

User Defined Functions - Pre-Analysis & Start-Up

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Problem Specification

1. Pre-Analysis & Start-Up

2. Geometry

3. Mesh

4. Physics Setup

5. Numerical Solution

6. Numerical Results

7. Verification & Validation

Exercises

Comments

Pre-Analysis & Start-Up







This tutorial demonstrates the use of user-defined functions through boundary control of a cylinder.

First, complete the "Steady Flow past a Cylinder tutorial before completing this tutorial. Click [here](#) to go to the problem statement of the "Steady Flow Past a Cylinder" tutorial.







Click [here](#) to download the user-defined function file (only valid for a cylinder; a similar lift computing UDF file for an arbitrary geometry is in Exercises).

To start-up, open your completed "Steady Flow Past a Cylinder" project file.

Right-click on **Fluid Flow (FLUENT)** and then click **Duplicate**. Enter "Boundary Controlled" in the highlighted field to rename it.

▼	A	
1	 Fluid Flow (Fluent)	
2	 Geometry	✓
3	 Mesh	✓
4	 Setup	✓
5	 Solution	✓
6	 Results	✓

Cylinder Re=20

▼	B	
1	 Fluid Flow (Fluent)	
2	 Geometry	✓
3	 Mesh	✓
4	 Setup	✓
5	 Solution	⚡
6	 Results	?

Boundary Controlled

[Go to Step 2: Geometry](#)

[Go to all FLUENT Learning Modules](#)