PROKON Support Portal

S01 - Laterally Unsupported design approach

Andrew - 2020-01-31 - 0 Comments - in S01:Member design for axial stress

Member Design for Axial Stress (Strut) has two design approaches that can be used to design elements during post-processing of analysis results:

1. Element Groups: Lateral supports are assumed at all nodes.
2. Laterally Unsupported: If certain nodes are not laterally supported, the Laterally Unsupported function can indicate the nodes that are supported. All other nodes are assumed to be unsupported. The Laterally Unsupported function finds the shortest path between the two specified nodes to identify the relevant elements.

When using the laterally Unsupported function, the effective lengths are calculated in the following way:

- Ly is calculated as the cumulative length between the supported nodes.
- Lx and Lv a function of the individual element lengths between two adjacent nodes.

When viewing the results in the Calcsheet, each member between lateral supports will display results for the number of individual elements between lateral supports. This is because design checks for the entire member (Ly) as well as individual elements (Lx and Lv) need to be done. Only the critical case is displayed, and the design axis is indicated in the Crit Axis column.