

오픈폼 GUI & 테스트

- Orifice
- OpenFOAM & Fluent

GUI

NextFoam v0.1 - Developing version

THIS PROGRAM IS TO RUN simpleFoam

Define Working Folder

Prepare Mesh Select Mesh Copy Mesh Convert Mesh View in Paraview

List boundary faces	Turbulence Model	Material Properties
wall ori pressure_outlet.2 velocity_inlet.1	<input type="radio"/> standar k-epsilon <input checked="" type="radio"/> realizable k-epsilon <input type="radio"/> RNG k-epsilon	Viscosity [kg/ms] <input type="text" value="1e-5"/> Density [kg/m3] <input type="text" value="1.225"/>
OK	OK	OK

Solver Setting Descretization Under-relaxation

Parallel Setup # of CPU Decompose Mesh

Start time End time delta T Write Interval Run simpleFoam

Run Paraview Convert result to Fieldview

Close

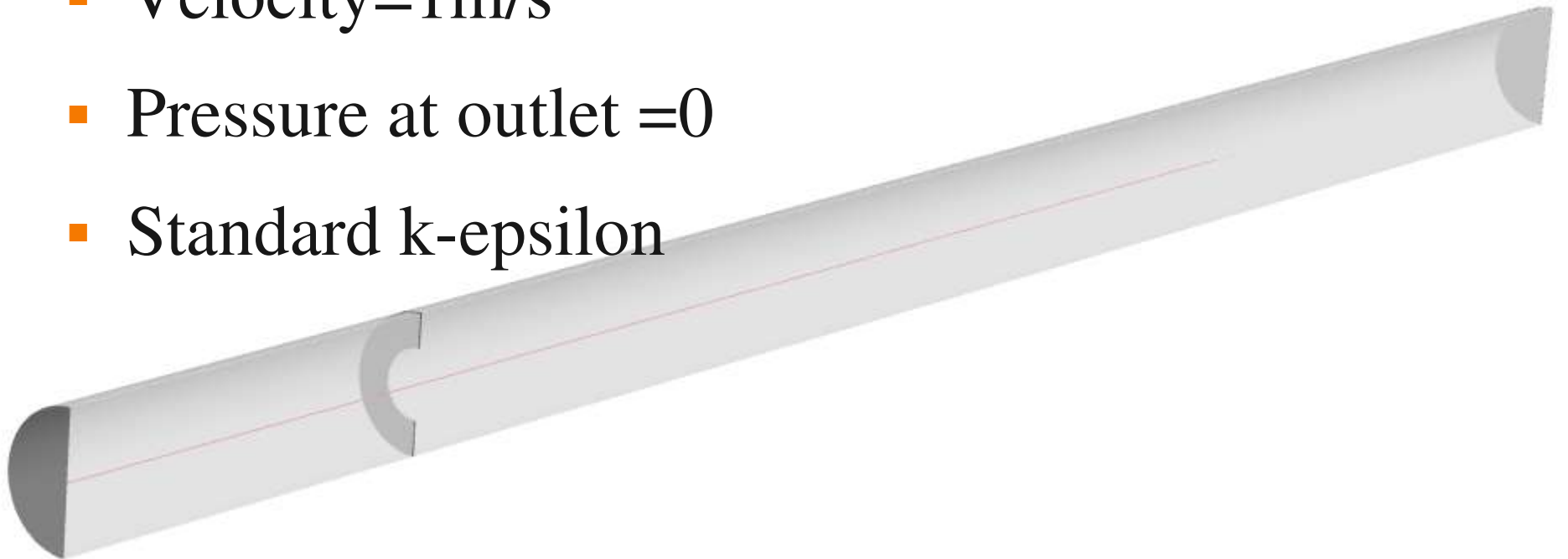
Working folder is
Working folder is /home/bykim/CurrentWork/NextFOAM_01/v0.20/aaa
Mesh file is /home/bykim/CurrentWork/NextFOAM_01/v0.20/test3d.msh

