

SolidWorks Practice 2



2006.2 CAD/CAM

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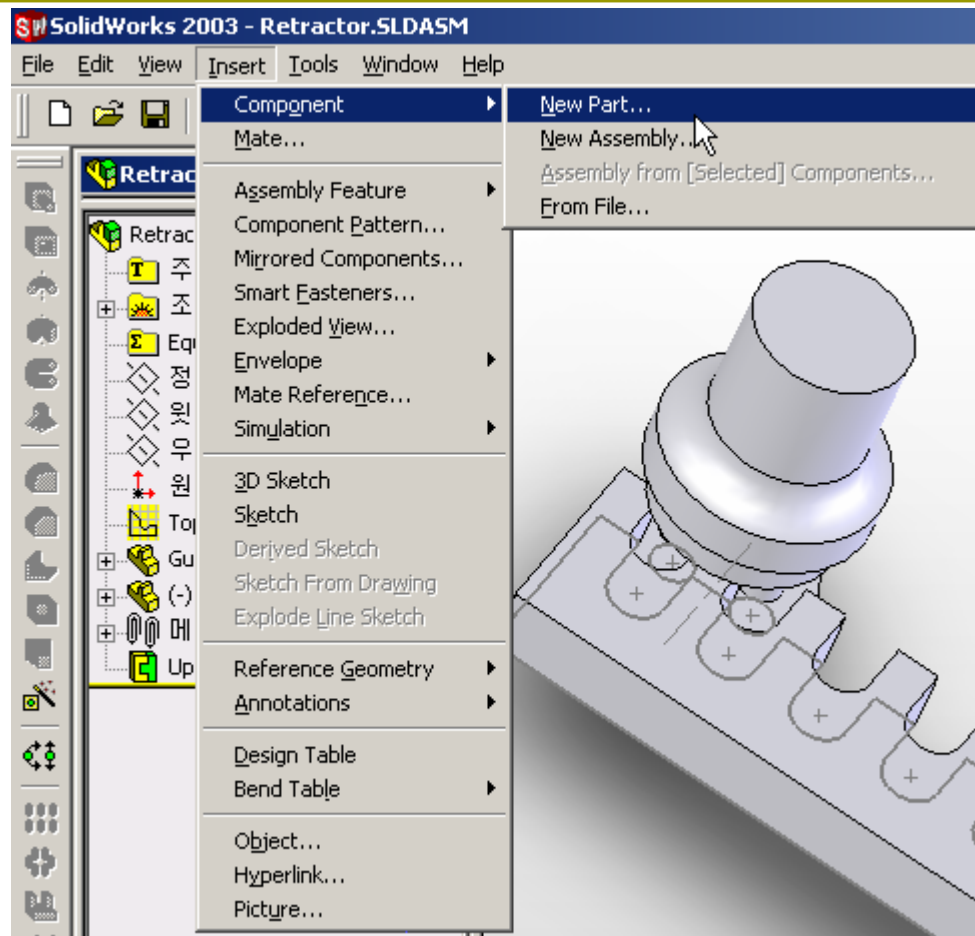
- Insert Part 3 (Picker.SLDPRT)
- Equation 4 (Hole Width)
- Equation 5 (Hole Height)
- Edit Part (Picker.SLDPRT)
- Equation 6,7,8 (Hole Diameter, Y Position, Depth)
- Edit Part (Picker.SLDPRT)
- Equation 9 (Hole Offset)
- Update Assembly

Insert Part 3

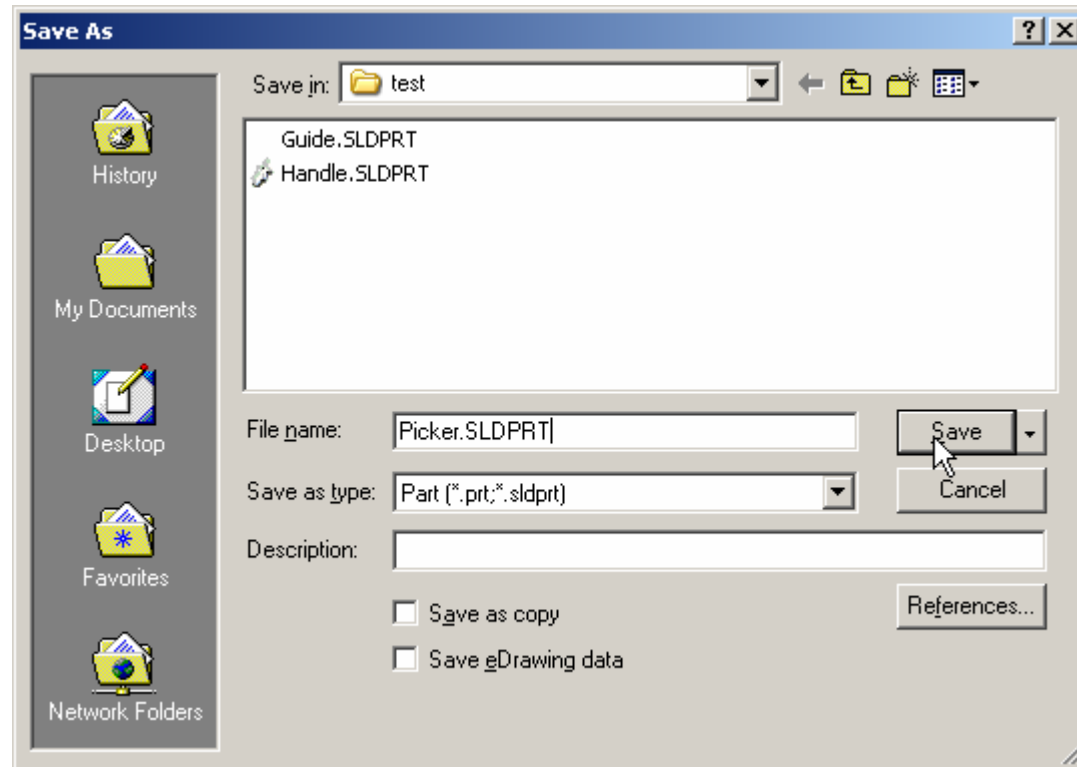


Picker.SLDPRT

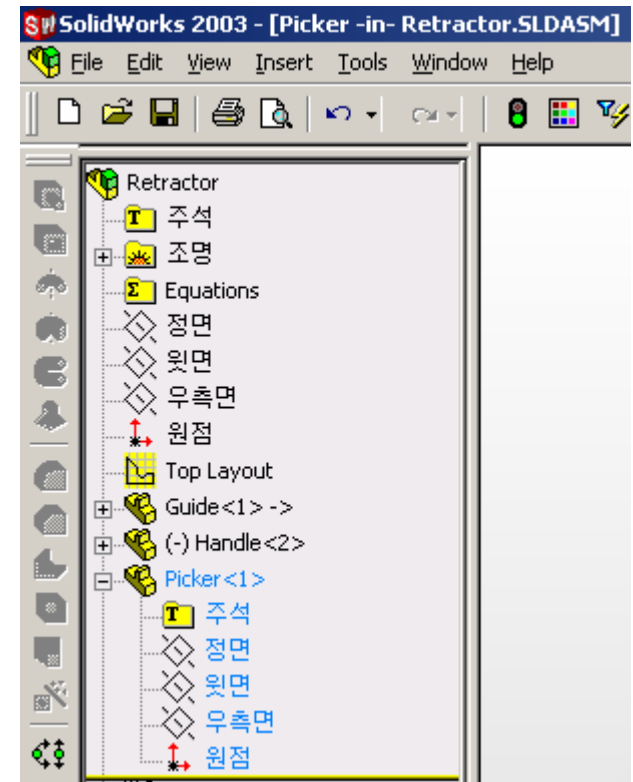
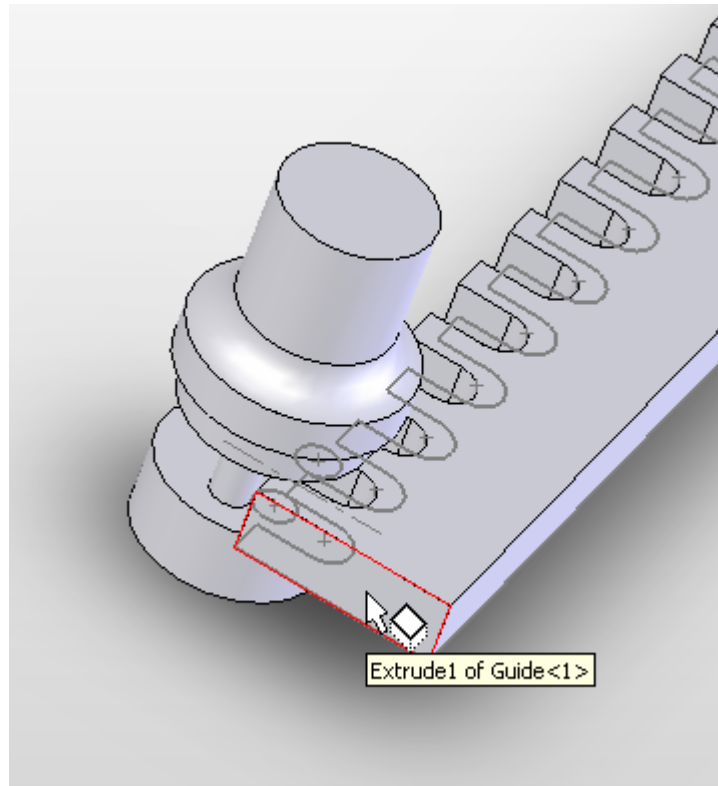
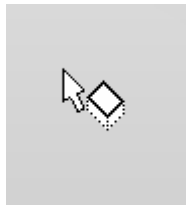
Insert New Part



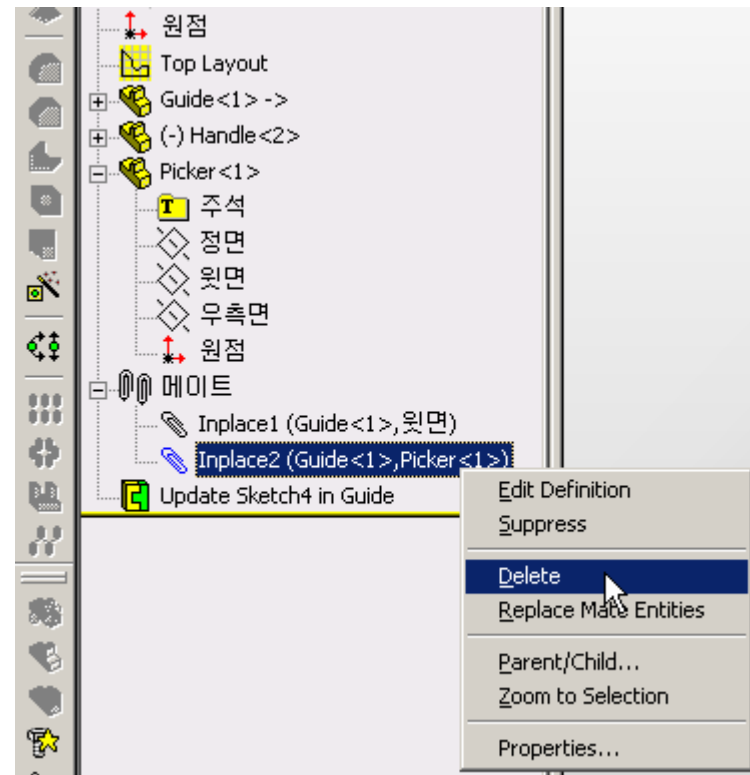
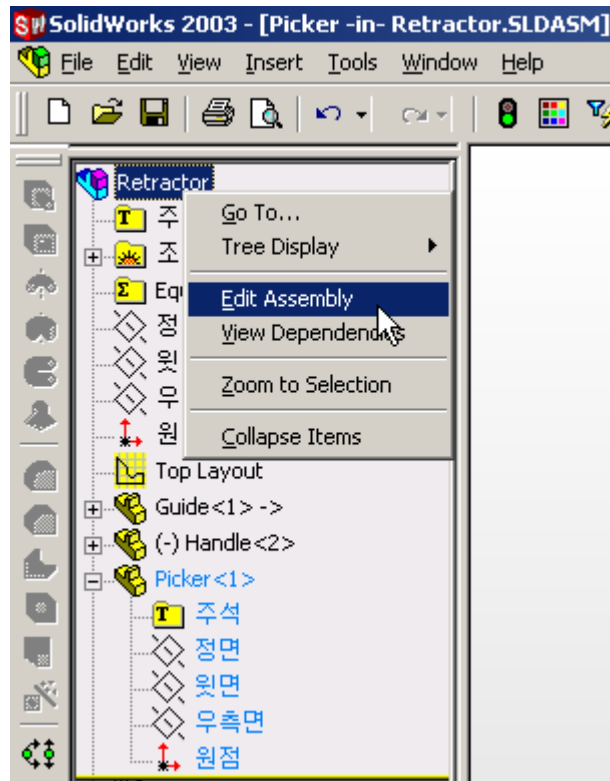
Save Part



