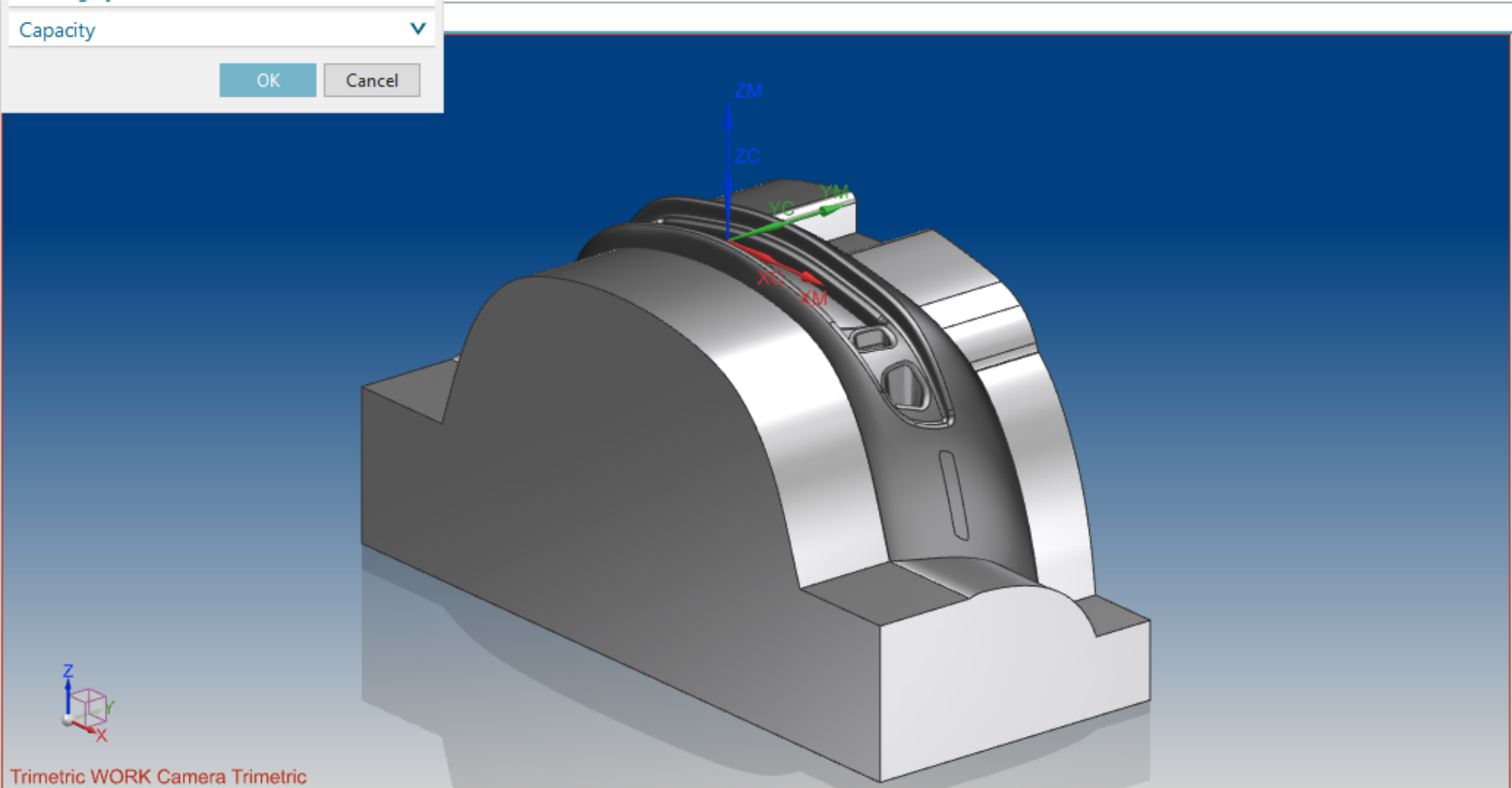
Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |

Dependencies Details



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Create Tool

Type: mill_contour

Library: Retrieve Tools from Library, Retrieve Devices from Library

Tool Subtype: [Icons]

