SU2 4주차 보고서

2019011579 김세형

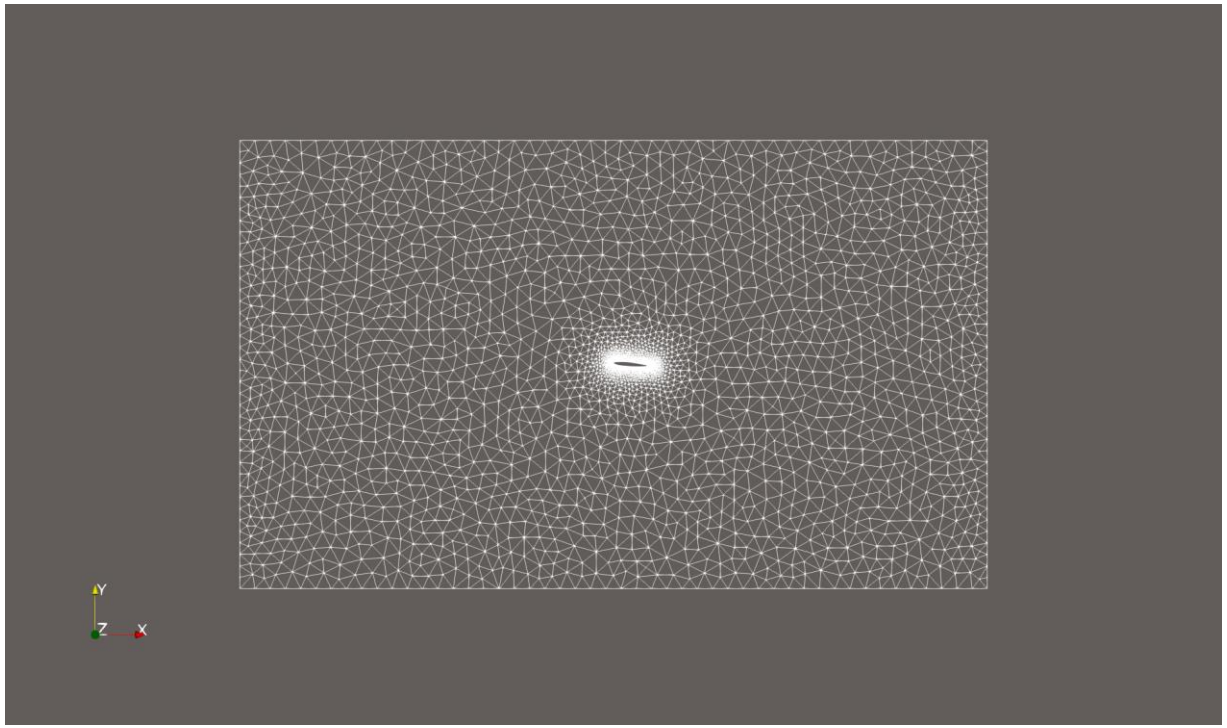
Inviscid_Hydrofoil

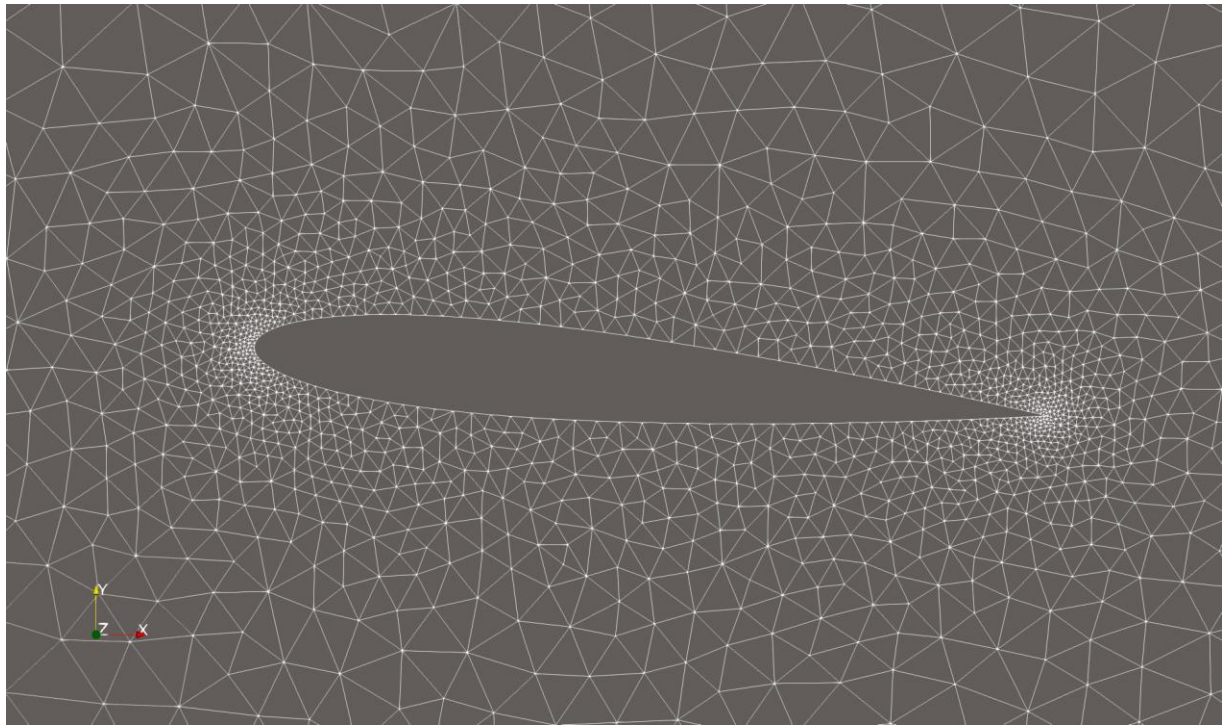
해석조건

- SOLVER= INC_EULER
- INC_DENSITY_INIT= 998.2
- INC_VELOCITY_INIT= (1.775, 0.0, 0.0)
- INC_INLET_TYPE= VELOCITY_INLET
- INC_INLET_DAMPING= 0.1
- INC_OUTLET_TYPE= PRESSURE_OUTLET
- INC_OUTLET_DAMPING= 0.1
- MARKER_EULER= (airfoil, lower_wall, upper_wall)
- MARKER_INLET= (inlet, 0.0, 1.775, 1.0, 0.0, 0.0)
- MARKER_OUTLET= (outlet, 0.0)
- MARKER_PLOTTING= (airfoil)
- MARKER_MONITORING= (airfoil)