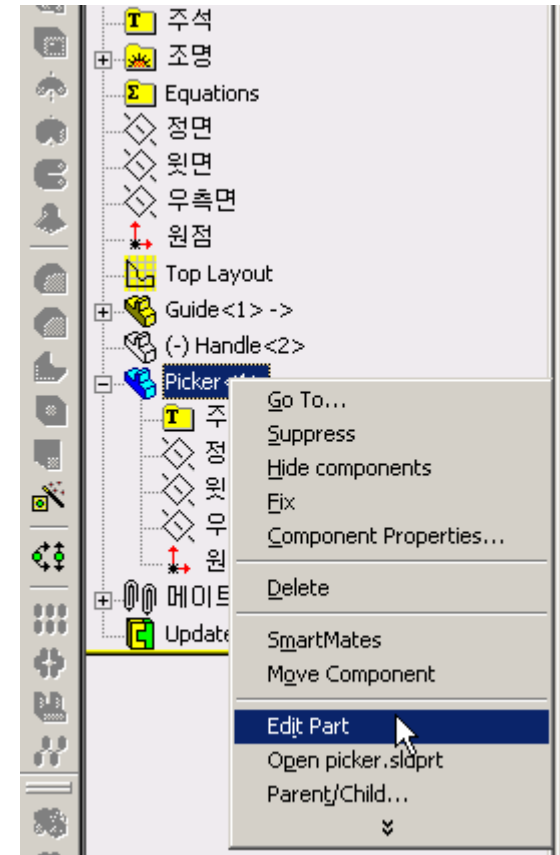
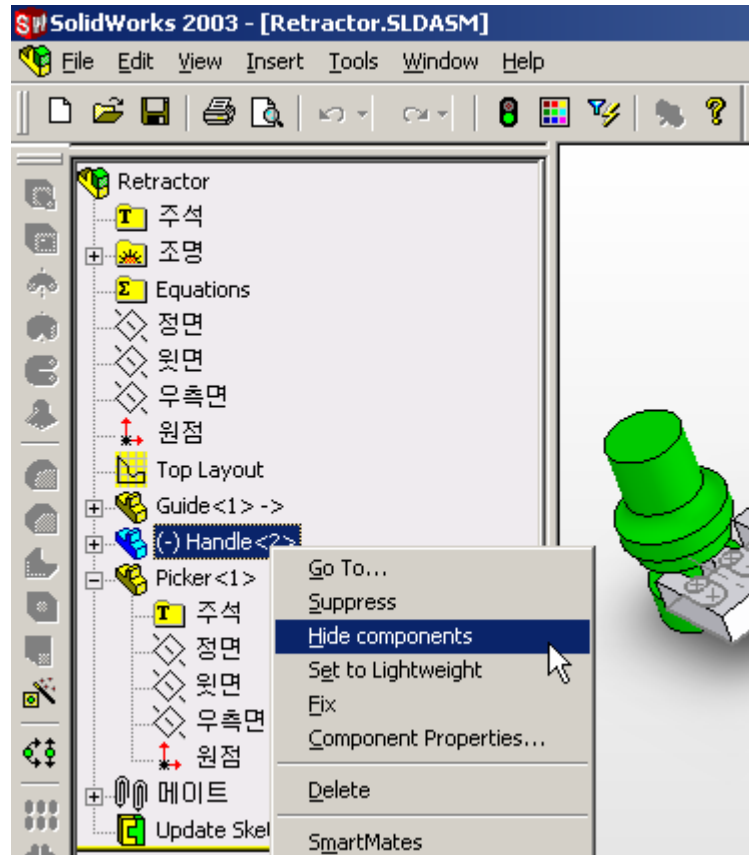
Set the part on Assembly



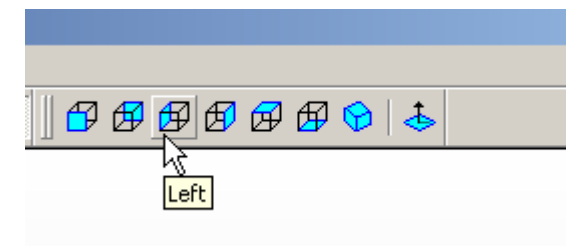
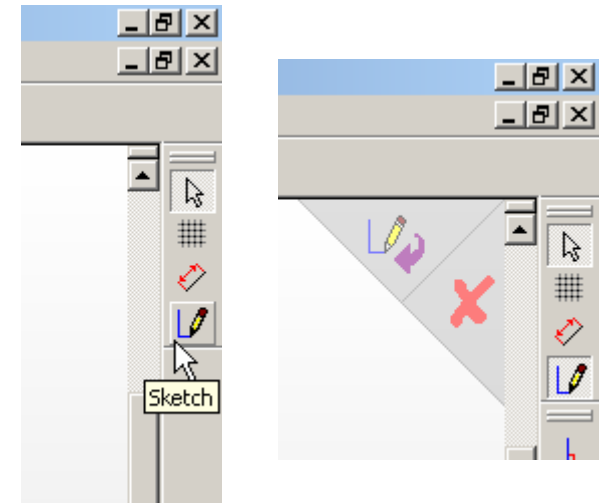
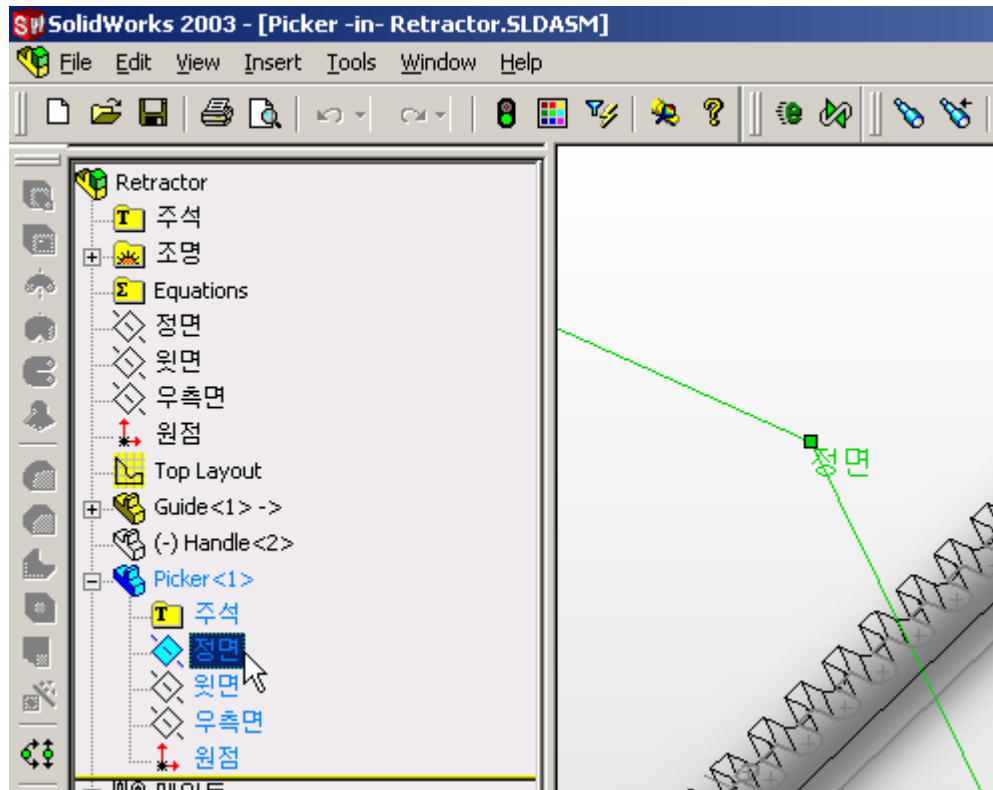
Delete Mating Condition



