



black on white

26 excellent arguments for PreDim

- Load calculation
- ViBo/BBRI
- Input static material quality
- Preventing contusion
- Crack calculation
- 92 Loading cases
- 4.100 Aluminum profiles
- Glued laminated timber
- Round timber
- Structural timber
- Expert mode
- Statics expert
- LSG
- DIN
- ISO
- EN(EuroNorm)
- EC (EuroCode)
- sTs
- 82 profile types I L T S C o
- Fire resistance
- Reinforcement
- German, French, Dutch & English Translations
- Fire refractory class
- Printing & editing of results
- Graphical version
- 24.000 profiles
- 6 materials
- Steel Reinforced concrete Wood Glued laminated timber
- Aluminium
- Help text & help videos

1th Argument: Preventing contusion

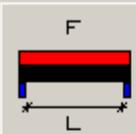
PreDim probes examines in 3 adjustable steps if the obtained profiles withstand the loading (profile section, moulding, mould, mold, steel girder, steel section, steel shape, form, shape, contour, mason's profile, guide post, plumbing guide, solid moulding, stuck moulding, half joist, tee-split, stuck mould, cold-rolled steel, cold-worked section, cold-formed steel, CF-steel, glued-on moulding, laid-on

moulding, planted moulding, rolled section, depth of section, section iron, rolled beam, rolled girder, rolled steel joist, RSJ, steel beam, timber box beam, band moulding, band fillet, moulded fillet, coving, moulding plane, molding plane, sectional steel, structural steel). Tested will be the relation of height to width, as well as the quotient of the cross-section (profile section, section, steel section) to total area (total base, gross area, diameter, sectional view, sectioning, horizontal section, sectional plan, in section, cross section, transverse section, longitudinal section, vertical section, bevel cut, oblique section, cutting plane, plane of section).

Not convinced yet?

Get to know more about PreDim

PreDim 2008



Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm2, 613 kg/cm2
 Bending, inertia= 80000 kg*cm, 887 cm4
 Supported deflection (/real)= 10 mm / 3 mm
 Hollow rectangular supporting beam 140x70 (140x70/13/13)
 Cold production, DIN 59410 05/1974
 heigh x width, ratio= 140x70 mm, 2.0:1
 Thickness vert./horiz. = 12.5, 12.5 mm
 Section, surface moment of inertia, weight=
 46.3 cm2, 1030.3 cm4, 145.2 kg

F (kg/m')= L (cm)=

Inclination=

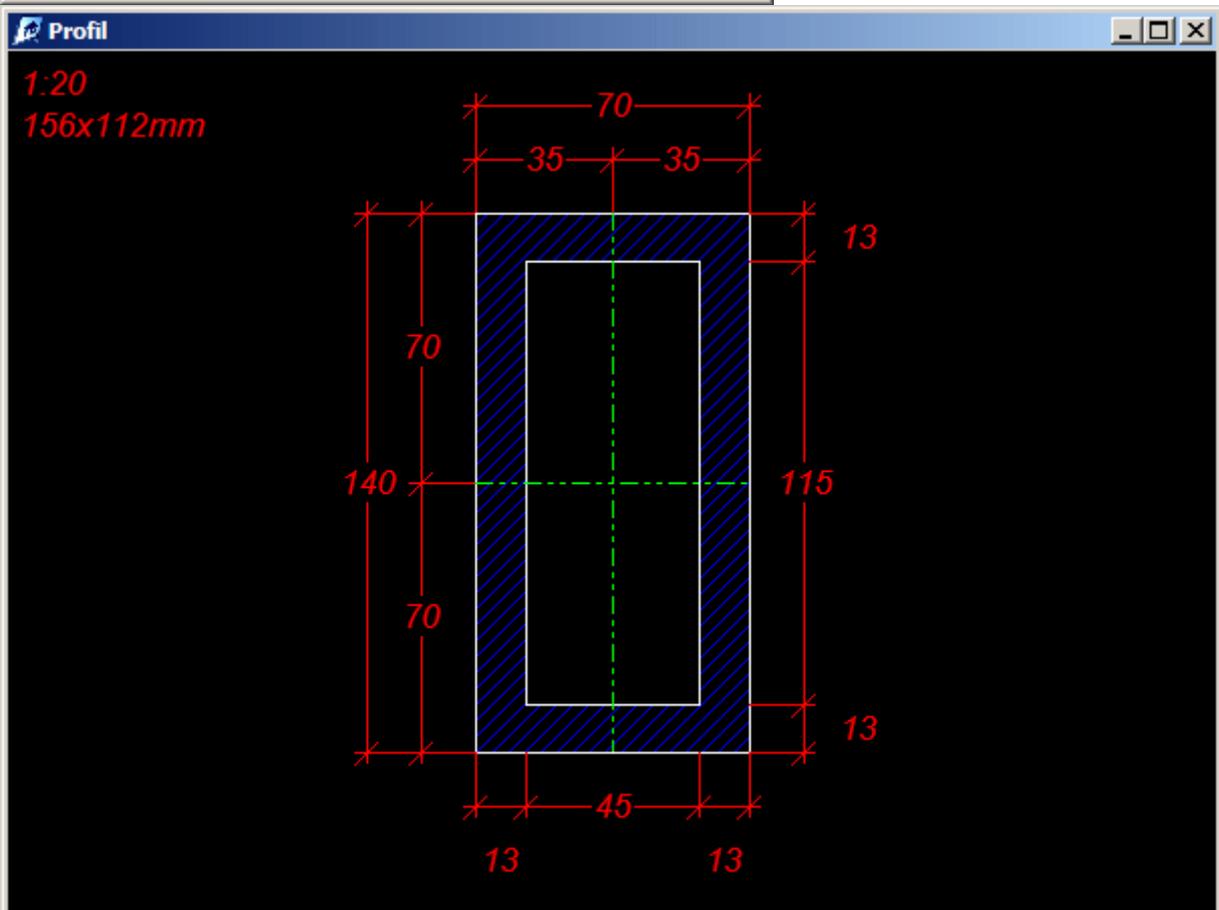
H max.(cm)= Choice=

Expert mode Type beam=

Quality= Ch. curve=

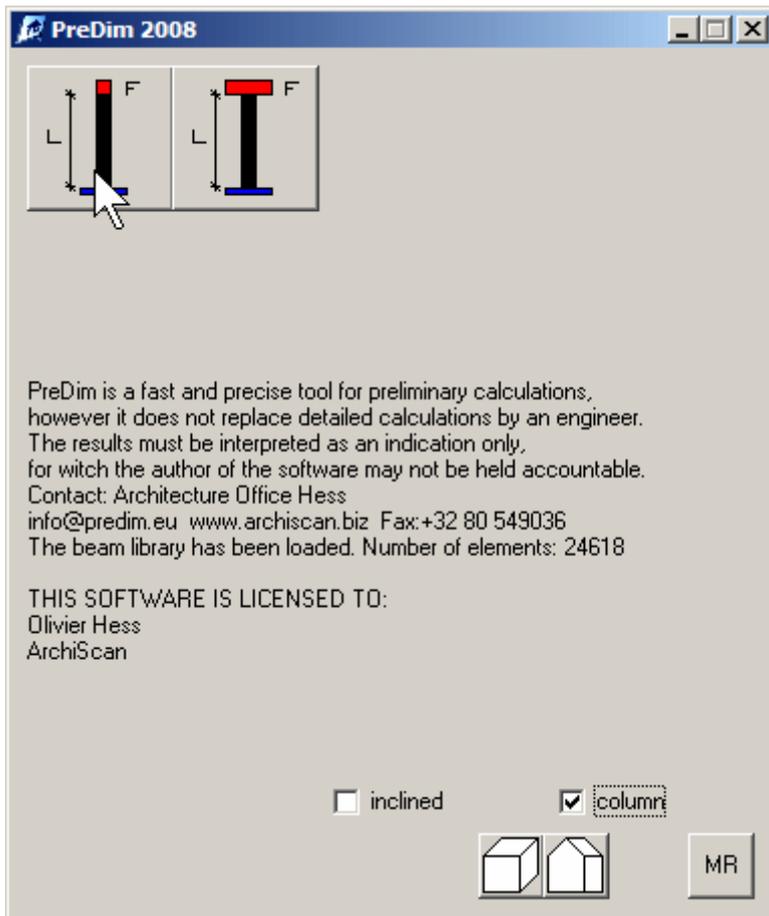
Contusion= Refractor.=

Supp. beams= ular supporting beam 140x70 (140x70/13)

2th Argument: Crack calculation

Pillars (pier, supports) will be examined for cracking (bend, kink, twist, roof curb, buckling, dynamic buckling, folding-arm sun blind, buckling loading, collapsing load, buckling coefficient, buckling formula, Euler's formula, buckling risk, risk of buckling, buckle, collapse, buckling load, crippling load, critical load, buckling length, effective length, curb roll, curb joint, knuckle joint, buckling test, buckling stress, collapsing stress, column stress, critical stress, column, buckling resistance, buckling strength, buckling safety, safety against buckling). In the demo version this is not the case, which may lead to dangerous results.



Not convinced yet?

