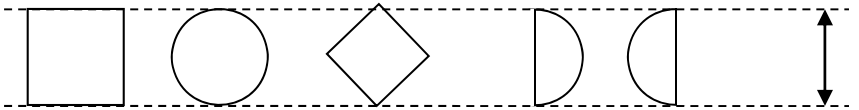
SG2224
Applied CFD
16 April 2015

Individual task



- Objective
  - Drag coefficient for a 2D object
- Aim with the individual task
  - Understand the process (geometry-grid-solution)
  - Understand the tools
  - Detailed step-by-step instruction available on web
  - Basis for the project work
- Time plan
  - Before 20/21 April: Try to do the task based on the detailed instruction
  - Before 26 April: Complete the task – upload results, feedback 28 April

Projects

- Time plan
  - 16 April: Group formed and project assigned - Done
  - 20 or 21 April: Fluent tutorial
  - After tutorial, project work can start
  - 22 May: Project workshop: Presentation and report uploaded
- Aim with the project
  - Problem definition, modelling level and approximations
  - CFD analysis: Meshing, computation, analyze
  - Quality: Refined analysis, parameter study, etc.
- Communication within project
  - Use Bilda – group discussion forum
  - Don’t use email, please
  - Why? All members (and I) can se and trace all information.

PDC account

- Running on Ferlin
  - 512 nodes, 4096 cores and 8.2 TB of main memory
  - Can be used for Fluent runs in this course
  - 16 April: PDC information how-to
- Account
  - KTH – Social - Registration, PDC account
  - As soon as possible
  - Let me know (email) if problems with account
- Today
  - Information from PDC, Henric Zazzi

ANSYS/Fluent tutorial 20/21 April

- 2 experts from ANSYS/Fluent Sweden give tutorial on:
  - Geometry builder
  - Mesher
  - Fluent

- Tutorial not mandatory but highly recommended
- Good opportunity to get Fluent tutorial “for free”

- Registration to the tutorial
  - Registration mandatory !!!
  - By email, NOW!!!

Today

- Lectures:
  - Grid generation
  - Boundary conditions
- Also:
  - Information from PDC, Henric Zazzi