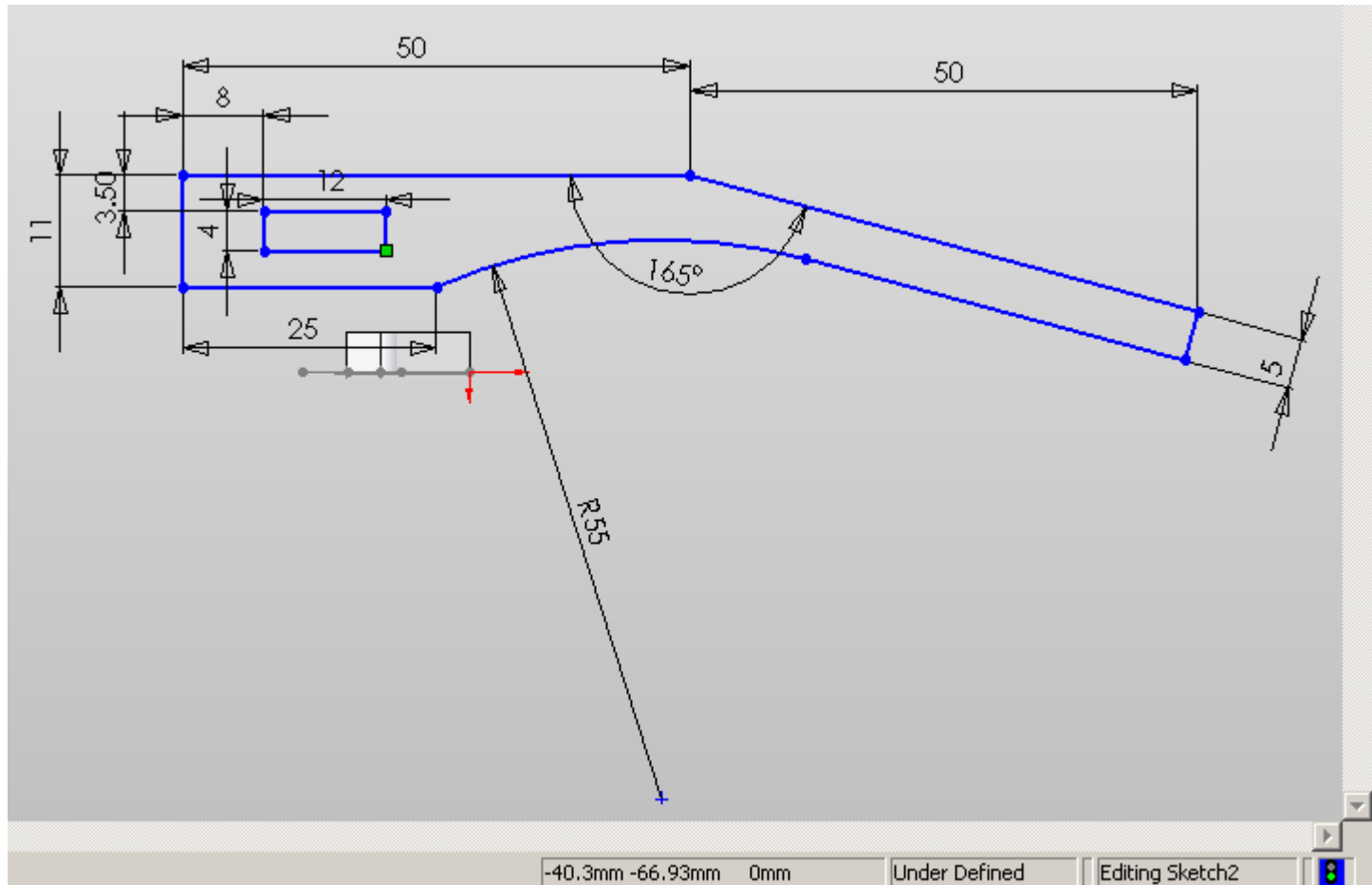
Hide & Edit Part



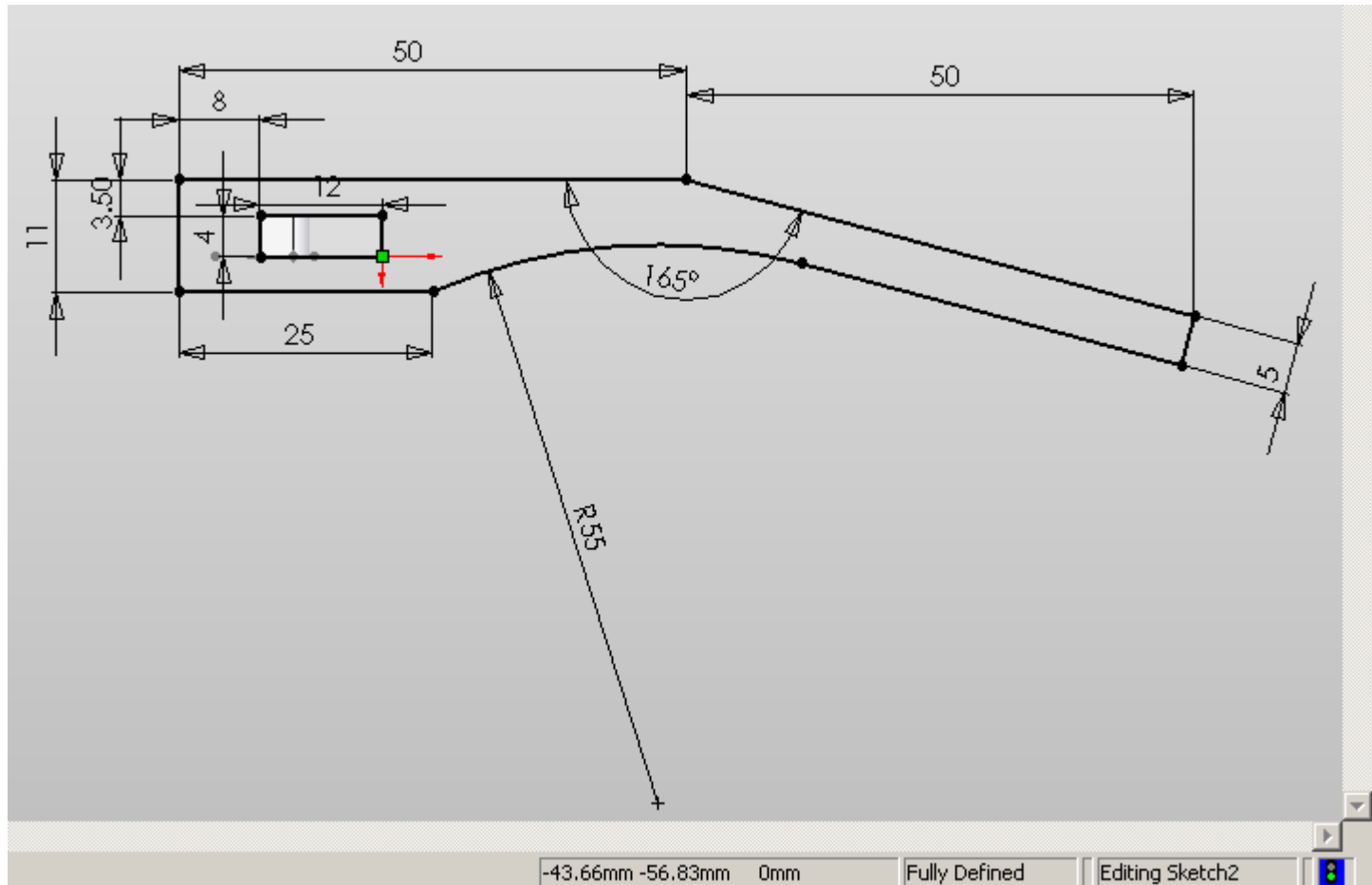
Sketch on the Front Plane



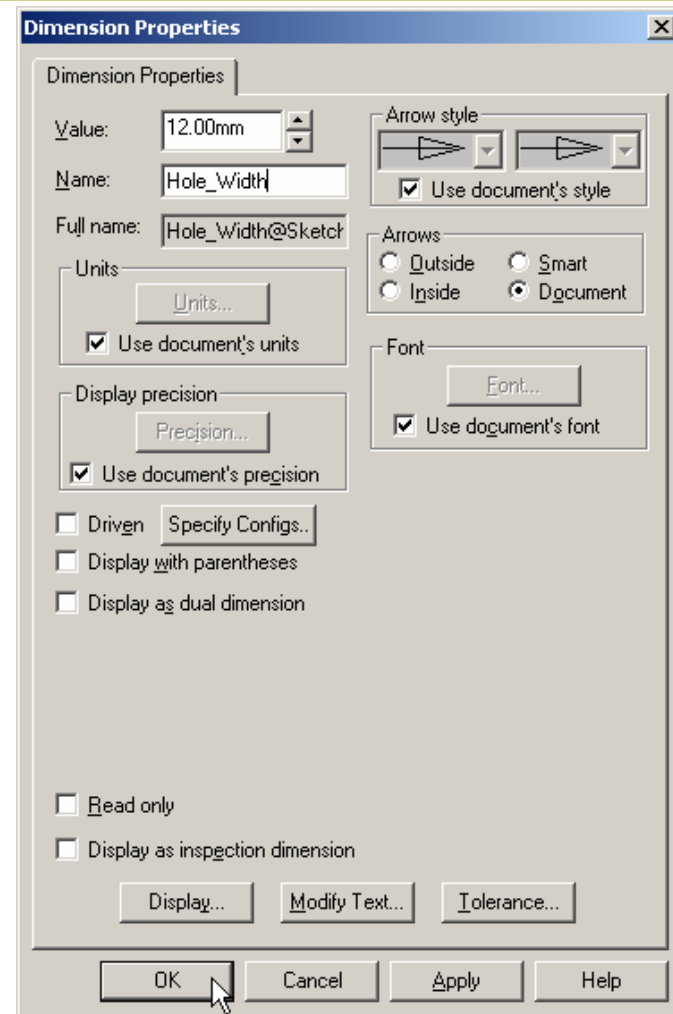
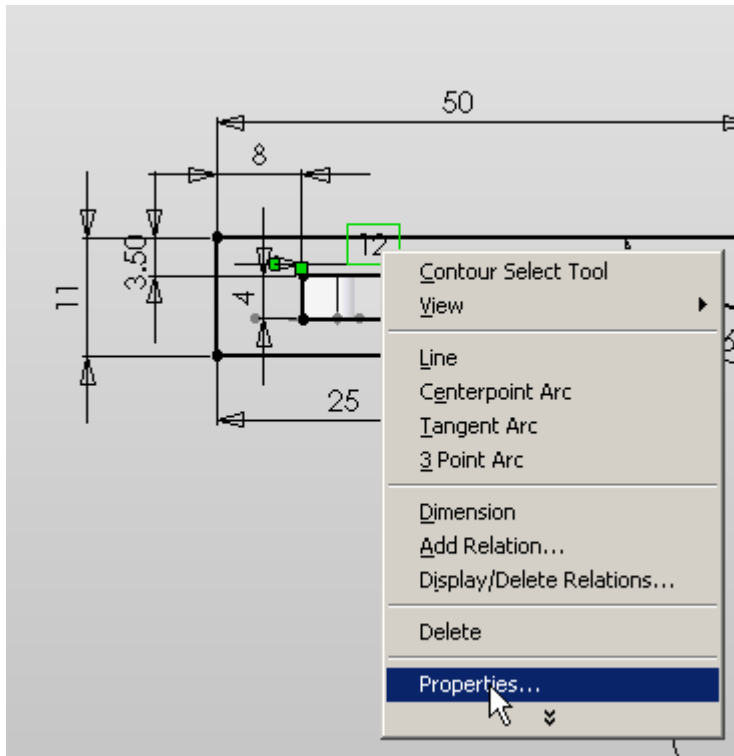
Under Defined Sketch



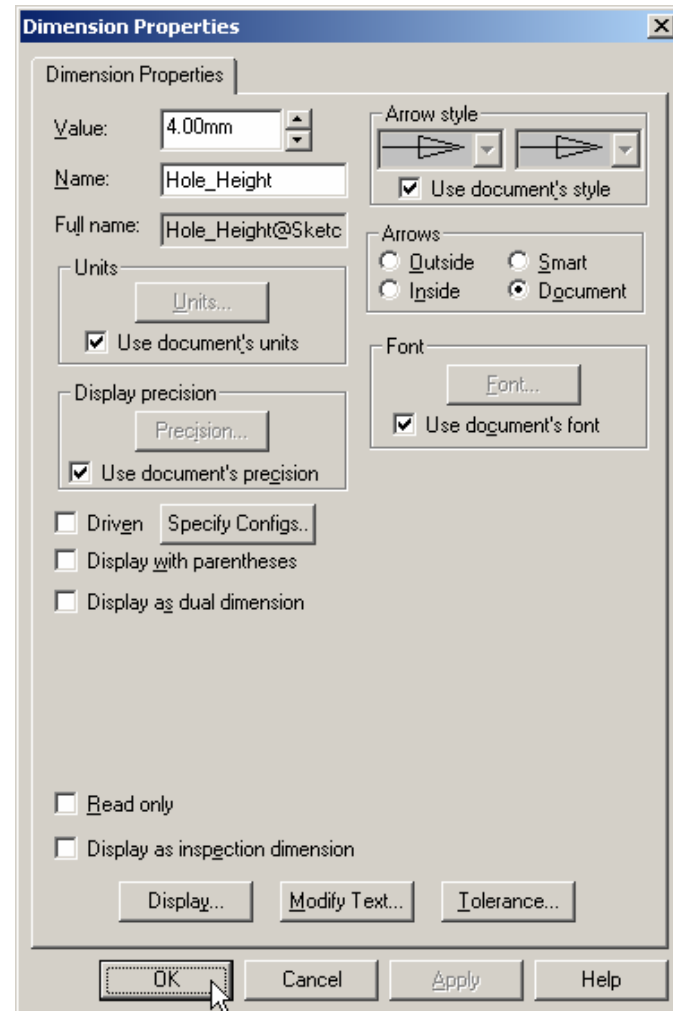
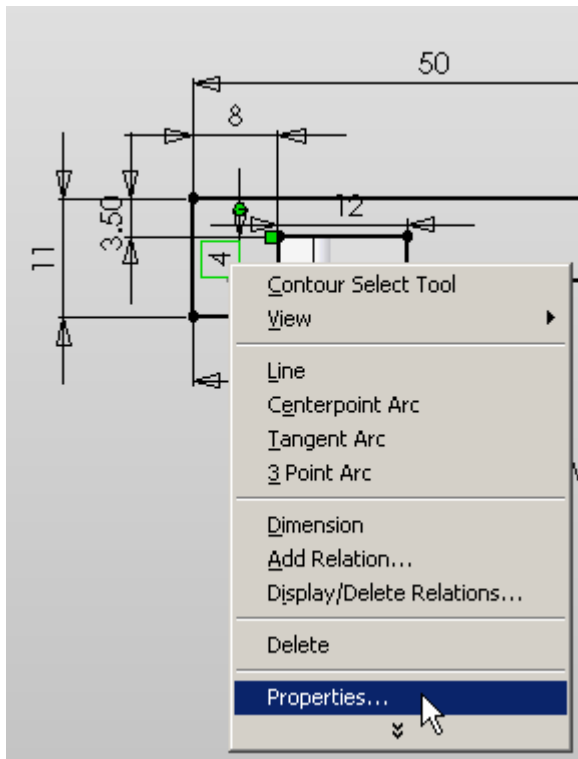
Fully Defined Sketch



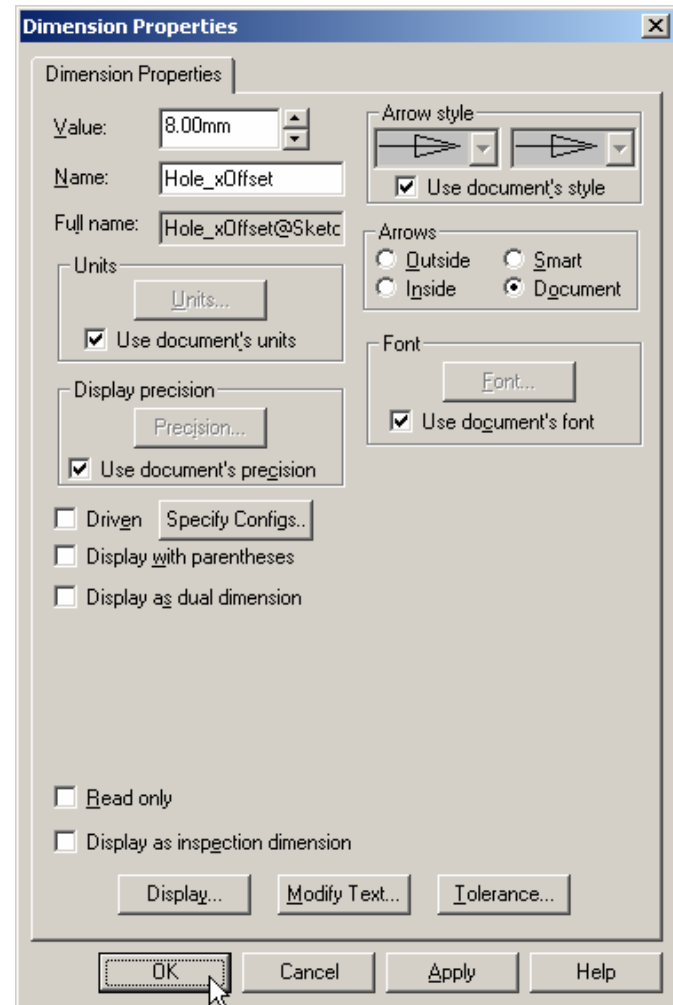
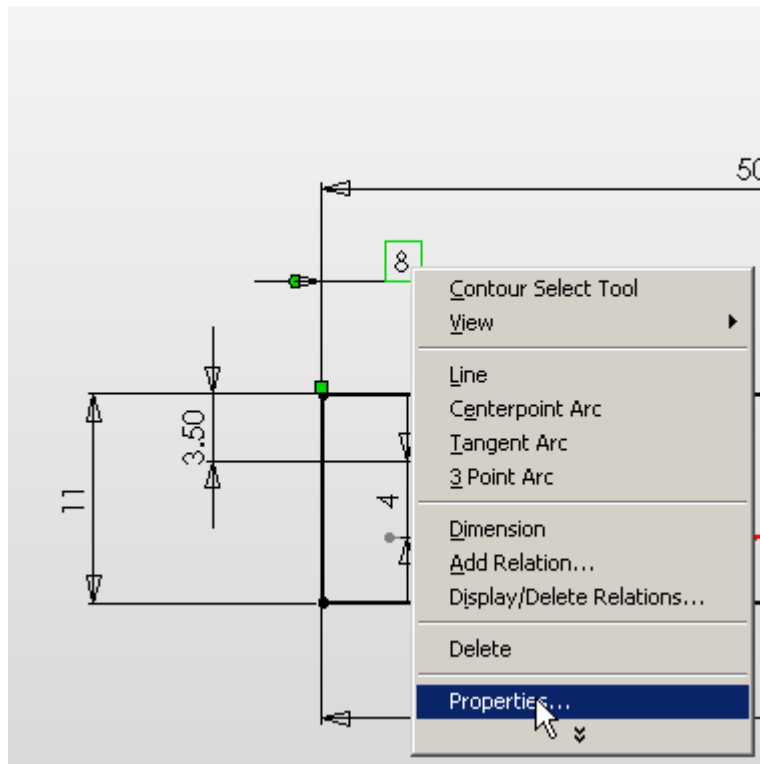
Dimension Properties



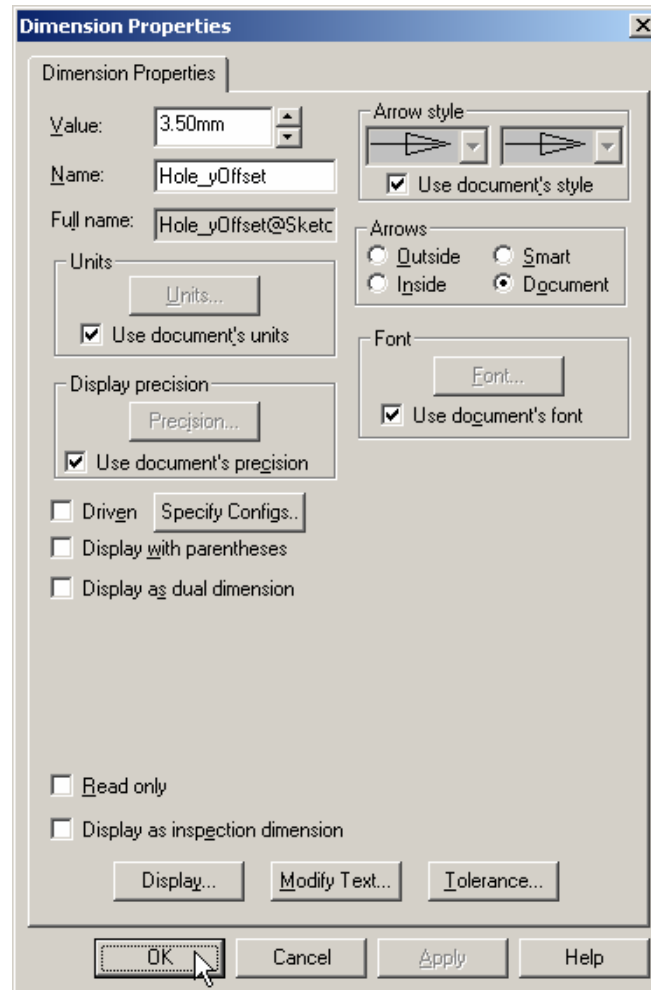
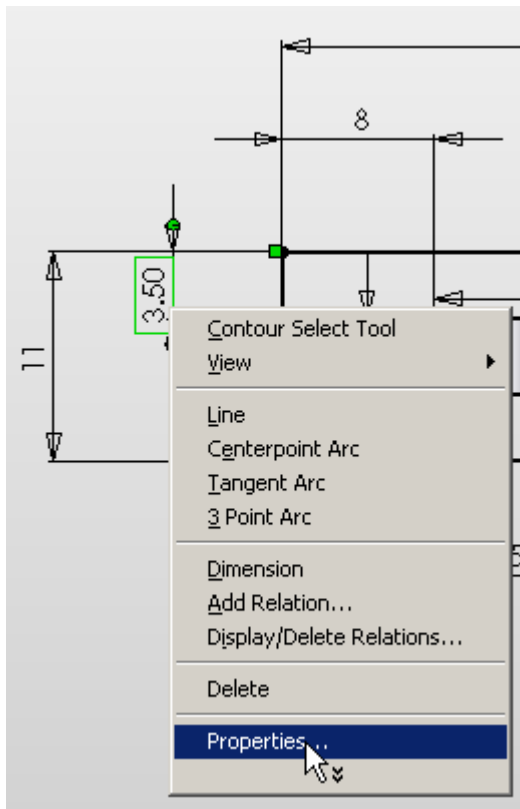
Dimension Properties



