

Question 17

Q: What is the 2D approximation in 2D analysis?

A: There are two approximations in 2D analysis as shown below.

2D Cross Section (Planer strain)

It is assumed as follows:

The object is fixed in the Y direction and there will be no displacement in the Y direction. The Y component of the strain is zero and only X/Z components are taken into account. In the event of SH waves, however, by unselecting [Y Displacement] for the variable to constrain, displacement in the Y direction can be taken into account.

Plane stress

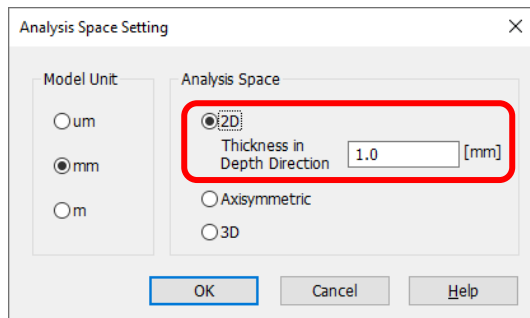
It is assumed as follows:

The Y component of the stress is zero and only X/Z components are taken into account. The object's Y dimension is considerably smaller than the X/Z dimensions and the object can deform freely in the Y direction.

Set the thickness in the Y direction to [Thickness in depth direction] in the [Analysis Space Setting] dialog box.

This allows you to analyze the model having specified thickness to calculate the equivalent capacitance and equivalent inductance of the whole model.

Additional Information



Thickness in depth direction

