

Cantilever Beam Modal Analysis - Mesh

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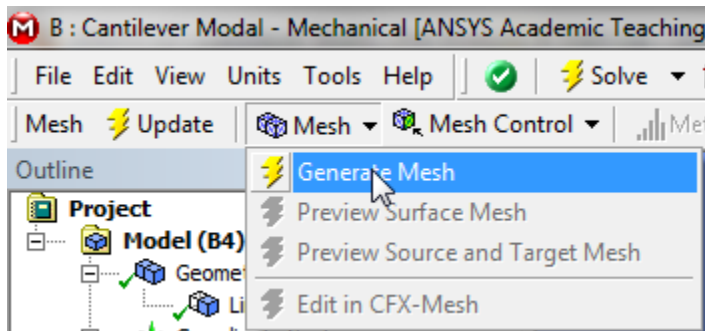
Mesh

Launch Mechanical

(double click)  Model, in the "Cantilever Modal" project.

Generate Default Mesh

First, (click) **Mesh** in the tree outline. Next, (click) **Mesh > Generate Mesh** as shown below.

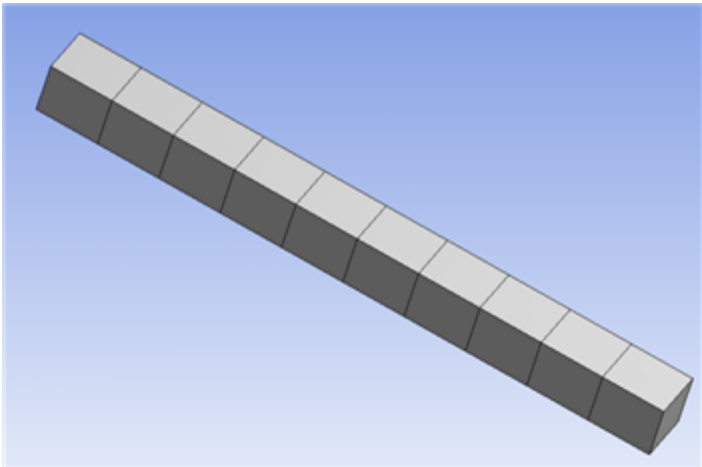


Size Mesh

In this section we will size the mesh, such that it has ten uniform elements. In order to size the mesh, first expand **Sizing** located within the **Details of "Mesh"** table. Next, set **Element Size** to 0.40 m, as shown below.

Details of "Mesh"			
[-]	Defaults		
	Physics Preference	Mechanical	
	Relevance	0	
[-]	Sizing		
	Use Advanced Size Function	Off	
	Relevance Center	Coarse	
	Element Size	0.40 m	
	Initial Size Seed	Active Assembly	
	Smoothing	Medium	
	Transition	Fast	
	Span Angle Center	Coarse	
	Minimum Edge Length	4.0 m	
[+]	Inflation		
[+]	Advanced		
[+]	Pinch		
[+]	Statistics		

Now, (click) **Mesh > Generate Mesh** in order to generate the new mesh. You should obtain the mesh, that is shown in the following image.



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Note that in this simulation we are working with beam elements, which are simply line segments. As a visualization tool ANSYS displays a beam with width and height. In order to display the actual mesh (click) **View > (deselect) Thick Shells and Beams**. You will then see the mesh displayed in its native form.



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Save

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