Location: Tool: VEKER

Name: MCT_POCKET_02

OK Apply Cancel

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |
| MCT_POCKET_01 | |

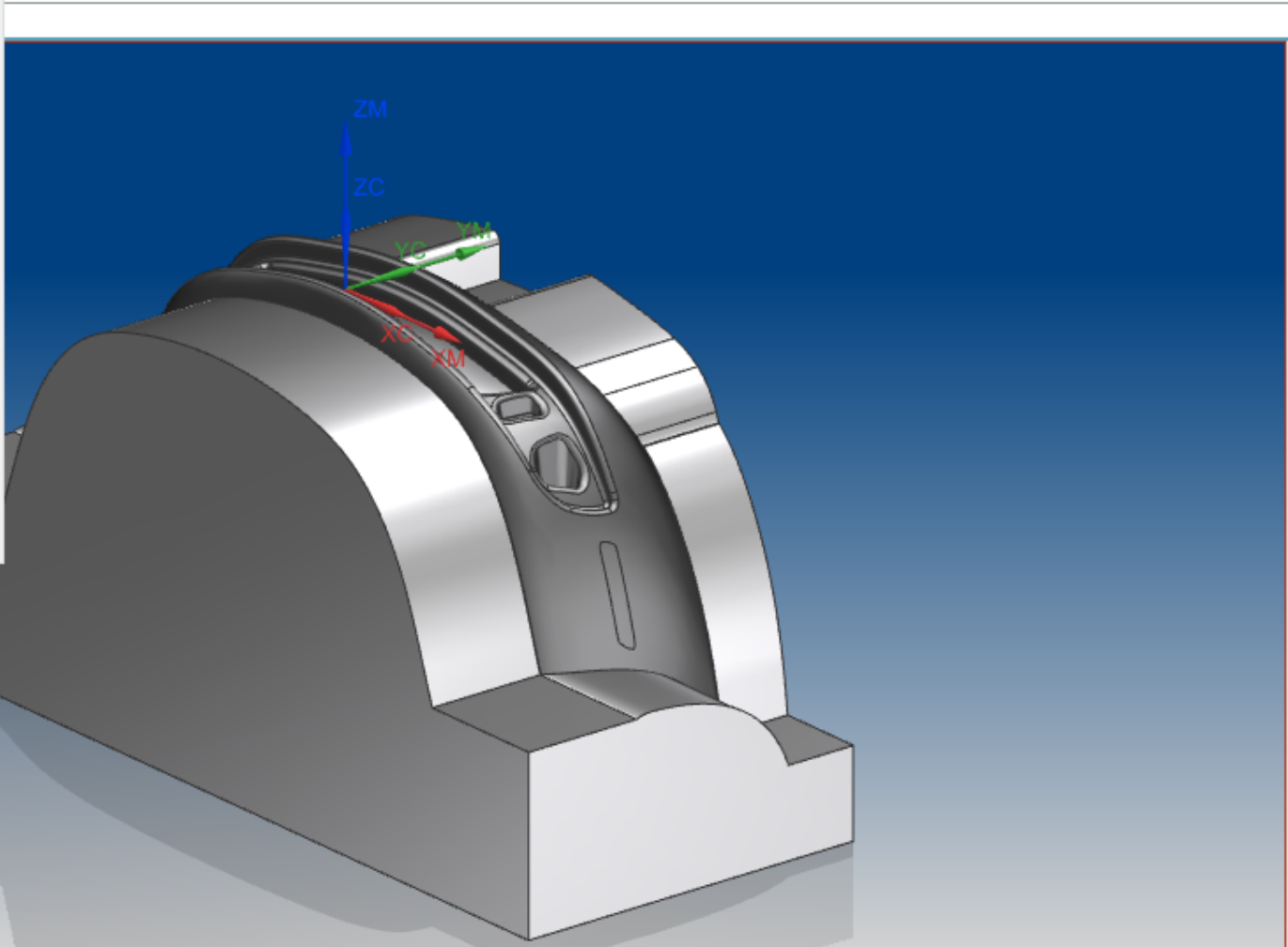
Dependencies Details

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Create Tool

Type: mill_contour

Library

Retrieve Tools from Library

Retrieve Devices from Library

Tool Subtype

Location

Tool: VEKER

Name: fresa_25

OK Apply Cancel

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |
| MCT_POCKET_01 | |
| MCT_POCKET_02 | |
| MCT_POCKET_03 | |
| MCT_POCKET_04 | |
| MCT_POCKET_05 | |
| MCT_POCKET_06 | |
| MCT_POCKET_07 | |

