

Radiation Between Surfaces - Mesh

Author: Chia-Hsun Hsieh, Cornell University

[Problem Specification](#)

[1. Pre-Analysis & Start-Up](#)

[2. Geometry](#)

[3. Mesh](#)

[4. Physics Setup](#)

[5. Numerical Solution](#)

[6. Numerical Results](#)

[7. Verification & Validation](#)

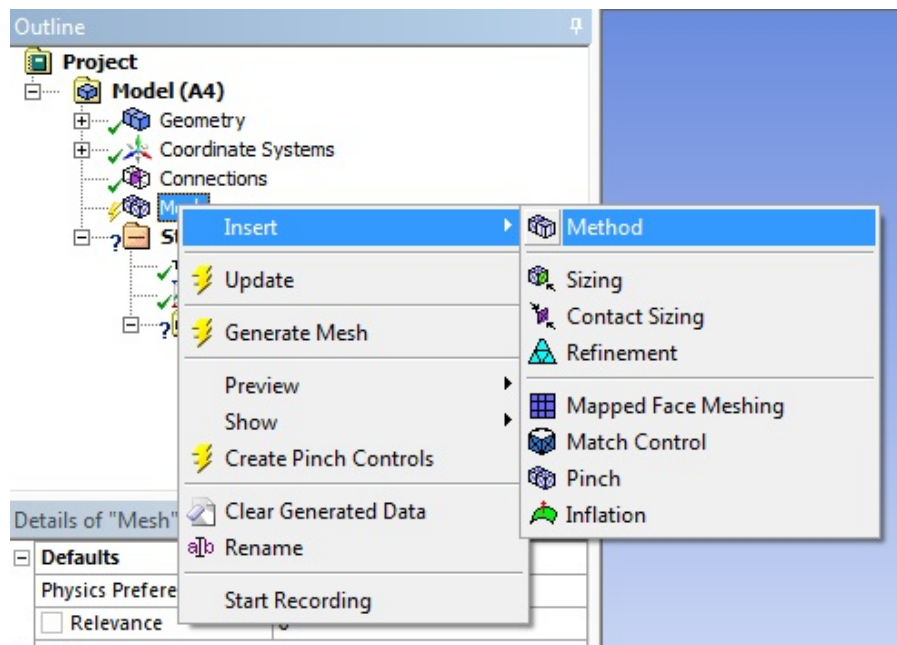
[Exercises](#)

[Comments](#)

Mesh

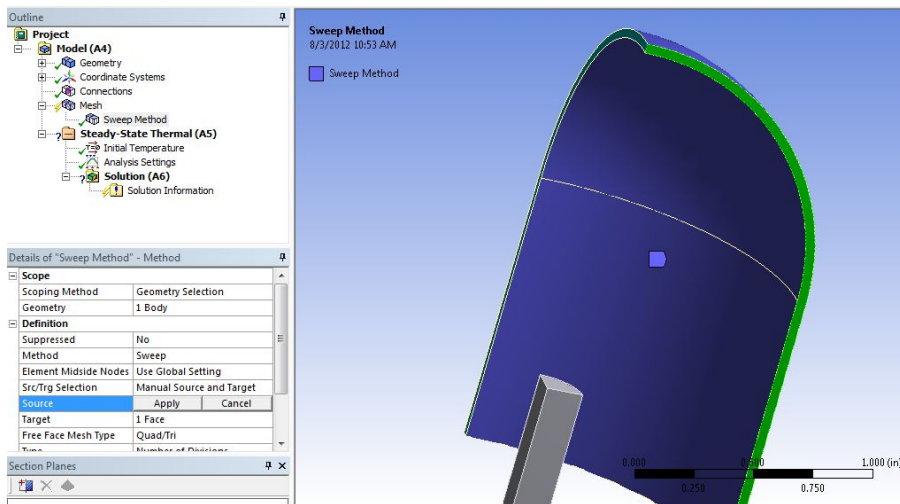
Double click on **Model** to launch ANSYS Mechanical.

In the Outline window, right click on **Mesh** > **Insert** > **Method**.

