

# ProSteel 5.1

## What's new ?

Please note that telephone support  
will not be available between  
July 15th and July 24th 2003

Those changes marked with an asterisk have been made since the ProSteel 5.1 manual was printed. Please note that project files produced using ProSteel 5.1 will not be readable by earlier versions.

### Stanchion load entry

The stanchion load entry method has been completely revised. You now enter loads in a table, much as for beams, and can give loads descriptive names,

#	P	Load	Dead kN	Live kN	Offset
1	A	o.w.	0.5 x 8.00		N/A
2	A	Axial load	.30	.75	N/A
3	1	Reaction at 1	.10	.10	100
4	3	Reaction at 3	.20	.20	100
5					100

The position where the load acts is denoted by 'A' if axial, or '1' - '4' if acting so as to produce a moment. In the latter cases you now have to enter the distance from the face of the member to the position where the load is assumed to act - generally this will be '0' for cap connections and '100' for beam reactions (the cell background will turn yellow if you enter any other value so as to warn you that a non-standard value has been entered). In such cases, as before, the resulting moment is automatically calculated by the program. You can enter any additional moments in the fields provided.

If you load in a file produced by an earlier version of ProSteel any stanchion load data will be converted to the new format: you will need to substitute your own load descriptions for the default ones.

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### **Additional section types\***

\*The eight section type limit has been increased to 12. A new ALLSTEEL.DTA file (dated 17.10.01 so as to replace our earlier file dated 16.10.01, but not any data file you may have edited) includes section properties for Euronorm IPE (narrow flange) and HE (wide flange) I sections, also for RHS sections bent about their minor axis (i.e. larger dimension horizontal) - the last are denoted by 'RHS\*'. Apologies to those users who have been waiting a long long time for this.

### **Revised connection checking**

The connection checking routines have been heavily reworked and now follow the checks in the 2002 'Green Book' ('Joints in Steel Construction: Simple Connections': SCI Publication P212, ISBN 1 85942 072 9). If you are going to use ProSteel's connection routines we would strongly urge you to obtain a copy and familiarise yourself with its contents. The connection printouts are more detailed than before.

Additional checks are now made for block shear failure on fin and end plates: these checks (which are never critical in properly proportioned connections) use the plate width which was not entered in earlier versions. If a project produced by an earlier version is read in that incorporates end or fin plate connections, the plate(s) are given a default width which should be changed if necessary.

The larger equal angle and all unequal angle sections have been removed (these would generally only be used with two lines of bolts which fall outside ProSteel's checking): a warning message is displayed if a deleted section appears in an existing project that is read in and a 90x90 angle is substituted

### **\*Revised Print Project dialog**

The Print Project dialog now uses list boxes instead of tree views and can now be resized. As before you can move an item from one list to the other by selecting it and pressing the appropriate button. If you hold down the [Ctrl] key you can now select a number of items before pressing the appropriate button. In addition you can now also drag items from one list to the other.

### **Minor enhancements**

- \*The Project Details dialog now contains an extra field containing the project start information (which is printed at the top of the Project Summary): previously this data

was automatically generated by the program when you first started a project and could not be changed, and was retained if you copied an old project file as the basis for a new one.

- \*The Project Manager 'Move up' and 'Move down' buttons now do not do anything if the result would be to move an item above one whose data it accesses. In such cases a warning message is displayed.
- \*The beam and stanchion load entry tables now show alternate rows in two different colours. These can be changed from within the Configuration, Colours dialog.
- The Configuration, User Setup dialog now includes a button which deletes the currently selected heading template. Please note that this process is not reversible.
- A new Configuration, Information option shows you the current program setup and file locations, which may be helpful if you are encountering problems running the program This report can be printed or copied to the Windows clipboard.
- PDF files produced by the program can now be merged with other PDF files if you have a copy of Adobe Acrobat (full version, not just the free reader)

### **Bug fixes**

- On a beam extended as a cantilever, shear was not checked at the root of the cantilever - fixed
- Where a stanchion had equal and opposite beam reactions bearing on, the fact that there was no net moment was taken as implying that the stanchion was axially loaded only and the reactions were ignored - fixed
- The printouts for stiffened web openings said that the centre of the stiffener was assumed to be 8mm from the edge of the opening; this was not correct: the assumption made in the calculations is that the face of the stiffener nearest the opening is 8mm from the edge of the opening. We have corrected the description: the numbers are unchanged.
- We have made a number of changes which make the program run faster

**Please contact us as soon as possible if you encounter any problems or suspected bugs.**