COMBINE

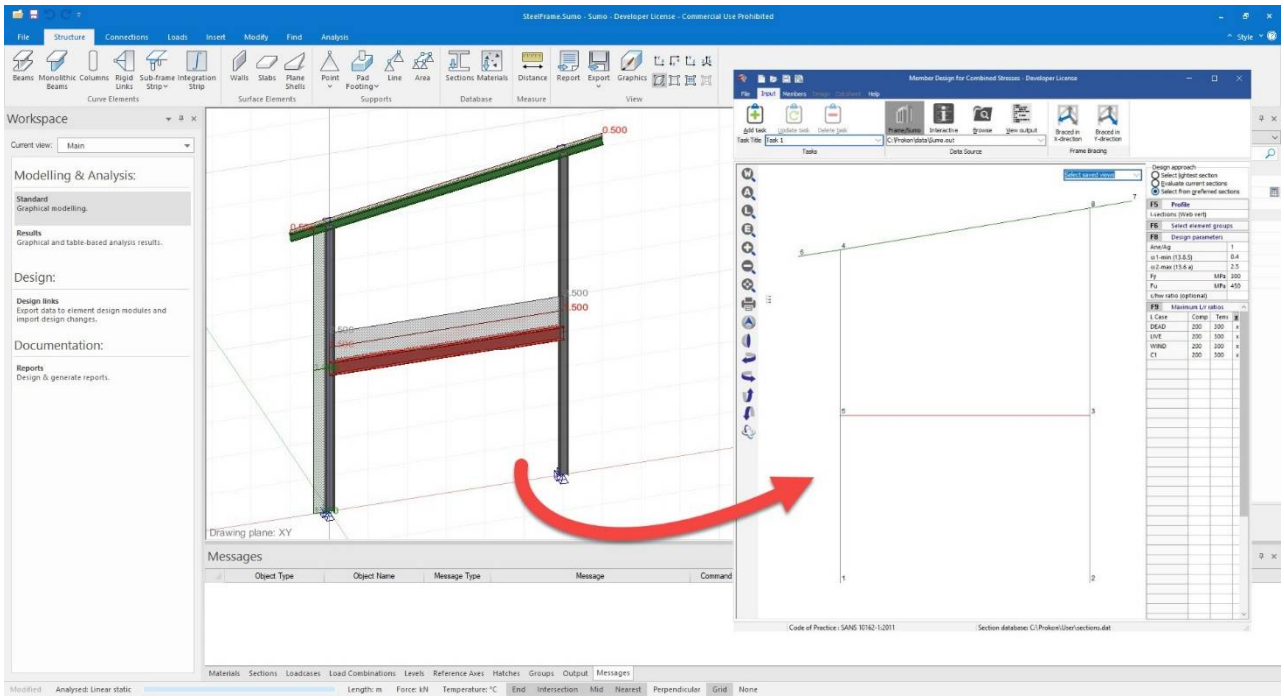
STEEL MEMBERS SUBJECT TO AXIAL, BENDING AND SHEAR STRESS

DESIGN | S02

Summary

Effortlessly design and optimise steel members subject to a combination of axial, bending, and shear stress, e.g., beams and columns in frames.

Easily process your analysis results from **Sumo** and **Frame** or use the interactive mode for quick design and checking of individual members without the need to first perform an analysis.



What makes this module special?

- Considers a combination of stresses
- Interaction with Sumo and Frame
- Three different design approaches