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3th Argument: 92 loading cases

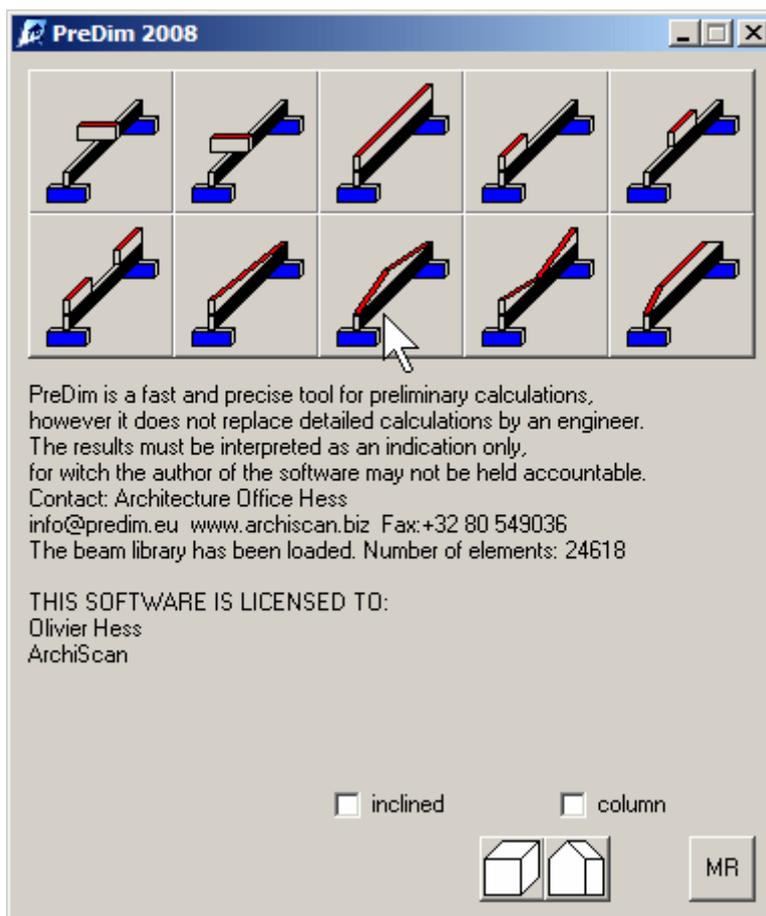
(assumed load, weighting, assumed load, axial load, concentric load, virtual loading, dynamic load, eccentric load, fictitious load, uniformly distributed load, evenly shared load, uniform load, distributed line load, knife-edge load, linear loading, strip load, maximum load, peak load, ultimate load, mobile load, continuous rating, service output, imposed load, live load, service load, working load, constant load, continuous load, dead load, static load, temporary load, allowable load, design load, permissible load, safe load, working load, changing load, imposed load, live load, service load, superimposed load, use load, variable load, alternating load, changing load, variable load, estimate of loading, load factor, case of loading, loading case, manner of loading, load test, loading pattern, load chart, load table, increase of loading, increment of load, load distribution, load arrangement, discharge unit value, bearer, joist, ledger beam, main beam, supporting beam, timber bearer, load-bearing structure, structural framework, supporting structure, light construction, lightweight structure, linear structure system, space framework, spaceframe structure, spatial construction, three-dimensional construction, geodesics, auxiliary construction, falsework structure, provisional structure, load-bearing, load-

carrying, bearing wall, load-bearing wall, main walling, supporting wall, sleeper, supporting beam, girt strip, ledger board, raising plate, ribbon strip, console, cushion, padstone, template, bracket console, console, corbel, perch, chair carrier, fixture backing, load-bearing structure, structural frame, supporting structure, load-bearing system, structural system, load-bearing capacity, bearing surface, seating, seating face, load-bearing floor, structural floor slab, fixture unit, estimate of loading, assumption, hypothesis, design assumptions, load factor, case of loading, loading case, manner of loading, load test, loading pattern, load chart, load table, increase of loading, increment of load, load distribution, load arrangement, discharge unit value, fixture unit, assumed load, axial load, concentric load, virtual loading, dynamic load, eccentric load, fictitious load, uniformly distributed load, evenly shared load, uniform load, distributed line load, knife-edge load, linear loading, strip load, maximum load, peak load, ultimate load, mobile load, continuous rating, service output, imposed load, live load, service load, working load, constant load, continuous load, dead load, static load, temporary load, allowable load, design load, permissible load, safe load, working load, changing load, imposed load, live load, service load, superimposed load, use load, variable load, working load, alternating load, changing load, variable load, estimate of loading, load factor, case of loading, loading case, manner of loading, load test, loading pattern, load chart, load table, increase of loading, increment of load, load distribution, load arrangement, discharge unit value, fixture unit)

PreDim offers 92 combinable load cases, for quasi every loading straight away very quickly a result can be obtained.

Not convinced yet?

Get to know more about PreDim



4th Argument: 4.100 Aluminum profiles

(aluminium light alloy, aluminium tube, aluminium section)

PreDim supports you to plan and enables you to compare one directly by one. Includes are rectangular profiles (full and hollow), tube profiles, round profiles and U/L/S/I profiles, solid form, half profile...

Not convinced yet?

Get to know more about PreDim

PreDim 2008

Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm², 202 kg/cm²
 Bending, inertia= 80000 kg²cm, 2660 cm⁴
 Supported deflection (/real)= 10 mm / 3 mm
 Aluminium square pipe 200x100 (200x100/18/18)
 Cold production, AlMgSi F22, EN 573 DIN 1748
 heigh x width, ratio= 200x100 mm, 2.0:1
 Thickness vert./horiz. = 18.0, 18.0 mm
 Section, surface moment of inertia, weight=
 95.0 cm², 4314.2 cm⁴, 102.6 kg

F (kg/m')= L (cm)=

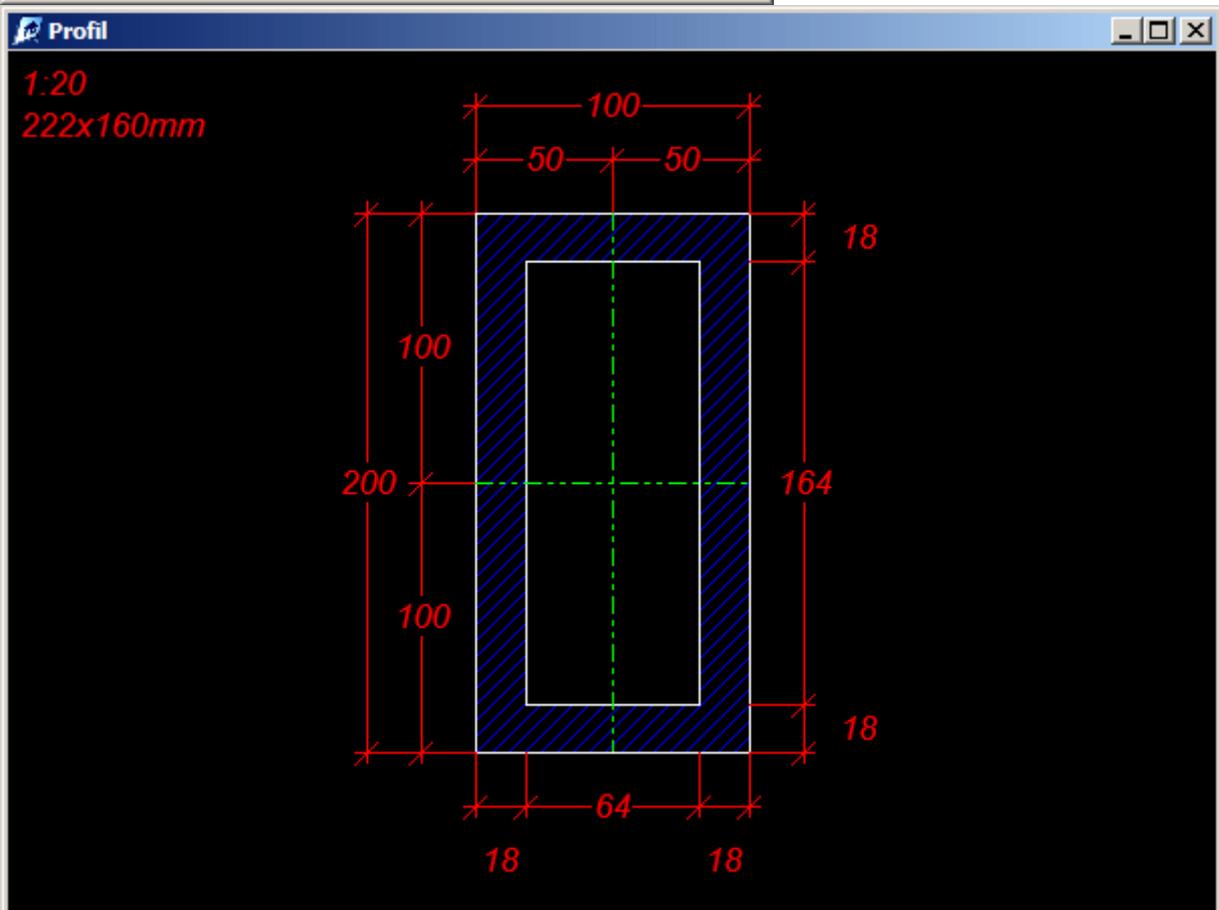
Inclination=

Text:

Expert mode Type beam= Aluminium square pipe

Supp. beams= Aluminium square pipe 200x100

- Aluminium square pipe
- Aluminium beam U
- Aluminium beam L
- Aluminium tube (pipe)
- Aluminium plain tube
- Aluminium beam T
- Aluminium beam Z
- Aluminium beam I



5th Argument: Glued laminated timber

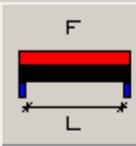
(Wood composed of layers, glulam, laminated lumber, laminated wood, glued truss, compression wood, laminated timber beams, glue-laminated beams, structural timber, lumber glued, several layers of dimensioned lumber glued, structural members, columns, beams, engineered wood, fiberboard, hardboard, masonite, medium-density fiberboard, oriented strand board, particle board, plywood, pressed wood)

Even the most extended spans (load lengths) can be calculated with PreDim, of course also layer wood according to DIN 1052.

Not convinced yet?

