

## PRICE LIST and EXECUTIVE SUMMARIES

Effective 01/14/2016

PROGRAM	VERSION	DESCRIPTION	ANNUAL RENTAL	PREPAID LICENSE
<i>BEAM</i> for Windows™	V3.3.1	General prestressed beam analysis and design program using ACI 318-99 up to 318-11 including torsion analysis by either tube analogy or Zia-Hsu and class C designs.	\$648	\$3,220
<i>BCAN</i> for Windows™	V3.0.5	Two-dimensional continuous beam/column analysis program. Includes increased load combinations.	\$93	\$465
<i>COMPMEM</i> for Windows™	V3.1.2	Precast/Prestressed column analysis program. Uses the moment multiplier method for ACI 318-05, -02, or -99. Calculates stresses for class C designs.	\$93	\$465
<i>LATERAL3</i> for Windows™	V4.3.0	Three-dimensional lateral analysis program for shear wall structures with the ability to account for irregular wall configurations. Includes seismic and wind loads using 2000 through 2012 IBC with the appropriate ASCE 7.	\$648	\$3,220
<i>SHEARWAL</i> for Windows™	V3.2.2	Precast/Prestressed concrete shear wall analysis and design using IBC 2012, 2009, 2006, 2003 or 2000. Now handles all standard load cases and types and/or special user-defined load cases.	\$228	\$1,150
<i>STUDS</i> for Windows™	V4.3.0	Embedded anchor analysis program using PCI Design Handbook, 7th Edition or 6th Edition or per Appendix D of ACI 318-11, ACI 318-08 or ACI 318-05.	\$114	\$575
Full Suite (all 6 programs)		<i>BEAM, BCAN, COMPMEM, LATERAL3, SHEARWAL, STUDS</i> (Annually renewable with the most current versions of each program)	\$1380	N/A
Modified Suite A (5 programs)		<i>BEAM, BCAN, COMPMEM, SHEARWAL, STUDS</i> (Annually renewable with the most current versions of each program)	\$921	N/A
Modified Suite B (5 programs)		<i>BCAN, COMPMEM, LATERAL3, SHEARWAL, STUDS</i> (Annually renewable with the most current versions of each program)	\$921	N/A
<i>BEAM</i> and <i>STUDS</i> Package Deal		<i>BEAM</i> and <i>STUDS</i> (Annually renewable with the most current versions of each program)	\$690	N/A

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**SHIPPING AND HANDLING:** All program prices quoted above include USPS Priority Mail shipping and handling charges. Please add \$40.00 for standard overnight shipping service within the continental U.S.; other destinations by special arrangement only.

**HARDWARE LOCKS:** All licenses require a hardware lock. There is a \$40 deposit required on each hardware lock. A suite must be on a single device. Any combination of individual programs can be on a single device. This deposit is fully refundable upon return of the hardware lock.

**UPGRADES:** Rental customers receive the latest versions throughout the rental period as they are released. Owners of pre-paid licenses for the previous version of a program may upgrade for 60% of the full prepaid license price.

**MULTIPLE COPY DISCOUNTS:** We are no longer offering any volume discounts. We desire customers to utilize our rental program and it is very competitively priced. For those customers wishing to purchase prepaid licenses we will continue to make them available however there will be no volume discounts.

**SPECIAL CONSIDERATIONS:** If you currently own prepaid licenses and wish to convert to our rental program, we will evaluate your licenses based on time in use and actual purchase price to determine a credit which will be applied to your rentals should you opt to relinquish your prepaid licenses.

## MEMBER ANALYSIS AND DESIGN PROGRAMS

### **BEAM** for Windows™

*BEAM* is a highly flexible tool enabling engineers to quickly and accurately design pretensioned concrete flexural members.

The program conforms to ACI 318-11, -08, -05, -02 or -99, PCI Recommendations for Losses, and ACI 209 Recommendations for Volume Change and Deformation Calculations. Strength reduction ( $\phi$ ) factors for ultimate moment calculations are interpolated for sections between compression and tension controlled (ACI 318-02) and for partial development (ACI 318-05 and later). It performs a Rational Deflection Prediction and calculations for Bearing Plates and Pads. Designs in all classes U, T, and C (ACI 318-02 and later) are possible. Detailed partially cracked section properties are determined and utilized for class C designs as well as bilinear deflection calculations. Torsion design using ACI 318-95 (tube analogy) or -05 alternate method (Zia-Hsu) is included along with required suspension steel for ledges.

