



# HOW TO DESIGN TIR LENS FROM TRACEPRO?

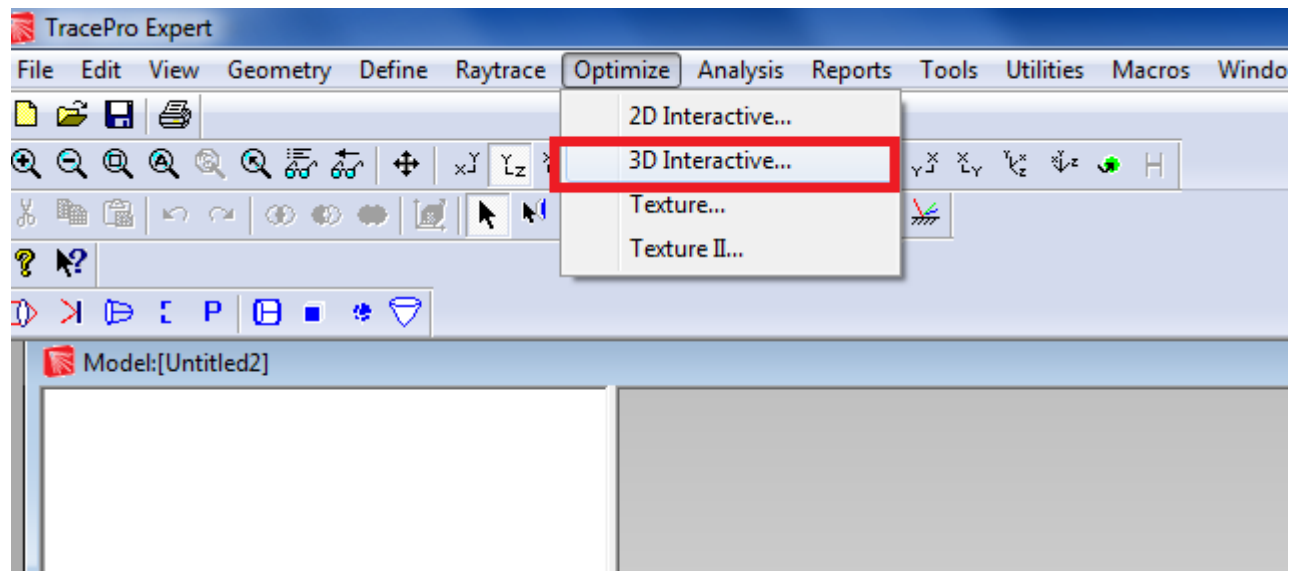
## DESIGN TIR LENS

- Modelling TIR Lens using TracePro is very easy.
- It is in-Built Feature of TracePro using 3D Optimizer.
- By using 3D optimizer, you can optimize the Shape as per Target requirement of Viewing Angle and Beam Profile.



