AIM I Beam - Physics Setup

Author(s): Joshua Wallace, ANSYS

Physics Setup

In this video we will assign a material to the I-beam.

In this video we will assign a support and a force to the I-beam.

The reason behind applying the load to the central web is to focus on the deflection that occurs across the entire span of the I-Beam. This tutorial isn't concerned with the deflections that occur to the top and bottom flanges. The problem focuses on the increasing impact which shear deflection has on shorter, non-slender beams. This shear causes a difference between the analytical Euler-Bernoulli solution and the 3D finite element model.

Go to Step 5: Numerical Solution & Results

Go to all ANSYS AIM Learning Modules