Get to know more about PreDim

PreDim 2008


 Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm², 56 kg/cm²
 Bending, inertia= 80000 kg²cm, 15515 cm⁴
 Supported deflection (/real)= 10 mm / 3 mm
 Glued laminated timber 300x100


 heigh x width, ratio= 300x100 mm, 3.0:1
 Section, surface moment of inertia, weight=
 300.0 cm², 22500.0 cm⁴, 51.6 kg

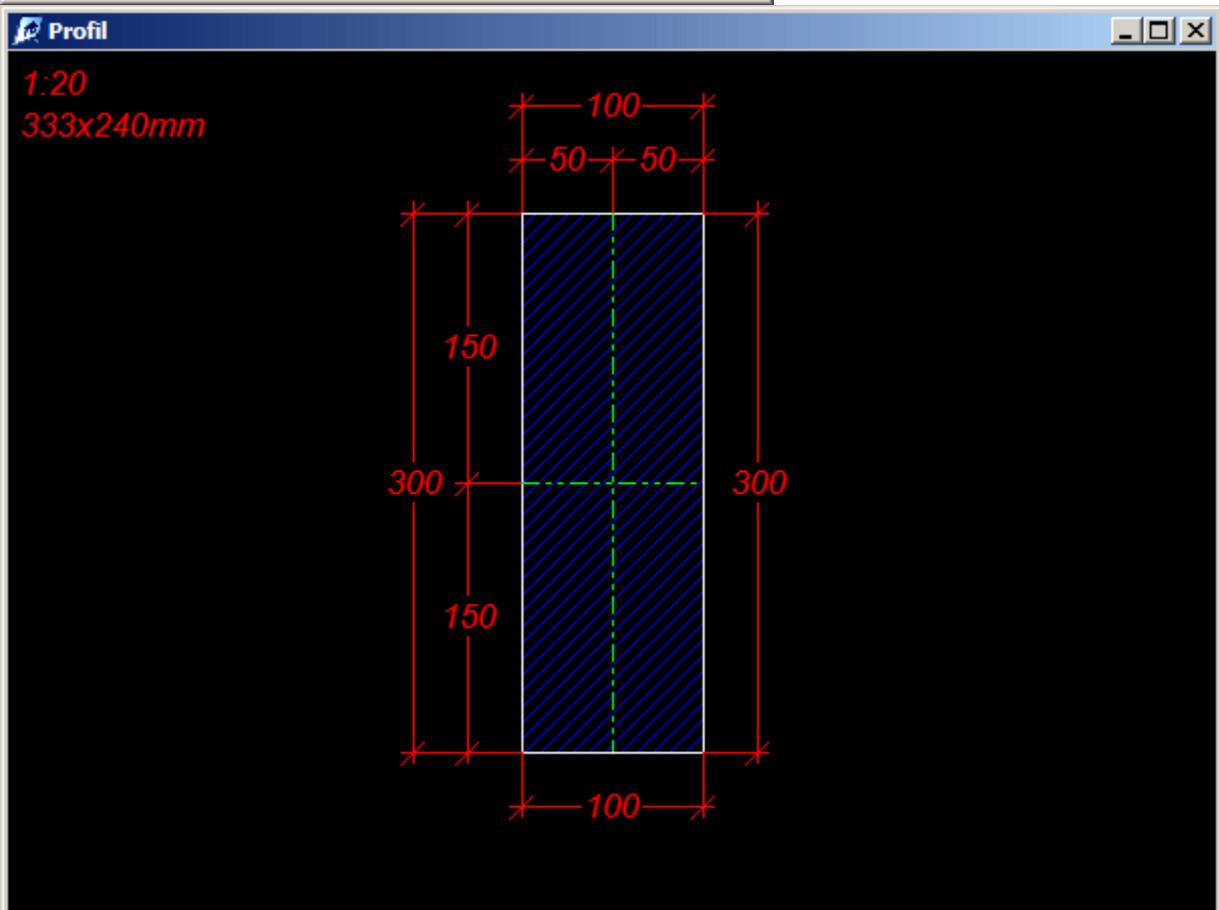
F (kg/m')= L (cm)=
 Inclination=

Text:

Expert mode Type beam=

Supp. beams=





6th Argument: Round timber

PreDim offers 200 round timber profiles.

Not convinced yet?

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7th Argument: Structural timber

(balk, dressed timber, scantling, square-edged timber, structural timber, stuff, surfaced timber, wrot lumber)

PreDim comprises more than 500 structural woods, of course also structural wood according to DIN 4070-1/2, DIN 4074-1.

Not convinced yet?

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PreDim 2008

Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm², 61 kg/cm²
 Bending, inertia= 80000 kg²cm, 18618 cm⁴
 Supported deflection (/real)= 10 mm / 3 mm
 Square timber DIN S10/MS10 320x80
 DIN 4070-1/2, DIN 4074-1
 heigth x width, ratio= 320x80 mm, 4.0:1
 Section, surface moment of inertia, weight=
 256.0 cm², 21845.3 cm⁴, 42.0 kg

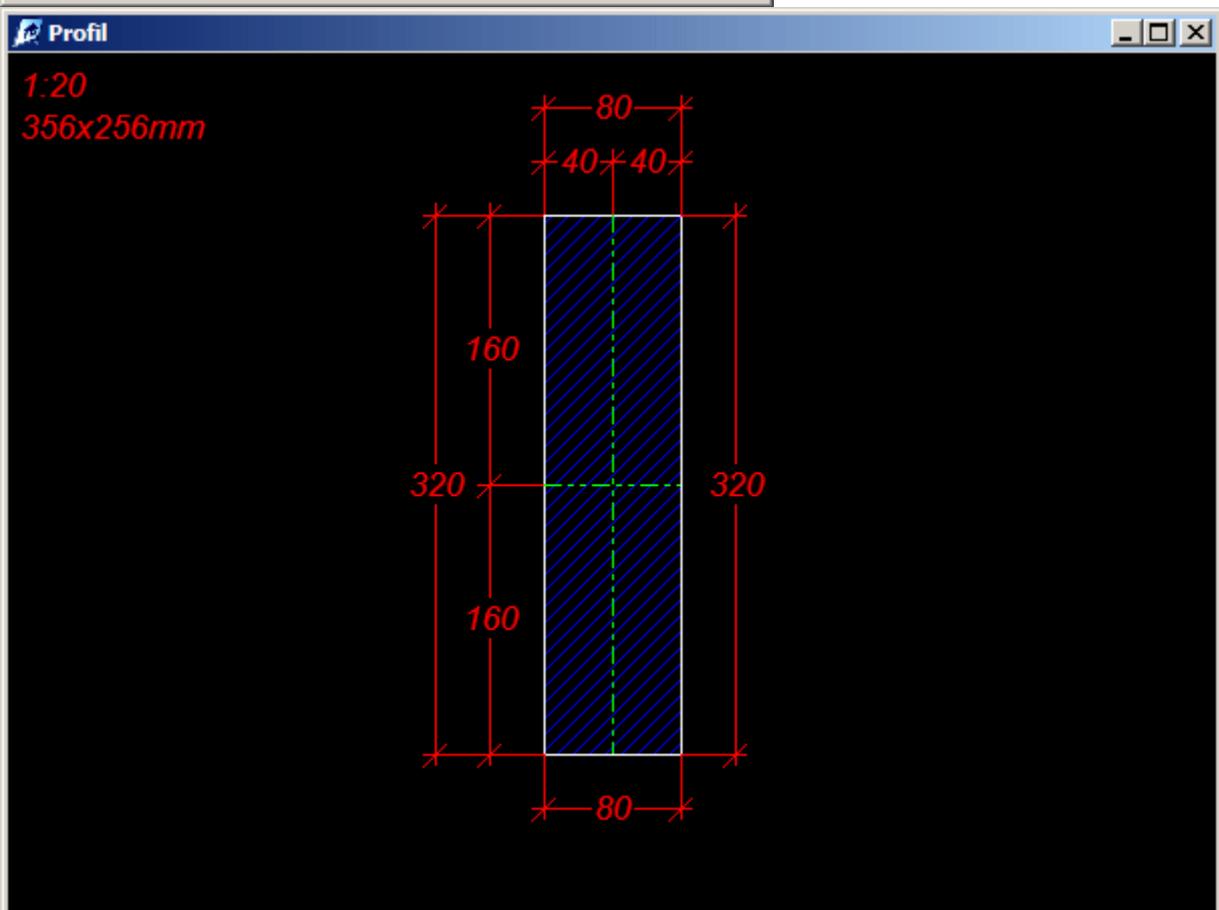
F (kg/m')= L (cm)=

Inclination=

Text:

Expert mode Type beam=

Supp. beams=

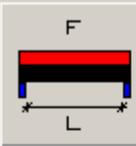


8th Argument: DIN

(DIN German Industrial Standard)

PreDim comprises more than 3,000 profiles according to German DIN standard and respects also many other DIN standards in co-ordination with EN (Euronorm). DIN 1025-1 EN 10025/10034 ISO 5261, DIN 1025-5 03/1965 EN 19-57, DIN 1025-3 10/1963 EN 53-62, DIN 1025-2 10/1963 EN 53-62, DIN 1025-4 10/1963 EN 53-62, DIN 1026 10/1963 EN 24, DIN 1028 10/1976 EN 56 partly, DIN 1027 10/1963, DIN 1024 03/1982, DIN 59410 05/1974, DIN 59410 05/1974, DIN 2448/2458 02/1981, DIN 2448 02/1981, DIN 2458 02/1981, DIN 2440/2441 07/1978, DIN 1014-1 07/1978 EN 59 '78, DIN 1013-1 11/1976 EN 60 '77, DIN 59411 07/1978, DIN 59411 07/1978, DIN 1025-1, DIN 1025-2, DIN 1025-3, DIN 1025-4, DIN 1024 03/1982, DIN 59051 08/1981, DIN 10/1963, DIN 1017-1 04/1967, DIN 59200 10/1965 EN 91 for the most part, DIN 4070-1/2, DIN 4074-1, DIN 1052, DIN EN 573/755, EN 573 DIN 1748, DIN EN 573/755

