Model Setup

In the first video we will:

1. Setup FLUENT
2. Choose the solver
3. Designate the mathematical model for the simulation
4. Modify the materials

In the second video we will:

1. Set our boundary conditions for the problem

Setup Part 1: Choosing the Model

Summary of the above video:

1. Launch FLUENT
   a. Double Precision
   b. Parallel Processing
2. Pressure Based Solver
3. Models>Energy
   a. Turn the energy equation on
4. Models>Viscous
   a. Select Spalart-Allmaras equation
5. Materials
   a. Air
      i. Density>Ideal Gas
      ii. Viscosity = 1.09329e-5 lbm/ft-s

Setup Part 2: Setting the Boundary Conditions

Summary of the above video:

1. Boundary Conditions
   a. Far Side>Pressure Far-Field
      i. Pressure = 45.829 psia
      ii. Mach Number = .8395
      iii. Angle of Attack = 3.06 deg
         1. x-component: 0.9986
         2. y-component: 0.0534
      iv. Temperature = 460 R
b. Repeat for Inlet and Outlet
   c. Near Side-Symmetry
   d. Wing Surface and Wing tip > Wall

Go to Step 5: Numerical Solution

Go to all FLUENT Learning Modules