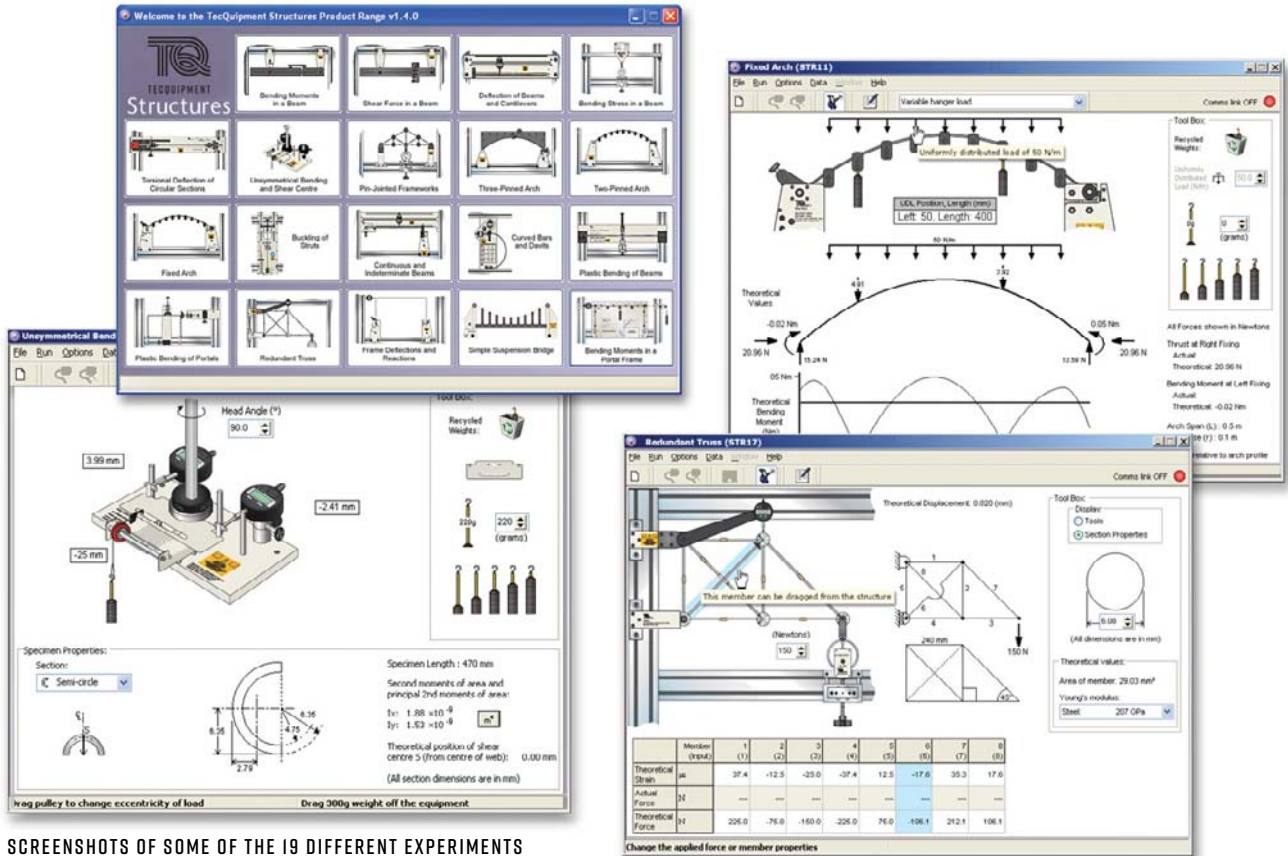


STRS

STRUCTURES SOFTWARE

Software that allows computer simulation of structures – simulates and extends TecQuipment’s Structures range.



SCREENSHOTS OF SOME OF THE 19 DIFFERENT EXPERIMENTS

KEY FEATURES

- High-quality structures teaching software for students of mechanical, civil and structural engineering
- Accurately simulates all 19 of TecQuipment’s Structures range experiments
- Includes user guides with suggested experiments and typical answers
- Gives virtual experiments that extend beyond the limits of the experiment hardware
- Easy to use, easy to understand
- Single-user and networked options available
- Ideal companion to TecQuipment’s Structures range of teaching hardware



DESCRIPTION

TecQuipment's Structures Software is ideal for students of civil, mechanical and structural engineering. It allows them to perform computer-simulated experiments which study the principles of structures.

The Structures Software is the ideal companion to TecQuipment's hardware modules (STR2 to STR20). It includes a simulated form of each hardware module. The software is a useful tool when used on stand-alone or networked computers. TecQuipment offers different network licences, determined by your needs.

The Structures Software expands the scope of each experiment beyond the limits of the hardware. It mimics the hardware but allows students to change and extend many parts of the experiment. Depending on the experiment module, the student can alter different parts of each experiment, including the:

- type and number of supports;
- shape of the structure or specimen;
- material of the structure or specimen;
- Young's modulus of the structure or specimen.

The software also allows students to apply a greater range of loads, often including uniformly distributed loads (which the students cannot apply in many of the hardware experiments). Students can see, tabulate and graph data, reducing the time needed for them to get, process and show results. They can study and compare the properties of a wide variety of different structures.

NOTE: You can buy the Structures Software (STRS) by itself, but it is also included free with the Automatic Data Acquisition Unit (STR2000).

STANDARD FEATURES

- Supplied with comprehensive user guides (student guide and lecturer guide)
- Five-year warranty
- Made in accordance with the latest European Union directives
- ISO9001 certified manufacturer

ESSENTIAL ANCILLARIES

- Suitable computer

NETWORK VERSIONS

- STRN5 – Five Seat Network Licence
- STRN10 – Ten Seat Network Licence
- STRN25 – Twenty-Five Seat Network Licence
- STRN50 – Fifty Seat Network Licence

LEARNING OUTCOMES

Computer-simulated examination of a wide variety of structures principles, including:

- Bending moments in a beam
- Shear force in a beam
- Deflection of beams and cantilevers
- Bending stress in a beam
- Torsional deflection of circular sections
- Unsymmetrical bending and shear centre
- Pin-jointed frameworks
- Three-pinned arch
- Two-pinned arch
- Fixed-arch
- Euler buckling of struts
- Continuous and indeterminate beams
- Curved bars and davits
- Plastic bending of beams
- Plastic bending of portals
- Redundant truss
- Frame deflections and reactions
- Simple suspension bridge
- Bending moments in a portal frame

SPECIFICATIONS

TecQuipment is committed to a programme of continuous improvement; hence we reserve the right to alter the design and product specification without prior notice.

- The software is downloaded from the TecQuipment website www.tecquipment.com

Supplied in a box that contains:

- Hardware protection key (dongle)
- User guides

NETT DIMENSIONS AND WEIGHT OF BOX:

250 mm x 200 mm x 50 mm, and 0.5 kg

MINIMUM COMPUTER SPECIFICATIONS NEEDED:

- Microsoft® Windows® 7, 8 or 10 operating systems
- Monitor capable of at least 16-bit colour and 800 pixels vertical resolution
- 40 MB available hard drive space
- USB port (for software protection key - 'dongle')