PreDim 2008



Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm², 56 kg/cm²
 Bending, inertia= 80000 kg²cm, 15515 cm⁴
 Supported deflection (/real)= 10 mm / 3 mm
 Glued laminated timber 300x100



height x width, ratio= 300x100 mm, 3.0:1
 Section, surface moment of inertia, weight=
 300.0 cm², 22500.0 cm⁴, 51.6 kg

F (kg/m')= L (cm)=

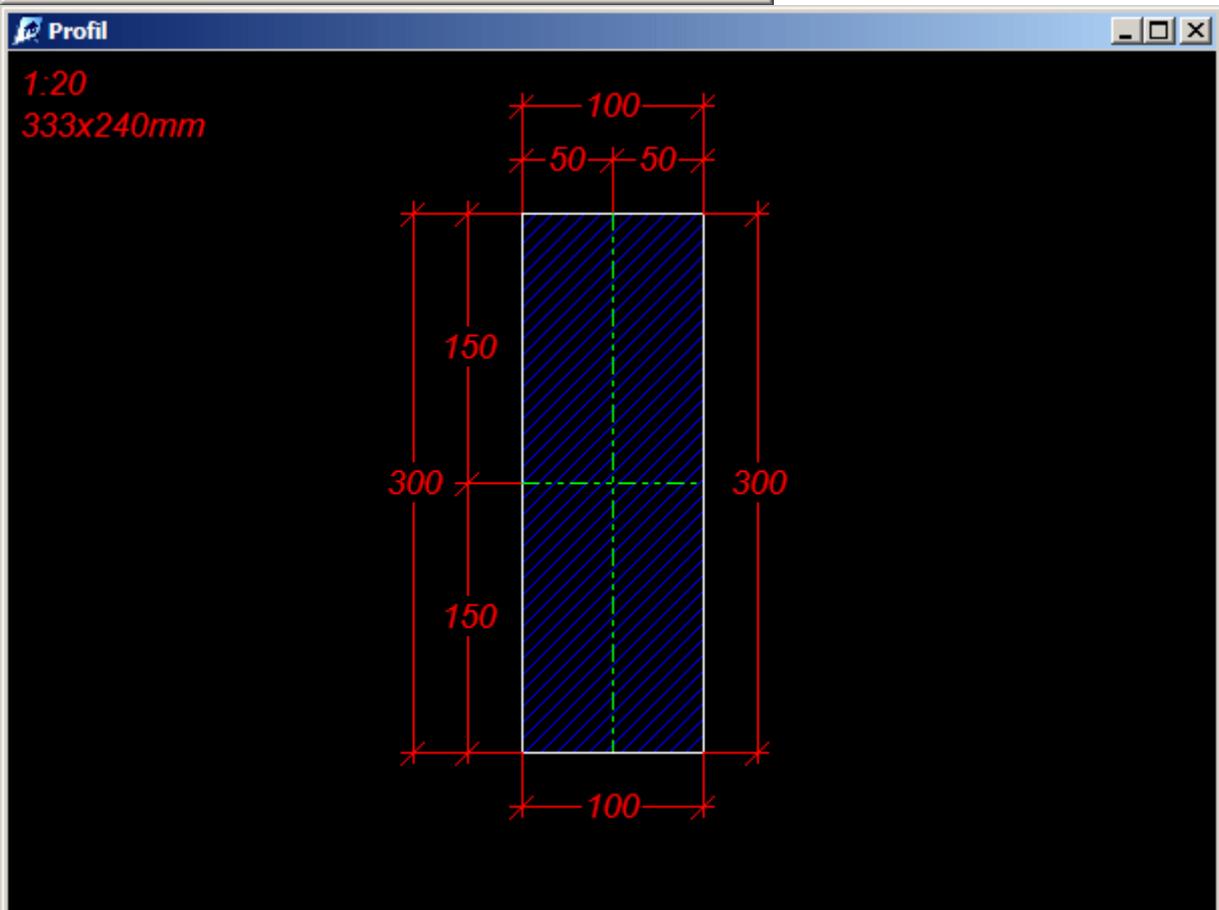
Inclination=

Text:

Expert mode Type beam= Glued laminated timber

Supp. beams= Glued laminated timber 300x100



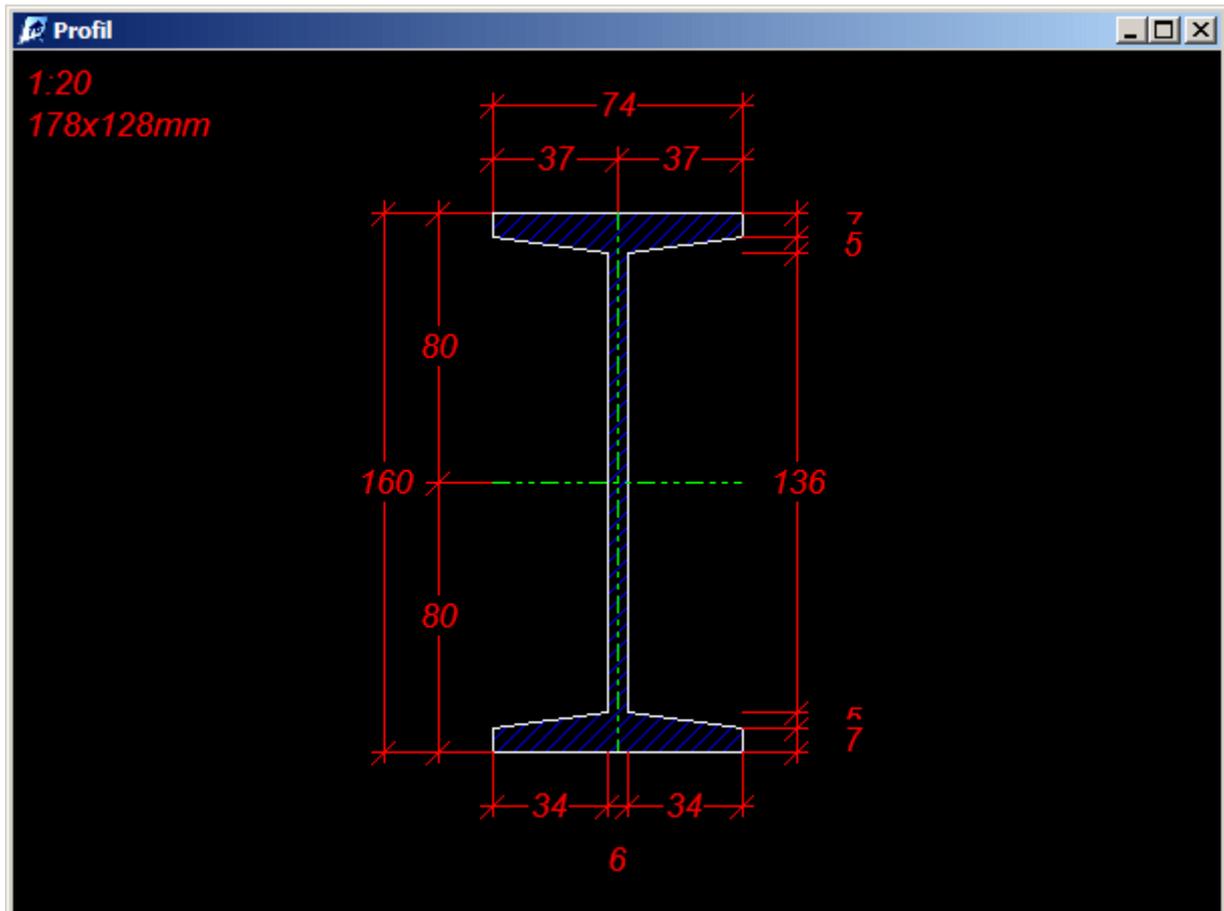


Not convinced yet?
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9th Argument: ISO

(International Organisation for Standardisation)

PreDim comprises more than 1,000 profiles according to international ISO standard. DIN 1025-1 EN 10025/10034 ISO 5261



Not convinced yet?
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10th Argument: EN (EuroNorm)

PreDim comprises more than 4,000 profiles according to European EN standard.

DIN 1025-1 EN 10025/10034 ISO 5261, DIN 1025-5 03/1965 EN 19-57, DIN 1025-3 10/1963 EN 53-62, DIN 1025-2 10/1963 EN 53-62, DIN 1025-4 10/1963 EN 53-62, DIN 1026 10/1963 EN 24, DIN 1028 10/1976 EN 56 partly, DIN 1014-1 07/1978 EN 59 '78, DIN 1013-1 11/1976 EN 60 '77, DIN 59200 10/1965 EN 91 for the most part, DIN EN 573/755, EN 573 DIN 1748, DIN EN 573/755, DIN 1034, EN 100-1000, EN 1000-1100, ASTM A6/A6M, EN 100-600 DIN 1025-5, EN 100-600 DIN 1025-5, EN 750, DIN 1034 W-Shapes 6-44 ASTM A6/A6M, EN 100-1000 W-Shapes 6-44 ASTM A6/A6M, EN 1000-1100 W-Shapes 6-44 ASTM A6/A6M, ASTM A6/A6M W-Shapes 6-44 ASTM A6/A6M, EN

100-600 DIN 1025-5 W-Shapes 6-44 ASTM A6/A6M, EN 100-600 DIN 1025-5 W-Shapes 6-44 ASTM A6/A6M, EN 750 W-Shapes 6-44 ASTM A6/A6M, EN 80-400 DIN 1026-2

Not convinced yet?

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11th Argument: EC (EuroCode)

PreDim calculations are bases for the most part upon the simplified EC (Eurocode 0, 1, 2, 3, 4, 5).

