Learn to use (3.2) 3skeng Steelwork advanced (ver.2.1)

This document contains all scene texts of the SketchUp file in case you have problems to fit the text on your screen.

Scene "Explanation"

How-to use this file:

Click on the next scene to start or use the PgUP and PgDN keys

to advance to the previous or next scene.

Follow the description step-by-step ("*" requires action from you) and feel free to align the predefined view to fit your screen resolution and preference.

When successfully finished, go to the next scene and repeat until the last scene.

Scene "1-Edit Steelwork Assembly"

1) Click on the "Edit and Rotate Tool" in the 3skeng toolbar.

2) Slowly hover over the assembly.

   Whenever you hover over a Steelwork element,

   you can see all possible edit options for the element.

3) * Click to select the dark grey element for edit.

   Hover over the available options.

   Affected elements for each option are highlighted.

   * Click to when red axis is highlighted.

   * Extend 500mm by using the ruler or entering the value.

4) * Click to select the light grey element for edit.

   * Click to when blue axis is highlighted.

   * Elevate 250mm by using the ruler or entering the value.

   Info: Use SketchUp or 3skeng elements for reference.

Scene "2-Generate Knoted Connections"

Use knoted connections to firmly connect profiles.

1) Click on the "Steelwork Tool" in the 3skeng toolbar.

2) * Hover over the light grey profile surface

     facing the dark grey profile.

   * Click when surface is highlighted.

3) * Click on the red cross below the light grey profile.

4) * Hover over the dark grey profile surface and

     click on the red cross above the dark grey profile.

By doing so, the profiles are connected by nodes.

Nodes stay connected even when being edited

and are used for structural analysis in third-party software.

Scene "3-Edit Knoted Connections"

Knoted connections make sure that the twice-chamfered profiles are automatically adjusted in the "Edit" process:

1) Click on the "Edit and Rotate Tool" in the 3skeng toolbar.

2) Elevate the (light grey) top profile:

    * Hover over the top profile and click when highlighted.

    * Hover over blue axis and click when highlighted.

    * Elevate the assembly for 250mm.

3) Click on the "Edit and Rotate Tool" in the 3skeng toolbar.

4) Move the (dark grey) right profile:

    * Hover over the dark grey profile and click when highlighted.

    * Hover over red axis and click when highlighted.

    * Move 250mm to right.

Scene "4-Edit Profiles"

1) Click on the "Edit and Rotate Tool" in the 3skeng toolbar.

2) Click on the light grey profile.

3) Hover over the available options:

    a) * Click on "change type/standard":

        i) Select other shape type and standard in "library" register:

        * "I-Section" => "S - USA - AISC".

        ii) Select other profile:

            Move along the squares to see the available profiles:

            horizontal = profile variations (e.g. flange/web thickness)

            vertical = different profiles (e.g. height)

            * select "S6x3.3x12.5 AISC (...mm)".

    b) * Click on "change type/standard":

      * Hover over long (larger) profile and click to inherit properties.

    c) * Click on "rotate":

        The profile is rotated 90° among its axis.

Scene "5-Edit Knots"

1) Click on the "Edit and Rotate Tool" in the 3skeng toolbar.

2) * Click on the light grey profile.

   * Hover over the profile and click on the top cross (when highlighted).

   * Hover over the orange profile towards the green profile and click on the red cross.

3) * Click on the dark grey profile.

   * Hover over the profile and click on the top cross.

   * Hover over the orange profile towards the green profile and click on the red cross.

4) Elevate the (orange) top profile:

   * Hover over the top profile and click when highlighted.

   * Hover over blue axis and click when highlighted.

   * Elevate the assembly for 250mm.

IMPORTANT: As the top and bottom profile are non-parallel, the blue profiles cannot be edited along the red axis!

Scene "6-Edit Knots comment"

COMMENT:

The last profile connected to the knot is trimmed considering both profiles already in place.