CRISP CFD® MESH ADAPTATION CODE

ELEMENTS	• Tetrahedra, prisms, hexahedra, pyramids • Conforming mesh modifications suitable for any unstructured solver
REFINEMENT / COARSENING	• Parallel coarsening/refinement using cell migration scheme • Delaunay cavity refinement with circumcenter point insertion • Subdivision of pyramid/prism/hexahedral elements with hanging node closure • Edge collapse of tetrahedral cells • Surface projection using local quadratic fit
INTERFACING	• Coupled with CRUNCH CFD® for transient applications • Automated solution transfer and load rebalancing / repartitioning • Direct support for AVUS, FUN3D, USM3D solvers • Additional filters readily implemented
SENSORS	• Internal feature-based criterion or user-defined criterion • Cell quality criterion using mesh deformation matrix for moving meshes • Error sources from Error Transport Equation
ERROR QUANTIFICATION	• Viscous Error Transport Equation • Error Function Library • Generalized Richardson extrapolation
DEVELOPMENTAL	• Mesh movement (r-refinement) schemes using linear and torsional springs • Refinement about arbitrary input surfaces