Model building codes, European Committee for Standardisation, structural design, structures, concrete structures, steel structures, composite steel & concrete structures, timber structures, masonry structures, geotechnical design, structures for earthquake resistance, aluminium structures, civil engineering work, ENV, European Committee for Standardisation, BS 5950 British steel design standard, BS 8110 British concrete design standard, LRFD Load and Resistance Factor Design

Not convinced yet?

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12th Argument: sTs

(Industrial Specifications, spécifications techniques / eengemaakte Technische Specificaties)

PreDim comprises over 1,000 wood profiles according to Belgian sTs Industrial Specifications. sTs 04 (2th part) 10/1990 SAS

Not convinced yet?

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13th Argument: 82 profile types

(steel angle, steel beam, steel bender, steel column, steel concrete, steel steel design engineer, steel engineering, steel frame, steel framed structure, steel framing, steel girder, steel pipe, steel section joist, steel section, steel shape, steel skeleton building, steel skeleton, steel structure designer, steel structure, steel tube)

PreDim comprises 82 profile types according to international specifications:

Steel profile IPE IPN IPB (HE-A, HE-B, HE-M), Steel profile T 1/2I, Steel profile U, Steel profile L, Steel profile S, Steel profile C, Steel hollow tube, Steel plain tube, Square profile hollow, Square profile plain, Rectangular profile hollow, Rectangular profile plain, Wood, Round wood, Wooden floor, Glued laminated timber, Tubes in glued laminated timber, Reinforced concrete, Aluminium flat rectangular profile, Aluminium rectangular tube, Aluminium U-profile, Aluminium L-profile, Aluminium tube, Aluminium plain tube, Aluminium T-profile, Aluminium S-profile, Aluminium I-profile, HD, HE-AA, HL, HP, IPEa, IPEaa, IPEr, HD W-Shapes, HE-AA W-Shapes, HL W-Shapes, HP W-Shapes, IPEa W-Shapes, IPEaa W-Shapes, IPEr W-Shapes, UAP, UPE, Alu rolling pipe profile, Alu pneumatic cylindrical profile, Reinforced concrete pillar, LSG Laminated safety glass

Not convinced yet?

Get to know more about PreDim

PreDim 2008

Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm², 1184 kg/cm²
 Bending, inertia= 80000 kg²cm, 554 cm⁴
 Supported deflection (/real)= 16 mm / 6 mm
 Steel www.sabprofiel.nl SAB 153R/840 1.25 mm

height x width, ratio= 153x60 mm, 2.6:1
 Thickness vert./horiz. = 1.3, 1.3 mm
 Section, surface moment of inertia, weight=
 20.7 cm², 638.4 cm⁴, 65.0 kg

F (kg/m²)= L (cm)=

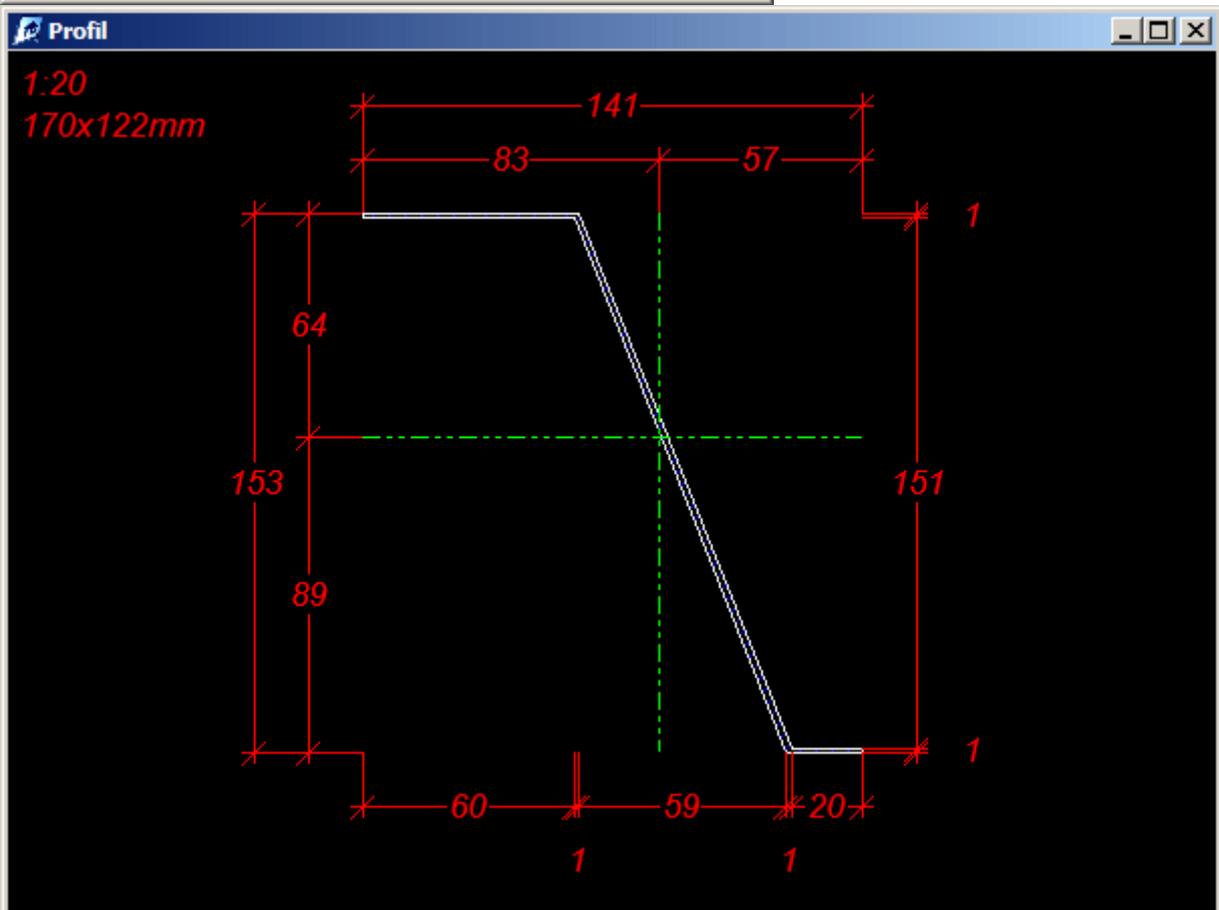
Inclination=

Text:

Expert mode Type beam= Trapeze-sh. sheet Steel

Supp. beams= Steel www.sabprofiel.nl SAB

- Aluminium tube (pipe)
- Aluminium plain tube
- Aluminium beam T
- Aluminium beam Z
- Aluminium beam I
- Laminated safety glass (LS)
- Trapeze-sh. sheet Steel**
- Trapeze-sh. sheet Alu



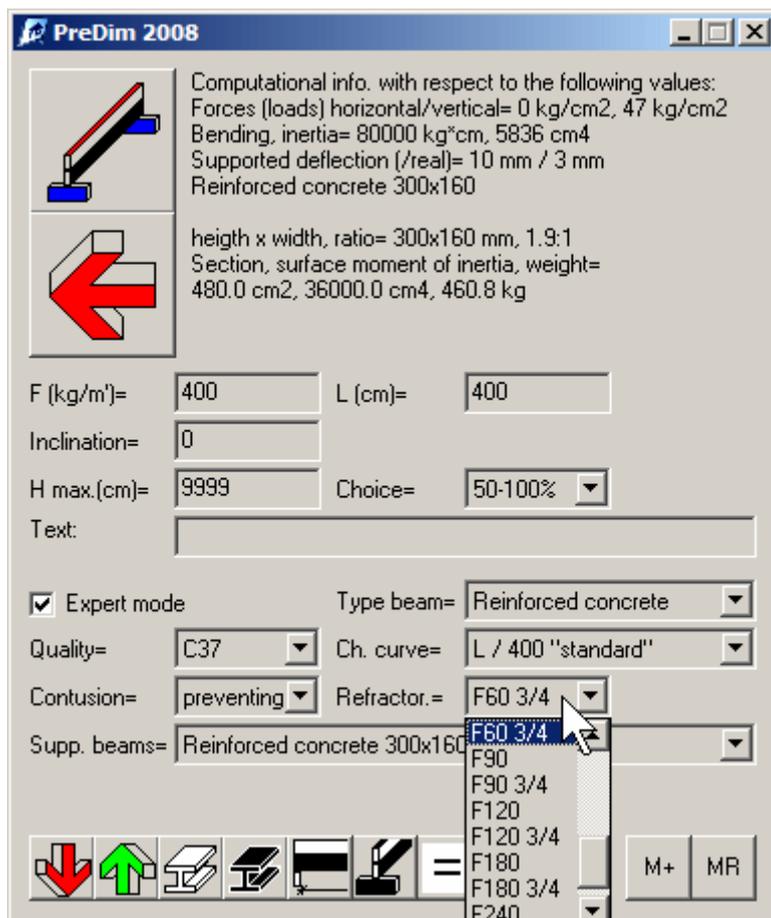
14th Argument: Fire resistance

(combustible, inflammable, combustibility, fire-fighting, fire precautions, fire protection, compartment, fire compartment, space separation, fire cell, fire detection device, fire check door, fire door, fire-resistant door, emergency door, fire duration, burner, atmospheric burner, fire hazard, fire risk, fire fighting way, fire dangerous, highly inflammable, compartment division wall, fire partition, fire-proof wall, fire-resisting wall, parting fence, parting wall, strong wall, common wall, fire division wall, fire spread, spread of fire, fire prevention, fire test, fire damage, fire loss, fire curtain, fire wall, proscenium wall, fire spread, fire safety, construction class, fire grading, fire protection measures, fire regulations, fire venting, smoke outlet, fire-retardant, fire-stopping, flame-retardant, intumescent paint, fire-proof coat, fire-retarding finishes, fire insurance, fire propagation, fire-proof, fire-safe, fire station, fire-stopping, fire resisting construction, fire endurance, fire resistance, fire stop, fire barrier, draught stop, broad-flanged beam, H-beam, H-girder, H-section, universal beam, wide flange beam)

PreDim calculates the fire resistance in 11 steps (F0, F15, F15 3/4, F30, F30 3/4, F60, F60 3/4, F90, F90 3/4, F120, F120 3/4) also with exposition to fire on only 3 sides for wood, layer wood, wooden floor and reinforced concrete. From version 6.8 onwards PreDim calculates also the complicated fire resistance of steel & aluminium!