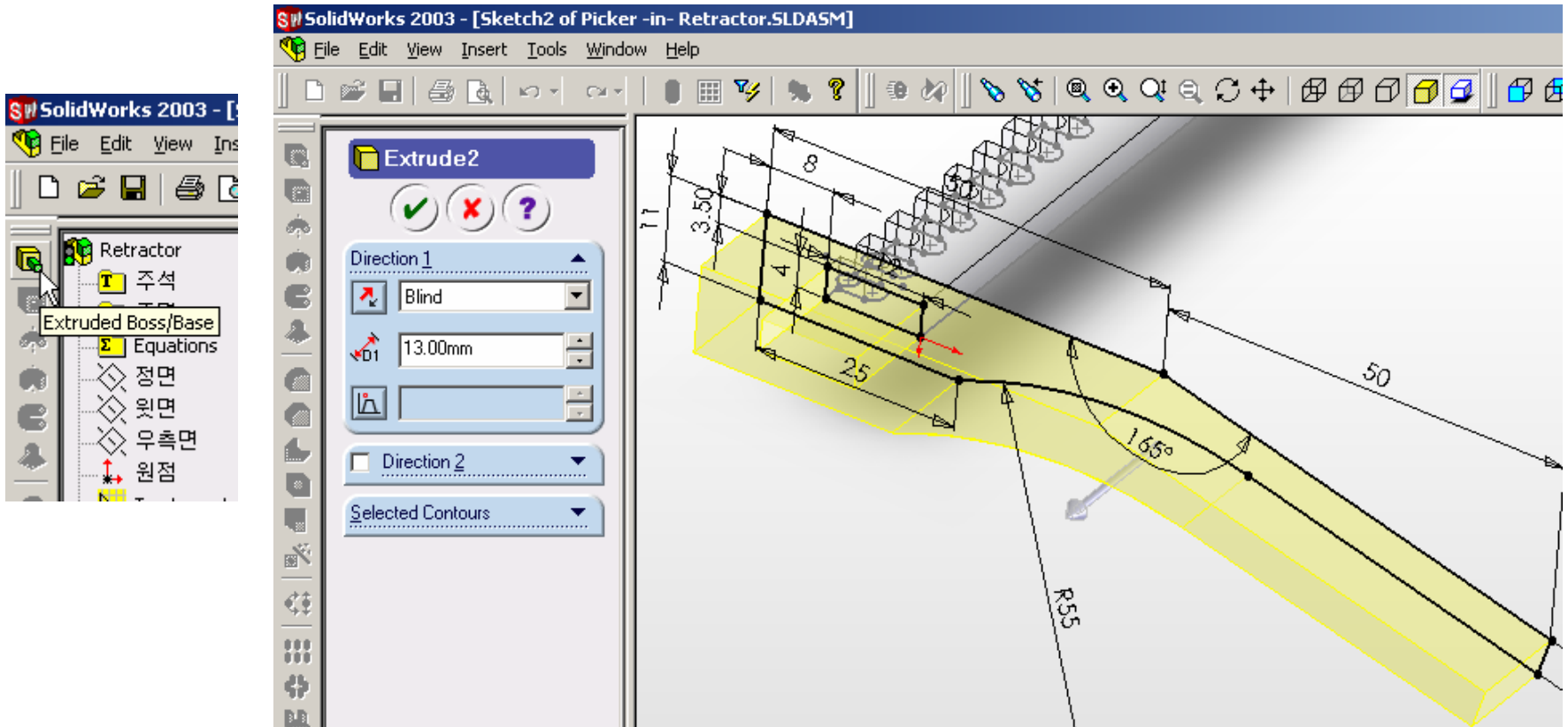
Dimension Properties



Dimension Properties



Extrude



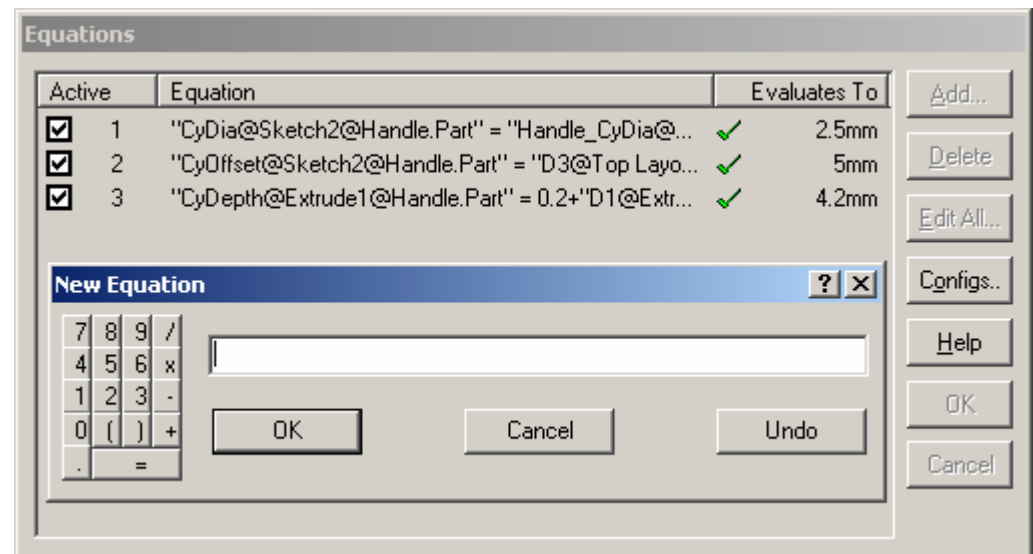
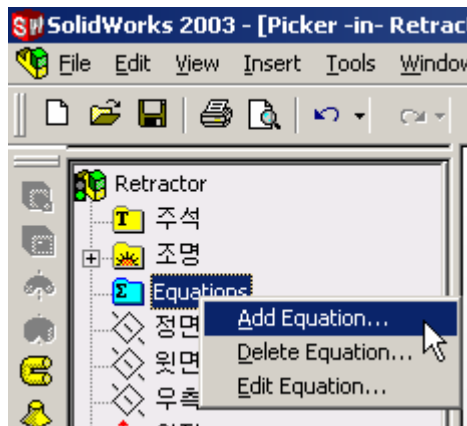
Equation 4



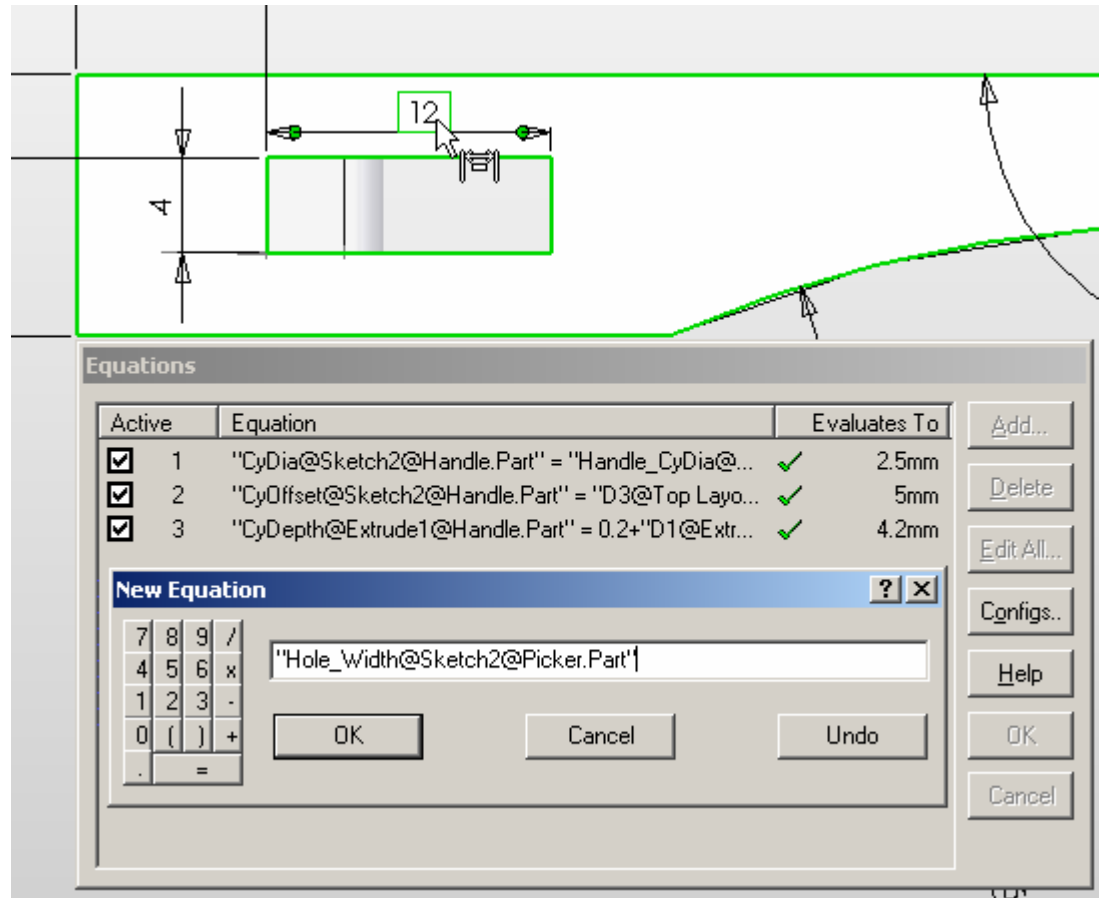
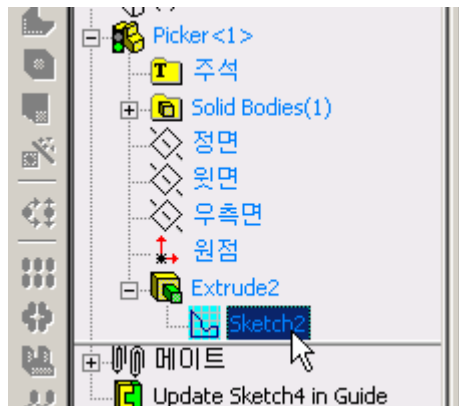
Hole Width

Add Equation

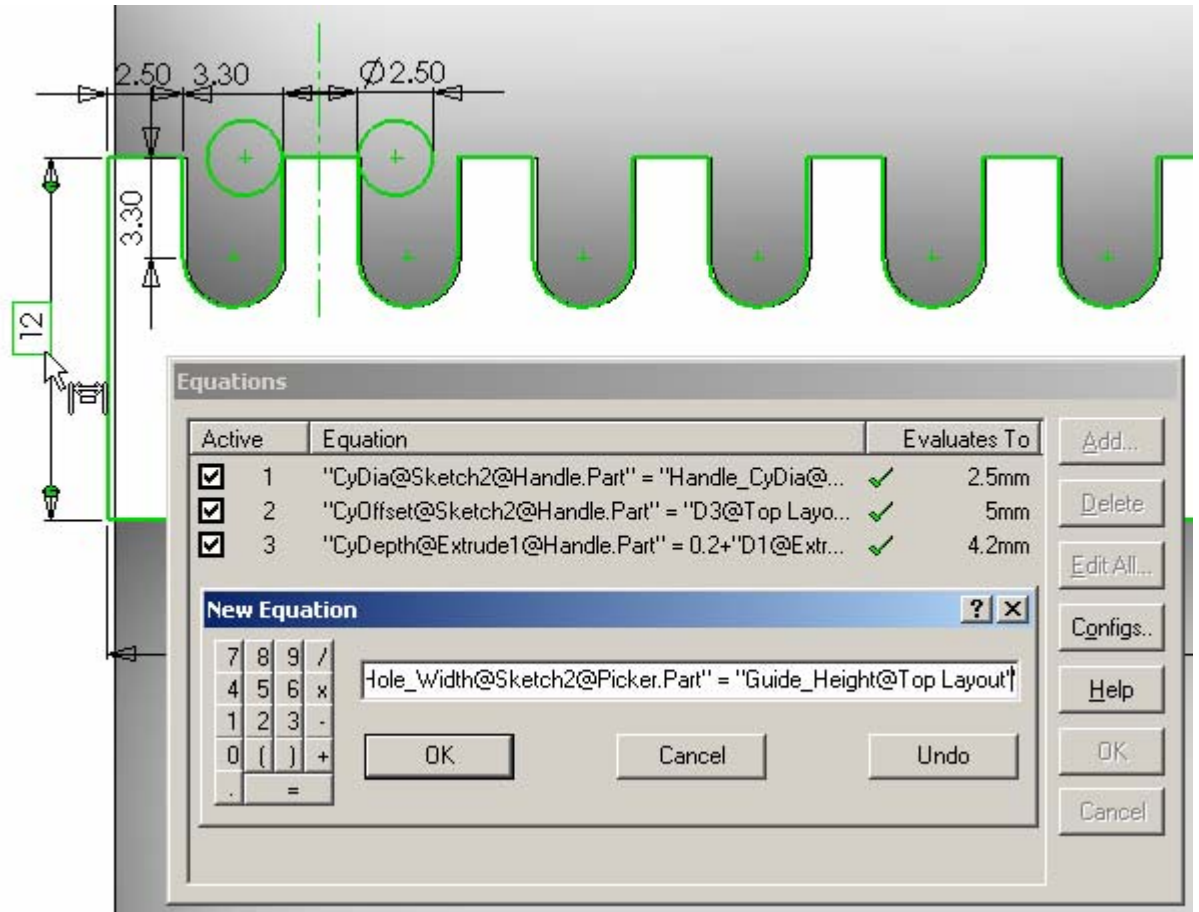
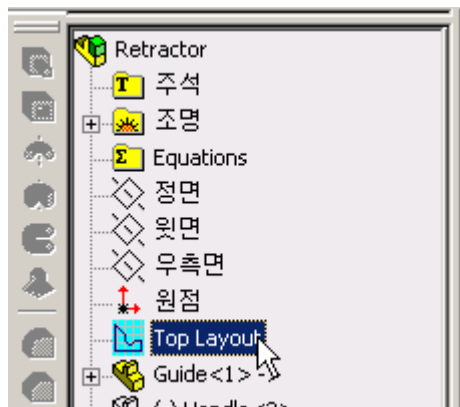
- "Hole_Width@Sketch2@Picker.Part"
= "Guide_Height@Top Layout"



