

## **Release Notes for Compmem V3.1.1**

### **New/Changed Features in V3.1.1 (since V3.1.0)**

There are no new features in V3.1.1. It is a maintenance release only.

### **Bugs Fixed in V3.1.1**

- 254 You can now view and print the results for problem files that are accessed using the  
410 \\server\share\path syntax. Previous versions crashed when any of the actions that required calculations were requested.
- 401 If a prestressed column meets the 225 psi requirement of ACI 318-02 or -05 Sec. 18.11.2.3, the note about minimum reinforcement for Sec. 10.9.1 is not included in the report.
- 407 (a) Moment values for negative axial loads were wrong for smaller load values because the  
420 compressive strain was not limited to 0.003. THIS RESULTED IN UNCONSERVATIVE ERRORS IN MOMENT CAPACITY.
- (b) In the Factored Load Interaction Diagram, the  $P = 0$  value for negative moment is now reported correctly. It was using the positive moment value in the negative moment place.
- 414 The last row in an input table will now be displayed properly in the report. It was being reported as zeros.
- 421 The interpolation message is reset between Moment Magnifier section and Factored Load Interaction Diagram sections of the report.

### **New/Changed Features in V3.1.0 (since V3.0.4)**

- + You now must select the revision of the ACI 318 building code you wish the calculations to follow. Available options are 1999, 2002, and 2005 revisions. Prestressed members under the 2002 and 2005 revisions use the unified design methodology.
- + Several additional material properties are now available for user modification: concrete unit weight, cracking factor, steel elasticity, compression and tension controlled  $\phi$  factors.
- + Light weight concrete properties are calculated and used as appropriate.
- + Checks ratio of area of reinforcing to gross area.

### **Bugs Fixed in V3.1.0:**

- 235 Add a CANCEL option to the "Save current problem? Y/N" dialog that you get when you (e.g.) click on File > Open while you have unsaved modifications.
- 252 Allow light weight concrete.

- 264 Input form shouldn't be cleared if the selected file doesn't load.
- 271c Evaluation of the criteria for  $\phi$  interpolation for -99 code are more rigorous. In particular, the section centroid must be at  $\frac{1}{2}$  height and the centroid for reinforcement must coincide with the section centroid for the  $0.1f'_cA_g$  value to be used.
- 271d Added the calculated value for  $\phi$  to the Moment Magnifier table.
- 271e Added min. value for factored interaction diagram.
- 271f Specification of prestress properties no longer allows contradictory values as was the case when both final stress and final strain were entered by user but elasticity was a fixed value.
- 273 In the moment magnifier table, when the  $P_u$  value you enter is over the calculated  $\phi P_n$  value, a note is printed in place of  $\phi M_n$ .
- 277 For prestressed members, the value of  $P_o$  for tensile loads now is based on the failure strain for P/S.
- 308 In the sample file for Example 2, the Allowed tension for service load interaction diagram is now positive as it should have been for V3.0.4.
- 345 When you select the current problem from the file list and then select to save changes that you have made to input data, you will get a Save As dialog.
- 359 Uses unified design methodology for prestressed pieces. See ACI 318-02 18.4.4.2 - .3
- 377 Help better explains limitations of general section calculations
- 391 Service load page now shows one decimal place for both  $P$  and none for  $M$  which is what the report (correctly) shows.