CERTIFICATIONS

MESH

A mesh is a network of linear elements and interconnected nodes that is used to model a structural system and numerically solve its simulated behavior under applied loads. First, computational techniques create an analytical model by populating the material domain with a finite element mesh in which each linear element is assigned mathematical attributes (axial, bending, shear, and torsional stiffness, etc.) that simulate the material and the geometric properties of the structural system. The system is then restricted within boundary conditions and subjected to mechanical or thermal loads. The numerical solution can solve stresses, deformations, and displacements.

The remarkable meshing tools provided by the program allow:

- Combine independently defined meshes with frame elements, shells, and solid objects.
- Observe the limits of the materials to establish effective aspect ratios.