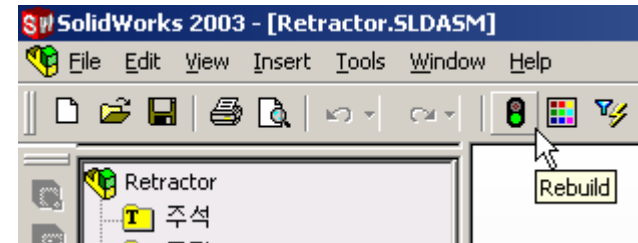
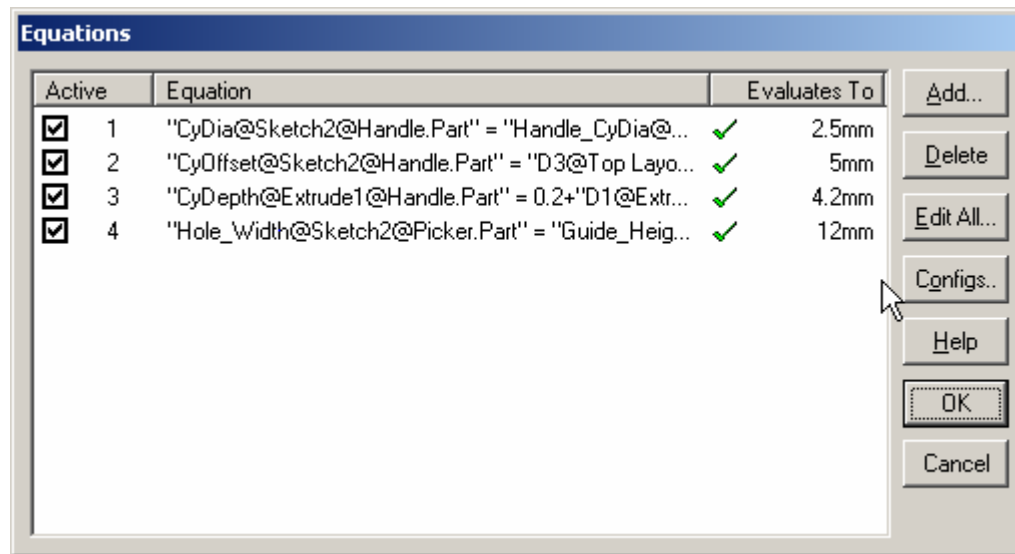
Select Dimension



Select Dimension



Rebuild Assembly



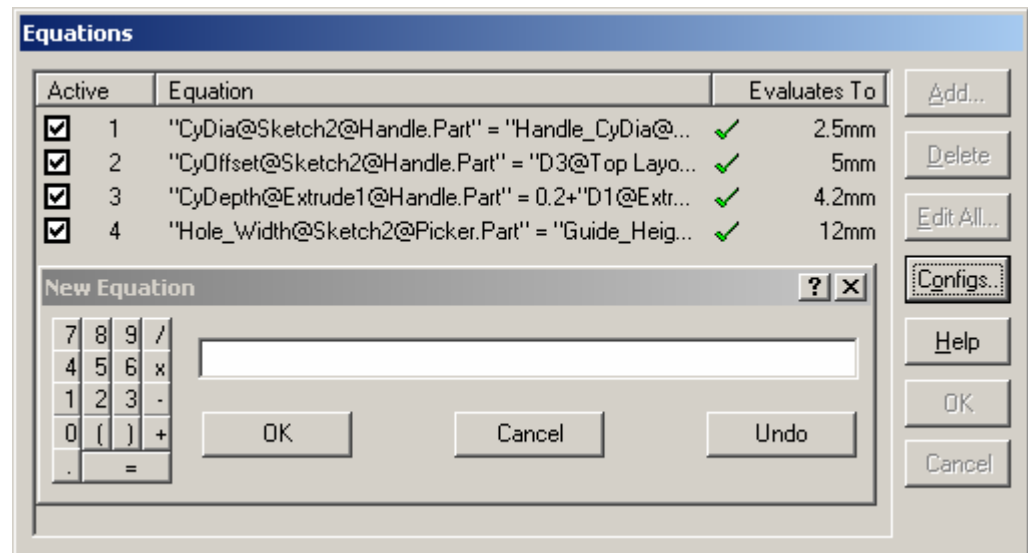
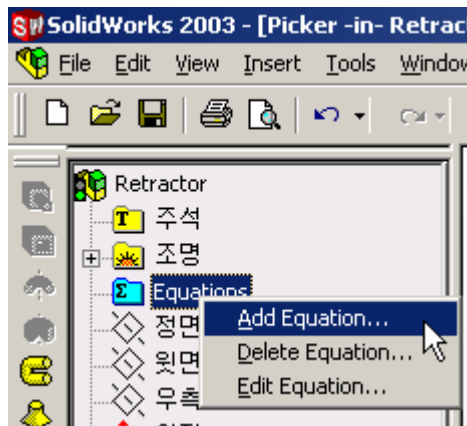
Equation 5



Hole_Height

Add Equation

- "Hole_Width@Sketch2@Picker.Part"
= "Guide_Height@Top Layout"



Select Dimension

The image shows a CAD software interface with a 2D sketch of a mechanical part. The sketch includes several dimensions: a total width of 50, a hole diameter of 8, a hole offset of 12, a hole width of 25, and a hole height of 3.50. A 165-degree angle is also indicated. A red box highlights the hole height dimension, and a tooltip shows the equation: "Hole_Height@Sketch2 of Picker<1>".

The Equations dialog box is open, displaying a list of active equations:

Active	Equation	Evaluates To
<input checked="" type="checkbox"/>	"CyDia@Sketch2@Handle.Part" = "Handle_CyDia@..."	2.5mm
<input checked="" type="checkbox"/>	"CyOffset@Sketch2@Handle.Part" = "D3@Top Layo..."	5mm
<input checked="" type="checkbox"/>	"CyDepth@Extrude1@Handle.Part" = 0.2+"D1@Extr..."	4.2mm
<input checked="" type="checkbox"/>	"Hole_Width@Sketch2@Picker.Part" = "Guide_Heig..."	12mm

The New Equation dialog box is also open, showing the equation: "Hole_Height@Sketch2@Picker.Part" =

Select Dimension

The screenshot shows a CAD software interface with a 3D model of a gear-like part. A dimension line is drawn across the part, and a tooltip indicates the dimension is 'Guide_Depth@Extrude1 of Guide<1>'. The 'Equations' dialog box is open, displaying a list of active equations and their evaluated values. The 'New Equation' dialog box is also open, showing the equation being entered: 'nt@Sketch2@Picker.Part' = 'Guide_Depth@Extrude1@Guide.Part'.

Active	Equation	Evaluates To
<input checked="" type="checkbox"/>	"CyDia@Sketch2@Handle.Part" = "Handle_CyDia@..."	2.5mm
<input checked="" type="checkbox"/>	"CyOffset@Sketch2@Handle.Part" = "D3@Top Layo..."	5mm
<input checked="" type="checkbox"/>	"CyDepth@Extrude1@Handle.Part" = 0.2*"Guide_De..."	4.2mm
<input checked="" type="checkbox"/>	"Hole_Width@Sketch2@Picker.Part" = "Guide_Heig..."	12mm

New Equation

nt@Sketch2@Picker.Part" = "Guide_Depth@Extrude1@Guide.Part"

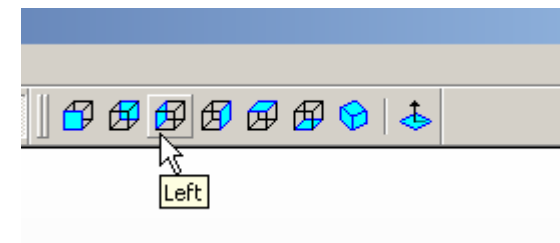
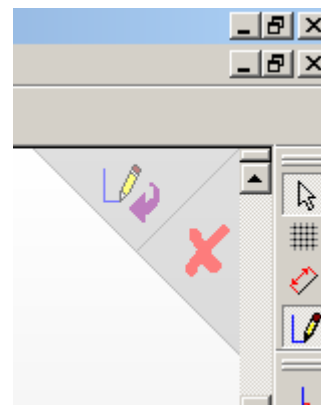
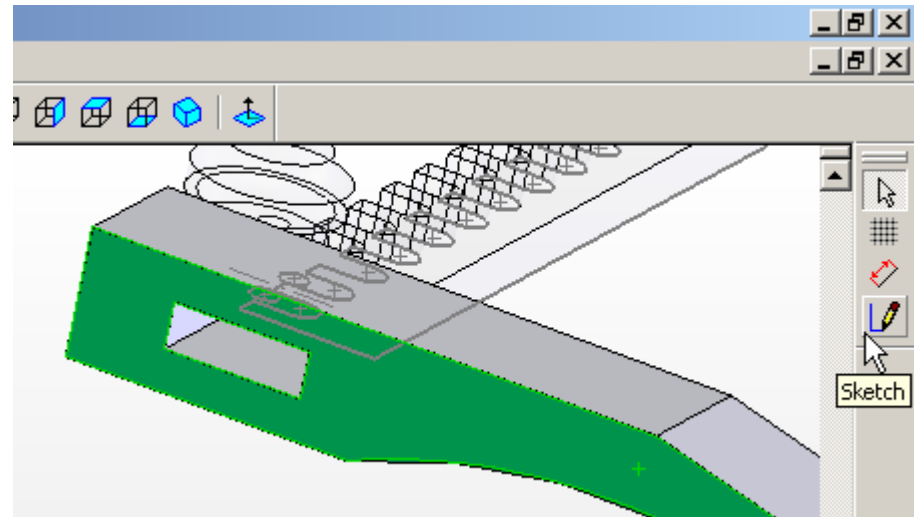
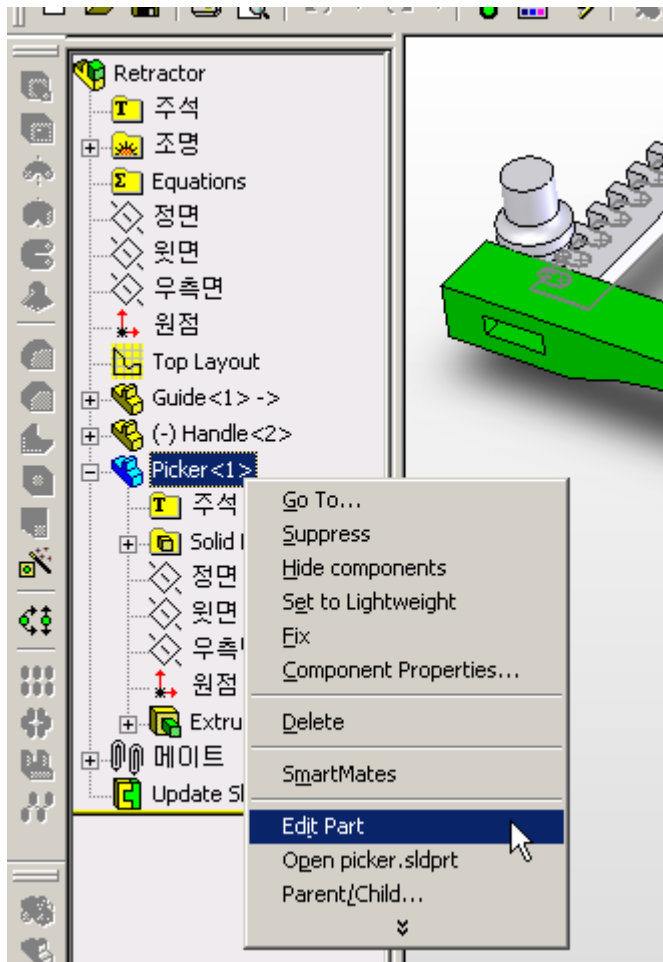
OK Cancel Undo