Dependencies

Details

NX 12 - Manufacturing

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Trimetric WORK Camera Trimetric

Choose type, location, group and specify tool name or retrieve a tool from the library

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Create Tool

Type: mill_contour

Library: Retrieve Tools from Library, Retrieve Devices from Library

Tool Subtype: [Icons]

Location: Tool: MCT_POCKET_01

Name: fresa_25

OK Apply Cancel

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |
| MCT_POCKET_01 | |
| MCT_POCKET_02 | |
| MCT_POCKET_03 | |
| MCT_POCKET_04 | |
| MCT_POCKET_05 | |
| MCT_POCKET_06 | |
| MCT_POCKET_07 | |

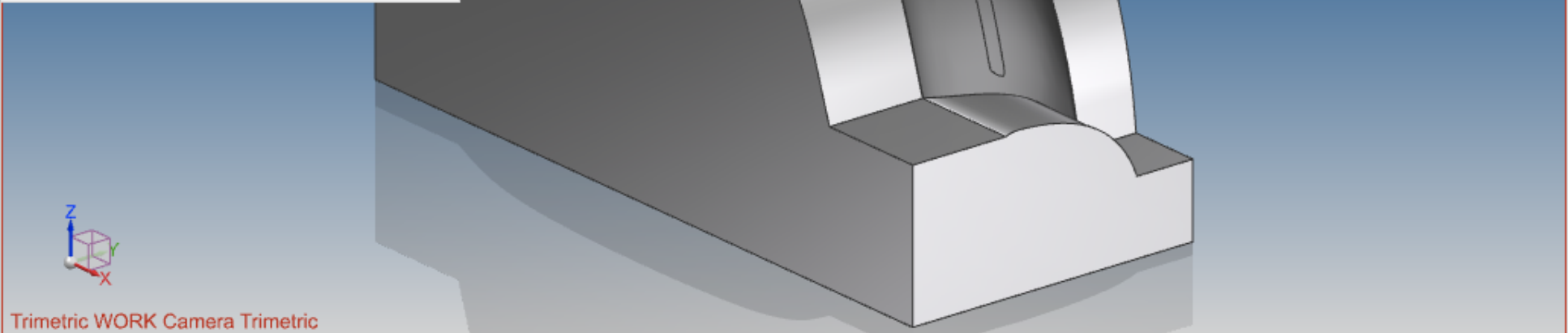
Dependencies Details

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools



Choose type, location, group and specify tool name or retrieve a tool from the library