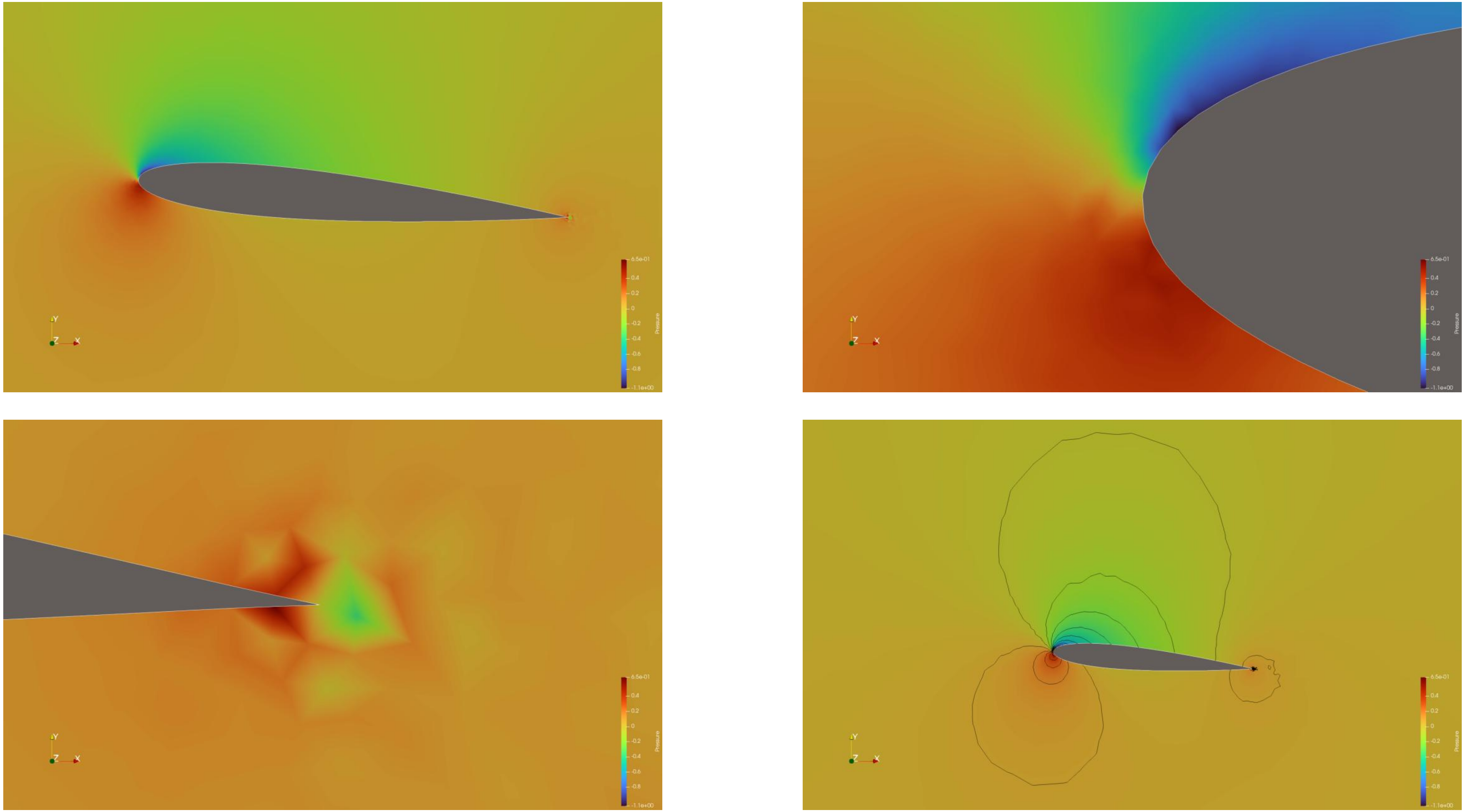
Mesh

- NDIME= 2
- NELEM= 6814





Pressure Contour



Analysis

- airfoil 하부의 압력이 상부의 압력보다 상대적으로 높음.
- 앞전에서 유동이 부딪히는 고압의 정체점을 확인.
- 뒷전에서 유동 박리 이후의 난류 확인.

