redAnTS 2 - Assemble and Solve Global System

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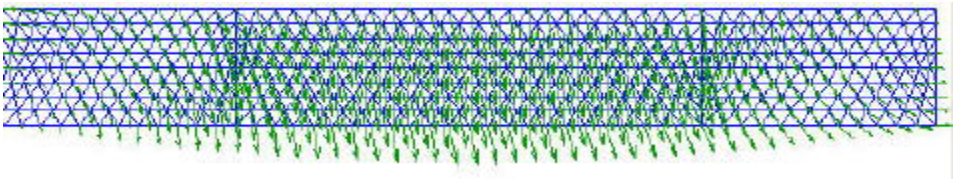
Assemble and Solve Global System

Select Static under the Solver menu. This assembles and solves the global matrix. Verify that under Current Settings, the software reports Displ. done. Let's take a look at the nodal displacement values to check that they look plausible.

Nodal Displacements

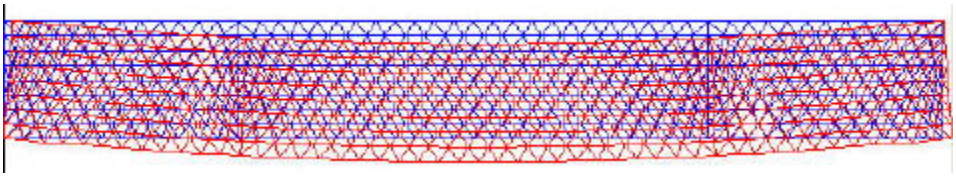
Under Plotting, select Displacement. The nodal displacements are shown below.



Are the displacement boundary conditions at *A* and *B* satisfied? The displacement is largest in the middle section of the beam. Is this what you'd expect?

Deformed Mesh

Let's take a peek at how the elements have deformed under the applied vertical loads. Under Plotting, select Deformed mesh. Enter `1000` for the magnification factor and click OK.



Since the nodal displacements look plausible, let's take a peek at stresses and isochromatic fringes. This will occupy us in step 5.

Go to Step 5: Post-Process the Solution

Go to all MATLAB Learning Modules