

## TEXPAC-L ELASTOMER FEA ANALYSIS PACKAGE

**PURPOSE:** A finite element analysis pre-processor, solver and post processor for elastomeric components

TEXPAC-L is a finite element code for the solution of 2D axisymmetric, modal and plane stress/strain analysis problems. The code treats both compressible isotropic elastic materials and incompressible (including nearly incompressible) isotropic materials. It will also treat engineering orthotropic materials.

An extremely flexible system of grid refinement for local regions allows the user to “rezone” arbitrary regions of a coarse mesh, redefine geometry, if necessary, impose boundary conditions inferred from the coarse mesh solution and finally to analyze the rezoned region without any intermediate hand calculation.

The element library include quadratic, curved or straight sided quadrilaterals and triangles and a special triangular element with crack tip singular fields built in for linear fracture mechanics analysis and strain energy release rate. TEXPAC-L also treats non-axisymmetric loading of bodies of revolution.

The **GUI Editor** facilitates in creating, opening, saving and executing a Texpac-L file, typing and editing commands. Online help is included. Post processing is accomplished using **TEXPLOT** to view the FEA model, deformation, stress and strain plots. Graphing can be performed using **TEXGRAPH** a customized graphing program for Texpac-L.

