

Innovative software for structural engineers

CSC's product portfolio also includes:

CSC ▶ TEDDS[®]

The calculation pad for the professional engineer ▶ www.tedds.com

CSC ▶ S-Frame[™]

3D structural analysis suite ▶ www.s-frame.info

CSC ▶ Orion

Reinforced concrete analysis and design ▶ www.orionrc.com

CSC ▶ 3D+

The CAD system for structural engineers ▶ www.3dplus.info

CSC ▶ Services

Training, technical support and consultancy for structural engineers



software and solutions
for structural engineers

CSC (UK) Limited
Yeadon House, New Street, Pudsey, Leeds LS28 8AQ, England
tel ▶ +44 (0)113 239 3000 fax ▶ +44 (0)113 236 0546
e-mail ▶ sales@cscworld.com website ▶ www.cscworld.com

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CSC ▶ Fastrak[™]
BUILDING DESIGNER

**Structural Steelwork
Analysis and Design**

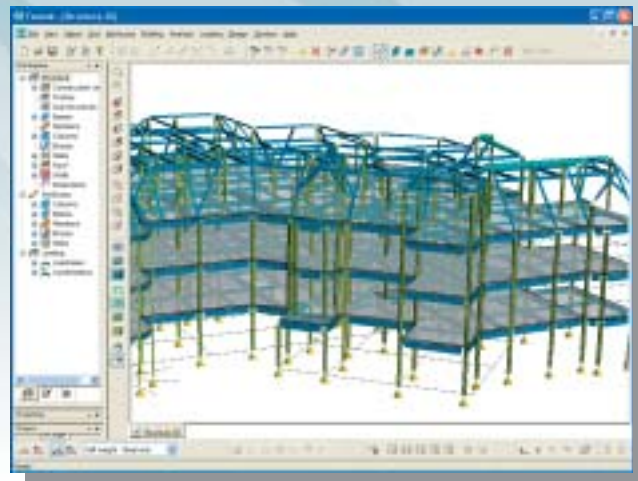


software and solutions
for structural engineers



CSC ▶ Fastrak™ BUILDING DESIGNER

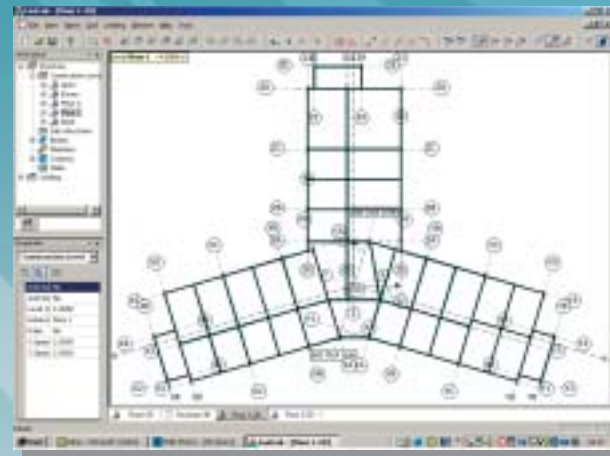
Fastrak is the most comprehensive steel building design package available. No other product offers the range of design solutions and the speed of design that Fastrak can offer you.



▶ Design the most complex building automatically

Modelling

- ▶ Simple 2d or 3d input of floors and frames for rapid model generation.
- ▶ Create any arrangement of grid lines to help you input the structure quickly and simply.
- ▶ Import DXF drawing to automatically create grid lines.
- ▶ Import architects' plans in DXF. The architectural drawing can be 'traced over' to generate the Fastrak model.
- ▶ Create and work with beams, columns and slabs, handled as design objects not analytical elements.
- ▶ Import models from 3D+™ or other 3d based systems, automatically creating a Fastrak design model.
- ▶ No practical limit to the geometry of the model.
- ▶ Inclined beams, floors, complex roof structures, trusses etc - all are modelled in Fastrak.
- ▶ Floors can be tied by bracing or diaphragm action.
- ▶ Frames can be rigid or braced with X, A, >, /, K etc.
- ▶ Members can be any material including concrete and timber.



