STT+

Single-span Steel Beam

The *STT+* application performs structural safety analyses in accordance with the equivalent member method for single-span beams of steel profile sections as per EN 1993-1-1. The regulations of the National Annexes are taken into consideration.

Standards

- DIN EN 1993
- ÖNORM B 1993
- BS EN 1993

Supporting conditions / Lateral support

The supporting conditions correspond to the statically determined, fork-mounted single-span beam. These supporting conditions are always valid for both main axes.

In addition you can define lateral supports against stability failure:

- continuously supported
- supported in the middle of the span
- supported in the third points
- supported in the quarter points
- supported at an ordinate x0.

For more complex supporting conditions an interface to the program BTII+ is available.

Analyses

The following verifications are performed:

- elastic or plastic cross sectional resistance
- resistance of the system according to the equivalent member method
- serviceability

Cross sections

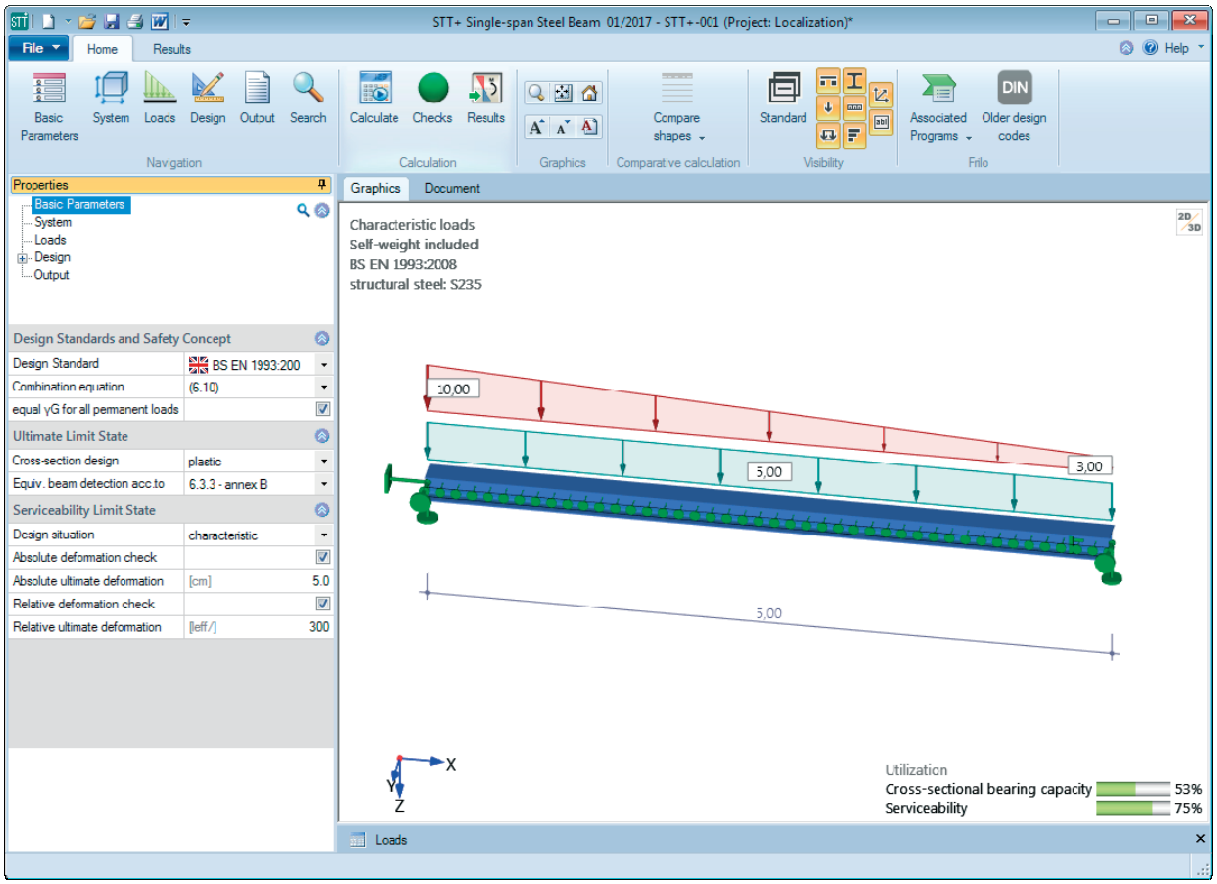
- Standard I-sections
- User-defined doublesymmetrical I-sections
- Standard round- and square hollow sections
- User-defined round- and square hollow sections

Actions

You can expose the beam system to vertical and horizontal loading and define bending moments. However, you cannot define loading that produces planned torsion.

Calculation

According to the defined actions STT + automatically determines the corresponding load cases and load case combinations and performs the necessary



verifications - the decisive load case combination to each limit state is determined.

Interfaces to other applications

The characteristic bearing forces can be transferred to the applications

STS+ Single-span Steel Column

B5 Reinforced Concrete Column

Design values and characteristic bearing forces to

ST4 Steel Girder Support

B9 Reinforced Concrete Corbel

For more complex supporting conditions

BTII+ Lateral Torsional Buckling Analysis