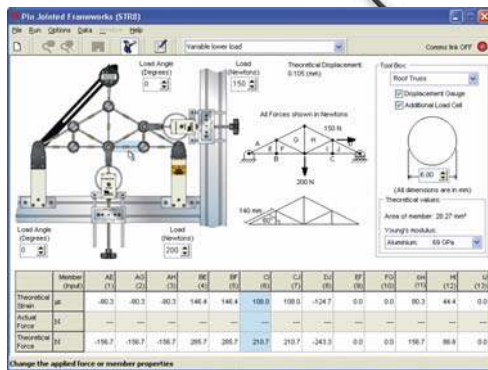
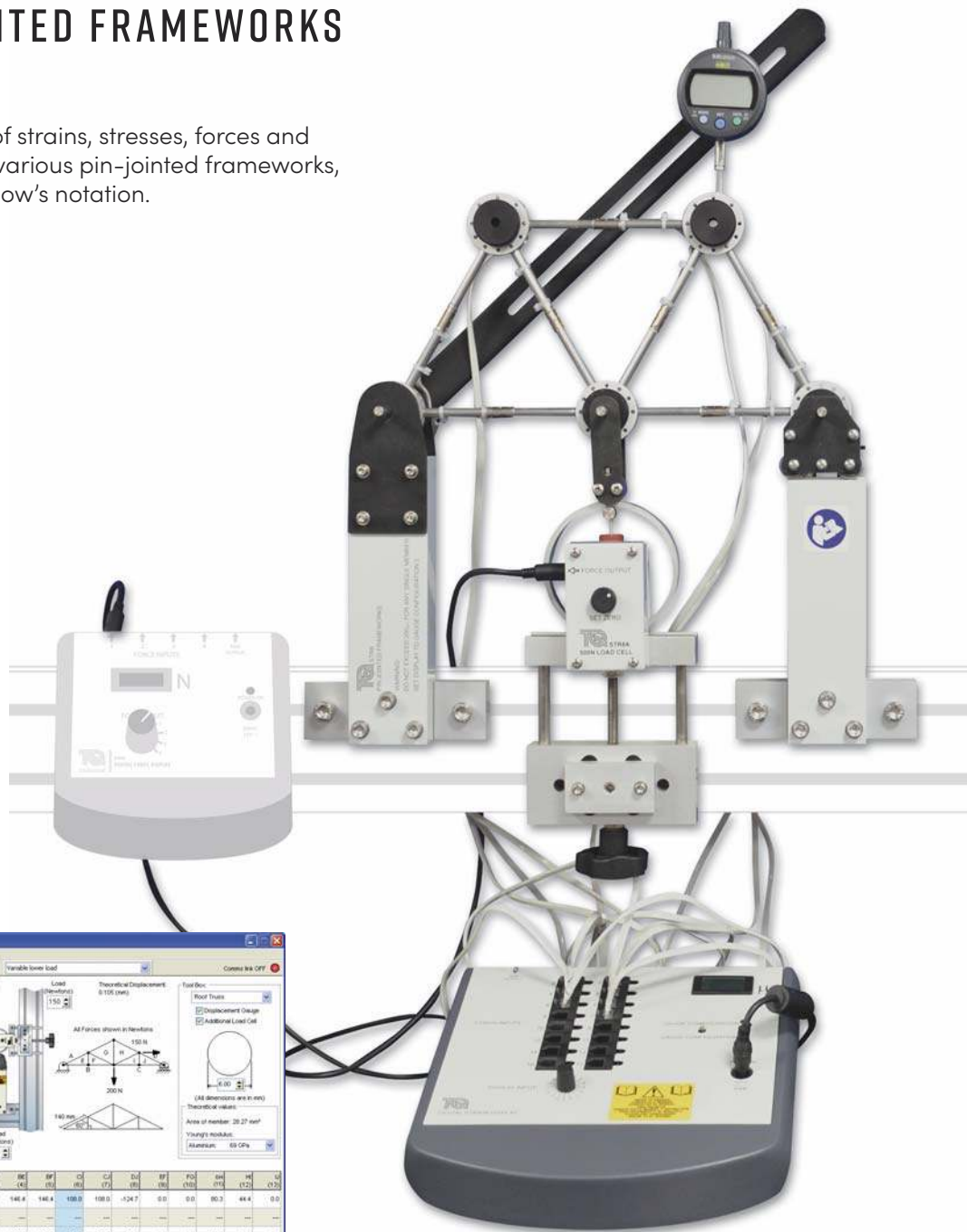


PIN-JOINED FRAMEWORKS

STR8

For the study of strains, stresses, forces and deflections in various pin-jointed frameworks, and study of Bow's notation.



SCREENSHOT OF THE OPTIONAL TECQUIPMENT STRUCTURES SOFTWARE

LEARNING OUTCOMES:

- Study of Bow's notation, strains, stresses, forces and deflections in various frameworks, including a Warren girder and roof truss
- Comparison of different frameworks

Students use stainless-steel members to build different pin-jointed frameworks. The equipment includes two framework supports: a pivoting support, and a pivoting and rolling support. Each member has a strain gauge attached that connects to a digital strain bridge. Load cells measure the load applied at various angles. A second load cell can be fitted to simulate lateral forces on the truss (STR8a).

ESSENTIAL BASE UNIT:

- Structures Test Frame (STR1) 188

ESSENTIAL ANCILLARIES:

- Digital Force Display (STR1a) 189

RECOMMENDED ANCILLARIES:

- Structures Software (STRS) for virtual experiments 190
- OR
- Automatic Data Acquisition Unit (STR2000) for automatic data acquisition and virtual experiments 189
- Additional Load Cell (STR8a)

ALTERNATIVE PRODUCTS:

- Redundant Truss (STR17) 195