Boundary Conditions

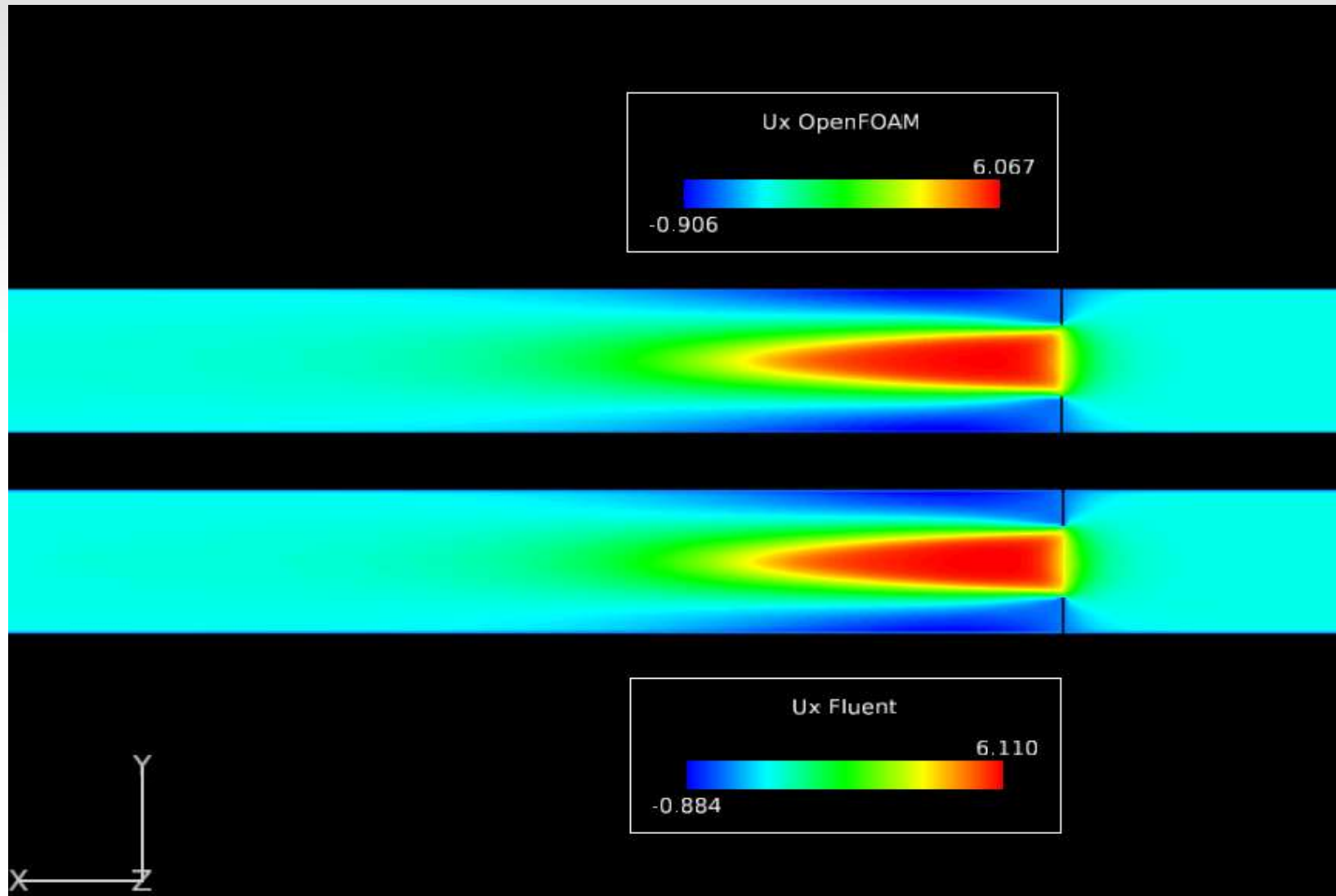
Select Type	Enter Values
<input type="radio"/> wall	Ux <input type="text" value="0"/>
<input type="radio"/> symmetry	Uy <input type="text" value="0"/>
<input checked="" type="radio"/> velocity in	Uz <input type="text" value="0"/>
<input type="radio"/> pressure in	k <input type="text" value="0"/>
<input type="radio"/> pressure out	epsilon <input type="text" value="0"/>
OK Close	

계산 조건

- Density=1000.
- Viscosity=0.001
- SIMPLE
- Velocity=1m/s
- Pressure at outlet =0
- Standard k-epsilon



