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Q: How to set a symmetric model?

A: If a target model has a half, quarter, or 1/8 symmetry in the deformation or electric field direction, create a half, quarter, or /18 model and set reflective boundary conditions to the cutting portions, resulting in fewer meshes and less computation load.

By clicking [Full Model] on the [Results] tab, you can view the results of the whole model. However, the result table displays values, such as admittance, that are calculated over the symmetric model. For instance, if the model is a quarter mode, the calculated admittance is one-fourth admittance of the whole model.

Please refer to the next slides.

Additional Information

Symmetric model

If a target model has a half, quarter, or 1/8 symmetry in the Edit Boundary Condition [Sym1] deformation or electric field direction, create a half, quarter, Boundary Condition Symmetry/Continuity Mechanical or /18 model and set reflective boundary conditions to the Boundary Symmetry/Conti.. Symmetry cutting portions, resulting in fewer meshes and less Condition Name Notes Add computation load. Reflective Delete On the right diagram, the reflective boundary conditions are OK Cance set as follows: Periodic Sym1 is applied to the cross-sectional portion in the Y direction. Sym2 is applied to the cross-sectional portion in the X direction. Edit Boundary Condition [Sym1] **Boundary Condition** Symmetry/Continuity Mechanical Boundary condition Boundary specified on cutting portion Symmetry/Conti.. Symmetry Condition Name Add Notes Reflective Delete OK Cancel

Please refer to the example on the help menu below for more information.

Home>Examples>Piezoelectric Analysis [Rayleigh]>Example 2: Harmonic Analysis Periodic

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Additional Information

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Result Display of Symmetric Model

- By clicking [Full Model] on the [Results] tab, you can view the results of the whole model.
- The result table displays values, such as admittance, that are calculated over the symmetric model. For instance, if the model is a quarter mode, the calculated admittance is one-fourth admittance of the whole model.

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