

Parameter Coordinate System Training

Parameter Coordinate System_Training.zip



Parameter Coordinate System - Overview

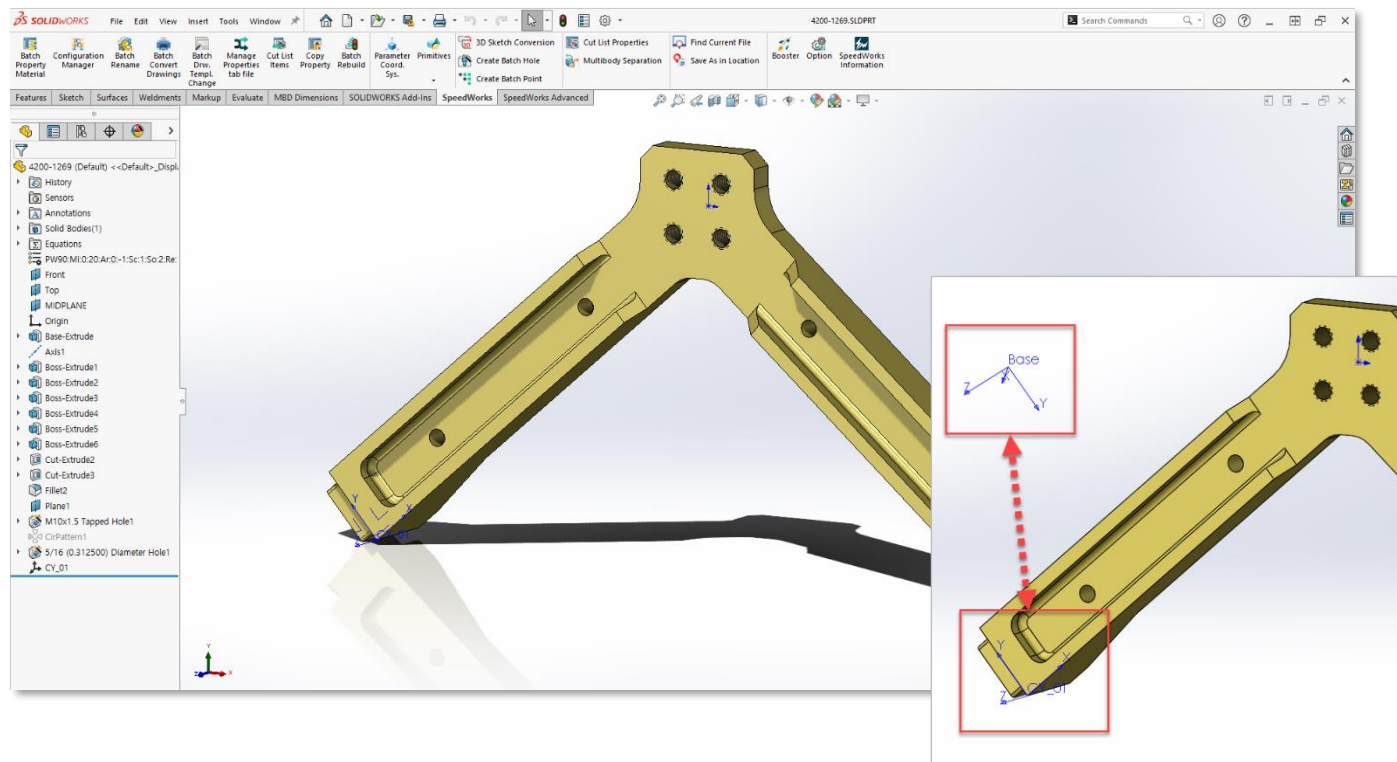
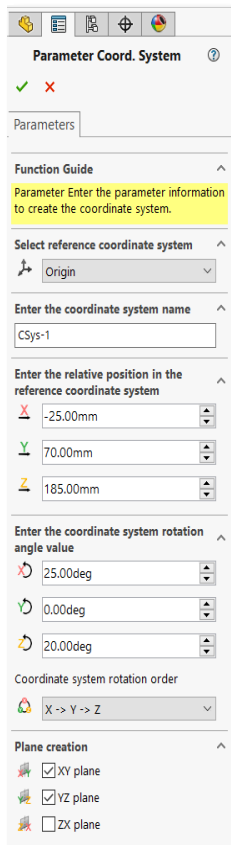
Main Functions

- Based on parameter information create coordinates system
- Support move and rotate of coordinates system
- Coordinates system and referenced plane can be created easily

Benefits

- A new sketch for a new coordinates system is not required.
- Easily create new coordinates system using information of existed coordinates system.