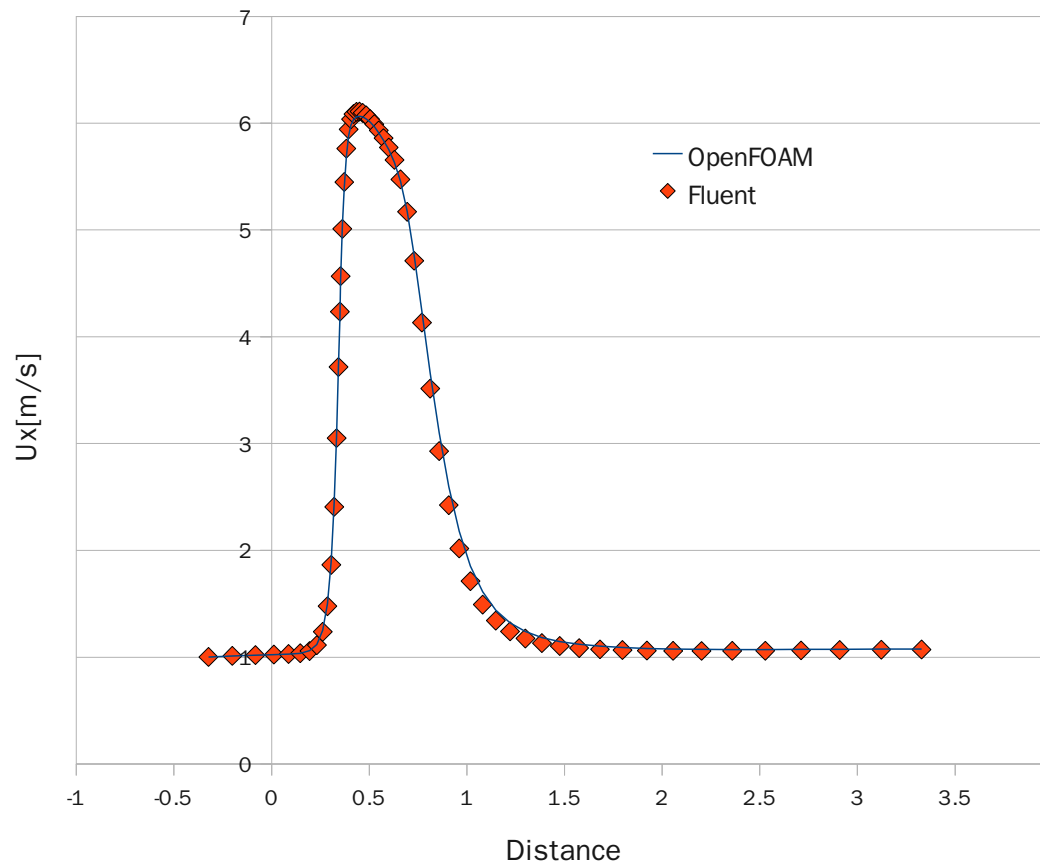
Axial velocity contour 비교



배관의 center line 에서 압력 및 속도 비교

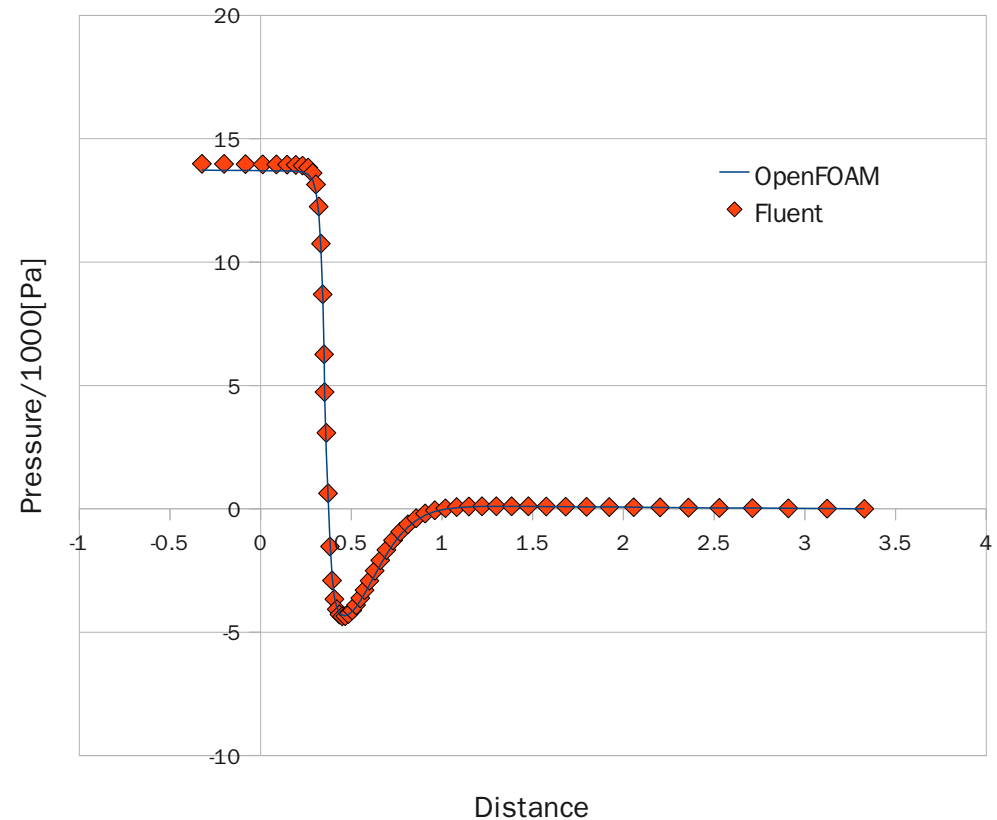
