

PROKON Support Portal

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Allowable stress design in Timber

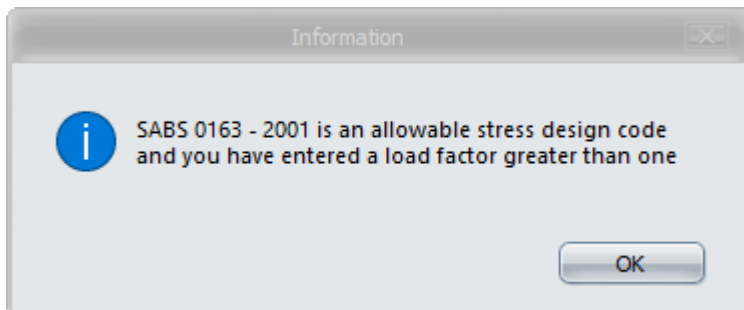
Andrew - 2020-07-02 - 0 Comments - in T01:Timber member design

The timber design module supports two allowable stress design codes; SABS 0163 - 1989 and BS 5268 - 1991.

Essentially there are two design philosophies to follow when confronted with member design; allowable stress design (ASD) or limit state design (LSD). ASD compares actual and allowable stresses, while LSD compares the required strength to actual strengths. LSD was introduced to compensate for the fact that ASD tends to produce overly conservative designs for structures with predictable loads while producing unconservative designs for structures with less predictable loads.

Younger users are typically only familiar with LSD procedures, while older ones will recall the ASD procedures. LSD is relatively new to timber and many engineers stick to the ASD procedure because it is what they are used to. It is for this reason that PROKON does not yet support LSD for timber design. Modern codes that allow for LSD might be added to the program in the future.

When reading data from an analysis output file, you may see this message:



This means that you have specified a load combination with load factors in the analysis program conflicting with the load factor of 1 required when doing allowable stress design.

The solution is to define an additional load combination in the analysis software, with load factors of 1 to be used for the timber design.