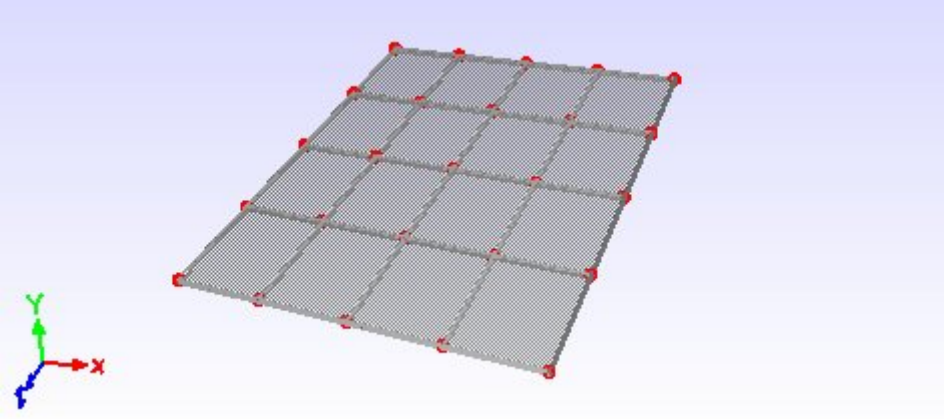
Soil Spring Generator

Introduction:

The task at hand is to generate soil springs for the slab shown below. The overall slab is 8 feet by 8 feet. It lies in the Z-X plane. It has been split into 4 elements in each direction.



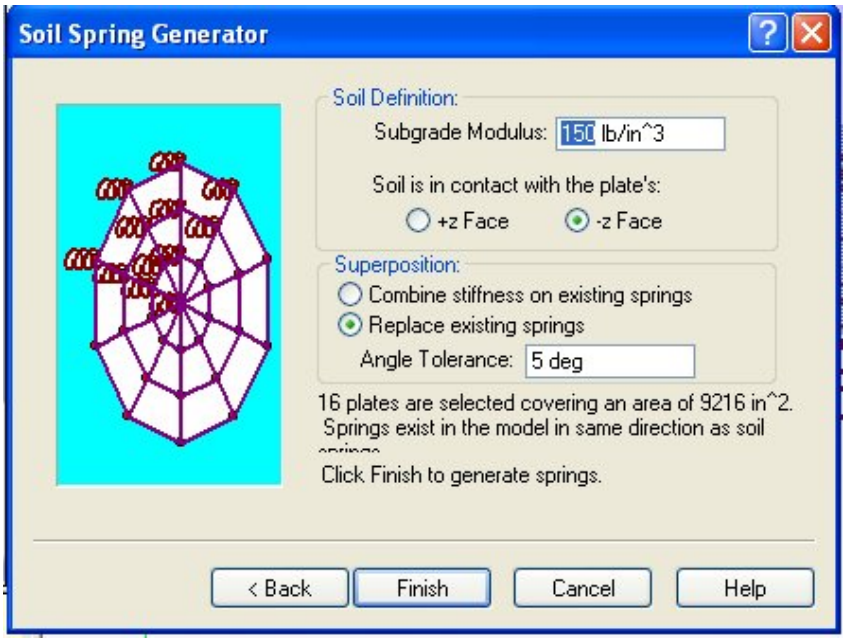
Starting the Tool

Once you have created the slab, select the **Model | Soil Spring Generator** Menu item to start the Soil Spring Generator Tool.

Plate Selection

Once the tool has started up, you are prompted to select the plates the spring supports need to be applied to. Select all of the plates in the slab.

Soil Properties



The next step is to specify some soil parameters. Enter a value of 150 lb/in^3 for the Subgrade Modulus. You are also asked to specify which z-face the soil is in contact with. This refers to the local z-axis of the plate elements the soil springs are being applied to. Choosing the proper z-face for the soil is a very important step. The soil spring generator creates compression only springs and if they are applied to the wrong face they won't provide the model with support in the proper direction. If you aren't sure which direction is the +z or –z direction for the plate elements, you can toggle on the display of the plate local axes using the Filter tab of the Project Manager. Select the proper z-face for the model you created and ***click*** Finish to complete the spring generation.

Your completed model should look something like this: