







UGENS



User subroutine **UGENS**:

- is used to define the (nonlinear) mechanical behavior of a shell section directly in terms of generalized section quantities;
- requires you to define the section behavior of the shell directly in terms of membrane strains and curvature changes;
- is called at all integration points in all shell elements with a general, arbitrary, elastic shell section and a user-subroutine-defined shell section stiffness; and
- can be used with all static or dynamic procedures other than the quasi-static procedure, since that procedure uses automatic time stepping based on the techniques used by Abaqus/Standard to integrate standard creep laws.

This page discusses:

- Storage of Membrane and Bending Components
- Increments for Which Only the Section Stiffness Can Be Defined
- Stability
- Convergence Rate
- Use with Shells That Have Transverse Shear and/or Hourglass Stiffness
- Use with Continuum Shell Elements
- <u>User Subroutine Interface</u>
- Variables to Be Defined
- Variables That Can Be Updated
- Variables Passed in for Information