NX 12 - Manufacturing

SIEMENS

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

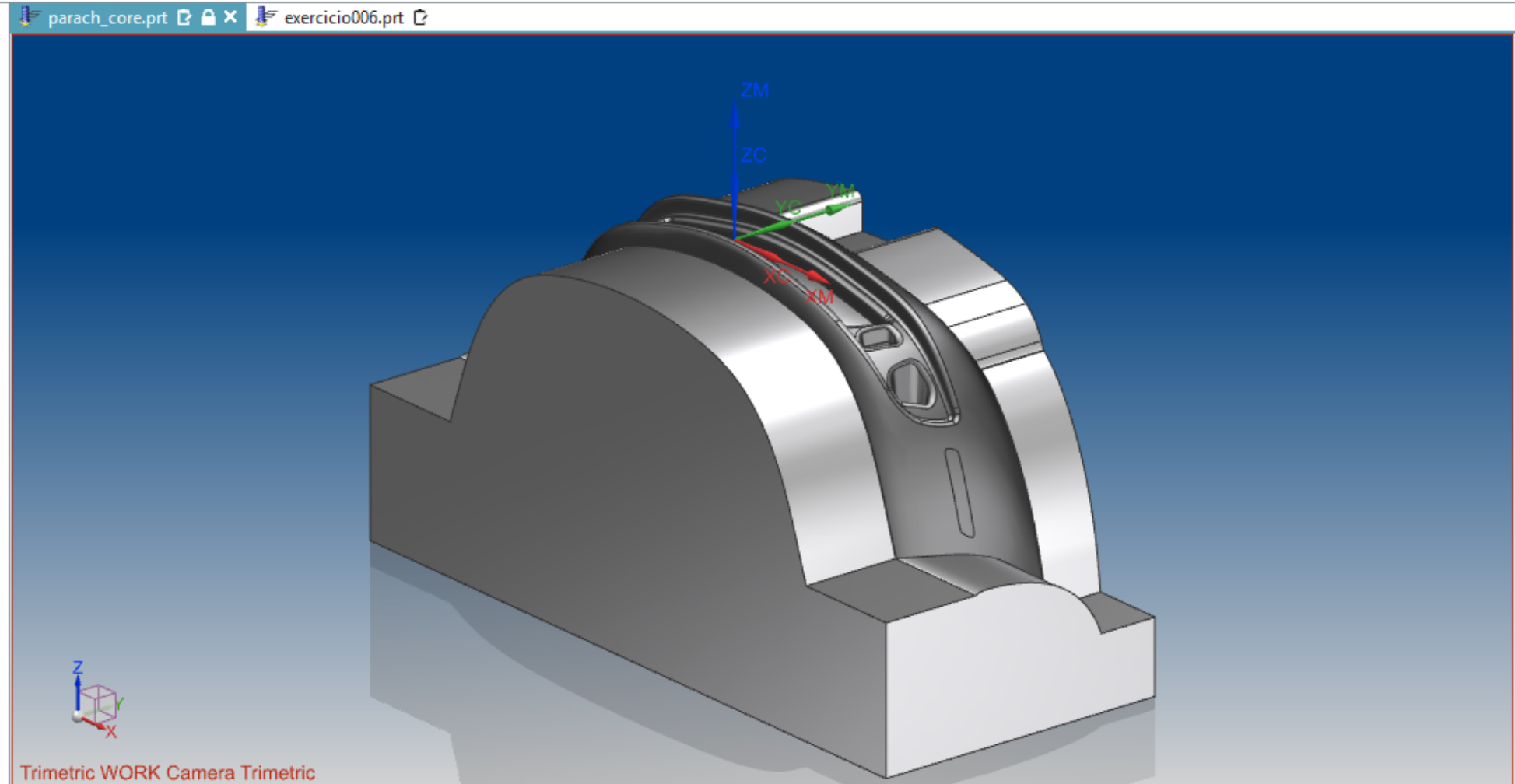
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |
| MCT_POCKET_01 | |
| FRESA_25 | |
| MCT_POCKET_02 | |
| MCT_POCKET_03 | |
| MCT_POCKET_04 | |
| MCT_POCKET_05 | |
| MCT_POCKET_06 | |
| MCT_POCKET_07 | |

Dependencies

Details



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu No Selection

Create Operation

Type: mill_contour

Operation Subtype

Location

Program: PROGRAM

Tool: NONE

Geometry: WORKPIECE

Method: MILL_FINISH

Name: CAVITY_MILL

OK Apply Cancel

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |
| MCT_POCKET_01 | |
| FRESA_25 | |
| MCT_POCKET_02 | |
| MCT_POCKET_03 | |
| MCT_POCKET_04 | |
| MCT_POCKET_05 | |
| MCT_POCKET_06 | |
| MCT_POCKET_07 | |