Edit Part

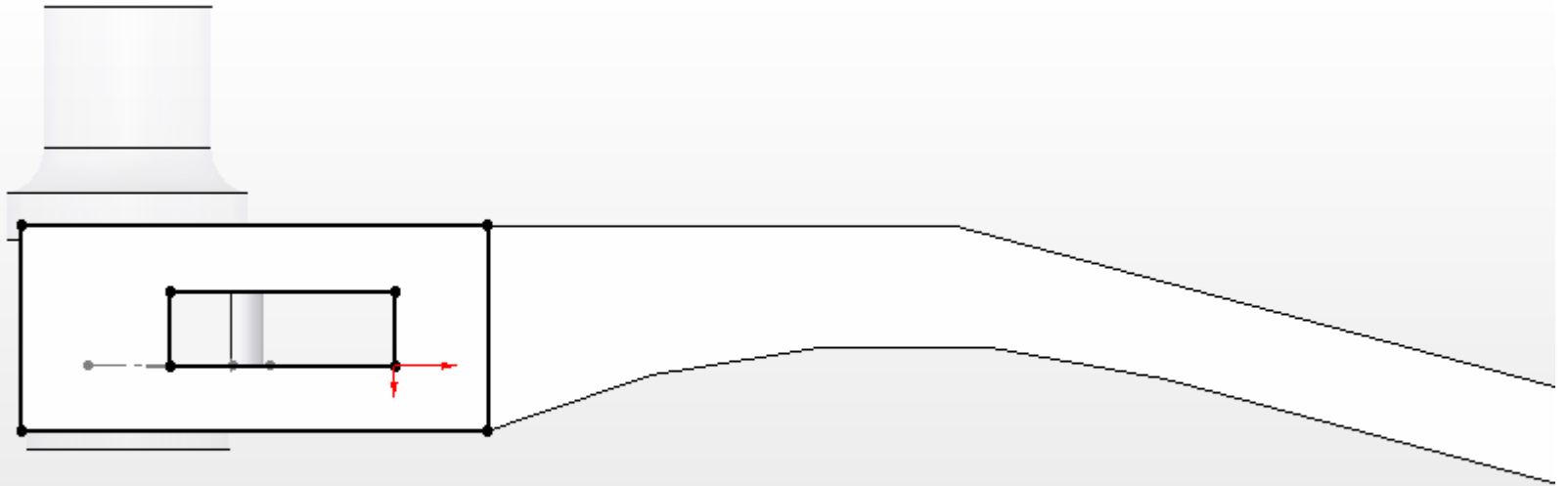


Picker.SLDPRT

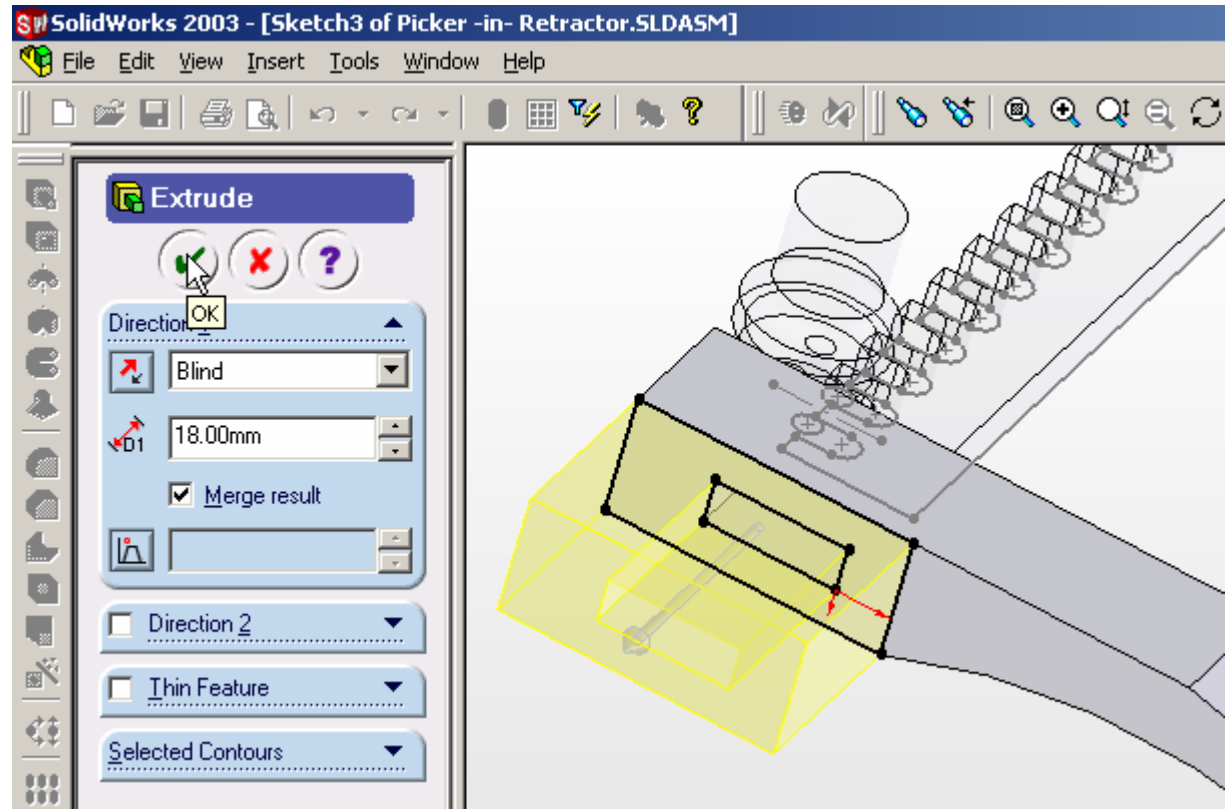
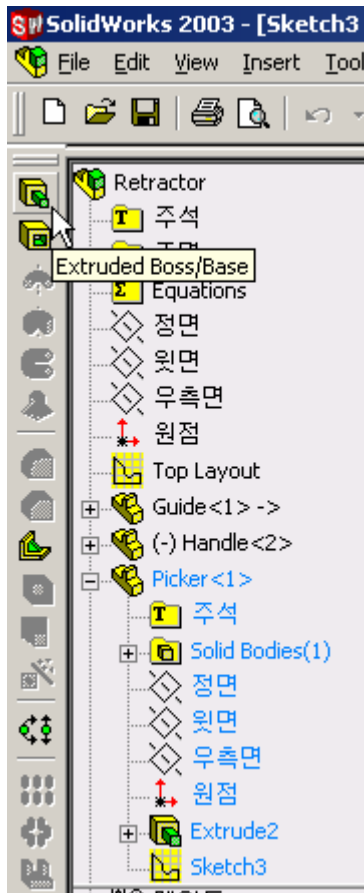
Edit Part & Sketch



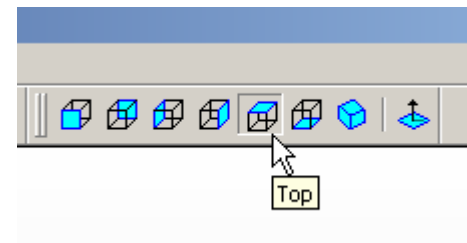
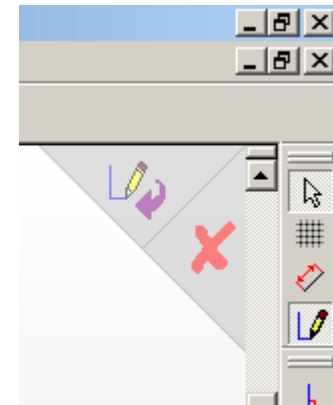
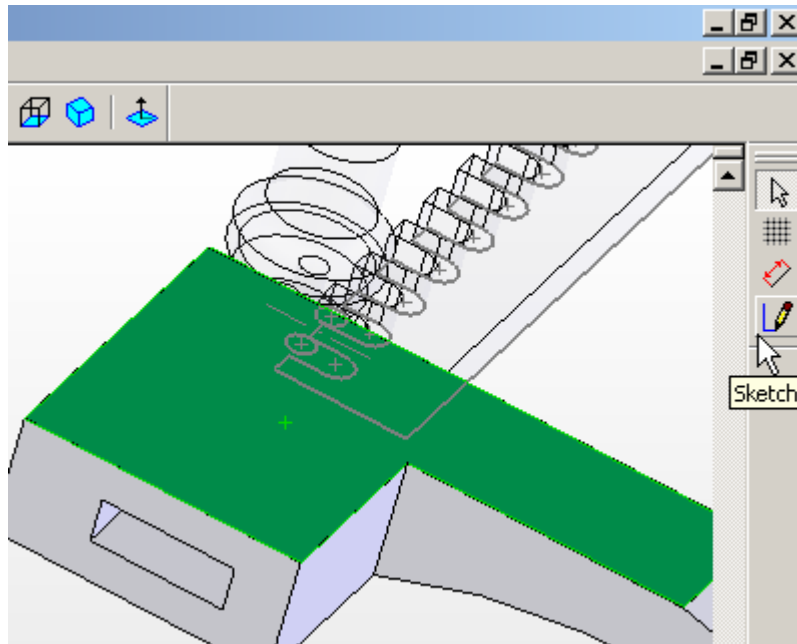
Sketch



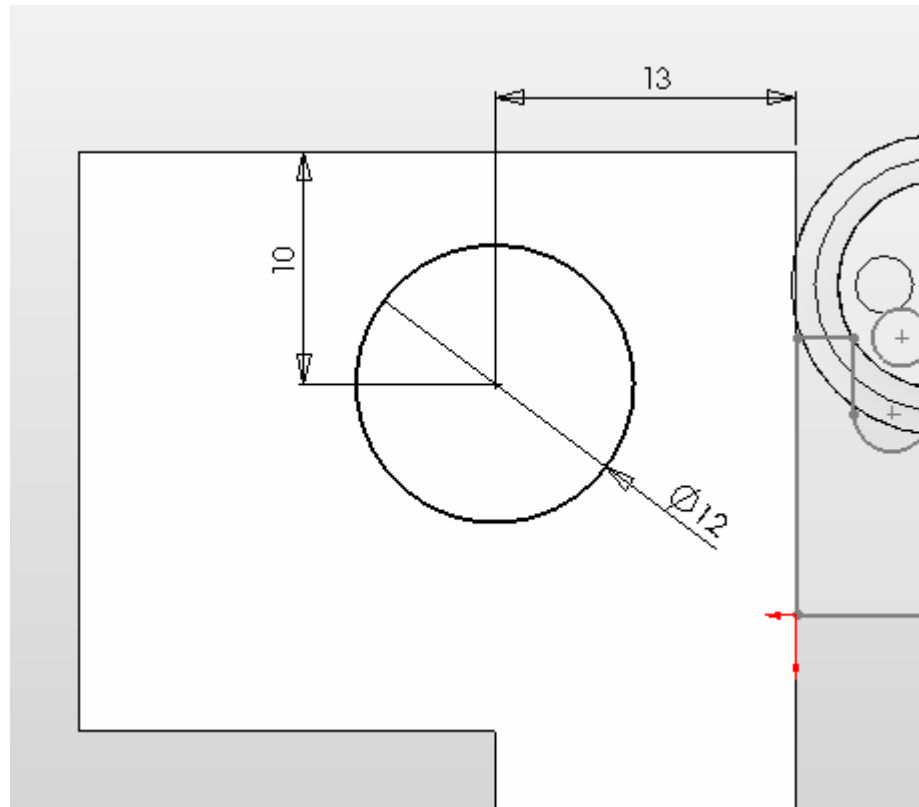
Extrude



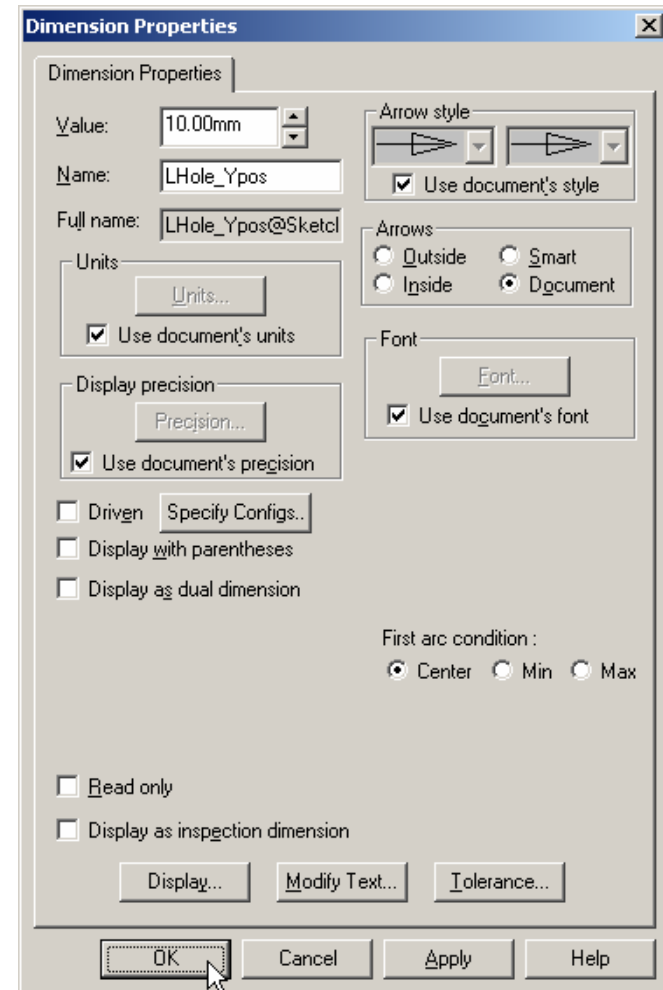
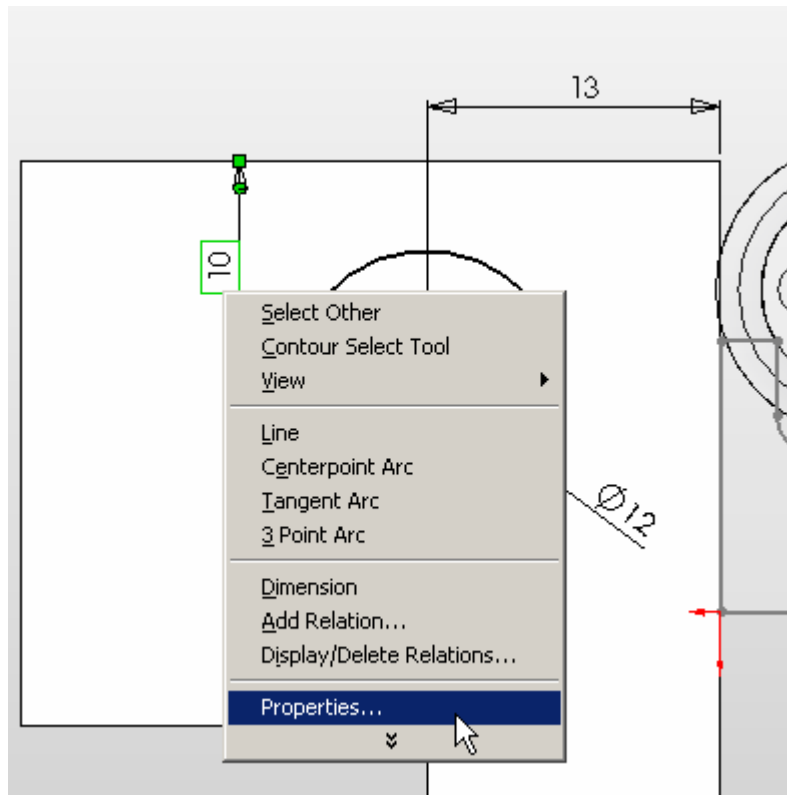
Sketch on Part



