IDEA Connection

Release „January 2015“

New and improved functionality

New version of IDEA Connection with a lot of new functions was released by the end of January. Download it at our website http://www.idea-rs.com/downloads/.

Model

- General rolled cross-sections defined by parameters: I, U, L
- User-editable bolt
- Japanese and US profiles

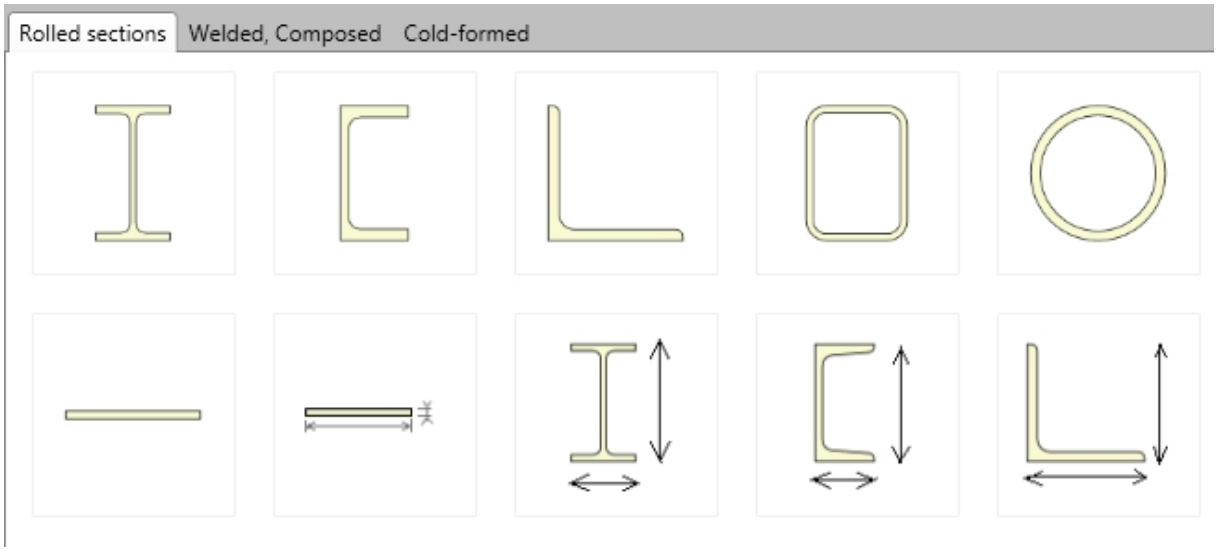
Checks

- Possibility of averaging of stressin welds over the whole cross-section
- Modified output of bolt check for more shear sections

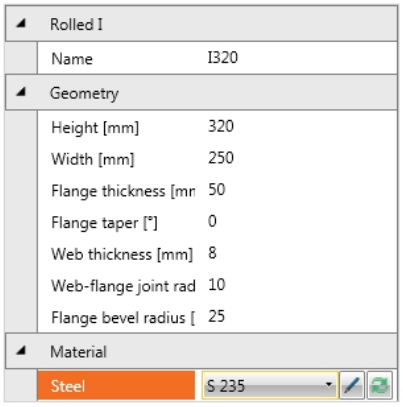
Model

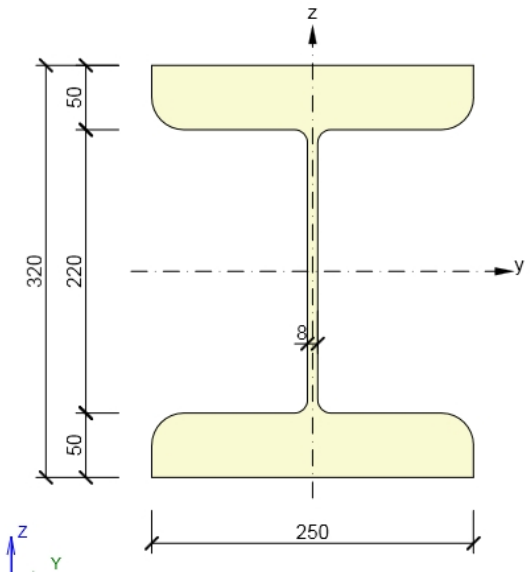
General rolled cross-sections defined by parameters: I, U, L

There are 3 new options in the selection of rolled sections for I, U and L.



