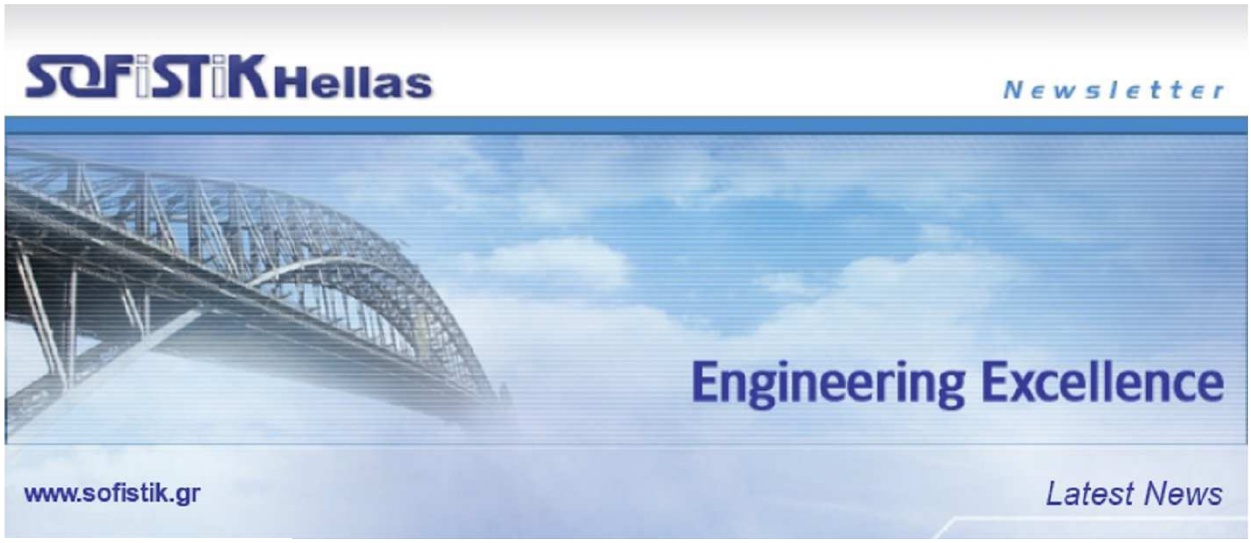
October 2017



http://www.sofistik.gr/

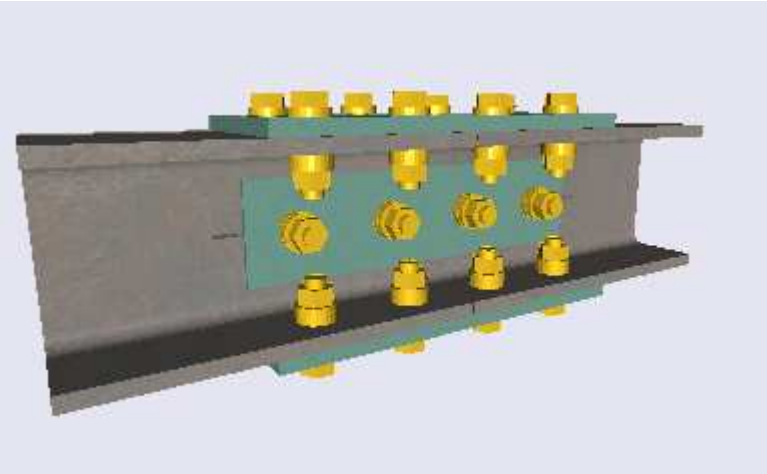
Steel Structures

New version of program STeelCON 2017.210

Dear colleagues,

A new version of the "**STeel CONnections**" program for the design of bolted and welded steel connections has been released.

