WIN-Statik

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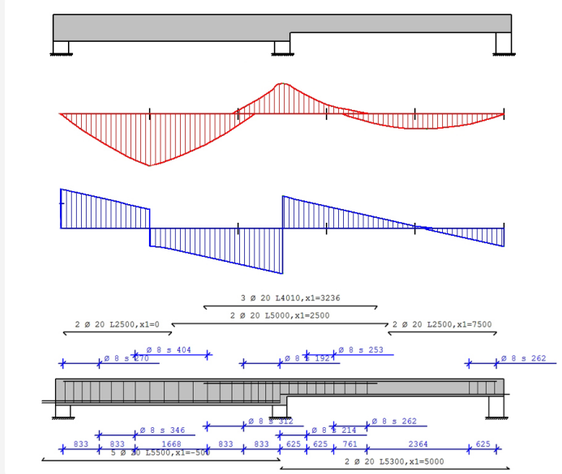
StruSoft

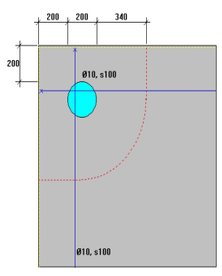
Concrete Beam

Analysis and design according to Eurocode for continuous beams. Based on the moments and shear forces calculated in the analysis part; required longitudinal reinforcement and stirrups are determined. Optimization of required reinforcement lengths with regard to bond can be made graphically. In the Serviceability Limit State a cracked section deflection analysis is done and a design regarding crack widths and displacements to meet standard- or user defined requirements can be performed. Alternatively, cracks and displacements can be calculated based on specified reinforcement.



Punching

Punching capacity for corner, edge or interior columns is calculated for three different load cases simultaneously. If the concrete capacity is exceeded, required shear reinforcement in the form of bended bars or stirrups is also calculated.



Capacity - At column perimeter

Loadcase	Design stress VEd (kN/m²)	Capacity VRd,max (kN/m²)	Comment
1	5617.23	6720.00	OK !

Capacity - At control perimeter

Load case	Design stress VEd (kN/m²)	Capacity VRd,c (kN/m²)	Comment
1	6.60	634.61	OK !

Bent-down bars

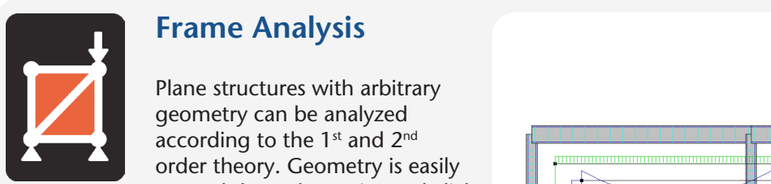
Bending angle	30 Degrees
Diameter	10 mm

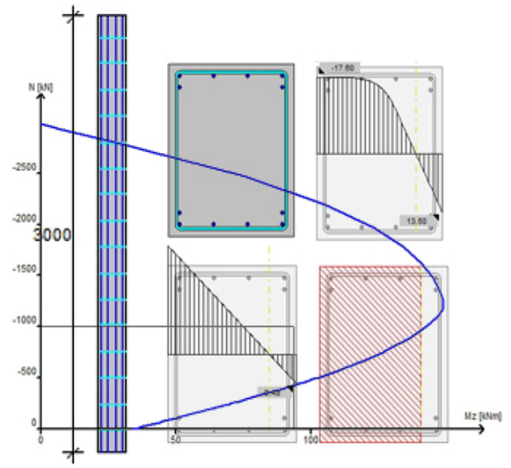
Load case	Design force VEd (kN)	Capacity VRd,cs (kN)	Comment
1	683.898	687.616	OK

Load case	Req. shear reinforcement (mm²)	Number of cuts	Comment
1	771	10	

Concrete Section

Either a design of required reinforcement or a check of specified reinforcement can be performed for a number of parametric cross-sections. The software can handle applied moments and shear forces along the principal axes (skew bending) as well as axial force and torque. Reinforcement of various grades and diameters can be mixed with a powerful graphical management to build up an arbitrary reinforcement distribution.