# DESIGN

- Launch TracePro > 3D Optimizer

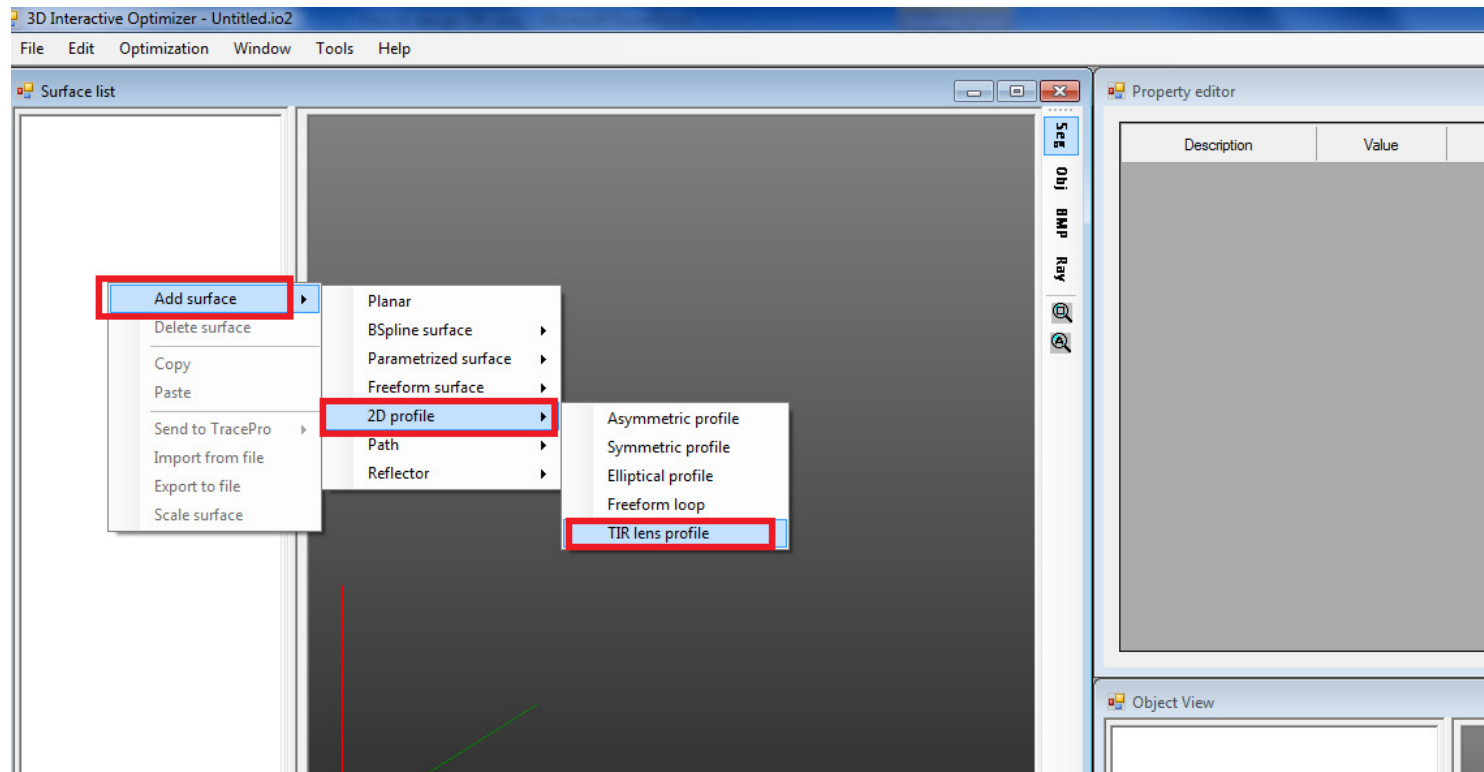


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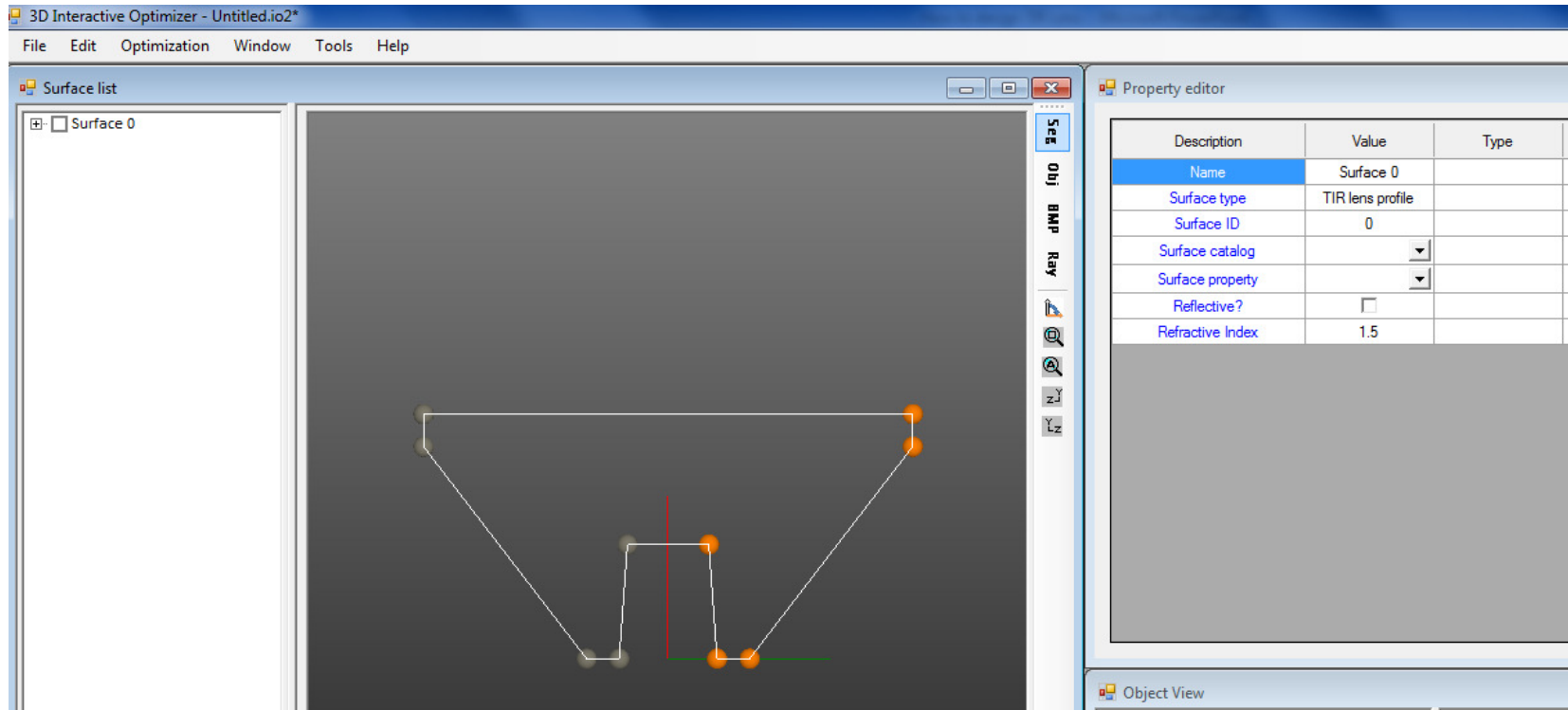