Dependencies

Details

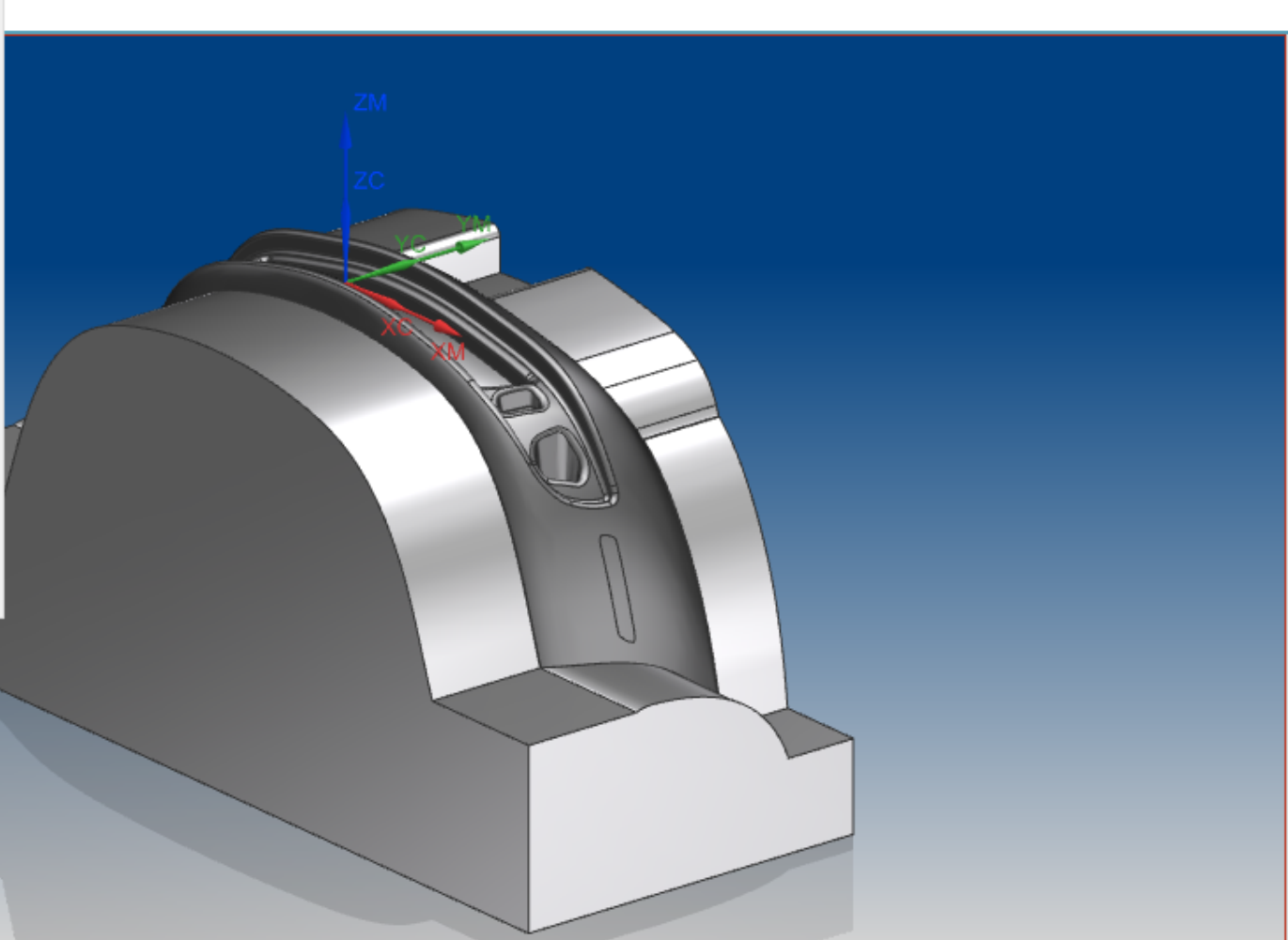
Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Choose type, subtype, location and specify operation name

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu No Selection

Create Operation

Type: mill_contour

Operation Subtype

Location

Program: PROGRAM

Tool: FRESA_25 (Milling Toc)

Geometry: WORKPIECE

Method: MILL_ROUGH

Name: desbaste

OK Apply Cancel

Operation Navigator - Machine Tool

| Name | Path |
|-----------------|------|
| GENERIC_MACHINE | |
| Unused Items | |
| VEKER | |
| MCT_POCKET_01 | |
| FRESA_25 | |
| MCT_POCKET_02 | |
| MCT_POCKET_03 | |
| MCT_POCKET_04 | |
| MCT_POCKET_05 | |
| MCT_POCKET_06 | |
| MCT_POCKET_07 | |

Dependencies

Details

NX 12 - Manufacturing

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Trimetric WORK Camera Trimetric

Choose type, subtype, location and specify operation name

Create Operation

Type: mill_contour

Operation Subtype: [Grid of icons]

