

PROKON Support Portal

Portal > Knowledgebase > Steel Connection Design > Steel Design Links From Frame

Steel Design Links From Frame

Andrew - 2019-06-25 - 0 Comments - in Steel Connection Design

When an analysis of a structure is completed in one of the analysis packages, the relevant information (loads, beams & column sizes) can be transferred to the PROKON design modules for further design.

When the *Steel Connection* option is selected, the user is required to click on a node where two or more steel members connect. The simple example shown in Figure 1 is used as reference:

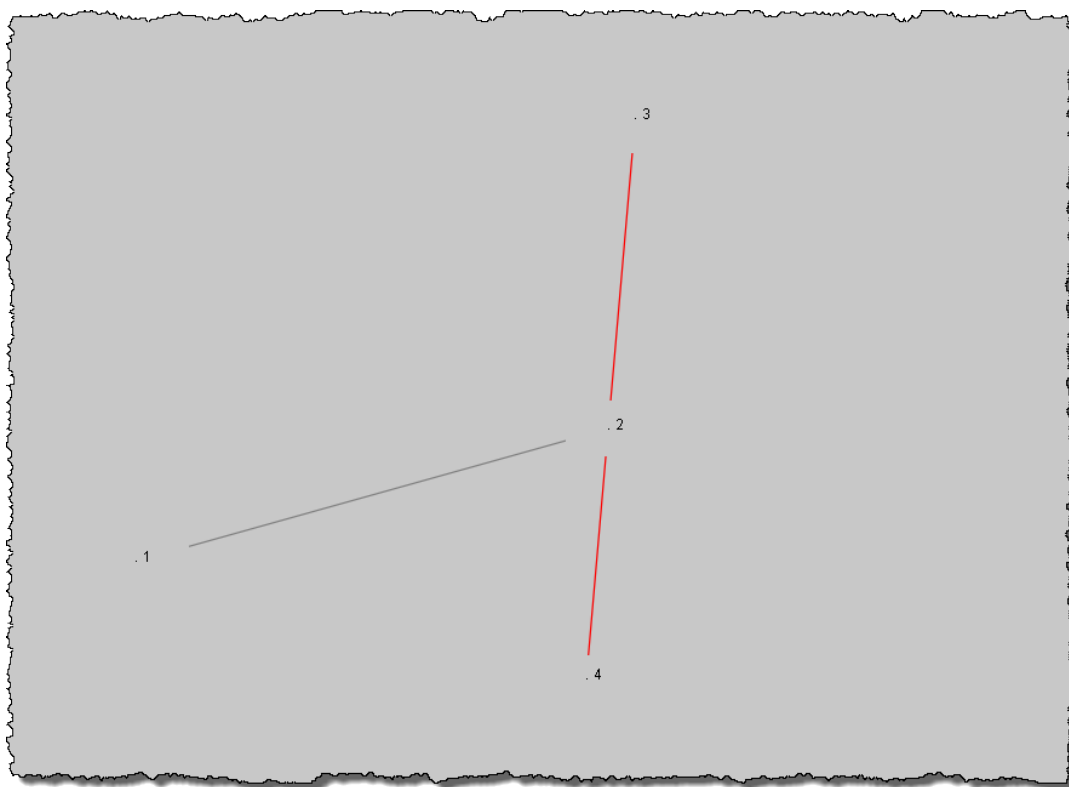


Figure 1: Steel beam and column example.

When node nr. 2 is selected, the *Steel Connection Design links* window is opened (Shown in Figure 2):