# 3D OPTIMIZER

- In 3D Optimizer > Surface List Window
- Right Click : Add Surface > 2D profile > TIR Lens Profile



# TIR LENS

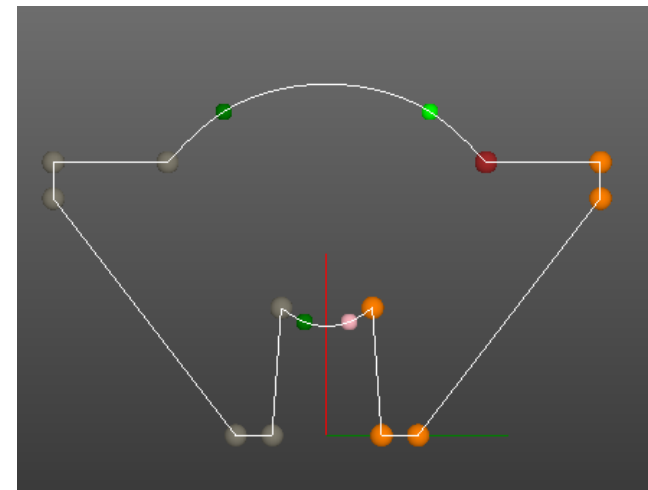
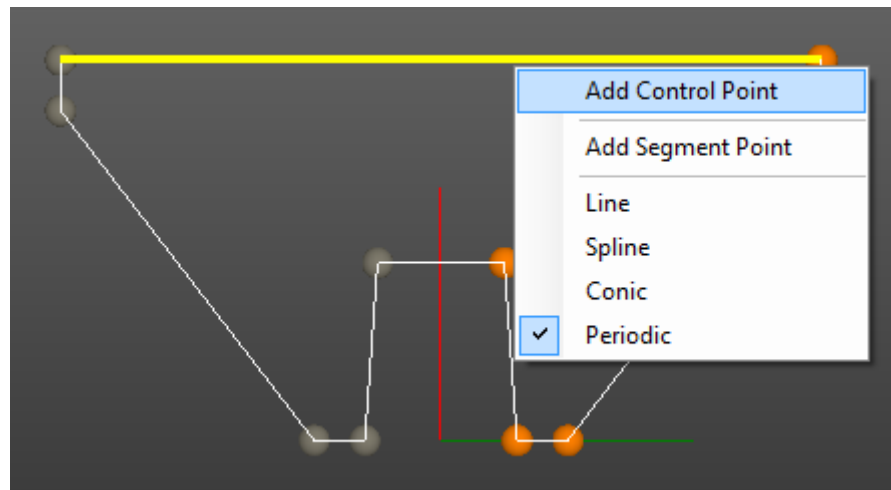


