Unsteady Flow Past a Cylinder - Physics Setup
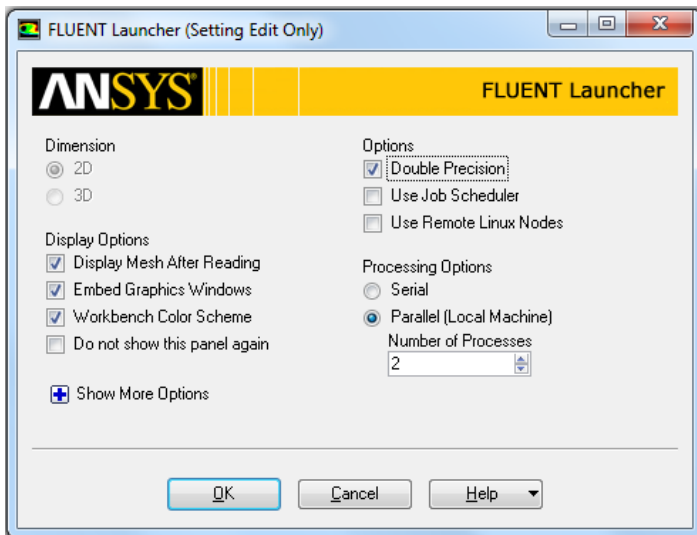
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Physics Setup

Launch FLUENT.

(Double Click) Setup in "Unsteady Flow", the duplicate project. Select *Double Precision*, and if using a computer with multiple cores, select parallel, and set the number of cores to be used.

Then click *OK*

Transient

In this step here we will, tell FLUENT to solve for the unsteady flow. As you can see, by default FLUENT will solve for the steady flow.

Problem Setup > General. Set *Time* to *Transient*.

Specify Material Properties

To achieve a Reynolds number of 120, as required in the problem statement, we will change the material viscosity, to 8.333*10^-3 kg/m*s.

Problem Setup > Materials > Fluid > air > Create/Edit.... Set the *viscosity* to 8.333E-3 (kg/m*s). Click *Change/Create*.

Then click *Close*.

Save Project