

Azore[®] CFD Features

Comparison of CFD Software
January 2019

	Stand-Alone Commercial CFD			Open Source	CAD-Embedded CFD	
	Azore	Fluent	StarCCM+	OpenFoam	AutoCAD	Solidworks
Price	\$\$	\$\$\$\$	\$\$\$\$??	\$\$	\$\$
Fluid Flow Solver						
Gases and Liquids	yes	yes	yes	yes	yes	yes
Internal/External Flows	yes	yes	yes	yes	yes	yes
Body Fitted Mesh (Tet, Hex & Polyhedral)	yes	yes	yes	yes		
Cartesian Mesh Only					yes	yes
Laminar & Turbulent Flows	yes	yes	yes	yes	yes	yes
Mixing of Multiple Gas Species	yes	yes	yes	yes		
Rotating Reference Frames	yes	yes	yes	yes		yes
Transient Analysis	yes	yes	yes	yes	yes	yes
Combustion		yes	yes			
Two Phase Momentum Coupling	yes	yes	yes	yes		
Supersonic Flow		yes	yes	yes		
Large Eddy Simulation (LES)		yes	yes			
Free Surface (volume of fluid)		yes	yes	yes		
2D & 3D Separate Solver	yes	yes				
GB of RAM req'd per 1,000,000 cells	0.83	1.0	1.5	1.0	2.0	2.0
User Defined Expressions	yes	yes	yes	?		
Easy to Use GUI Interface	yes	yes	yes		yes	yes
Heat Transfer						
Forced, Natural, & Mixed Convection	yes	yes	yes	yes	yes	yes
Conduction through Solids	yes	yes	yes	yes	yes	yes
Heat Transfer between Fluids & Solids	yes	yes	yes	yes	yes	yes
High Performance Computing						
Parallel Processing	yes	extra \$\$	extra \$\$	yes	yes	
Remote Run Access	yes	yes	yes			
Operating Systems						
Windows® (native)	yes	yes	yes	yes	yes	yes
Linux® (native)	yes	yes	yes	yes		
MacOS® (native)	yes					
Pre/Post Processing						
Integrated Pre/Post	yes	yes	yes		yes	yes
Can import any mesh	yes	yes	yes	yes		
Can read and write Fluent .cas/.dat files	yes	yes	read			
Enhanced Efficiency						
Automatic Plotting / Report Generation	yes					
Arbitrary Solution Monitoring	yes					
User Defined Inlet Profiles	yes					
Injection Point Import	yes					
Customizable Interface	yes					
Scene Saving & Recovery	yes					