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# MODIFY TIR LENS

- Use : Add Control Point & Add Segment Point

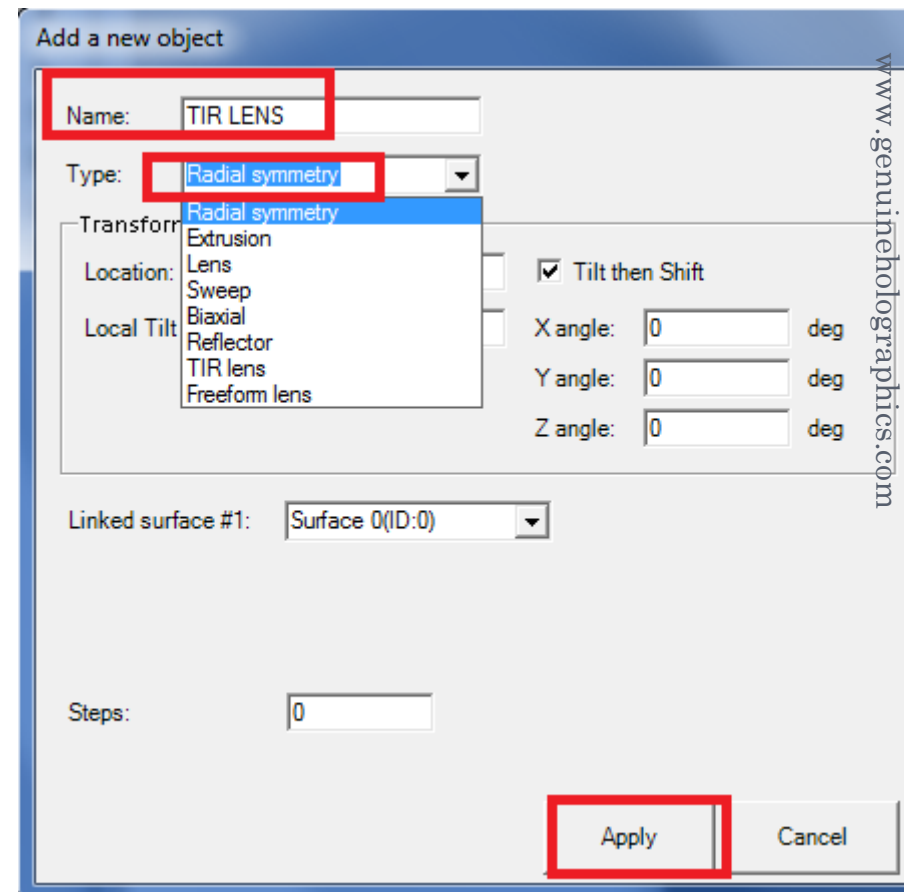
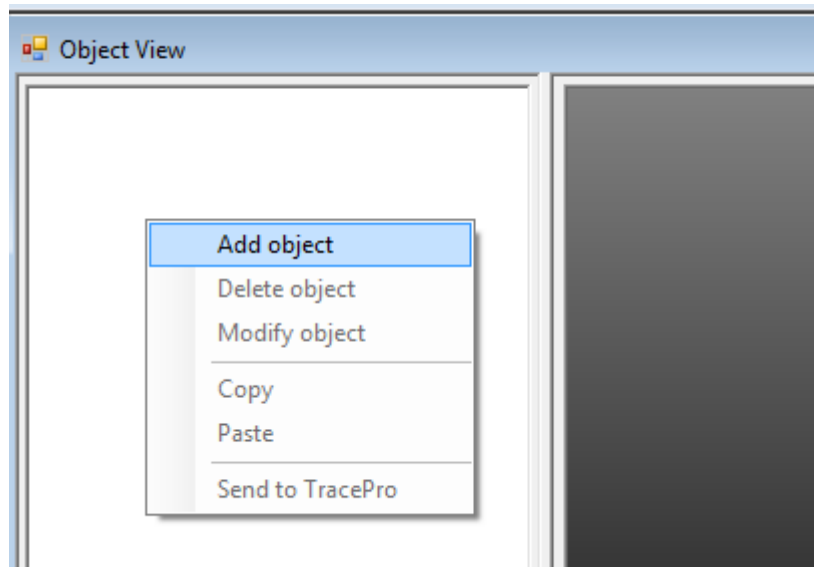


