OpenFoam project: The Making of slidingConesTopo

Erik Bjerklund
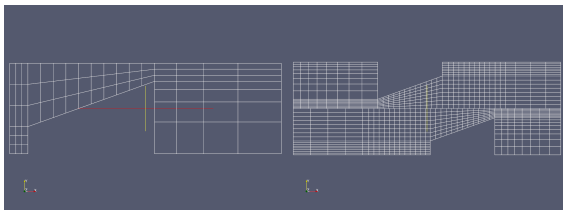
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Purpose and goal

- ▶ Extending the dynamicFvMesh library
- ▶ Using existing library to obtain a different scenario
- ▶ Making two objects meet each other

Meshing

- ▶ Used movingConeTopo tutorial and library
- ▶ New mesh for new scenario

Figure: Mesh of original case movingConeTopo and the new mesh for slidingConesTopo

Masking

- ► Masking used to move objects
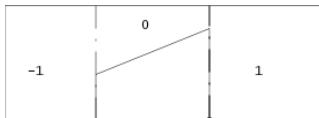
- ► New masking to make new movement
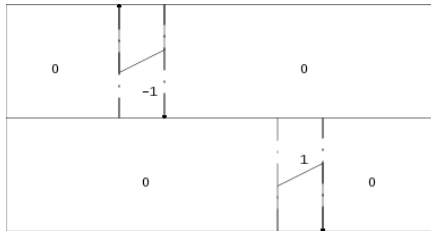

Figure: The mesh markup on the movingConeTopo

Figure: The mesh markup on the slidingConesTopo

Zones for adding and removing

- ▶ Four different extrusion faces
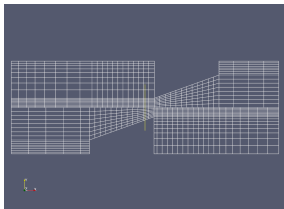- ▶ Cells are added or removed

Figure: Cells added and removed based on movement

dynamicMeshDict

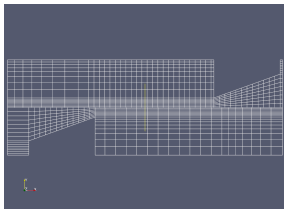▶ Velocity described with sinusoidal function

▶ Thickness of cells defined

Figure: Sinus makes the world go round

Results and realizations

- movie
- Not ready for calculations
- Some face locations are coded in the library