Turbulent_ONERA M6

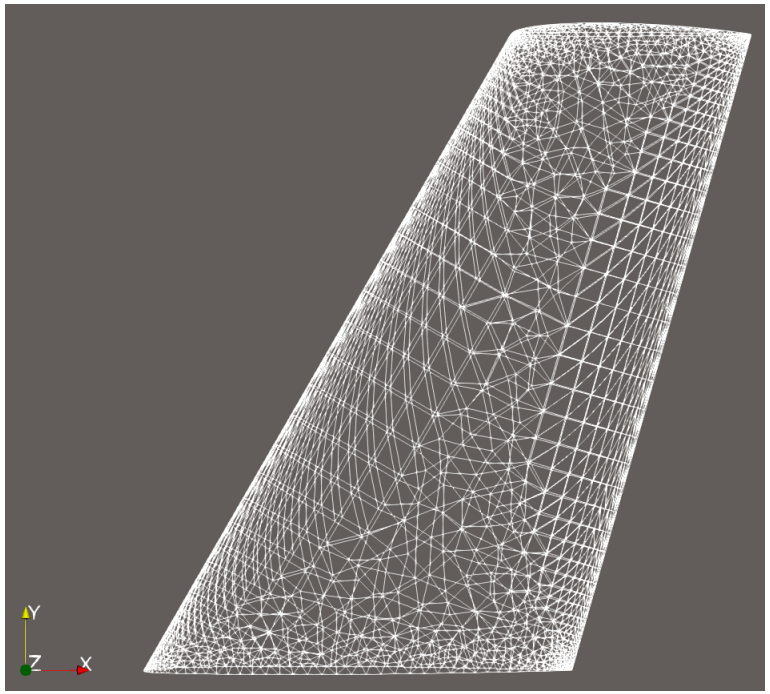
해석조건

- SOLVER= RANS
- MACH_NUMBER= 0.8395
- AOA= 3.06
- SIDESLIP_ANGLE= 0.0
- FREESTREAM_TEMPERATURE= 288.15
- REYNOLDS_NUMBER= 11.72E6
- MARKER_HEATFLUX= (WING, 0.0)
- MARKER_FAR= (FARFIELD)
- MARKER_SYM= (SYMMETRY)
- MARKER_PLOTTING= (WING)
- MARKER_MONITORING= (WING)

Mesh

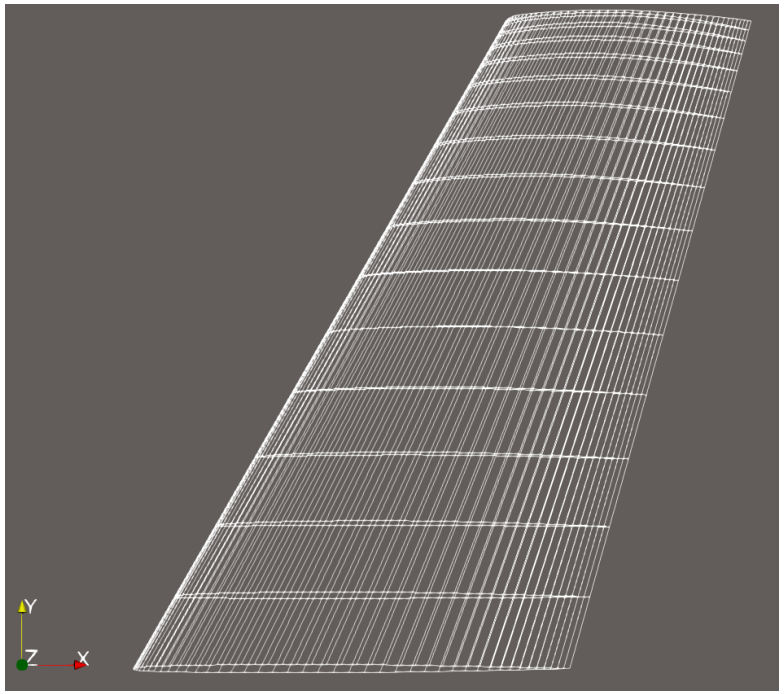
[mesh_ONERAM6_100k]