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# DESIGN 3D MODEL

- Go to “Object View” > Add Object



# DESIGN 3D MODEL

The screenshot displays the 3D Interactive Optimizer (io2) interface. The main window is divided into several panels:

- Surface list:** Shows a single surface named "Surface 0".
- Property editor:** A table defining the parameters for the "TIR LENS".
- Object View:** Shows a 3D rendered view of the lens model.

Description	Value	Type	Lower limit / Pickup	Upper limit
Name	TIR LENS			
ID	0			
Local origin	(0,0,0)			
Local tilt center	(0,0,0)			
Tilt X Angle	0			
Tilt Y Angle	0			
Tilt Z Angle	0			
Tilt then Shift	<input checked="" type="checkbox"/>			
Material catalog	None			
Material property				
Refractive index	1.5			
Steps	0			

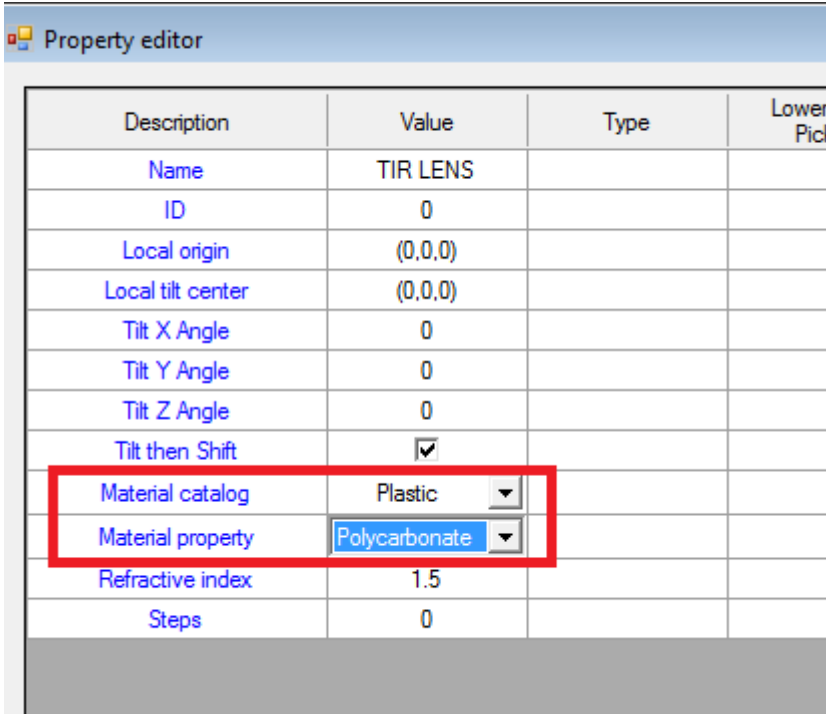
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# DEFINE MATERIAL