Not convinced yet?

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15th Argument: Reinforcement

(steel reinforcement, reinforce concrete column, reinforce, reinforced concrete pipe, reinforced-concrete beam, reinforced-concrete ceiling, reinforced-concrete column, reinforced-concrete construction, reinforced-concrete designer, reinforced-concrete foundation, reinforced-concrete

framework, reinforced-concrete girder, reinforced-concrete pile, reinforced-concrete pipe, reinforced-concrete skeleton, reinforced-concrete slab, reinforced-concrete structure)

PreDim calculates for reinforced concrete from now on the upper and lower reinforcement. In this case straight away different propositions will be obtained (number x diameter). Table seen in the profile windows below:

Not convinced yet?

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PreDim 2008

Computational info. with respect to the following values:
 Forces (loads) horizontal/vertical= 0 kg/cm², 47 kg/cm²
 Bending, inertia= 80000 kg²cm, 5836 cm⁴
 Supported deflection (/real)= 10 mm / 3 mm
 Reinforced concrete 300x160

height x width, ratio= 300x160 mm, 1.9:1
 Section, surface moment of inertia, weight=
 480.0 cm², 36000.0 cm⁴, 460.8 kg

F (kg/m')= L (cm)=

Inclination=

H max.(cm)= Choice=

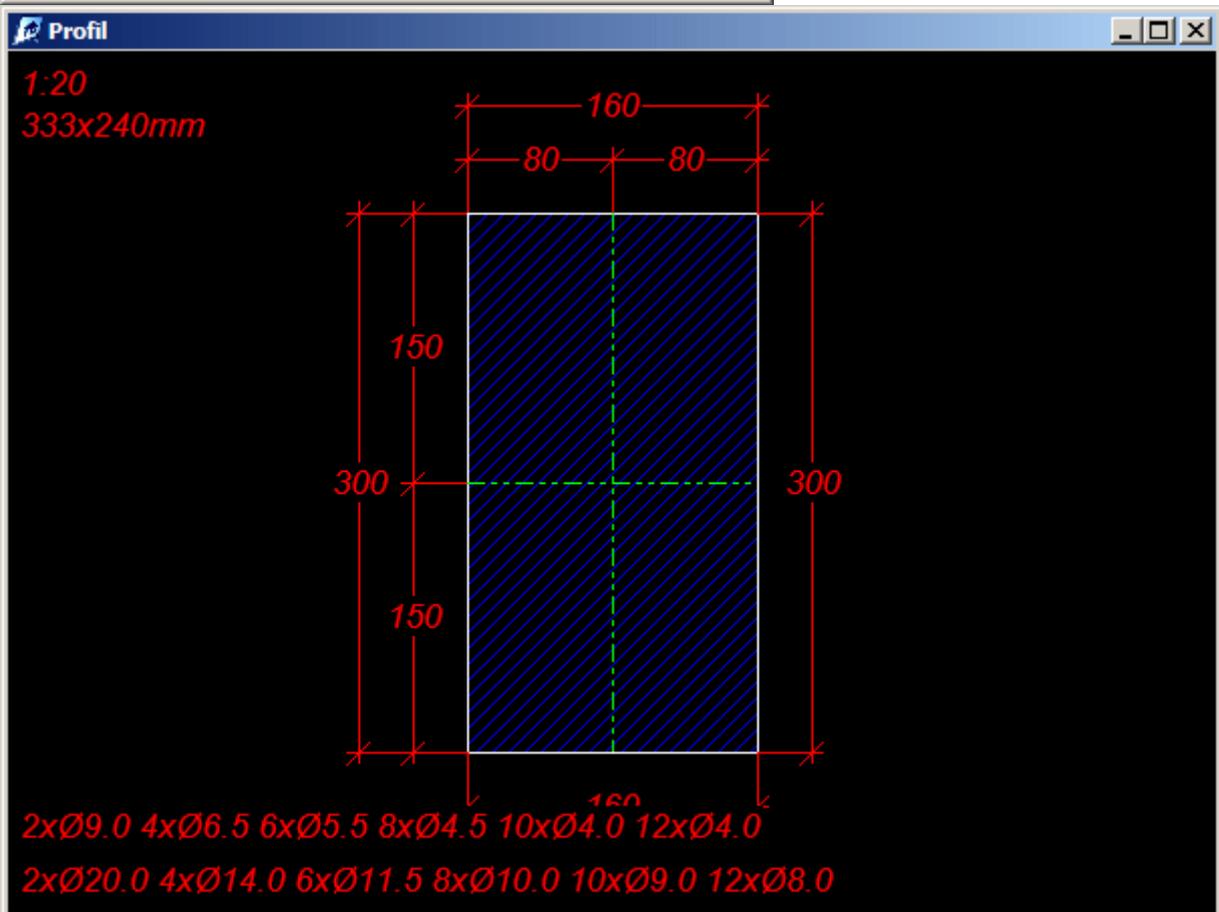
Text:

Expert mode Type beam=

Quality= Ch. curve=

Contusion= Refractor.=

Supp. beams=



16th Argument: Translations

PreDim has been translated into 4 languages including all auxiliary text and instructions. This requires for each version a lot of time, but offers insight into the work of the European neighbours.

Not convinced yet?

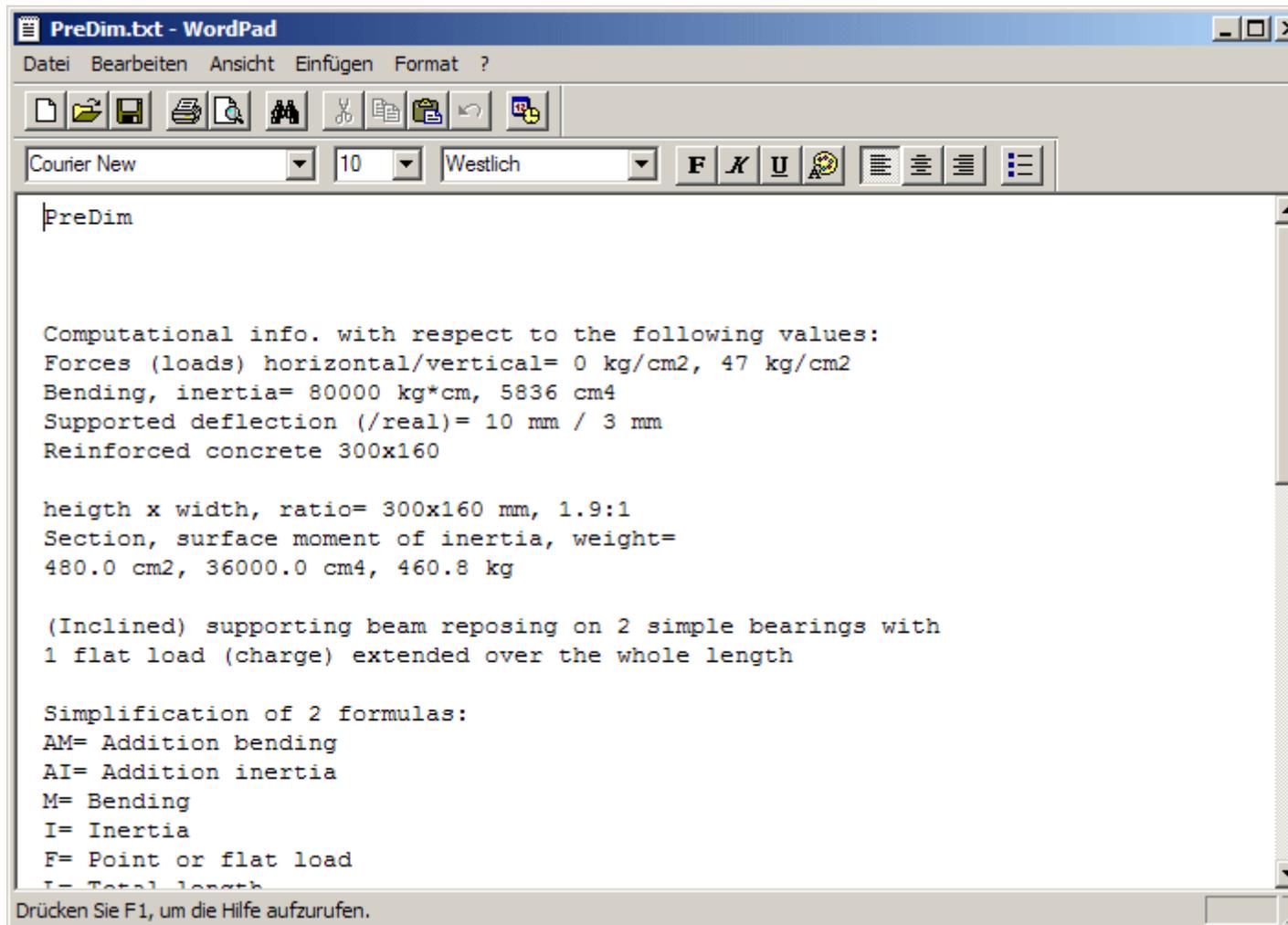
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17th Argument: Printing & editing of results

PreDim draws up a text data file (entirely compatible with format .TXT) in which all details of calculation and profiles are given. Change this details according to your preferences or print them straight away. From version 6.9 onwards the graphs & texts can be directly observed, edited, exported & printed.