Concrete Column

Columns can be calculated according to Eurocode considering instability with the curvature or the stiffness method. Either a design of required reinforcement or a check of specified reinforcement can be performed. Bending around the principal axes (biaxial bending) is checked and interaction diagrams are created.

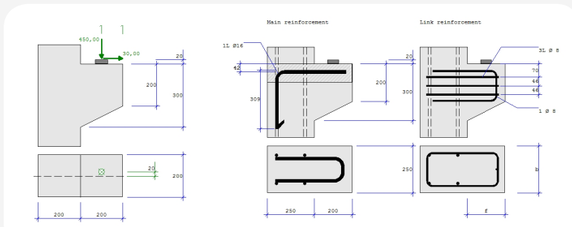
WIN-Statik 6

WIN-Statik 6 is a powerful but easy to use software series for common engineering design tasks. Analysis and design of columns, beams, sections, frames, corbels and prestressed elements are carried out according to the chosen design code.

WIN-Statik designs according to Eurocode (EN 1992-1-1:2004 (E)) standard or with national annexes.

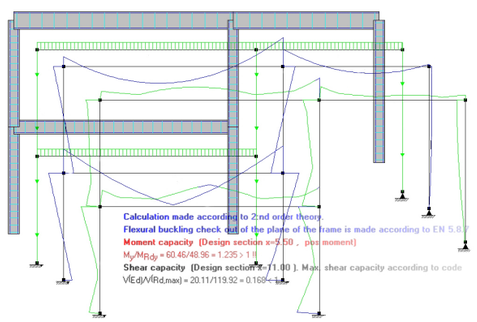
Concrete Corbel

Design of corbels for vertical and horizontal forces and with optional eccentricity. Required main reinforcement and stirrups are calculated and a detailed reinforcement proposal is presented.



Frame Analysis

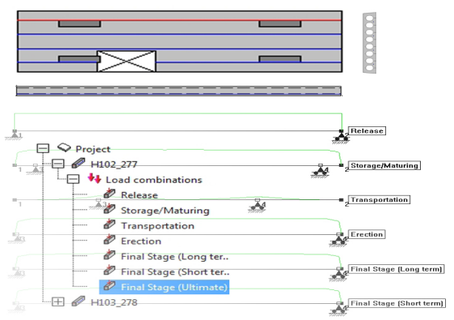
Plane structures with arbitrary geometry can be analyzed according to the 1st and 2nd order theory. Geometry is easily created through a point and click interface or for common structures the parametric Geometry & Loading module can be used. Standard steel-, concrete- and timber sections can be found in the database or the user can define parametric sections.
Concrete, steel and timber structure can then be designed according to Eurocode. A cracked section analysis considering creep and shrinkage can also be performed. Instability is considered with user defined buckling lengths or by the 2nd order moments.



PRE-Stress

Prestressed parametric, extruded cross-sections are calculated. Code-specific loadcases ensure that the complete lifespan of the structure is taken into account, from release to long-term serviceability state.

Prestressed elements created in IMPACT Precast can be sent to background calculation in PRE-Stress.



Villa Suprême, the head office in Malmö, Sweden

WIN-Statik

StruSoft is an innovative Swedish software company with more than 35 years of experience in specialized software applications for analysis, design, modelling and energy for the building industry.

FEM-Design

Finite element software for analysis and design of load-bearing concrete, steel and timber structures.

WIN-Statik

A suite of easy to use applications for common design tasks such as beams, columns or frames.

PRE-Stress

Analysis and design software for complete product life calculations of prestressed beams.

IMPACT

A family of BIM software to efficiently manage, design, produce, transport and erect prefabricated concrete elements.

VIP-Energy

Fast energy balance analysis for buildings using a dynamic calculation engine.

BIMcontact

www.bimcontact.com

Web-based project collaboration and document management system for the building industry.

StruSoft

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