B5 - Reinforced Concrete Column

B5 is a stand-alone application for the calculation of reinforced concrete columns and walls, exposed to uniaxial and biaxial effects of actions.

Input

- General columns including up to 10 storey sections
- Simple systems (hinged, cantilever and frame columns) are directly selectable
- Definition of the loading as nodal and/or line loads. Automatic combination of loads, also for accidental actions
- Loads can be assigned to alternative groups (wind from the left/right) or concurrency groups (wind as line and concentrated load acting together)
- Selection options concerning the durability requirements

Design Codes

- EN 1992-1-1:2004
- NEN EN 1992-1-1/NA:2007
- NBN EN 1992-1-1/NA:2007
- ČSN EN 1992-1-1/NA:2007

Calculation

- Non-linear rigidity calculation according to the real stress- strain ratio (“As” can be set by default !)
- Foundation restraints can be considered if desired
- Verification of all boundary conditions (minimum reinforcement, necessity of a buckling safety analysis, regular design etc.)
- Shear force design
- Check at serviceability limit state (steel stress, deformation)

Output

- Detailed output control including an additional "summary print" option
- Graphic representation of the moment area, the system and the loading
- Output of an editable reinforcement drawing for hinged and cantilever columns including a CAD interface

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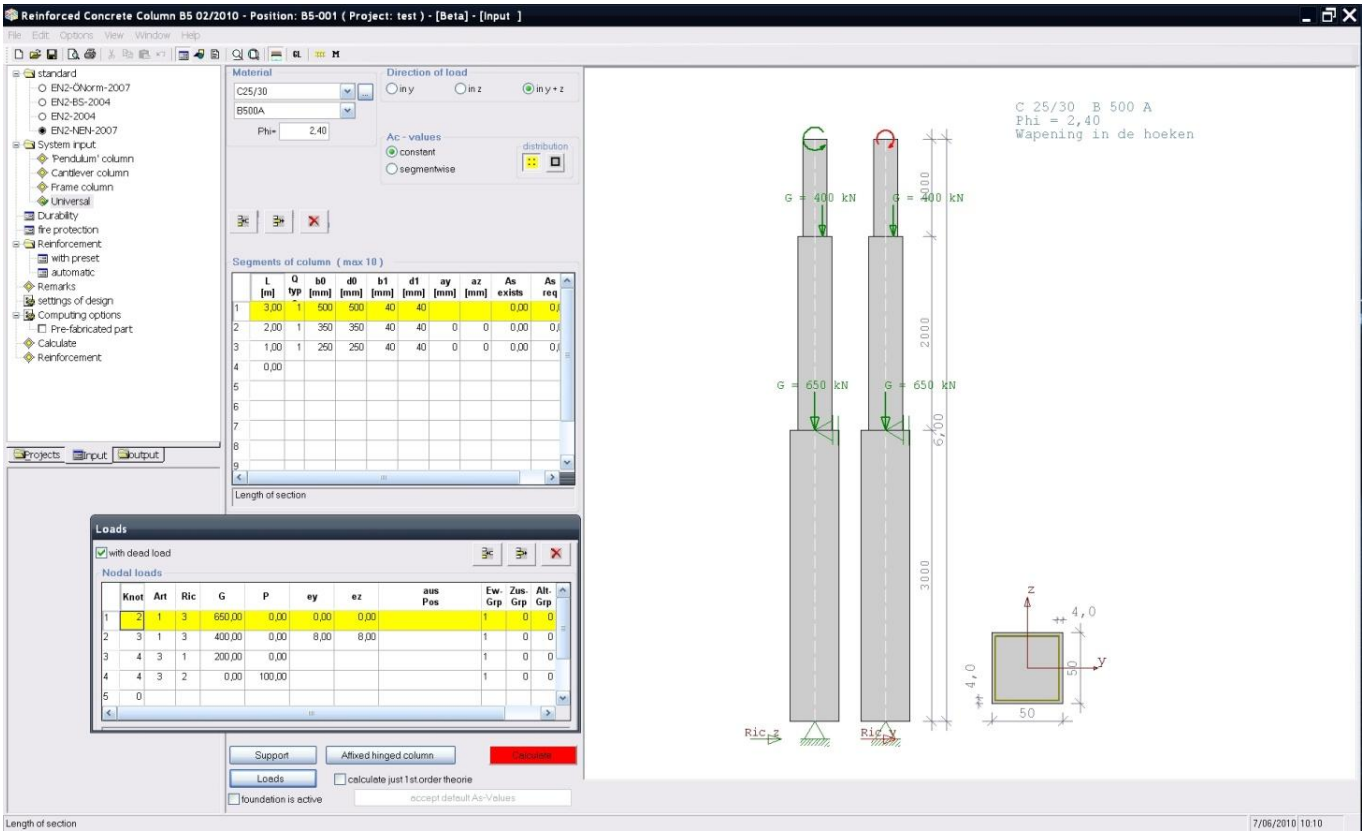