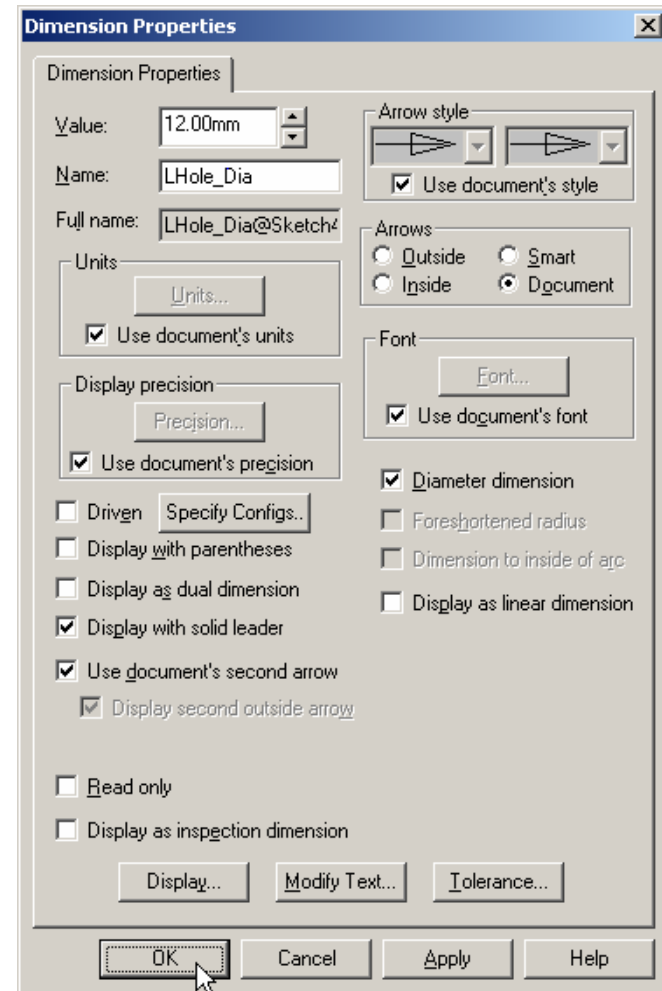
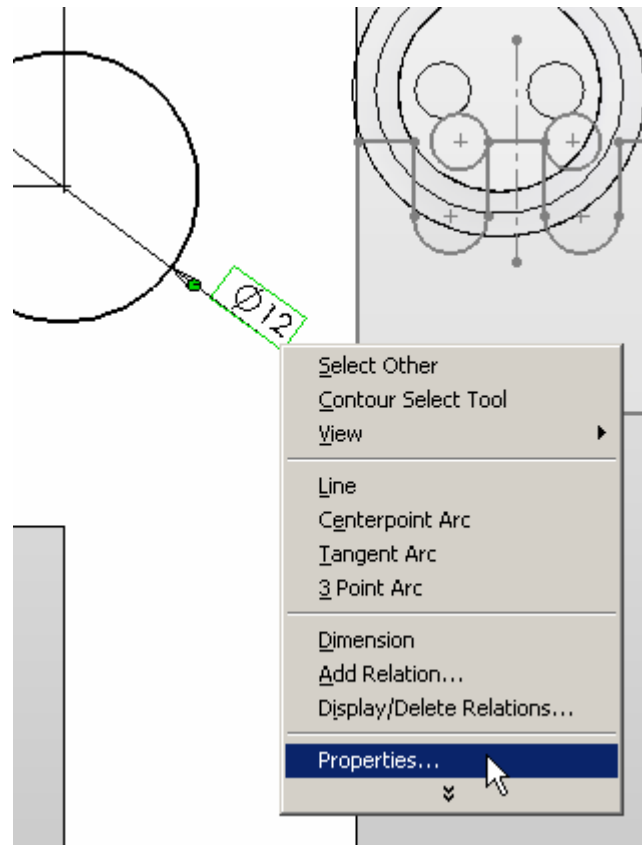
Sketch



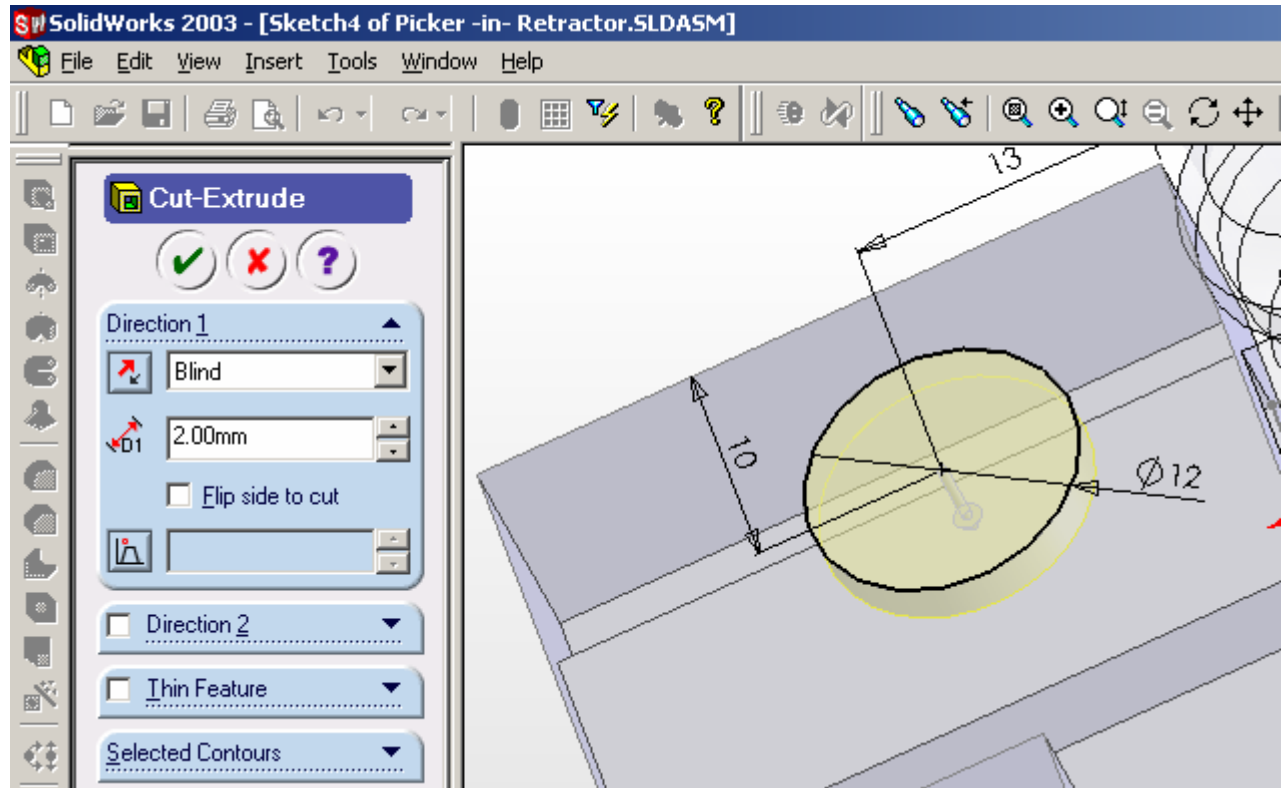
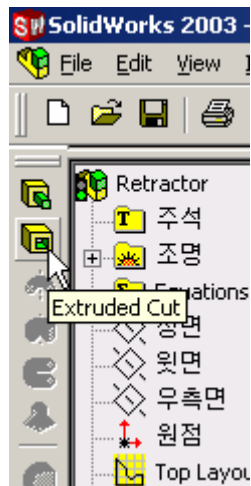
Dimension Properties



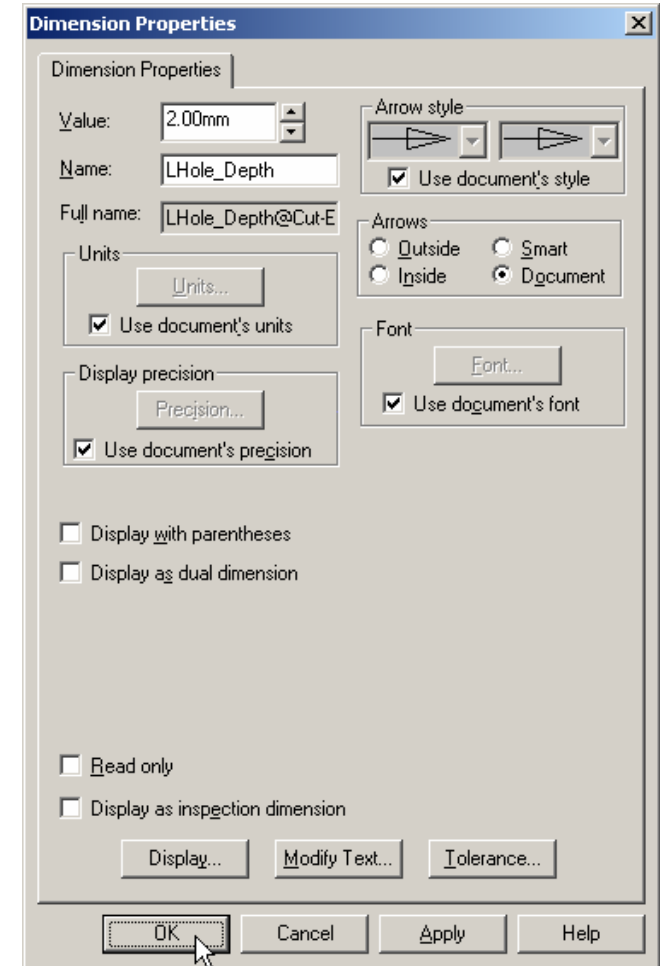
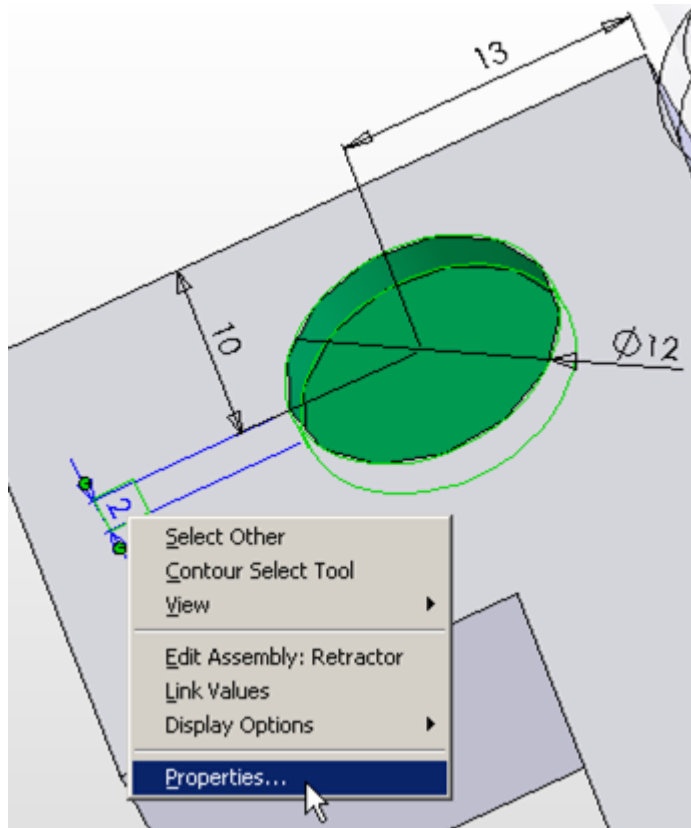
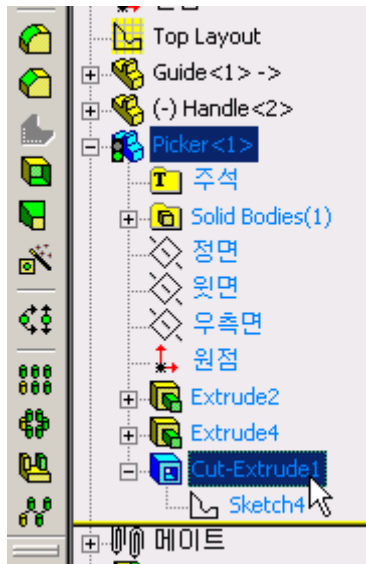
Dimension Properties



Cut-Extrude



Dimension Properties



Equation 6,7,8

"LHole_Dia@Sketch3@Picker.Part"
= "Handle_Dia@Sketch2@Handle.Part "
+ 2 * "Handle_DiaOffset@Sketch4@Handle.Part" + 0.4

"LHole_Ypos@Sketch3@Picker.Part"
= "Hole_xOffset@Sketch1 @Picker.Part "

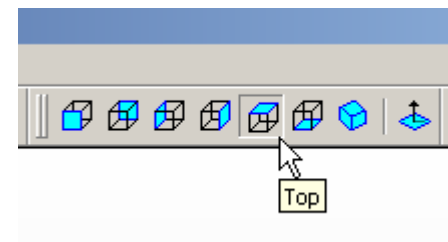
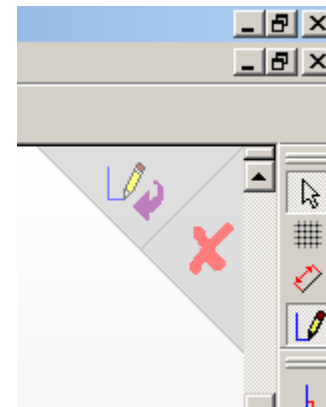
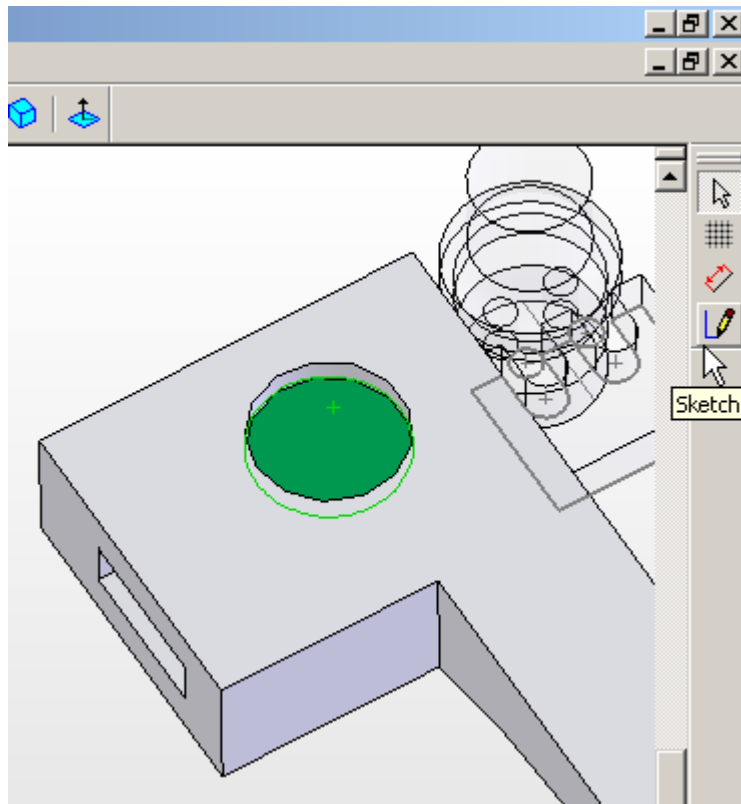
"LHole_Depth@Cut-Extrude1 @Picker.Part"
= "Hole_yOffset@Sketch1 @Picker.Part" -
"Handle_Height@Extrude3@Handle.Part"