Force distribution for beam splice connection



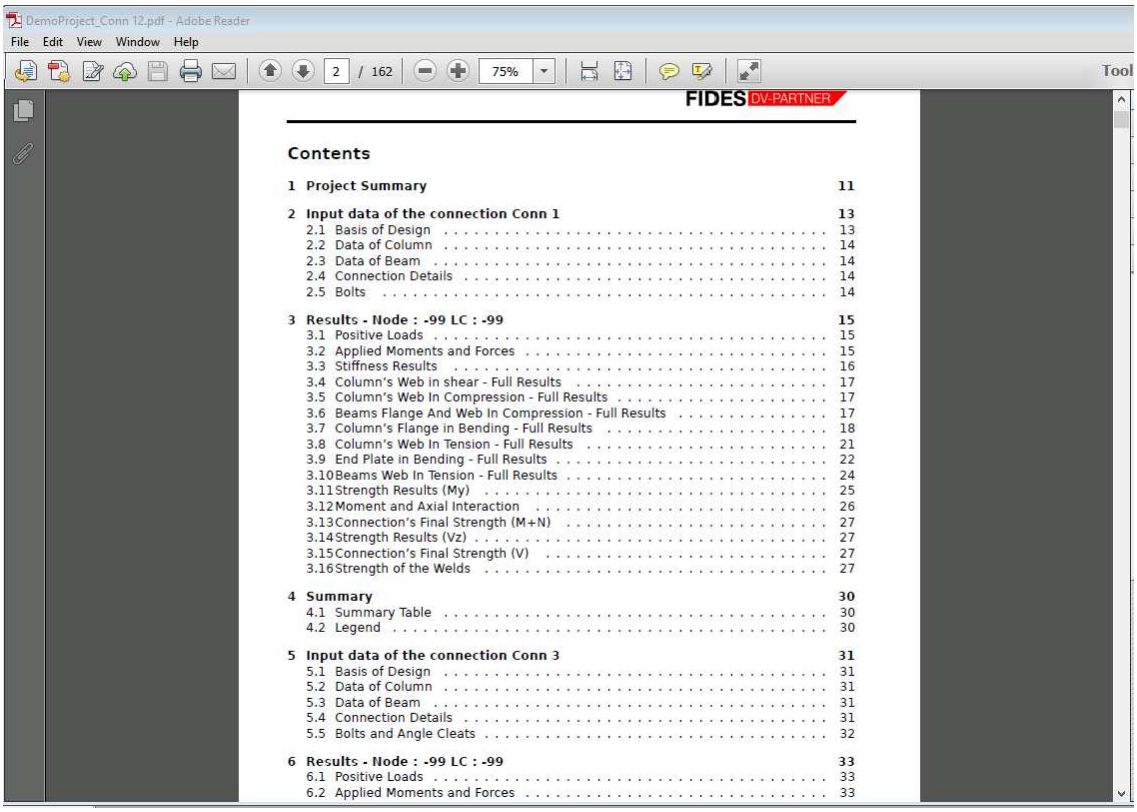
STeelCON can now calculate the force distribution for beam splice connection according to member's characteristics.

At splice point, the forces are passing through the connecting plates only. Up to now, the program has been calculating the distribution of the forces according to the plates characteristics. The axial force Nsd is distributed according to the areas of the flange, web and supplementary plates. The bending moment have been distributed according to the moment resistance of these plates.
This is the best practice and works well even if the engineer uses plates with flange/web thickness ratio different than the member's.

In some cases, it is preferable to distribute the forces according to member's characteristics. That means that the axial force Nsd and the Moment is distributed according to the areas of the beam flange and web and the bending moment is distributed according to their moment of inertia.

Improved printouts in PDF

All the connections of a project can be printed together in a pdf file.

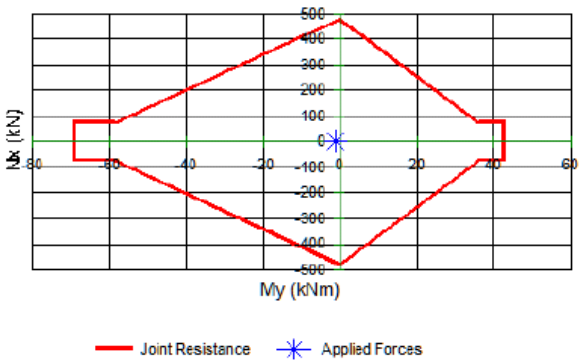


Mathematic expressions and images are now included in the document. The page layout includes header and footer as well as more comprehensive tabbed results.

Column's web in tension Ft,wc,Rd(3)	162,075	kN
Column's flange in bending Ft,fc,Rd(3)	140,449	kN
Failure Modes	2	
End plate in bending Ft,ep,Rd(3)	180,864	kN
Failure Modes	3	
Beam's web in tension Ft,wb,Rd(3)	384,277	kN
Tension resistance Ftr,Rd of bolt-row 3	44,12	kN
Bolt's resistance in Tension	90,432	kN
Beam's flange and web in compression check enabled	YES	
Applied moment My,sd	-1,00	KNm
Moment design resistance My,Rd	-69,16	KNm
$\frac{My,Sd}{My,rd} = \frac{-1,00}{-69,16} = 0,01 < 1$		✓

3.12 Moment and Axial Interaction

Applied Axial Nx,Sd	0,00	kN
Axial Resistance	480,22	KNm
$\frac{Nx,Sd}{Nx,rd} = \frac{0,00}{480,22} = 0,00 < 1$		✓



15.10.2017, Munich Germany