

Structural Engineering Software

Michigan

090909090909

secretariat@geoengineer.org

Software title	BIAX-2
Software Category	Concrete Design
Provider	Sample Agent
Software type	Freeware
Is Featured	No
Price	\$ 0,00

Other Information

Description	<p>BIAX is a general purpose computer program to evaluate uniaxial and biaxial strength and deformation characteristics of reinforced concrete (R/C) sections.</p> <p>BIAX is a general purpose computer program to evaluate uniaxial and biaxial strength and deformation characteristics of reinforced concrete (R/C) sections. The program computes these characteristics based on the assumption that plane sections remain plane after the application of loading. Based on this assumption, the program can be used to compute strength or moment-curvature relations for uniaxial or biaxial monotonic loading. Nonlinear material models are used for both the reinforcing steel and the concrete. The model for the stress-strain behavior of the reinforcing steel is versatile, allowing relations that closely approximate experimentally observed behavior. Models for the concrete stress-strain behavior include the modified Kent and Park (1982), Sheikh and Uzumeri (1982), and Yong et al. (1988) relations. A stress-strain relationship for unconfined and confined masonry and user defined stress-strain relationships are incorporated. The relationship suggested by Vecchio and Collins (1986) is used to describe the stress-strain relation for concrete in tension. The tensile strength of the concrete beyond the rupture stress may be included or neglected. Presently, the program allows two stress- strain diagrams for concrete (unconfined and confined), and four relations for reinforcing steel (for any given problem). An R/C section is described as a combination of rectangular subsections; therefore the program allows easy generation of T, L or barbell shaped sections. The user specifies a mesh for each subsection. An iterative procedure (simple bisection algorithm) is used to obtain a solution for the prescribed problem. BIAX-2, known as BIAX, revision 1, is an updated version of BIAX-1.</p>
Rate:	

Supported Operating Systems:

Basic information

More features

Rooms' details