Course Objective: Follow instructions through the course and learn how to sue Parameter Coordinate System.

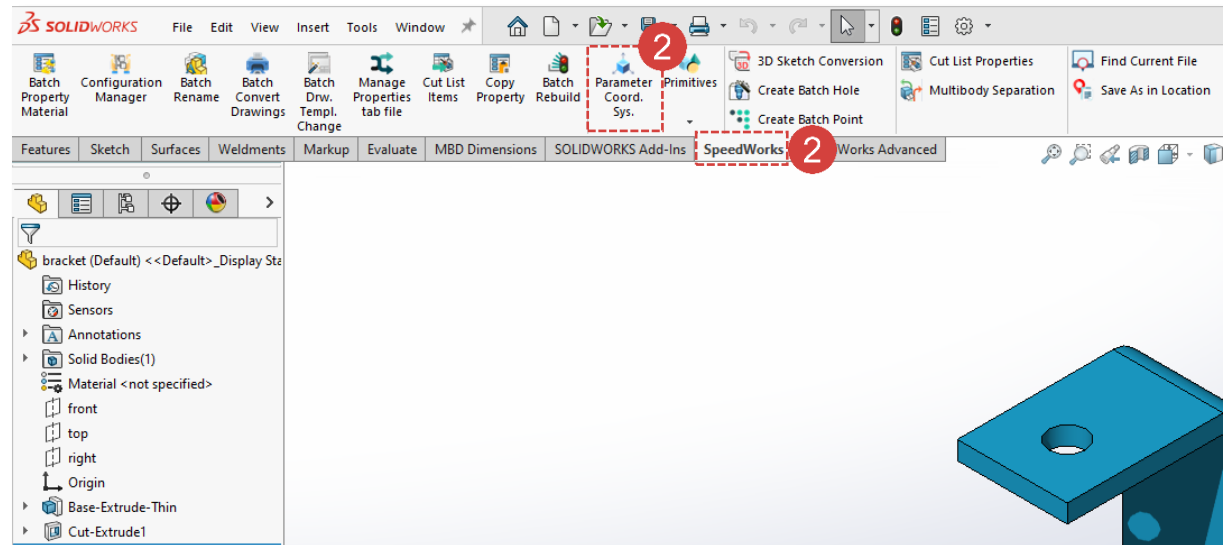
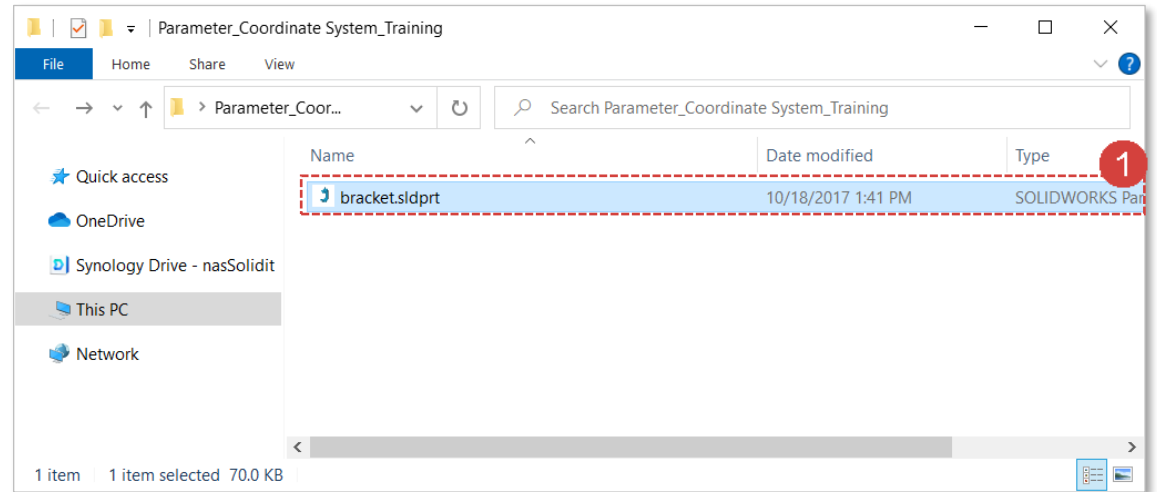


Parameter Coordinate System - Execute

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

1 Double-click **bracket.sldprt** file to execute.

2 Click [SpeedWorks]tab – [Parameter Coord. Sys.] button.



※ You can download example files at Support page in SpeedWorks Homepage(<https://speedworks.info>).