- Go to Property Editor > Select Material from Catalog



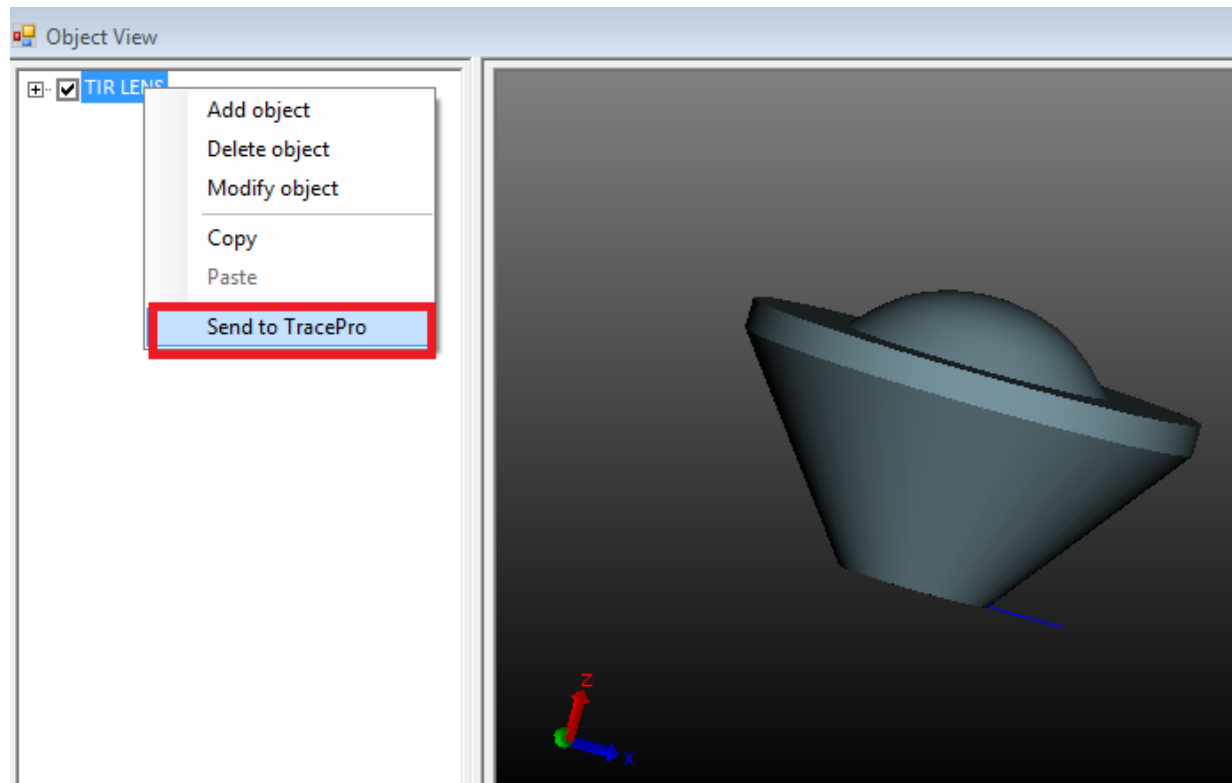
The screenshot shows a window titled "Property editor" with a table of properties. The table has four columns: Description, Value, Type, and Lower Pick. The "Material catalog" and "Material property" rows are highlighted with a red box, indicating the selection of "Plastic" and "Polycarbonate" respectively.