Not convinced yet?

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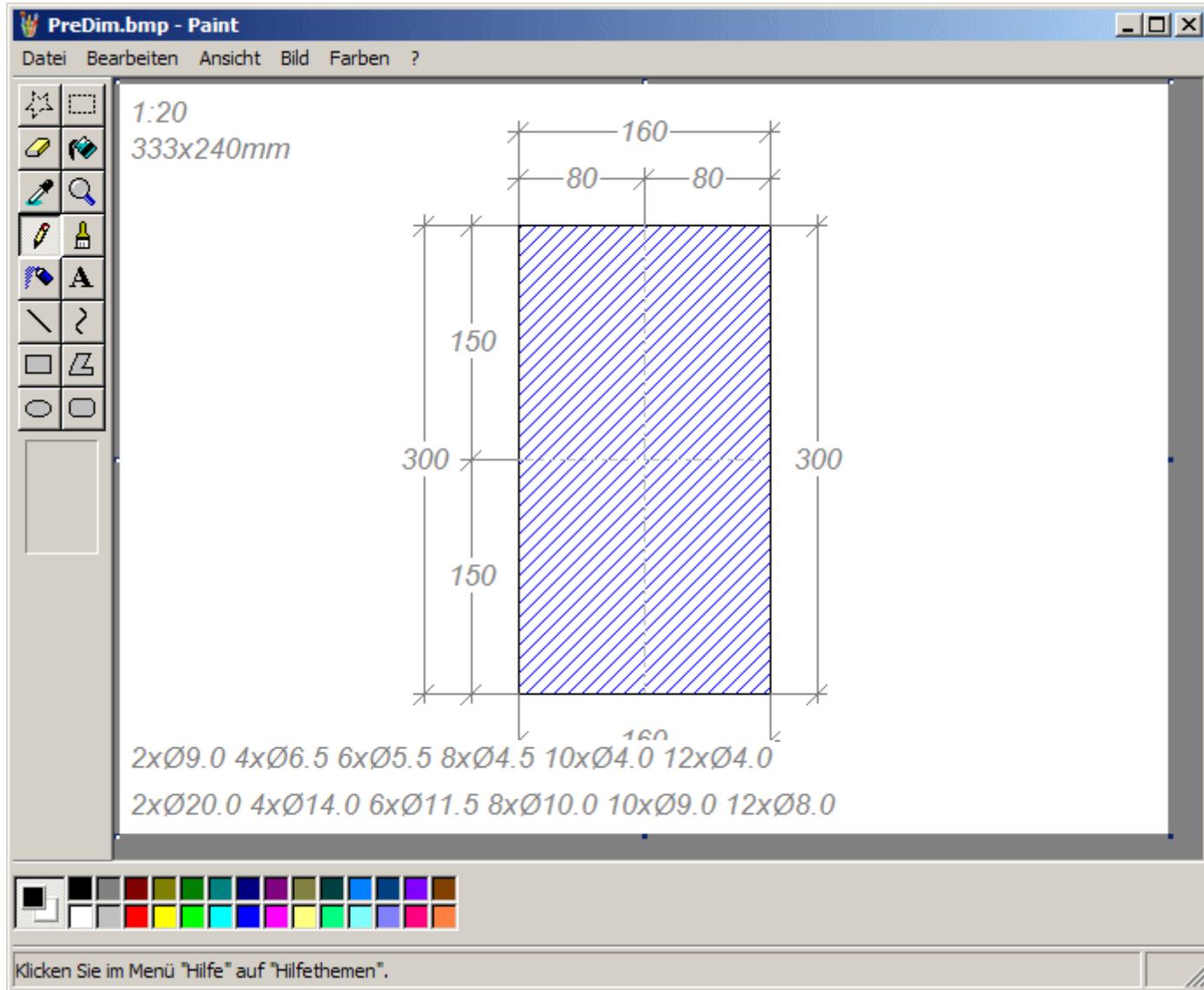
18th Argument: Graphical version

PreDim displays the results not only as a text data file but also as a graphic data file (.BMP). The size of the graph can easily be attained by enlarging with help of the mouse the window. 2 Graphs will be

drawn up: One with black, the other one with white background. From version 6.9 onwards the graphics and texts can be directly observed, edited, exported and printed.

Not convinced yet?

Get to know more about PreDim



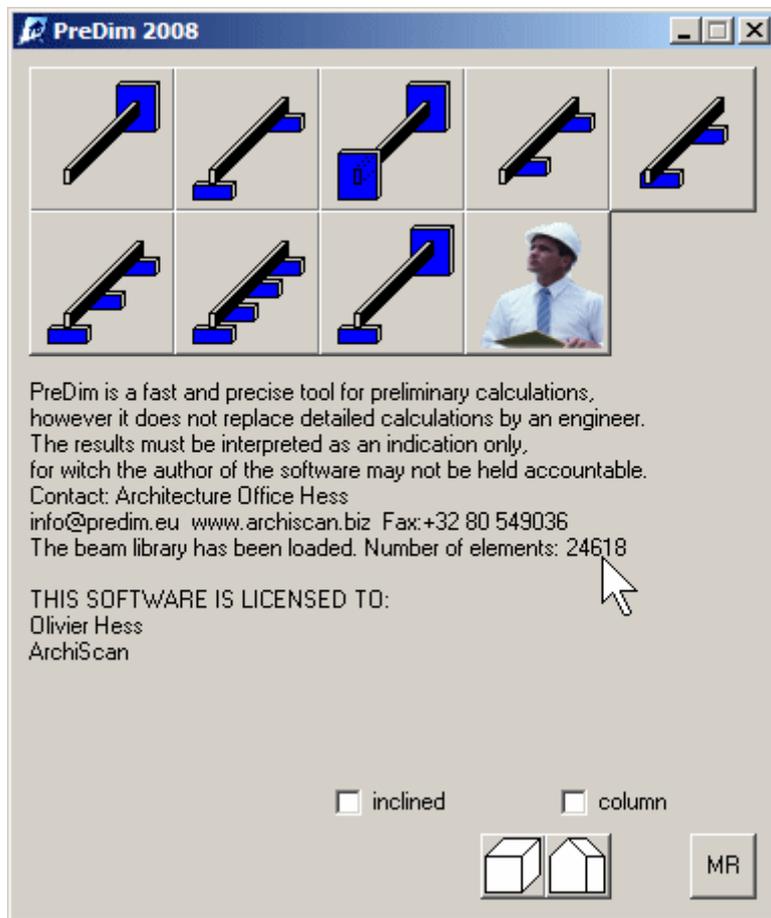
19th Argument: 24.000 profiles

(profile section, profile steel sheet, profiled metal roofing, profiled sheet iron, profiled-steel roofing sheet, profiling, material defect, material fatigue, material fault, material testingwood chip, wood chipboard, wood floor, wood glue, wood laminate, wood pavement, wood technology, wood treatment, wood-fibre board, wood-frame construction, wooden beam, wooden construction, wooden floor, wooden flooring, wooden frame, wooden framework, wooden house, wooden pile foundation, wooden pile, aluminium rood edging, aluminium roofing sheet, aluminium section, aluminium sheet, aluminium shingle, aluminium tube, reinforced concrete floor slab, reinforced concrete pipe, reinforced concrete roof slab, reinforced concrete, reinforced-concrete beam, reinforced-concrete column, reinforced-concrete construction, reinforced-concrete designer, reinforced-concrete floor, reinforced-concrete foundation, reinforced-concrete framework, reinforced-concrete girder, reinforced-concrete pile, reinforced-concrete pipe, reinforced-concrete skeleton, reinforced-concrete structure)

The PreDim profil database comprises 24,000 profiles with 82 different types in the 6 materials steel, wood, layer wood, reinforced concrete and aluminium. Compare within seconds all these types of materials (material choice, material characteristics,...) and do the planning more versatile.

Not convinced yet?

Get to know more about PreDim



20th Argument: Help texts & help videos

PreDim comprises 3 help texts and help videos in German, English, French and Dutch. Lean back and learn to use PreDim within 10 minutes.

Not convinced yet?

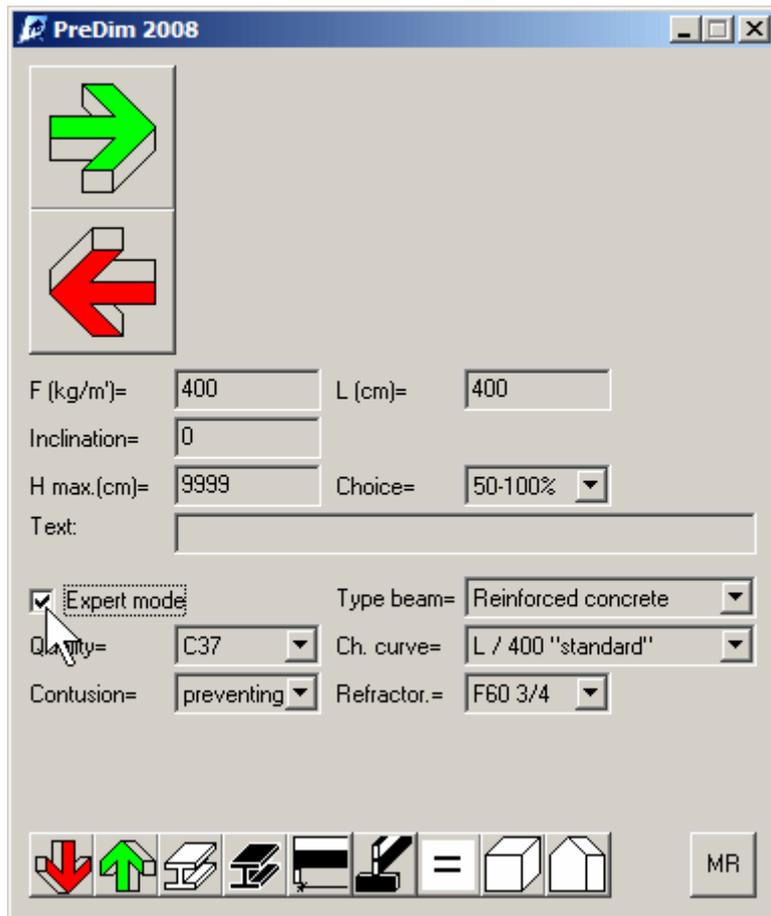
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21th Argument: Expert mode

PreDim simplifies the input mode according to your specific knowledge (of the program). Range: Easy for statics layman up to details for statics engineers.