Parameter Coordinate System – Create Coordinate System

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

1 Select 'Origin' in [Select Reference Coordinate System].

Enter 'CSys-1' in [Coordinate System Name].

2 Modify [Origin Relative Position] as follow.

3 [X Coord]: 0mm

[Y Coord]: 27.484mm

[Z Coord]: 77.216mm

Modify [Relative Angle] as follow.

4 [X-axis]: 130 degree

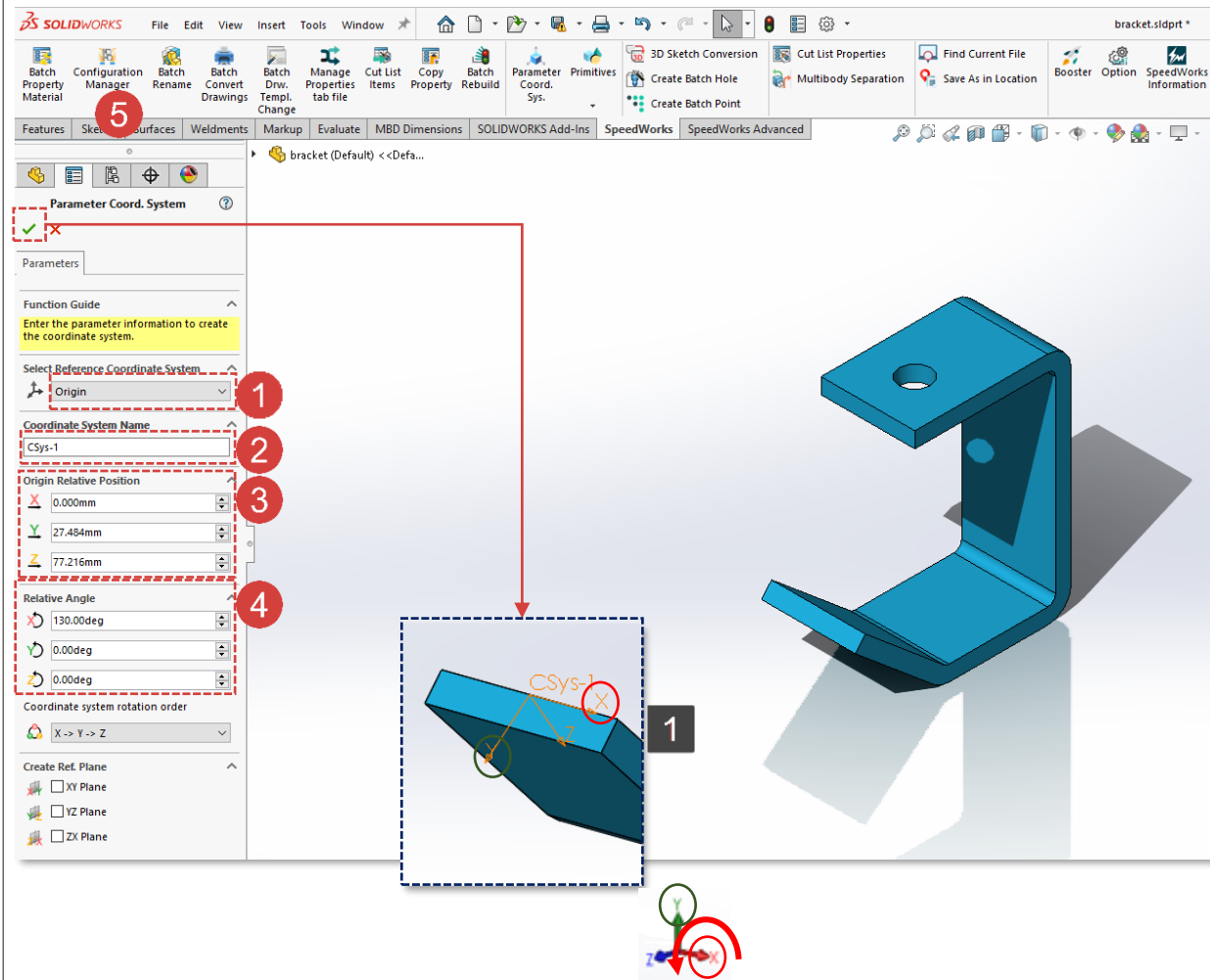
[Y-axis]: 0 degree

[Z-axis]: 0 degree

Click [OK] button to make a new coordinates system.