Axial velocity 비교

At center line

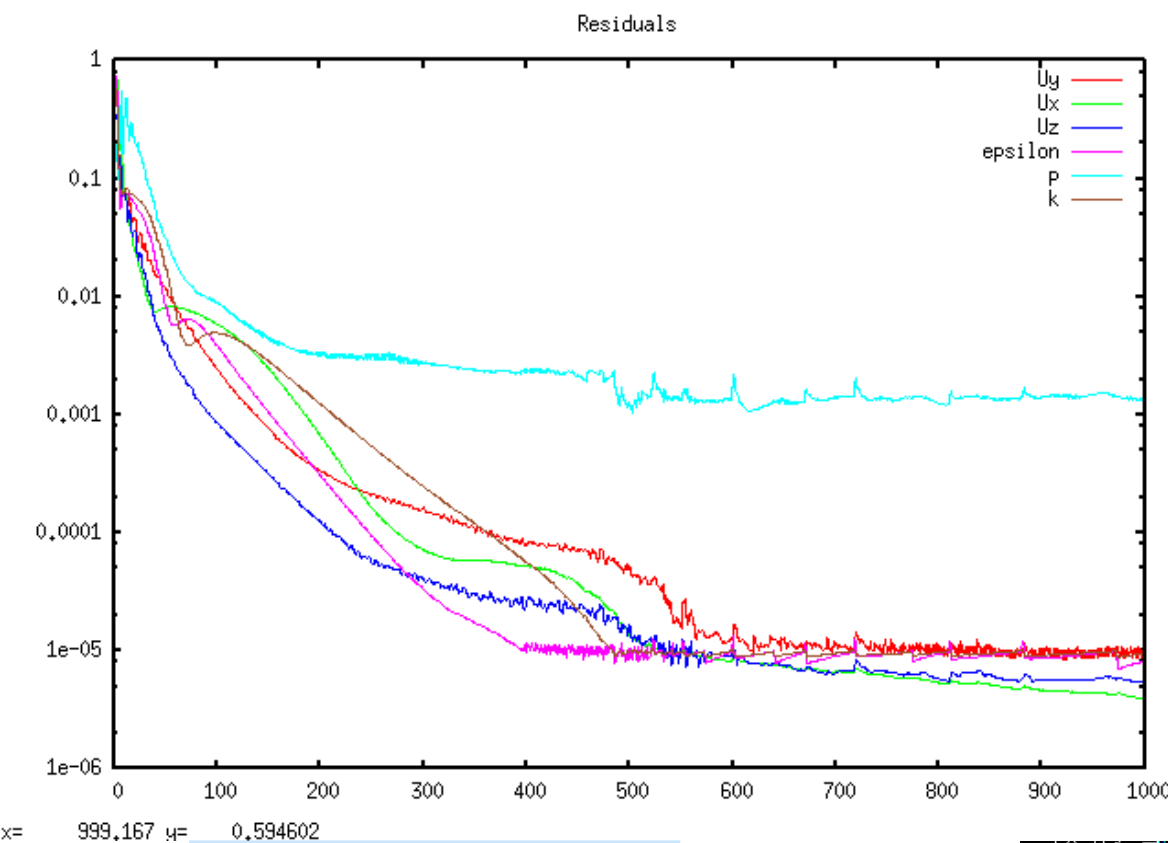


Static Pressure 비교

At center line



Residual 比较



OpenFOAM

Fluent