Location:

- Program: PROGRAM
- Tool: FRESA_25 (Milling Toc)
- Geometry: WORKPIECE
- Method: MILL_ROUGH

Name: desbaste

Buttons: OK, Apply, Cancel

Dependencies: [Dropdown]

Details: [Dropdown]

NX 12 - Manufacturing

Render Tools Application

Find a Command [Search Icon]

Simulate Machine Process Shop Documentation More

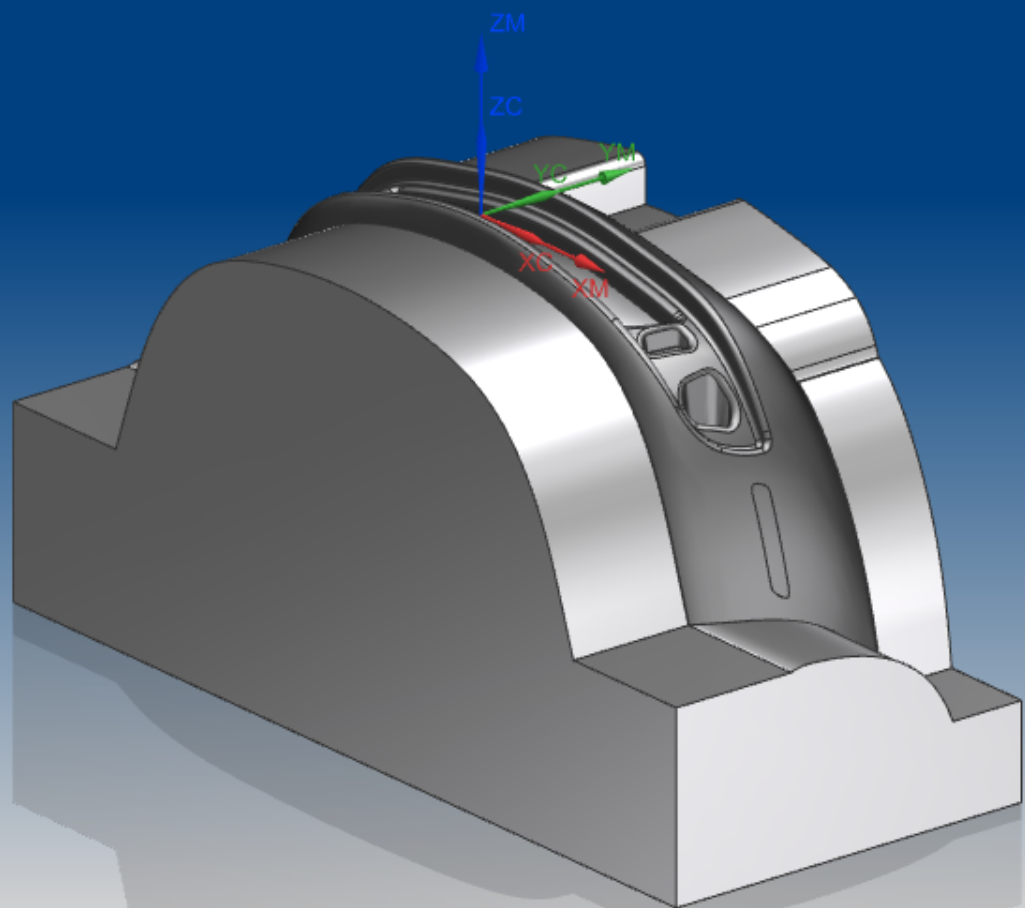
Operations Display Animation Workpiece

Speed: 5

Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly [Dropdown]

h_core.prt Face_Milling.prt exercicio006.prt



Trimetric WORK Camera Trimetric

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Machine Coordinate System

Specify MCS

Details

Purpose: Local

Special Output: None

Fixture Offset: 1

Save MCS

Reference Coordinate System

Clearance

Clearance Option: Plane

Specify Plane

Lower Limit Plane

Avoidance

Tool Axis

Tool Axis: +Z of MCS

Description

Layout and Layer

OK Cancel

Operation Navigator - Geometry

| Name | Path | Tool |
|--------------|------|------|
| GEOMETRY | | |
| Unused Items | | |
| MCS_MILL | | |
| WORKPIECE | | |