The program can be used to design most Double Tee, Rectangular, L- or IT- beam, hollow-core, or general shapes. It handles one or two cantilevered ends, multiple harping of strands, strand debonding, multiple layers of mild steel, changes in topping thickness and openings in the top flange. Specified loads may be uniform, partially distributed, trapezoidal, concentrated, or assigned moment envelopes. Any specified mild steel is transformed for increased section properties and strand may be transformed at the user's option.

The report shows calculated values at 20 or more points along the length of the member or an abbreviated report can be selected which shortens the printout to the minimum possible length.

### **COMPMEM** for Windows™

*COMPMEM* analyzes rectangular, T- or flanged-shaped compression members (columns or walls) subjected to known axial forces and moments. Sections may be either prestressed or mildly reinforced.

Behavior under service loads and/or design (ultimate) strength are checked for compliance with ACI-318 (2005, 2002 or 1999). Using user-entered values for  $C_m$ ,  $\beta_1$  and  $M_1/M_2$ , the proper moment magnification factor for columns is calculated based on the non-sway frame equations of Sec. 10.12. The slenderness ratio ( $kL/r$ ) must be less than or equal to 100.

Both design and service interaction curve values will be generated upon request.

### **BCAN** for Windows™

*BCAN* calculates moments, shears, axial forces, deflections, and rotations for continuous, indeterminate beams or multistory columns using the direct stiffness method of analysis.

Loads may be general in nature and can include joint loads and moments, and uniform, partially distributed, trapezoidal and concentrated loads on any part of the member. One or more load cases may be specified in a single report.

## LATERAL ANALYSIS AND DESIGN PROGRAMS

### **LATERAL3** for Windows™

*LATERAL3* is a powerful and general program for the 3-dimensional analysis of multistoried shear-wall systems subject to lateral forces.

The program will determine the wind or seismic forces prescribed by one of the supported codes (Directional method and Equivalent Lateral Force method). The selection includes 2012 IBC (Wind and Seismic by ASCE 7-10), 2009 or 2006 IBC (Wind and Seismic by ASCE 7-05), 2003 IBC (Wind and Seismic by ASCE 7-02), 2000 IBC (Wind by ASCE 7-98). User-assigned lateral forces may also be used instead of a code.

The direct stiffness method of analysis is used throughout and shear deformations are considered. Shears, moments and displacements are calculated at any desired level for all walls due to wind and seismic loads (with and without an accidental eccentricity). Additionally, the cross section of selected shear walls can be changed or stopped at specified floors.

At the user's option, the program will calculate an approximate fundamental period of vibration using the code-specified equation or Rayleigh's equation. A user-assigned period may be substituted for the calculation.

### **SHEARWAL** for Windows™

*SHEARWAL* aids engineers in analyzing mild-reinforced or post-tensioned shear wall sections subject to a combination of vertical loads and lateral wind and/or seismic forces with optional earth pressure load.

The wall cross section may be rectangular or rectangular with pilasters (bulbs) at either or both ends.

Ultimate flexural and shear strengths are calculated for a horizontal joint. Three methods of calculating shear at the joint are available: (1) sliding friction, (2) simplified shear friction, or (3) maximum allowable shear stress. Design (ultimate) moment is calculated using strain compatibility, with the additional option of printing the concrete and bar forces and strains. The internal shear reinforcement requirements for the wall panel are calculated per ACI 318.

All standard load cases can be checked by selecting one of IBC 2012 through IBC 2000 codes or user-defined load cases may be used for all vertical loads and both wind and seismic lateral loads.

## CONNECTION DESIGN PROGRAM

### **STUDS** for Windows™

*STUDS* calculates tension and shear capacity of plates with headed anchor studs or hooked bolts. When a shear load and/or either a moment or perpendicular load are specified along with an effective depth and width of a bracket, the program calculates the interaction of shear and moment and provides a satisfactory/not-satisfactory assessment of the combined pullout and shear capacity. In place of the interaction calculation there is an option for all shear load to be borne by tail bars attached to the plate. *STUDS* will report the required area of steel for the tail bars.

Users may select from PCI Design Handbook, 7<sup>th</sup> Edition, PCI Design Handbook, 6<sup>th</sup> Edition, or Appendix D methods for ACI 318-11, ACI 318-08 or ACI 318-05.