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Detailed Description

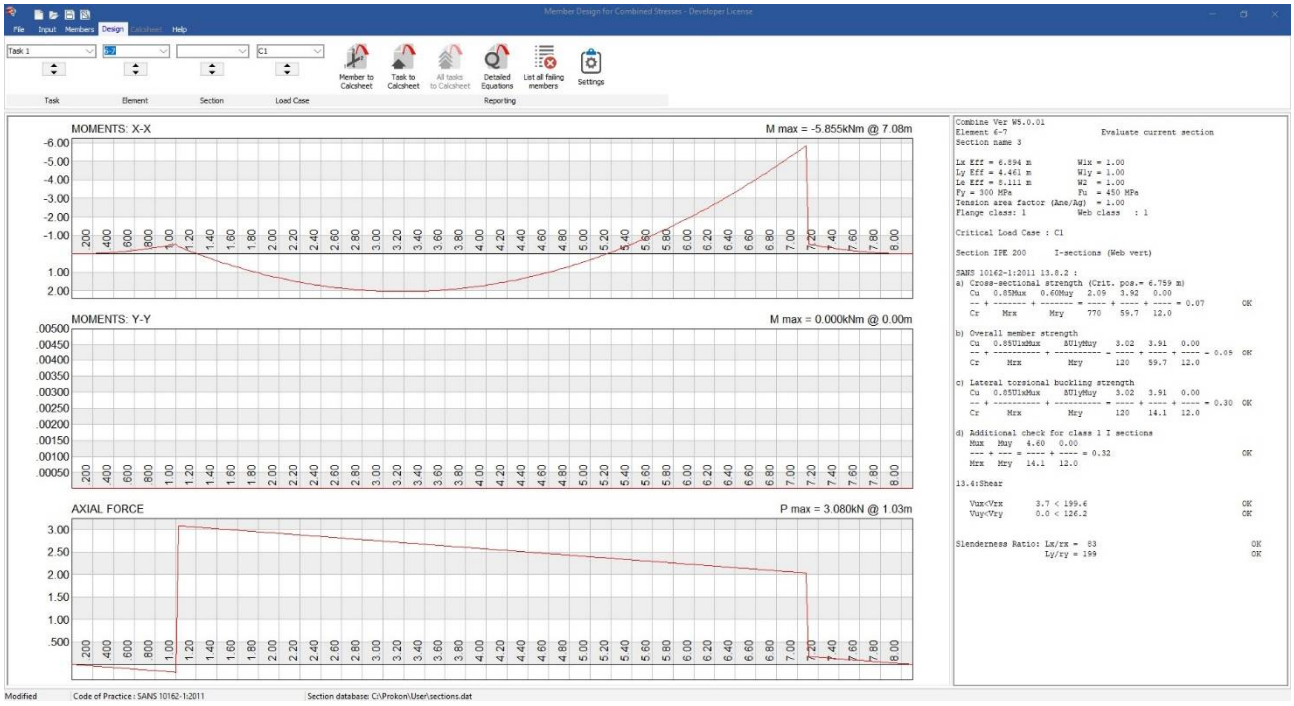
Combine is a **PROKON®** steel member design module which allows you to effortlessly design and optimise steel members subject to a combination of axial, shear, bending stress. The steel member design modules primarily act as post-processors for the modules **Sumo** and **Frame**. Combine also has an interactive mode for quick design or checking of individual members without the need to first perform an analysis.

Simplify the design of a structure by breaking it up in design tasks. Each task lists the members to be designed, the design parameters such as effective length factors, and the design approach. You can save the design tasks to a file so that you can easily recall it later.

Combine provides three different design approaches, depending on what you would like to achieve:

- Select lightest section
- Evaluate current sections
- Select from preferred sections

The design results are published to a Calcsheet with a summary and in-depth design calculations for every member and graphs showing axial force and bending moment distribution along the length of the member. The design calculations will indicate whether a specific element fails or passes the required design checks.



Supported Design Codes

Concrete Design Codes

- AISC - 1999 LRFD
- AS4100 - 1998
- AS4100:2020
- BS 5950 – 1990
- BS 5950 – 2000
- CAN/CSA-S16.1-94
- CSA S16:19
- CSA S16-01 2001
- CSA S16-09 2009
- CSA S16-14 – 2014
- Eurocode 3 – 2005
- IS:800 – 2007
- NZS 3404 – 1997
- SABS 0162 – 1984
- SABS 0162 – 1993
- SABS 0162 - 2:1993
- SANS 10162 - 2005
- SANS 10162-1:2011