- **Fine Mesh**
- **NDIME= 3**
- **NELEM= 315806**



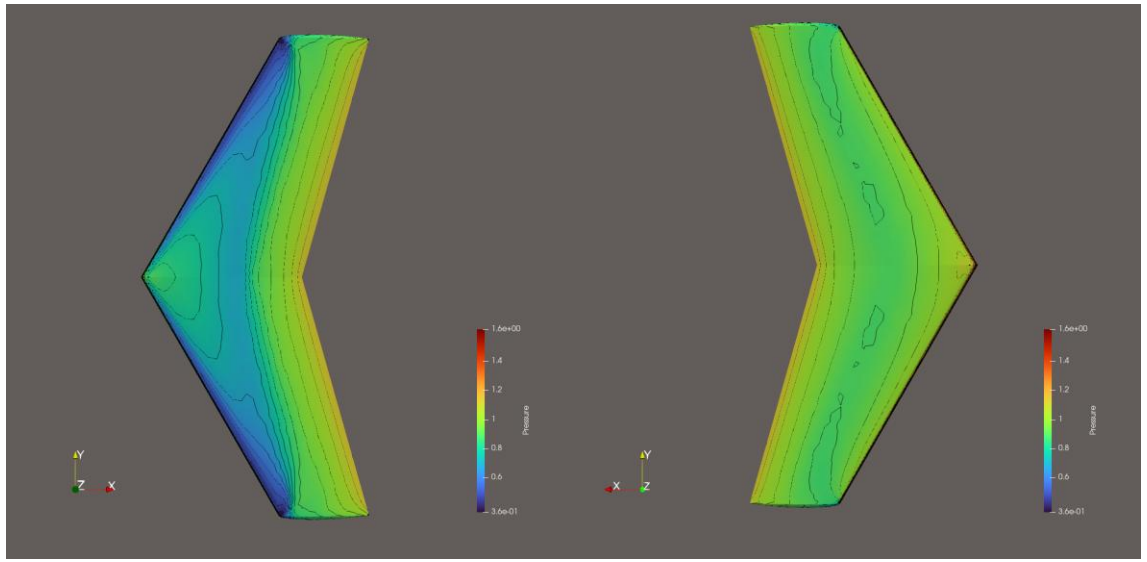
[mesh_ONERAM6_turb_hexa_43008]

- **Coarse Mesh**
- **NDIME= 3**
- **NELEM= 43008**



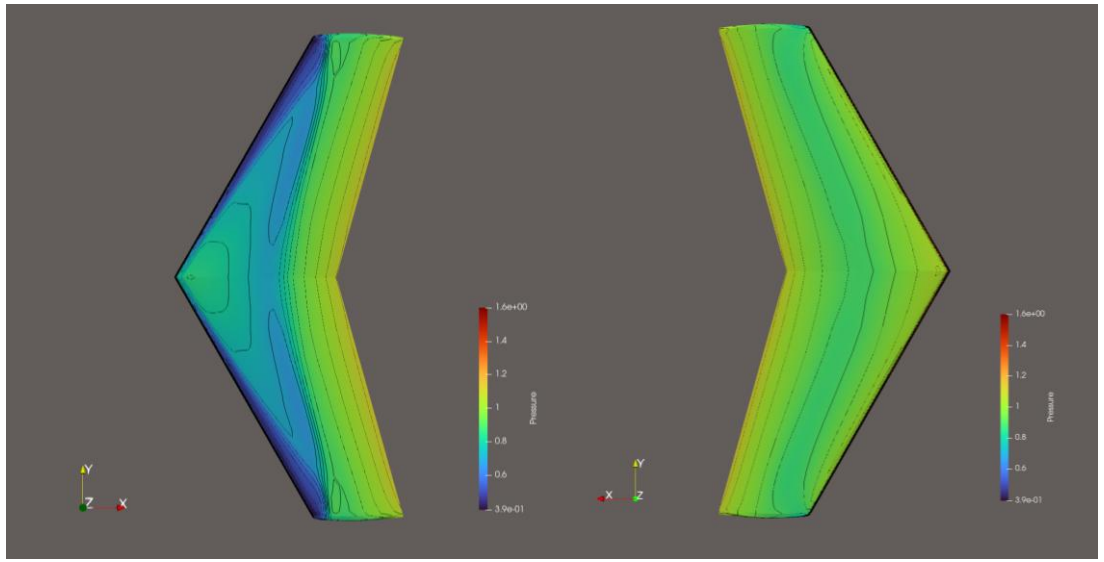
Contour

mesh_ONERAM6_100k



upper **lower**

mesh_ONERAM6_turb_hexa_43008



upper **lower**

- **fine mesh를 통해 충격파의 위치와 구조를 보다 더 선명하고 정확하게 확인.**

Graph