Not convinced yet?

Get to know more about PreDim



22th Argument: Cooperation with statics expert

PreDim is being developed from version 6.8 onwards with a statics engineer. Advantages are next to improved security also a more precise calculation and innovative products.

Not convinced yet?

Get to know more about PreDim

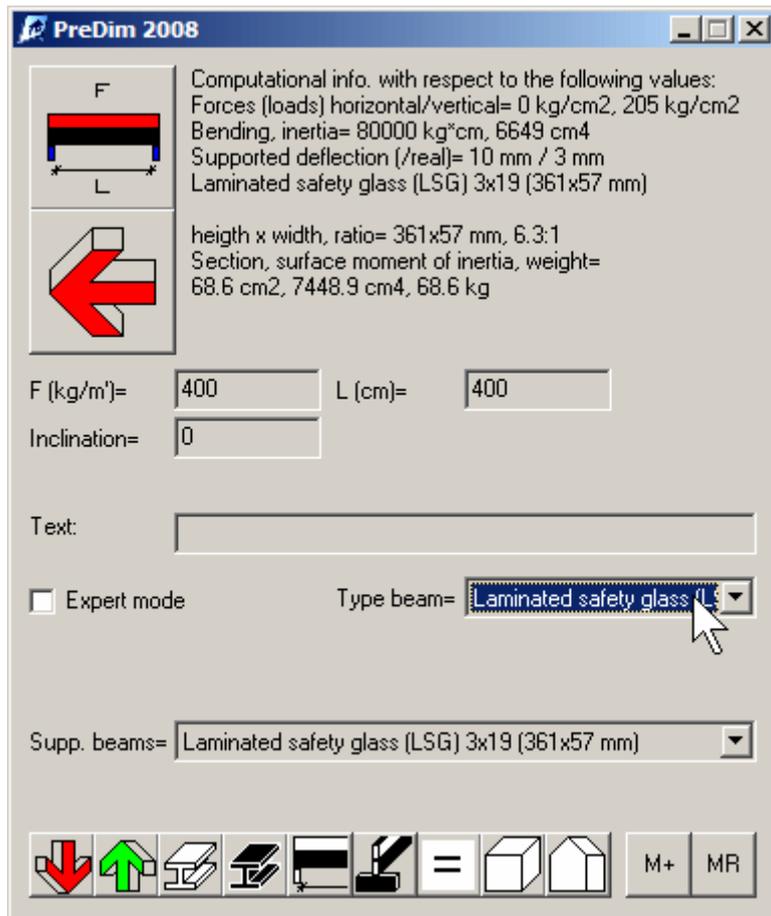
23th Argument: Profils in laminated security glass (experimental LSG)

(glass bar, glass block, glass concrete, glass facade, glass fiber, glass panel, glass roof cladding, glass roof tile, glass roof, glass size, glass thickness, glass wall building unit, glass wall, glass window, glass-concrete panel, glass-concrete roof slab, glass-enclosed, glasshouse building, glassworks)

PreDim calculates profiles in laminated security glass, consisting of a combination of 12 mm stored in a hot place single layer security glass (ESG-H) attached to each other with a foil of polyvinylbutyral (PVB) according to the new specifications ASTM international (ASTM 1036, ASTM C1048,...). The external single layer security glass have got only a protection function, but no static function!

Not convinced yet?

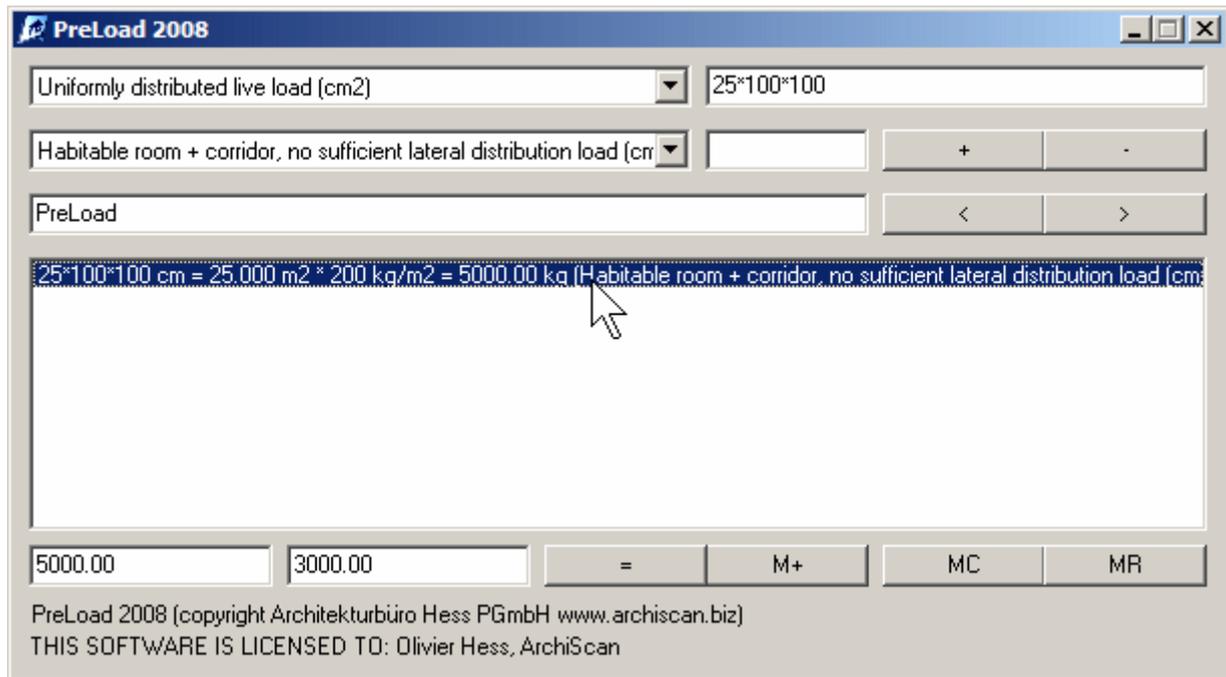
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24th Argument: Load calculation

PreLoad is a sophisticated load calculation for dead load, wind load, snow load with automatic calculation of the load under influence of fire. Hence PreDim consists of 2 programs which cooperate with each other.

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25th Argument: Project "Virtual construction"

Topical: Project "Virtual construction" WTCB / BBRI (Belgian building research institute)
 ArchiScan (PreDim) cooperates with the WTCB / BBRI-project "Virtual construction" (ViBo). PreDim is being demonstrated within this project.

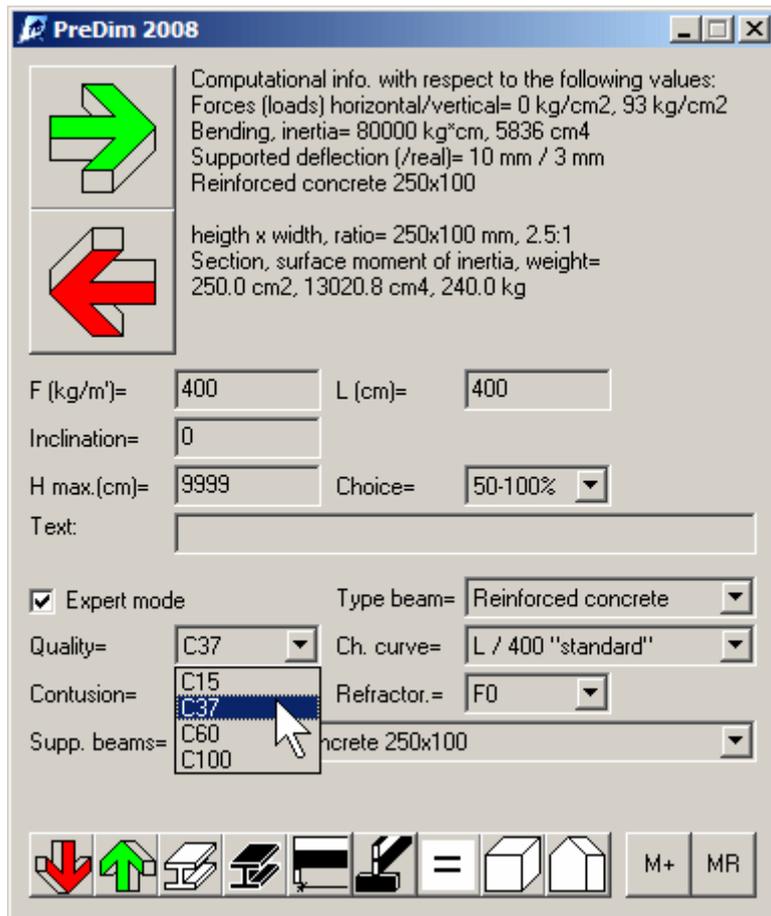
Not convinced yet?
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26th Argument: Input static material quality

By input of the static material quality PreDim considers the different material characteristics of steel (S235, S275, S355, S420), wood (S7, S10, S13, S17) and reinforced concrete (C15, C37, C60, C100).

Not convinced yet?
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