More information

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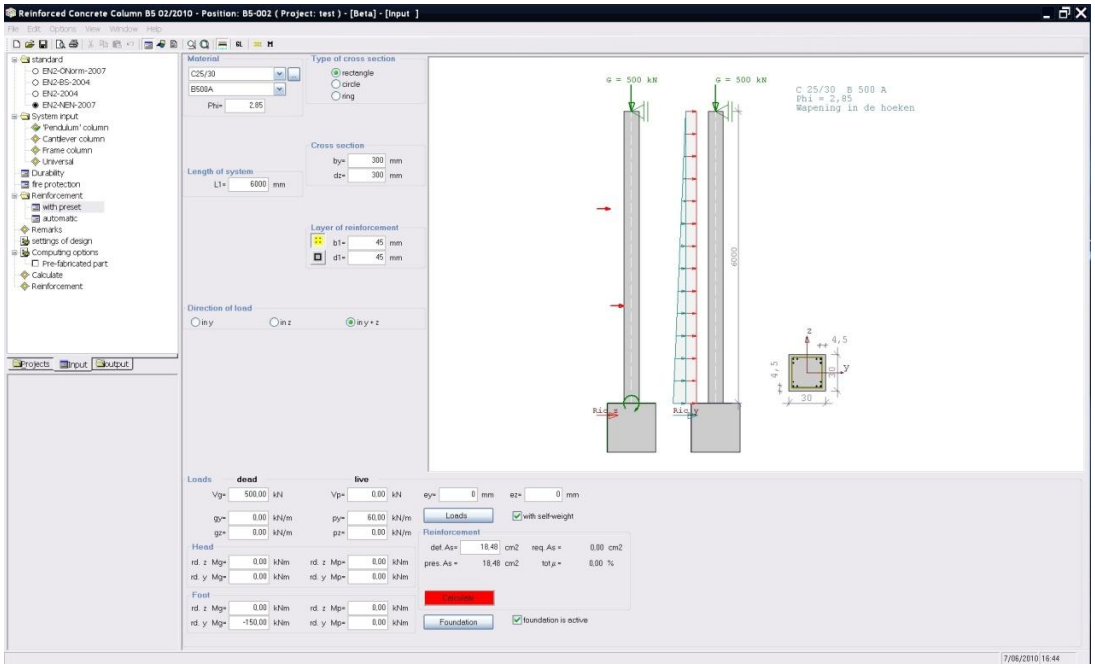
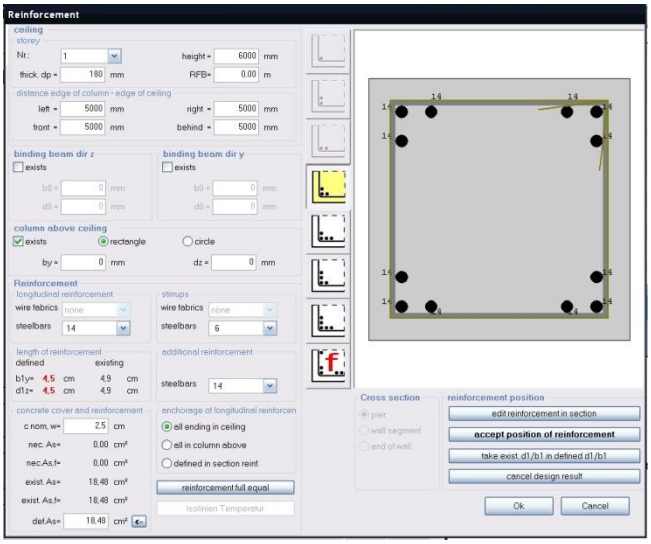
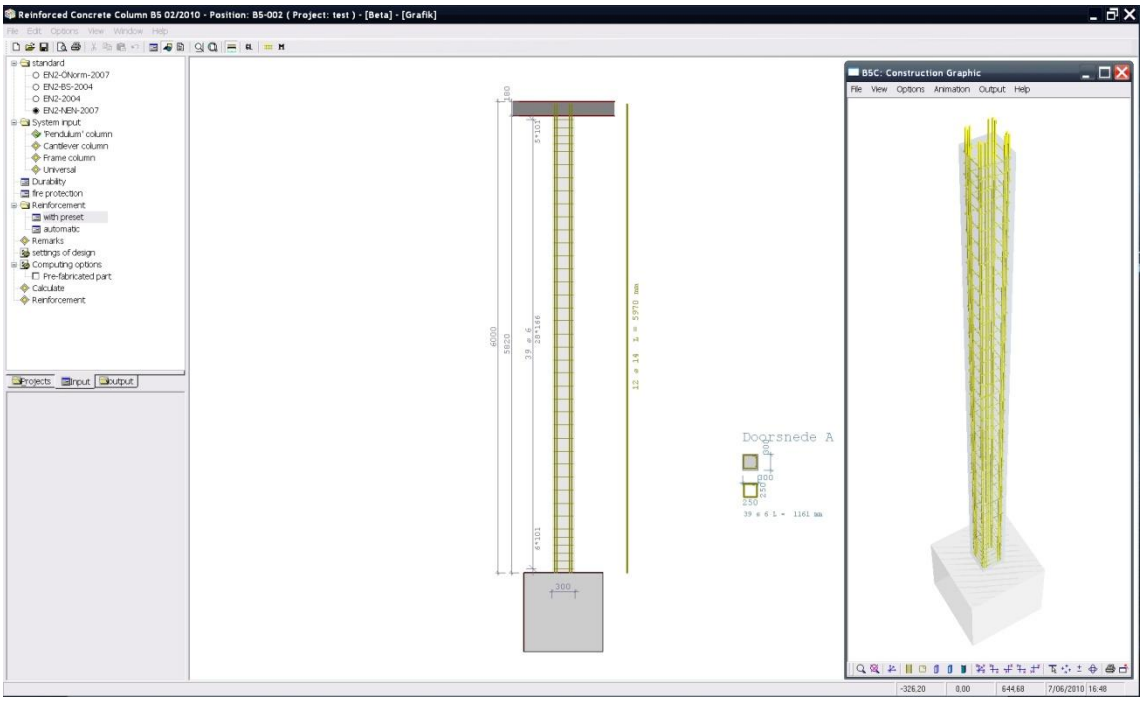