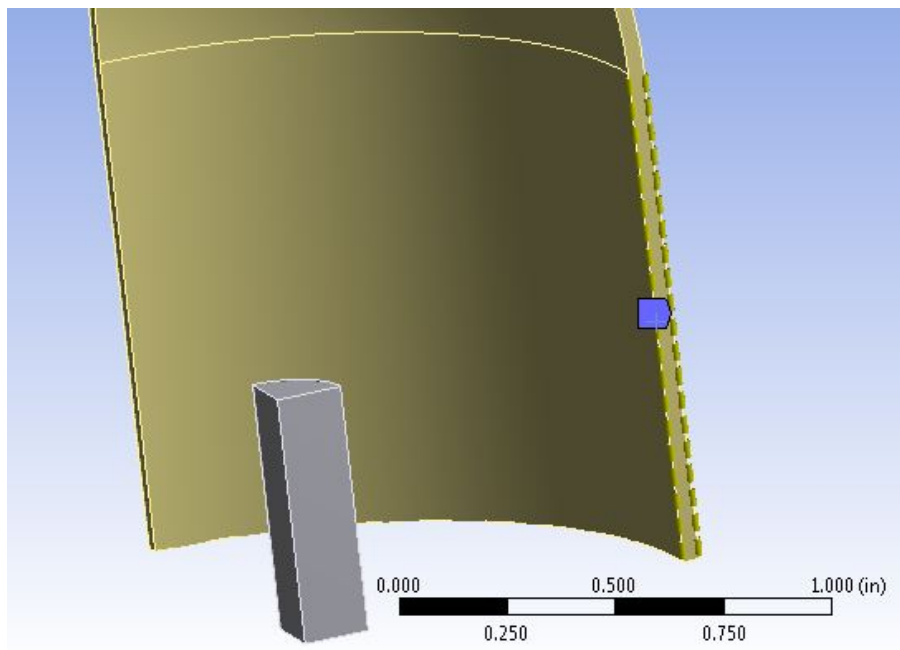


Select the entire shell body for geometry and click on apply.

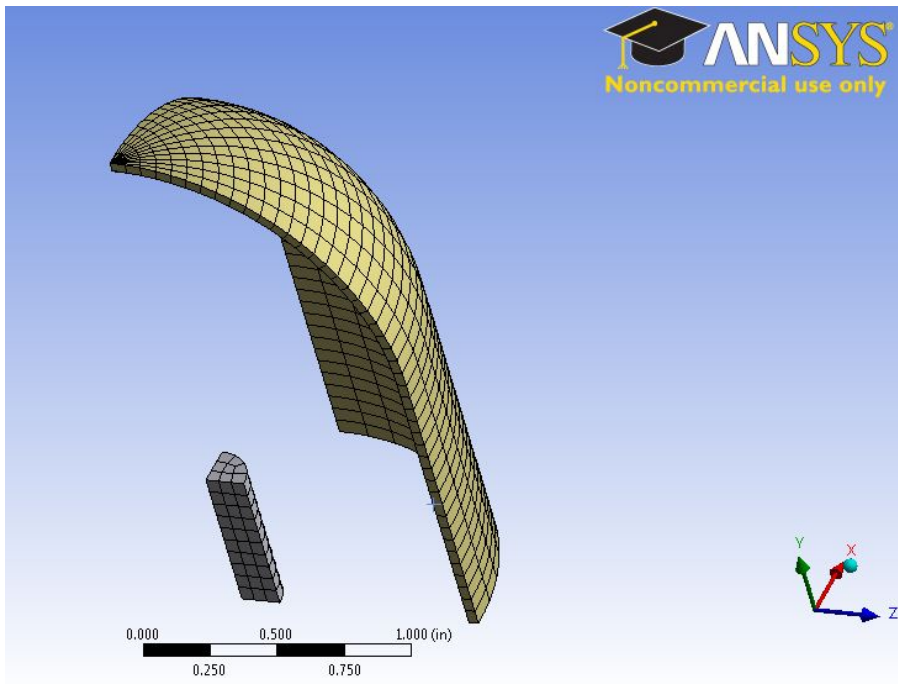
In the **Details of "Automatic Method" - Method** window, change the **Method** from **Automatic** to **Sweep**. Select **Manual Source and Target** for **Src/Trg Selection**. Set the cross sectional face on one side of the shell to source and the other cross sectional face of the shell to target.



Right click on **Mesh** > **Insert** > **Sizing**. Use the edge selection tool  to select the outer and inner walls of the shell. Use **Number of Divisions** and set it to **20**.



We will use the default mesh size. Right click on **Mesh** > **Generate Mesh** to create the mesh.



Keep ANSYS Mechanical open and move to Setup.

[Go to Step 4: Physics Setup](#)

[Go to all ANSYS Learning Modules](#)