Edit Part

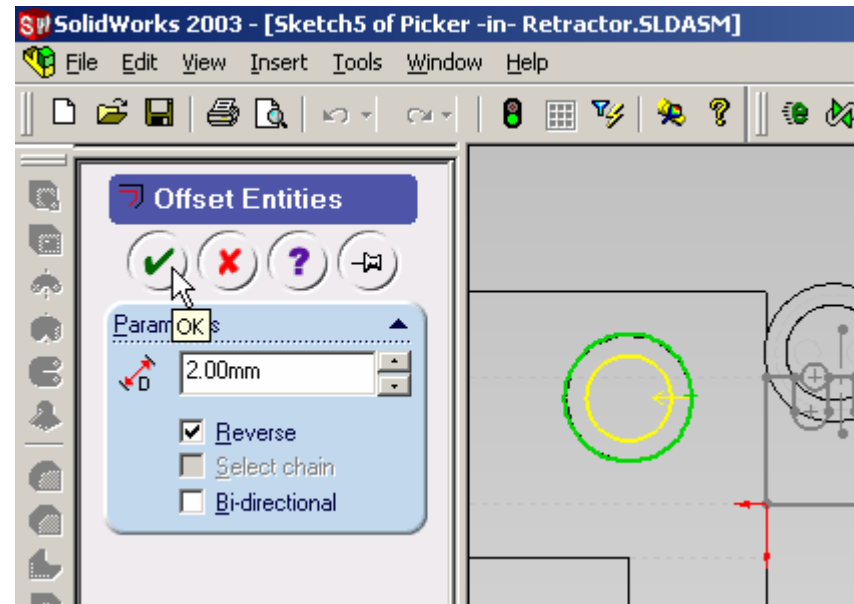
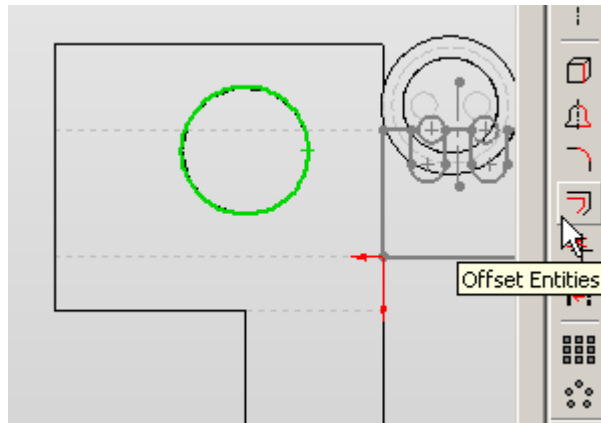


Picker.SLDPRT

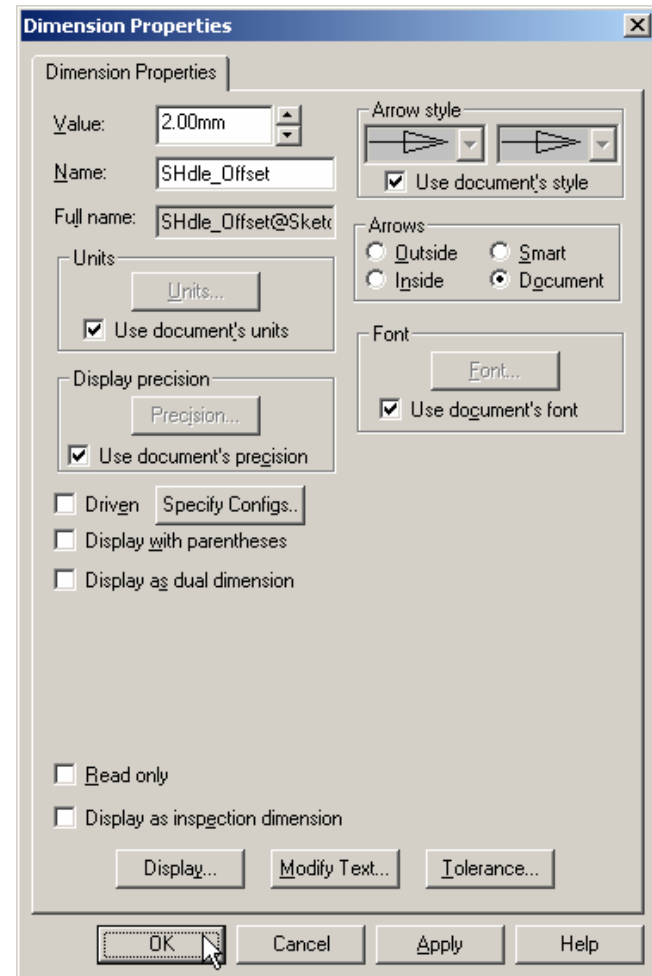
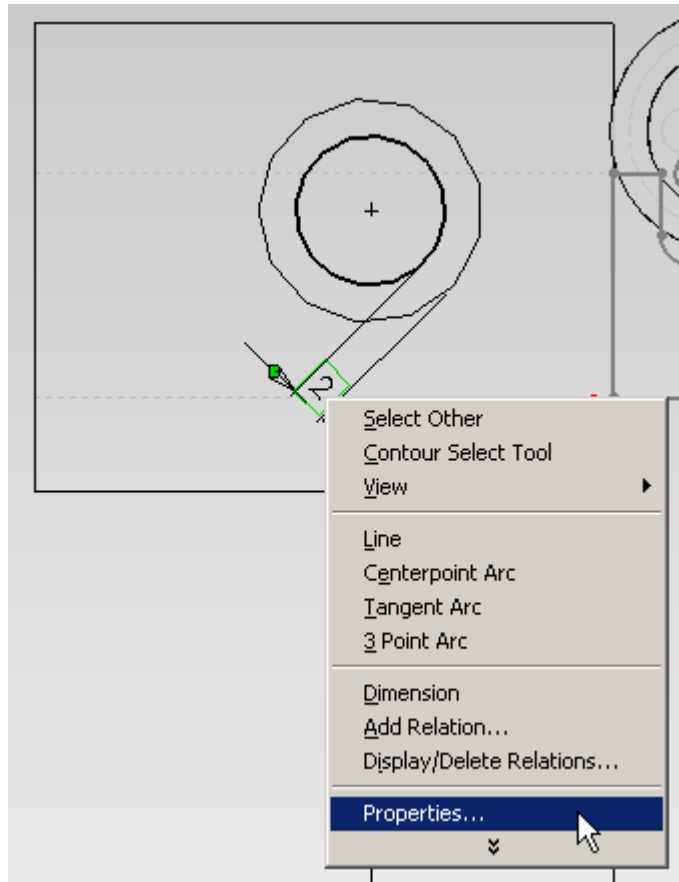
Sketch on the part



Offset Entities



Dimension Properties



Cut-Extrude



Equation 9

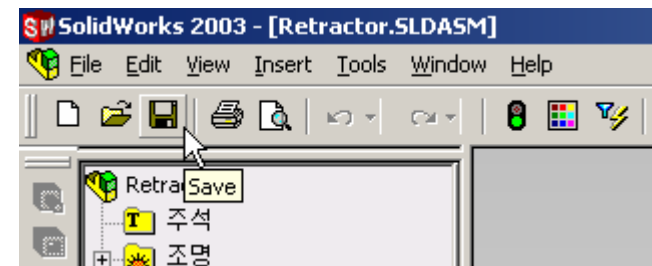
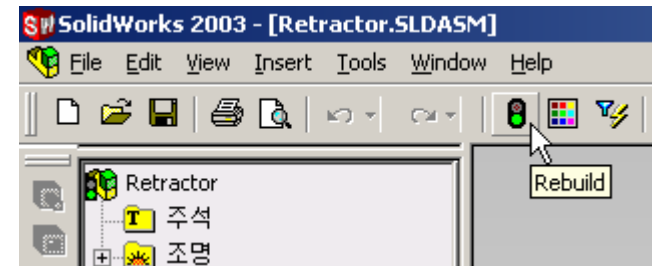
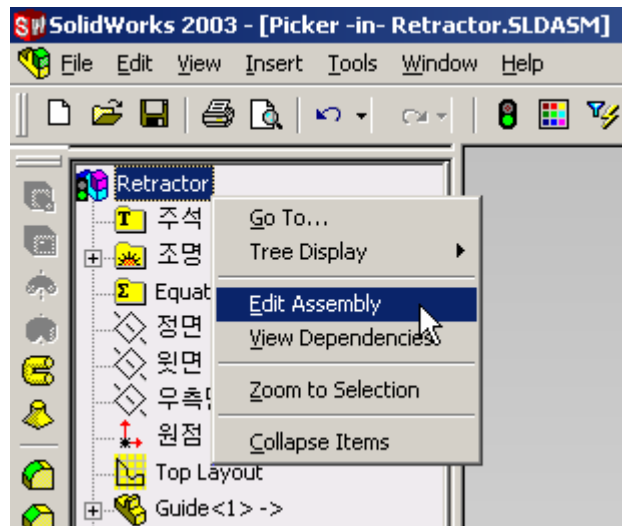
"SHole_Offset@Sketch4@Picker.Part"
="Handle_DiaOffset@Sketch4@Handle.Part"
+0.2

Update Assembly

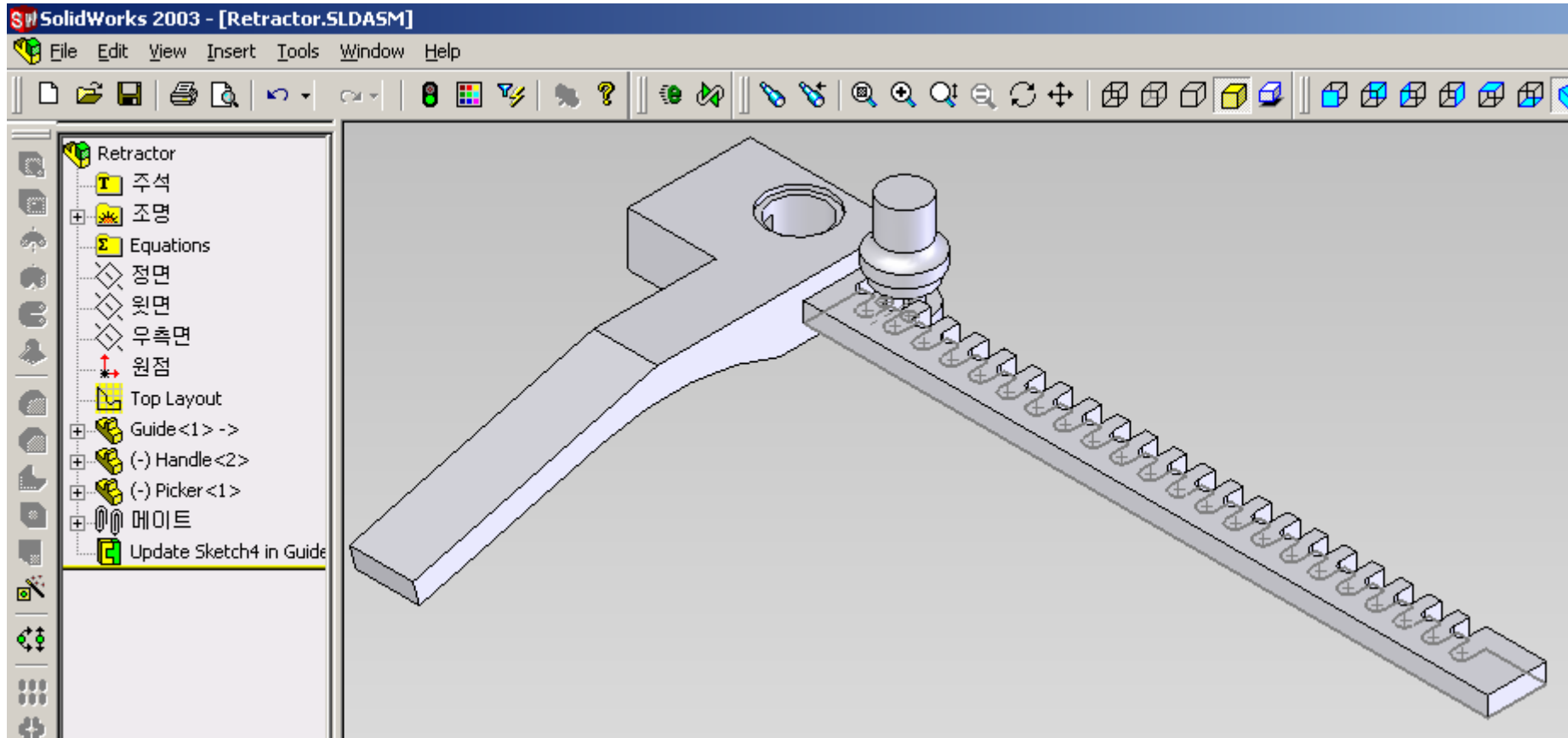


Retractor.SLDASM

Save Assembly



Update Assembly



To Be Continue..