Dependencies

Details

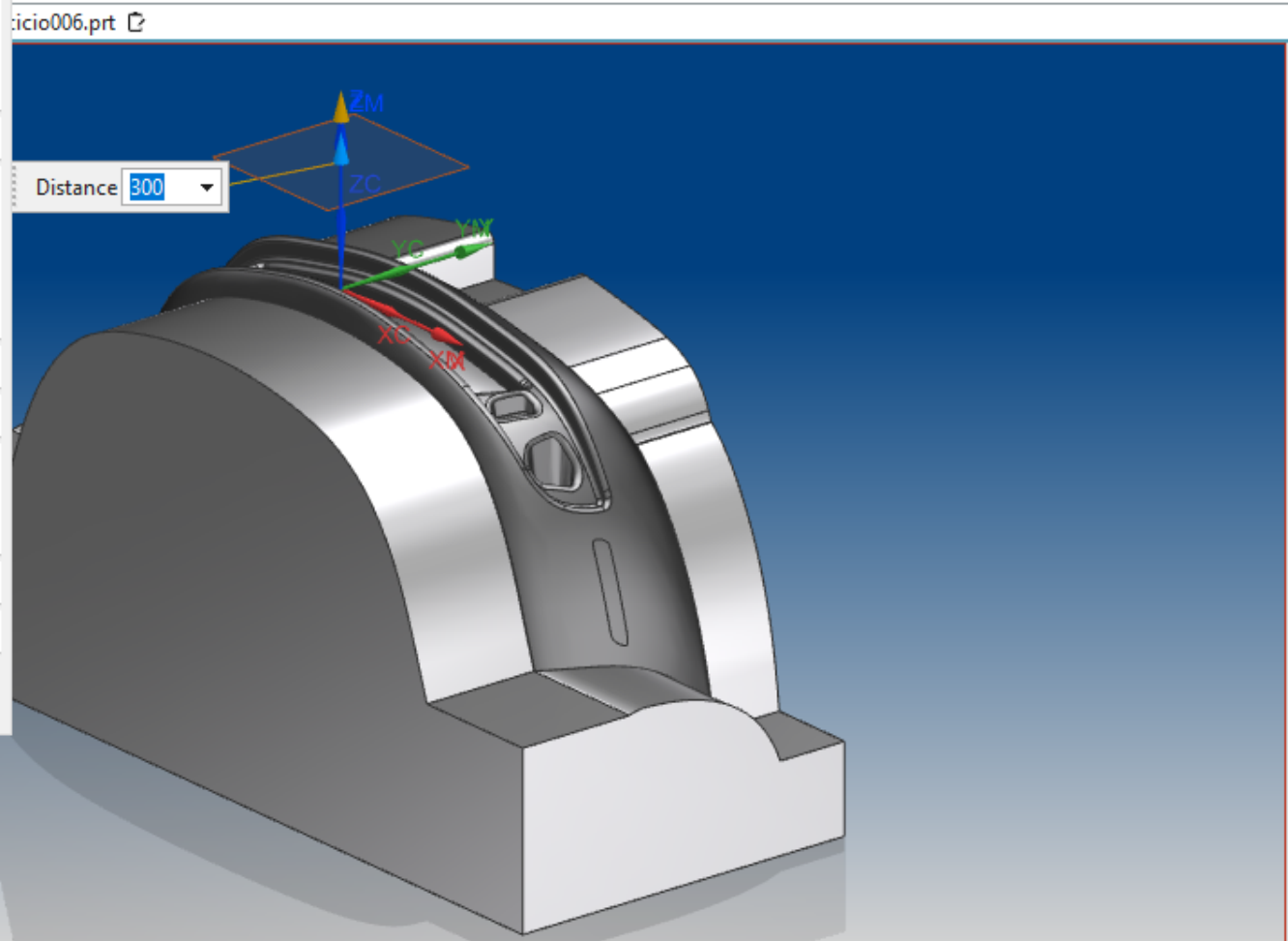
Find a Command

Display Animation Workpiece

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Enter offset or press MB2 to accept plane