▶ Simple to use interface

Design

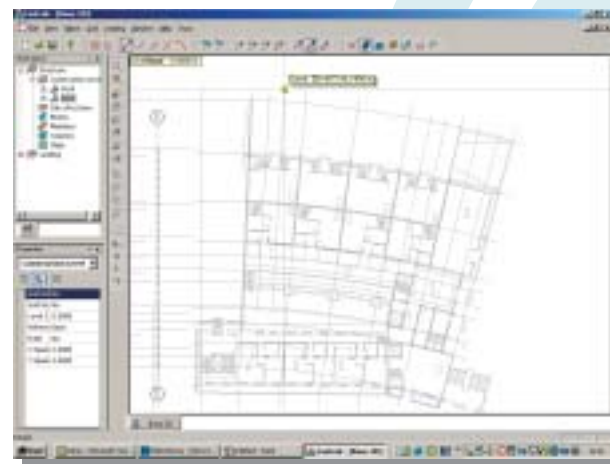
- ▶ Simple, composite with decking, composite with PC planks, continuous and back-span beams.
- ▶ Rolled sections, plated beams, Fabsec, Westok, Porthole, ASB's and Slimflor beams.
- ▶ Web openings with or without stiffeners.
- ▶ Simple, concrete filled or rigid (moment) columns.
- ▶ Frame stability from bracing and/or rigid frame design and/or concrete shear walls.

Automatic Loading Facilities

- ▶ Distribution of all loads including lines, concentrated, and partial area, to the supporting structure.
- ▶ Directional wind load distribution.
- ▶ Calculations of notional horizontal forces for the entire structure as per BS 5950-1:2000 for sway and lack of fit.
- ▶ Reduction of imposed loads per BS 6399.

Automatic Building Design

- ▶ Detailed assessment of Lambda cr for the entire structure by inspection of every floor-to-floor drift of every column under the relevant notional horizontal load case.
- ▶ Comprehensive implementation of the assessment of floor vibration to SCI P076.



▶ Import ghosted DXF to help set up building

"We found Fastrak straightforward to use, with enormous benefits gained in the design time, at the crucial initial stages of a project."

Barrett Steel Buildings Ltd

"Elland Steel Structures purchased Fastrak after carefully considering other packages available in the market. In our opinion, it is the most rigorous solution in determining the sway stability of the structure."

Elland Steel Structures Ltd

"The software is excellent; both efficient and professional. We are extremely pleased with Fastrak - it has paid for itself many times over!"

WSP Consulting Engineers

"Fastrak is being used to design three of the steel framed buildings on the Whitefriars Town Centre redevelopment in Canterbury. It has proved to be a very powerful tool in helping us to meet the fast programme required by HBG Construction."

Upton McGougan plc

Creating the 3d model was quick and simple as Fastrak has an intuitive user interface. The software also enabled careful engineering consideration to be given to complex setting out of grid lines on the model and the realistic number of load cases adopted."

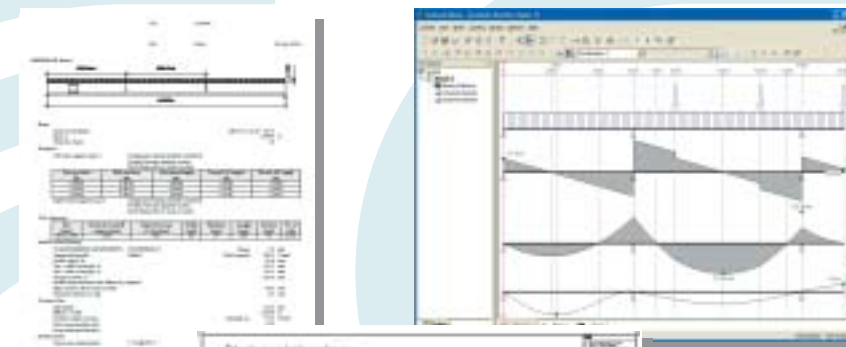
Waterman Group



▶ Complete design including stiffened web openings

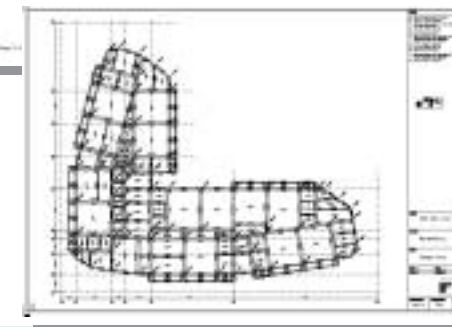
Results

- ▶ Detailed design output or design summaries for submission to checking authorities, in Microsoft Word™ format if required.
- ▶ Beam end reactions and base reactions in Microsoft Excel™ format or on drawings.
- ▶ Detailed design drawings of plans and elevations, including beam end reactions, floor slab reinforcement requirements, span direction, etc - automatically layered on AutoCAD™ drawings.
- ▶ Full take off lists including steel and concrete material and floor areas, in Microsoft Excel™ if required.
- ▶ Creation of 3d model for integration into 3D+™, S-Frame™, Orion and a wide range of other modelling systems.



▶ Calculation sheet

▶ Continuous beam results



▶ Drawing output



▶ Model courtesy of John Allen Consulting

Why compromise?

Find out how you can significantly improve your design efficiency, productivity and business profitability.

CSC ▶ Fastrak™
BUILDING DESIGNER