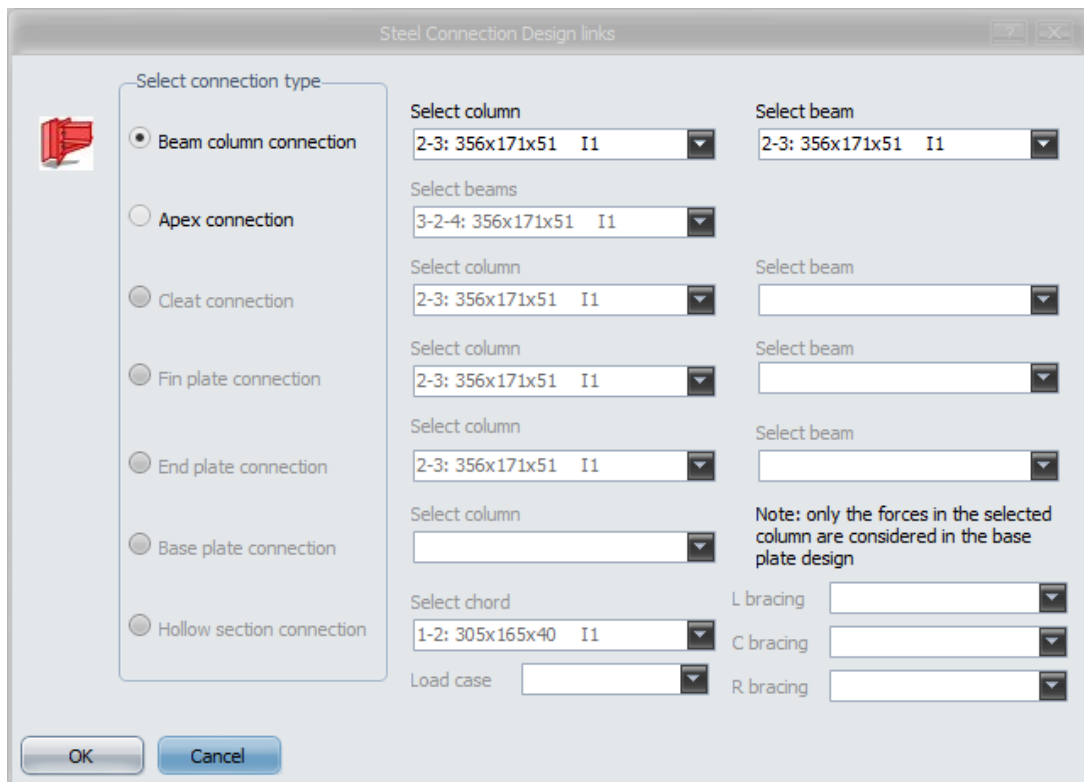


Figure 2: Steel Connection Design links window - Fixed connection.

Notice that only the first two options are available. The other options are greyed out. The reason for this is that the beam 1-2 (in Figure 1) has no end releases, i.e. a fixed end condition. This will transfer moments through the connection. The only design modules that can design a connection including a moment is the first two modules, *Beam column connection*, and *Apex connection*. (Base plate connection is excluded because a base plate is only applicable where a node has a support .)

If the end condition for beam 1-2 is modelled to not transfer any moments (i.e. pinned or torsional fixed end conditions), the other design modules will be available, as shown in Figure 3:

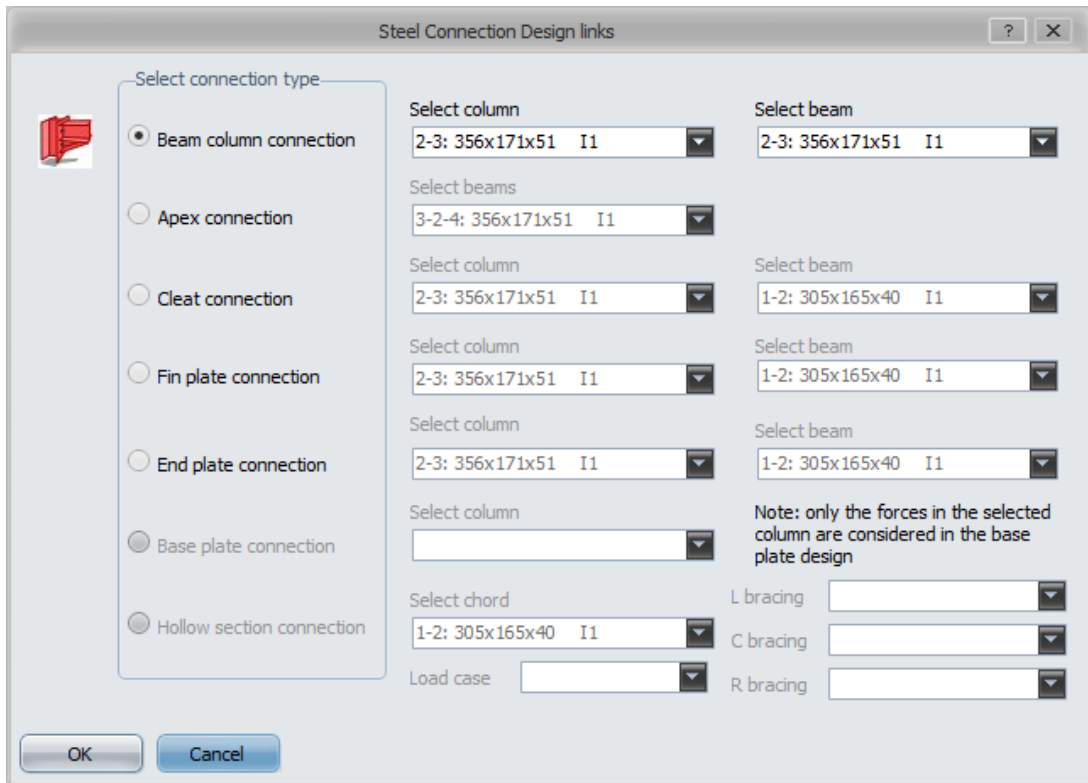


Figure 3: Steel Connection Design links window - Pinned connection.

The same is true when an analysis is done in Sumo. When the selected design link is selected, but cannot design the actual connection, an error message is displayed:

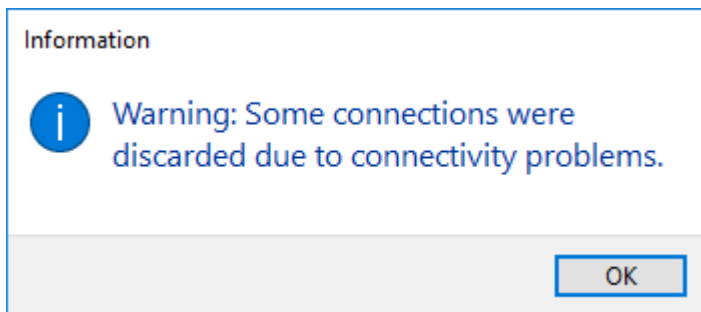


Figure 4: Sumo error message.

When this error is shown, either select a different connection design link or change the beam end conditions.