

# DLT

## Continuous beam

**New:**

- EN 1992
- Interface to B9, B10
- Earthquake action

The DLT software analyzes simple and continuous, beams or slabs, with up to a maximum of 12 spans and the option of cantilever ends.

### Beam Types

- Reinforced concrete slab.
- Reinforced concrete beam.
- Steel beam.
- Timber beam.
- Beam without reinforcement analysis.
- Aluminium beam.

### Additional Options (extra charge)

Analysis for both y-y and x-x axis for reinforced concrete, steel beam, timber beam and reinforced concrete beam.

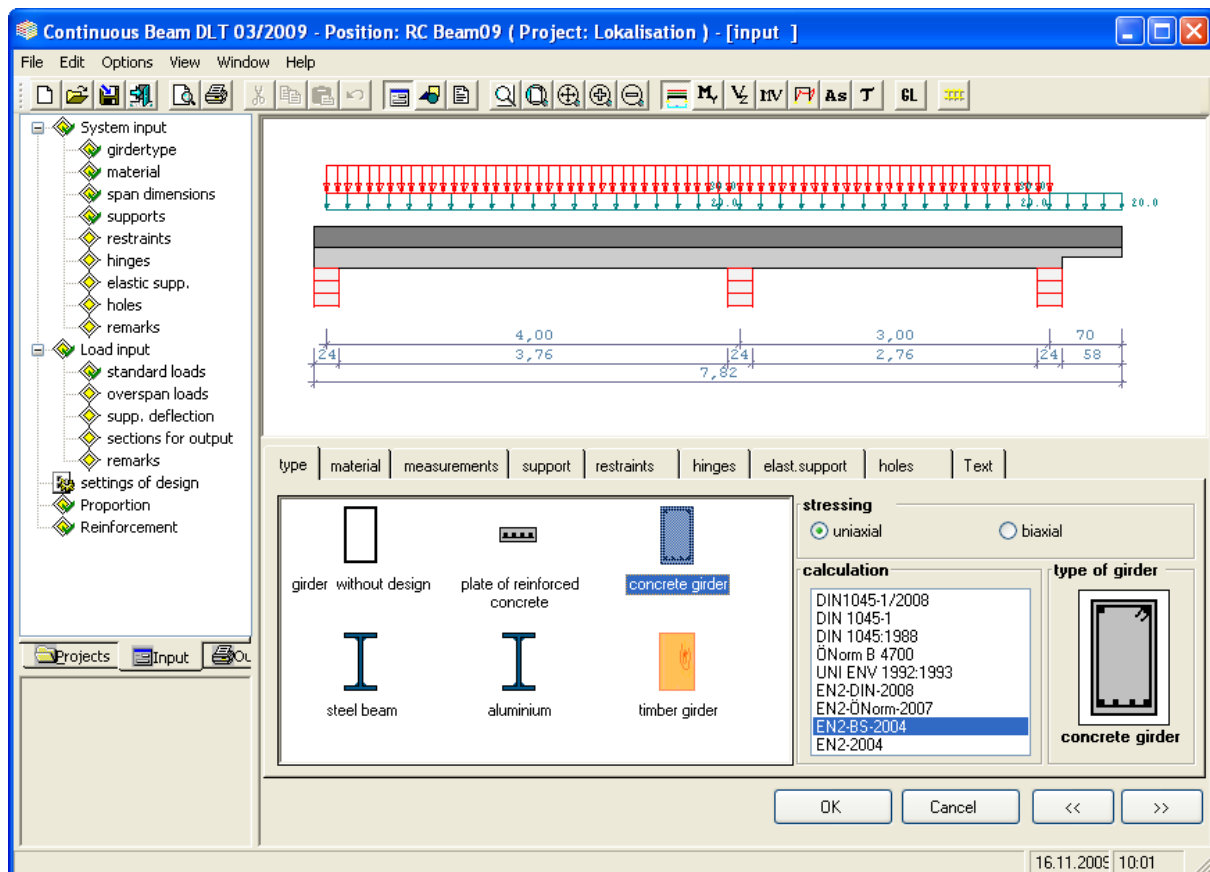
### Design

Stress analysis of concrete, steel or timber members given existing or required dimensions.

- Reinforced concrete calculation after  
DIN 1045:2001/2008 or ÖNorm B4700, UNI ENV 1992:1993, EN 1992 - optional with national annex Great Britain /Germany/Austria \*).
- Steel calculation after  
DIN 1050 (H,HZ,HS) or DIN 18800.
- Timber construction standards:  
DIN 1052:2004/2008  
DIN 1052-A1 10/96,  
DIN 1052 4/88,  
(NA-D, -A, -GB \*)
- Automatic calculation of Slab effective width (DIN 1045-1).

- Deflection calculations  
As per condition II for reinforced concrete cross sections (DIN 1045-1).
- Crack and shrinkage design (reinforcement dimension analysis) and composite stress check.
- Service life and durability requirements.
- Evaluation of creep coefficient and shrinkage strain in serviceability limit state.
- Optimization of steel and timber beam sections.
- Section Stiffness may be set as constant across the beam span or may vary as required.
- Joints are possible.
- Shear deformations can be optionally considered in timber beams.

*\*) One national annex is inclusive, additional NA is optional (extra charge).*



- Analysis of shear joints for flat and T-slabs.
- Shear capacity check of support/connection points of T-slabs.

### Load model Compatibility

Support loads calculated by other programs can be imported (using Keystroke F5).

### Openings

It is possible to calculate reinforcement requirements in order to incorporate rectangular or circular openings in beam webs – as per clause 399 DAfStb.

### Support reactions

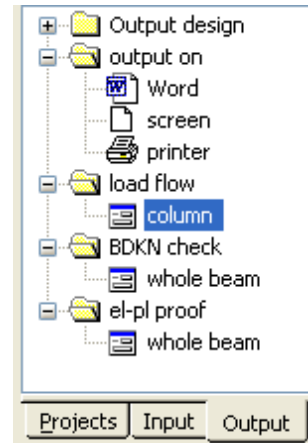
Support reactions are calculated according to a user selectable FOS.

### Interfaces

- The loads can be shared with other optional modules such as Column analysis B5, ST1 (Steel Columns), HO1(Timber Columns), B9 (Reinforced concrete corbel of column) and B10 (Beam with dapped end).
- The analysis for torsion, buckling and deflection for elastic and plastic design can be exported to either the BTII(Bending and Torsion-Bending torsion theory II) or the ST7(Steel Design module).

### Add-on options

- Two plane analysis of reinforced concrete, steel, timber beams.
- Output of reinforcement design to CAD format.



### Restrictions

- Additional reinforcement or other devices for connection with external elements is not considered.
- Notch depth analysis in shear according to DIN 1045 18.8.1 does not differentiate between clauses 2 and 3.
- Minimum required reinforcement length after cross section transitions or steps is not verified.