Profileis not chosen from the library.The shape is defined by several parameters.

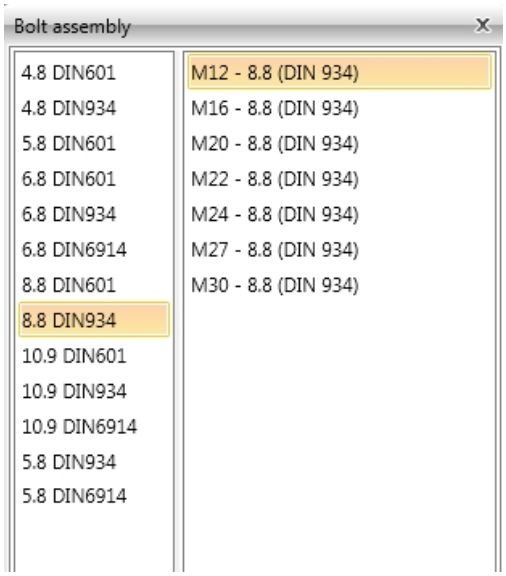




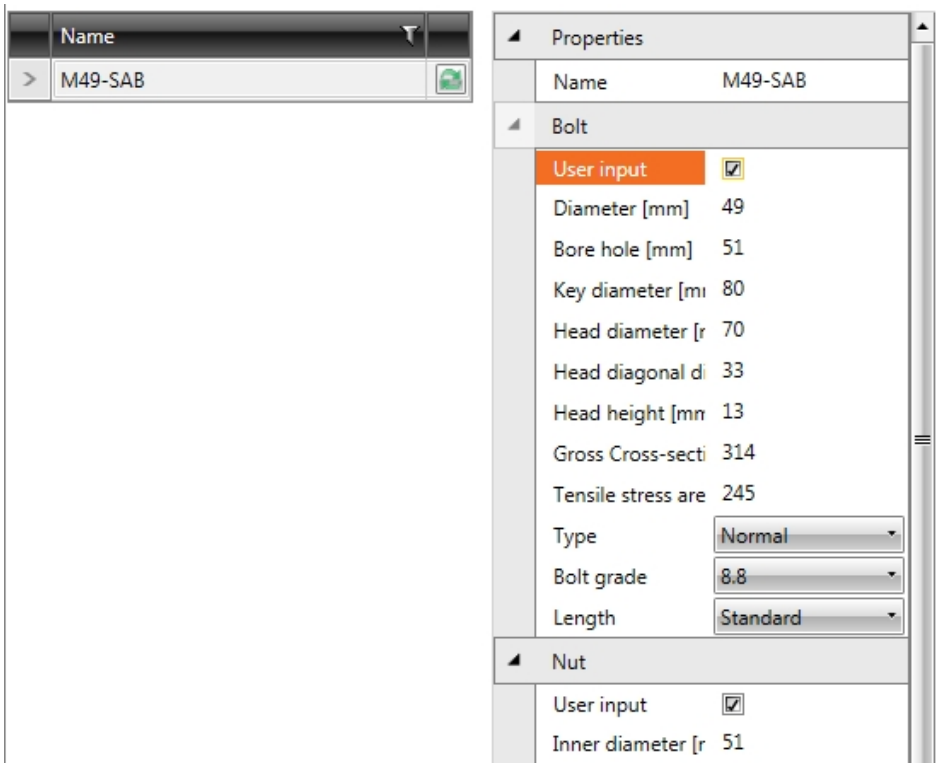
This option allows to input any profile also from databases, which are not yet supported by IDEA Connection software.

User-editable bolt

There are two improvements for the work with bolts. Long list of bolts was divided according to classes. Desired bolt can be find easier and faster.



Any bolt can be set as „user input“. User can input and edit all properties according to his wish.



