

Question 12

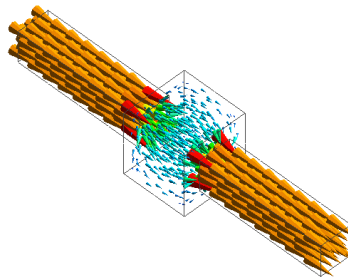
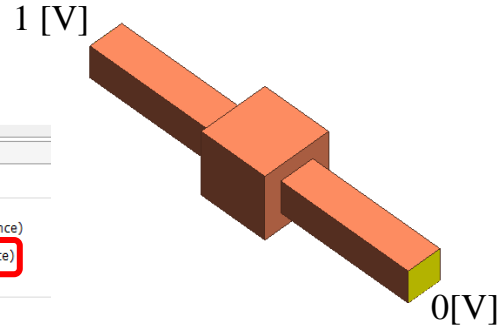
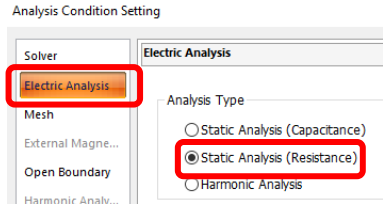
Q: How to solve the value of a current through a conductor?

A: Integrating the current density over the cross section by area will give the value of current.

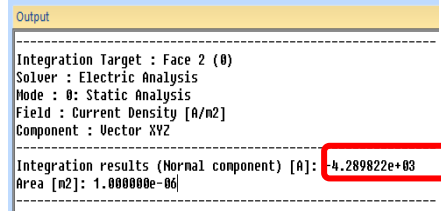
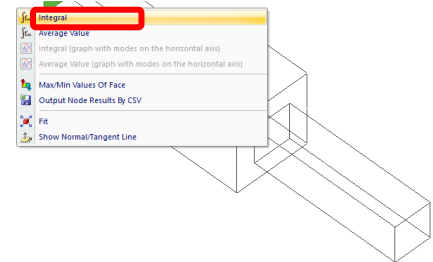
Please refer to the next slide.

Additional Information

1. Select [Static Analysis (Resistance)] for the analysis type on the [Electric Analysis] tab in the [Analysis Condition Setting] dialog box.
2. Specify the material property of electric conductivity and set 1 [V] and 0 [V] to the boundary conditions.
3. After calculation, display the current density [A/m²] and select, for instance, the face where the boundary condition of 1 [V] is set and integrate current density on the face by area to give the value of current, 4.289 [A].



Current density vectors



(See Example 11 of the electric analysis)