Reinforced Concrete Column BS 02/2010 - Position: BS-002 (Project: test) - [Beta] - [Input]
standard
EN2-ONorm-2007
EN2-BS-2004
EN2-2004
EN2-NEN-2007
System input
'Pendulum' column
Cantilever column
Frame column
Universal
Durability
fire protection
Reinforcement
with preset
automatic
Remarks
settings of design
Computing options
Pre-fabricated part
Calculate
Reinforcement
Material
C25/30
B500A
Type of cross section
rectangle
circle
ring
Cross section
Length of system
Layer of reinforcement
Direction of load
Loads
dead
live
Head
Foot
Calculate
Foundation
with self-weight
foundation is active
G = 500 kN
G = 500 kN
C 25/30 B 500 A
Phi = 2,85
Wapening in de hoeken


Reinforcement
ceiling
storey
distance edge of column - edge of ceiling
binding beam dir z
binding beam dir y
column above ceiling
Reinforcement
longitudinal reinforcement
stirrups
length of reinforcement
additional reinforcement
concrete cover and reinforcement
anchorage of longitudinal reinforcen
Cross section
reinforcement position
edit reinforcement in section
accept position of reinforcement
take exist. d1/b1 in defined d1/b1
cancel design result
reinforcement full equal
Ok
Cancel


Reinforced Concrete Column BS 02/2010 - Position: BS-002 (Project: test) - [Grafik]
BSC: Construction Graphic
File View Options Animation Output Help
Doorsnede A