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1 The coordinates system is created at the location (0, 27.494, 77.216) rotated by 130 degrees about the X axis. With supported function, users can easily create a coordinates system where it is difficult to place.

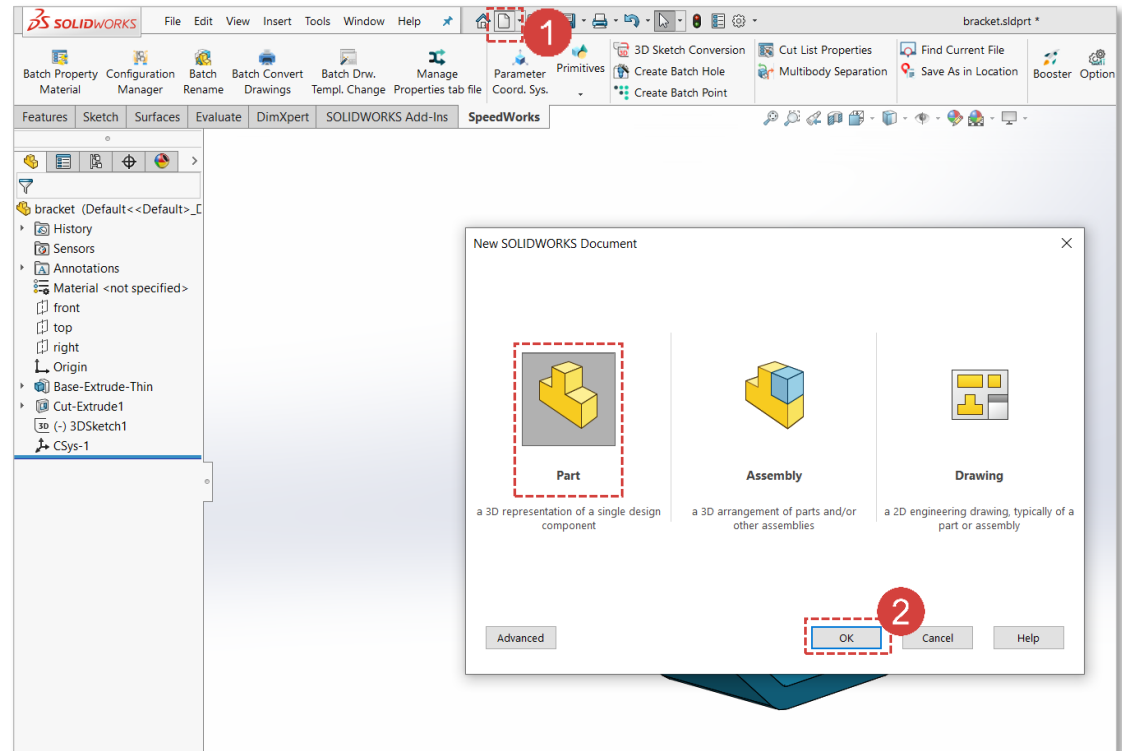


Parameter Coordinate System – Create New Part

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

1 When create a new coordinates system, a sequence of rotation axis affects the result. To check this, Click [New SOLIDWORKS Document] button.

Select [Part] and click [OK] button to make new part.



Parameter Coordinate System - Rotate Order

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

- 1 Enter 'xyz' into [Coordinate System Name].
- 2 Enter '30.00 degree' into each axis [Relative Angle].
- 3 Select [X -> Y -> Z] in [Coordinate system rotation order].
- 4 Click [OK] button to create coordinate system.
(Execute the parameter coordinate system again.)
- 5 Enter 'yxz' into [Coordinate System Name].
- 6 Enter '30.00 degree' into each axis [Relative Angle].
- 7 Select [Y -> X -> Z] in [Coordinate system rotation order].
- 8 Click 'xyz' coordinate system for make it blue highlight.
- 9 Put mouse cursor on 'yxz' coordinate system without click.
- 10

1 Coordinates systems created in different rotation sequence are not identical. Because the axis of rotation is continuously affected by previous rotation. Keep in mind this when users create a coordinates system.