Japanese and US profiles

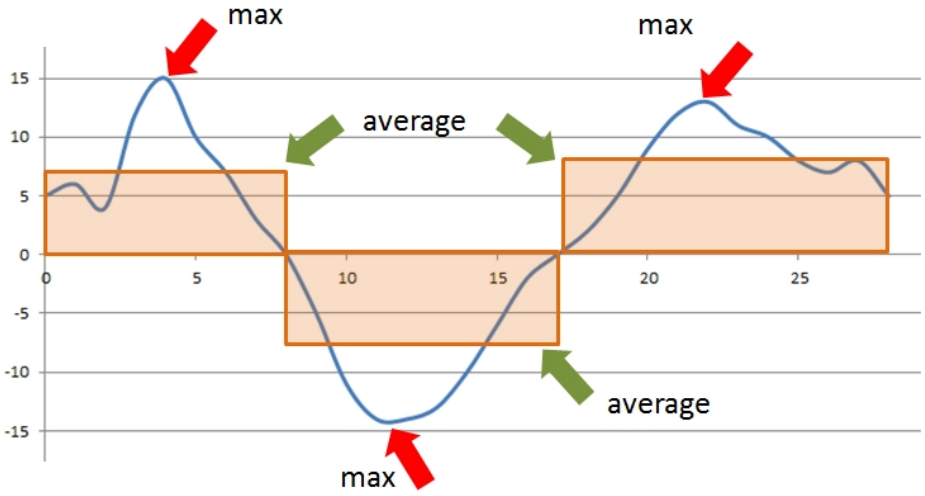
There are several new product lines of US and Japanese profiles available.

HP	I 300x150x11.5
HP(ARC)	I 300x150x8
HP(ARCUS)	I 350x150x12
HP(Imp)	I 350x150x9
S	I 400x150x10
S(ARC)	I 400x150x12.5
S(Imp)	I 450x175x11
W	I 450x175x13
W(ARC)	I 600x190x13
W(Imp)	I 600x190x16
Japan H	
Japan I	

Checks

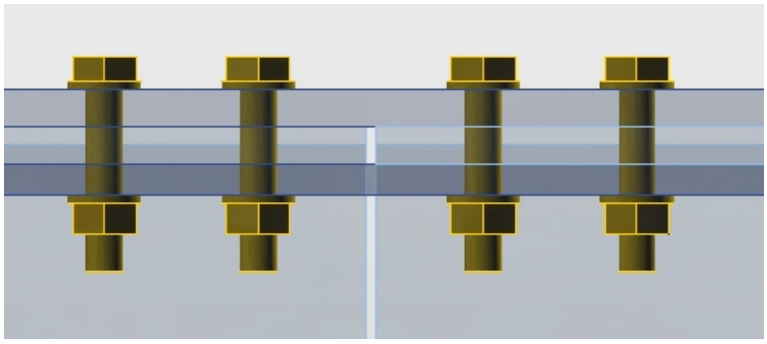
Possibility of averaging of stress in welds over the whole cross-section

CBFEM analysis model in IDEA Connection provides longitudinal and transversal stress in each section of weld. Engineer can check the weld with precise calculated values in each section or he can use average stress. Average values are calculated for each part with the same sign. Weld is divided into parts with the same signs. Average value is calculated for each part separately.



Version 5.3 has improved averaging for thin walled cross-section with arcs. Welds on all parts of the cross-section are considered as one weld. Parts with the same sign are determined on this weld. Results are much more realistic.

Modified output of bolt check for more shear sections



In the connection with more shear sections is shear force in bolt divided into appropriate number of sections. Values in all shear sections are printed in the table (divided by slash). The check is done for each section separately.

Souhrn Výpočet Plechy Šrouby/Kotvy Svary

Posudek šroubů a kotev pro extrémní účinek zatížení

Položka	Zatížení	Ft [kN]	V [kN]	Utt [%]	Uts [%]	Utts [%]	Status
B1	LE1	0,053	6,484/6,056	0,1	20,1	20,2	✓
> B10	LE1	1,236	6,483/6,062	2,6	20,1	21,9	✓
B11	LE1	0,062	6,429/6,004	0,1	19,9	20,0	✓
B12	LE1	1,180	6,43/6,053	2,4	19,9	21,7	✓
B13	LE1	0,062	6,487/6,053	0,1	20,1	20,2	✓
B14	LE1	1,234	6,483/6,061	2,6	20,1	21,9	✓
B15	LE1	0,063	6,429/6,004	0,1	19,9	20,0	✓
B16	LE1	1,180	6,43/6,053	2,4	19,9	21,7	✓
B2	LE1	1,215	6,488/6,055	2,5	20,1	21,9	✓