Description	Value	Type	Lower Pick
Name	TIR LENS		
ID	0		
Local origin	(0,0,0)		
Local tilt center	(0,0,0)		
Tilt X Angle	0		
Tilt Y Angle	0		
Tilt Z Angle	0		
Tilt then Shift	<input checked="" type="checkbox"/>		
Material catalog	Plastic		
Material property	Polycarbonate		
Refractive index	1.5		
Steps	0		



# EXPORT TO TRACEPRO

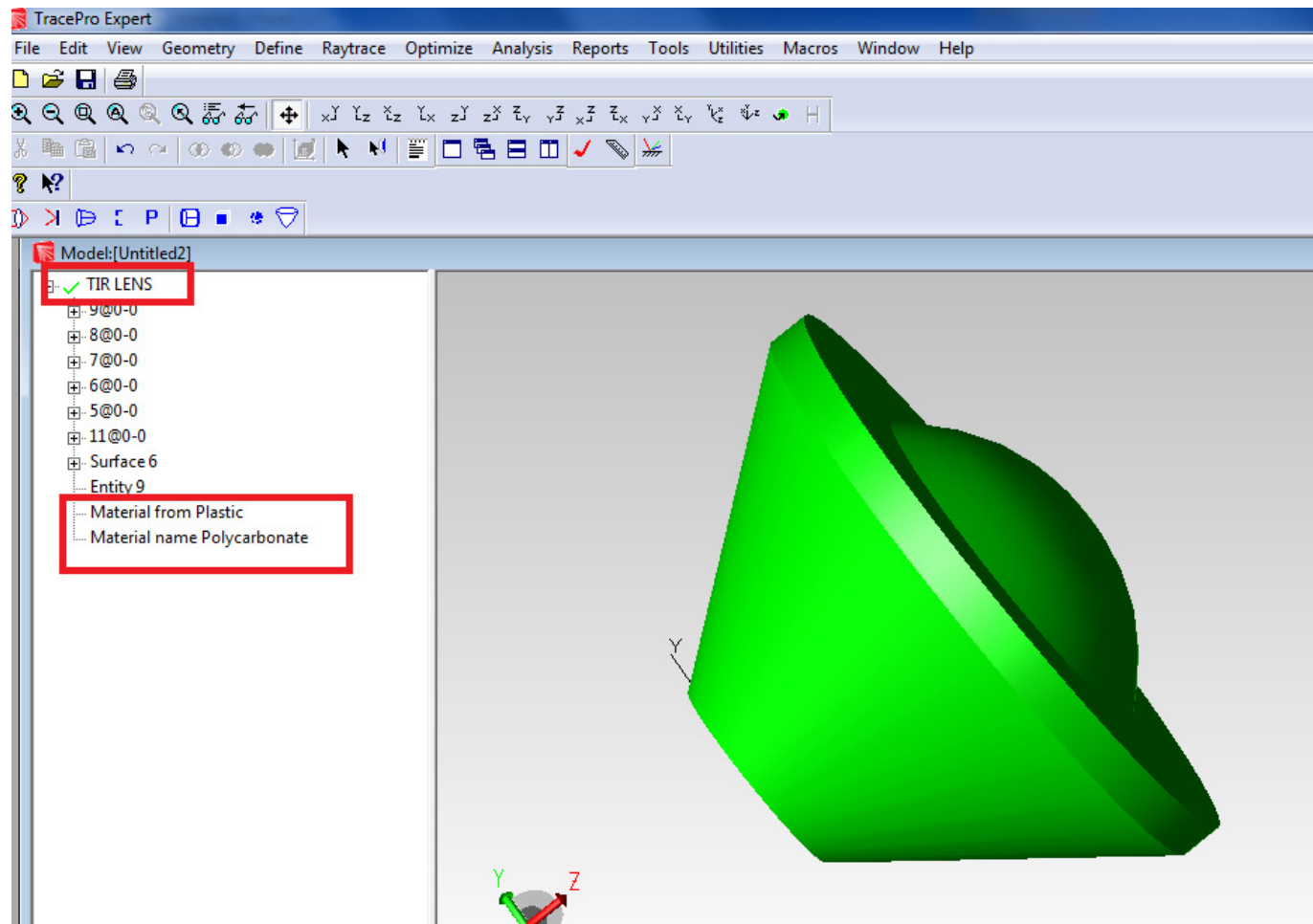
- Object View > Select Object > Right Click : Send to TracePro



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# MODEL IN TRACEPRO



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