Continuous Beam - DLT+

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The operation of the individual beam types is already described in the respective documentation for the material-specific beam programs.

We therefore refer to the respective manuals here:

- Concrete BTM+ Continuous Beam Concrete
- Steel STM+ Continuous Beam Steel
- Timber HTM+ Continuous Beam Timber

Basic Documentation – Overview

In addition to the individual program manuals, you will find basic explanations on the operation of the programs in the document Basic operating instructions-PLUS_eng.pdf.

Application options and single documentations

The DLT+ program calculates single and multi-span beams.

In contrast to the material-specific FRILO beam programs (BTM+, STM+, HTM+), DLT+ includes all these materials/beam types:

- Reinforced concrete slab
- Reinforced concrete beam
- Steel
- Wood

The material aluminum will follow in a next program version.

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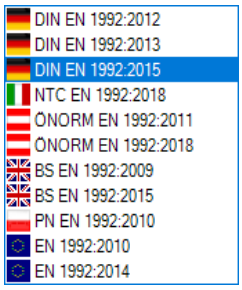
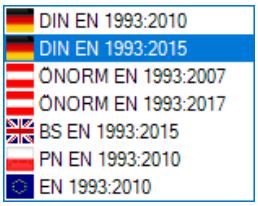
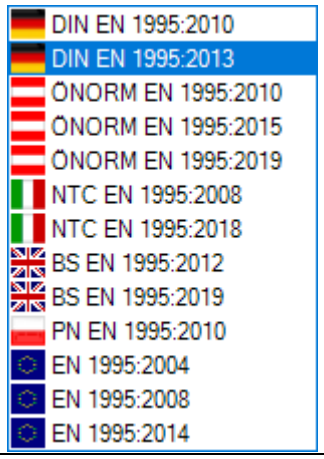
Standards

Depending on the material chosen

Reinforced concrete	Steel	Timber
		

Loading

Standard and multiple span loads can be defined as uniform load, concentrated load, concentrated moment, trapezoidal load and triangular load.

Design

General

- For concrete, steel and timber, the program carries out the design or the stress analysis for the preselected cross-section dimensions.

Reinforced concrete

- Automatic calculation of the effective slab width
- Calculation of the deformations in state II for reinforced concrete cross-sections with standards based on the partial safety concept
- Crack width verification (limit diameter) and stress analysis
- Consideration of the durability requirements
- Calculation and consideration of the creep coefficient and the shrinkage strain in the serviceability analyses
- Verification of the shear joint for slabs and T-beams
- You can perform an analysis of the connection of the compression flange (shear joint analysis) for T-beams

Timber

- Optionally, shear deformations can be considered with timber beams
- Vibration analysis
- Hot design
- Stability analysis

Steel and timber

- Optimization of the dimensioning and design with steel and timber beams
- Stability analysis for steel girders

Interfaces to further programs

- Reinforced Concrete Column B5+
- Timber Column HO1+
- Single-span Steel Column STS+
- Reinforced Concrete Corbel B9+
- Reinforced Concrete Half Joint B10+
- Framework RSX
- Continuous Beam Concrete BTM+
- Continuous Beam Steel STM+
- Continuous Beam Timber HTM+
- Timber Compression TB-HHS
- Lateral Torsional Buckling Analysis BTII+

Data transfer

The analysis of steel beams for lateral torsional buckling and elastic-plastic analyses can be performed per data transfer to the program Lateral Torsional Buckling Analysis BTII+.

Additional options

- BTM-BEW: Reinforcement layout for reinforced concrete beams/slabs
- BTM-2: Biaxial effect of actions on reinforced concrete beams
- HTM-2: Biaxial effect of actions on timber beams
- STM-2: Biaxial effect of actions on steel beams

Output options

Document file formats

- PDF
- Word
- Printer

Output

- Brief
- Minimum
- User-defined