NL FR EN DE CZ

Home | Company | Solutions | References & Markets | News & Press | Support & Downloads | Contact

December 2011

## Latest News & Events

- ▶ Nemetschek Scia will be present at the Concrete Day 8/12 Louvain-la-Neuve (BE)
- We invite you to read the White Paper on MOOT Automatic Optimization of Civil Engineering Structures
- ► Allplan 2012. We invite you to read about all new and improved features
- ► Visit our Webshop and take advantage of our special offers!
- All you need to know and the latest status on the Eurocodes... Visit www.eurocodes-online.com
- Are you a student or professor? Download Scia Engineer for free...

### Software Updates

- Customers can download the latest service packs from our secured download section
  - Scia Engineer 2011.0.1102
     Scia Steel 2011 SP1
     Allplan 2011.1 HF3

  - Allplan Precast 2010.1-3
- Get an automatic notify through RSS when a new Scia Engineer Service Pack is available



# **Training & Support**

► Free interactive eLearning.





Group trainings for Scia Engineer, D Series, Allplan... Consult our training agenda and register online..

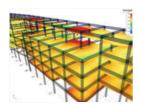




- Interested in a customized training organised in your company?
  Please contact Ms. Inge Wauters.
- Need an answer to your question? Put it on the **Scia Forum**! Register.

# Software Gallery

▶ University Campus - Trnava. Slovak Republic. Thanks to Hescon s.r.o.



Welcome to the last eNews of this year... We at Nemetschek Scia wish you all happy end of year celebrations.

- openBIM Community It Works!
   User Contest 2011 Winning project of Category 2: Hans Wilsdorf Bridge amsler bombeli et associés sa
   Tips & Tricks: Table Input new functionality in Scia Engineer 2011

Before the curtain falls over 2011 we would like to present you the following topics

## openBIM Community - It Works!

The construction industry is split up in many separate providers, from designers up to building part suppliers; each party is using software for different tasks (design, costs, detailing, fabrication...). Today we are aware that a major part of the inefficiency in construction comes from inadequate cooperation between the construction partners, resulting in errors, repetitive work, extra costs etc.

There are solutions to improve fundamentally the cooperation between construction partners, even with each party keeping its own existing software. If we agree on how to exchange information, if we use digital 3D models of structures, if we use standard exchange formats and if we can control the workflow between project partners, then we all win.

#### Good practice examples are available!

In the Netherlands for instance, a fly-over bridge was constructed near Geelen (south of the country); the project partners **Movares** (engineering office), **Heijmans** (contractor) and **Van Noordenne Staal** (steel reinforcement bending provider) decided to exchange to a maximum level all project data in a 3D digital way. As a result of the much better communication, the project was successfully realized within the time plan and cost budget.

► More info about the Fly-Over Bridge and User Contest 2011 Winner (PDF)

Project owners – mainly governmental institutions such as the **Rijksgebouwendienst** (Dutch State Office for Buildings) – prescribe that project data must be delivered with a standard BIM format (IFC of buildingSMART). Many software suppliers subscribe to the openBIM community and guarantee the support of the open standards defined in the buildingSMART community; to name a few: Nemetschek Allplan, Vectorworks, ArchiCAD, Nemetschek Scia, Tekla, StructureWorks and also Autodesk.

Visit buildingSMART for a full list of all its members

Software from Nemetschek Scia supporting the openBIM initiative:

- Scia Engineer (Engineering Design) Allplan Engineering (Steel Reinforcement Detailing) Scia Desk (Cloud Storage and Cooperation) Soilbri (Model Checking)

The best way to find out if it works for you is to try it! Get into openBIM and save time and money!







IFC, buildingSMART top

# Winning project in Category 2 of the Nemetschek Engineering User Contest 2011: Hans Wilsdorf Bridge - amsler bombeli et associés sa

This month's project is the winner of 'Category 2: Civil Structures': amsler bombeli et associés with their state-of-the-art 'Hans Wilsdorf Bridge', Geneva, Switzerland. The construction is planned to be completed by February 2012.

# About amsler bombeli et associés

The engineering office 'amsler bombeli et associés', in business for 31 years, is an expert in geotechnical engineering, special works, supporting structures, bridges, roads, pipelines and environmental works through the systematic application of sustainable development concepts.



The bridge is a tube-shaped structure consisting of one single span of 85,40 m. Inside the structures passes a deck with a width of 15,50 m. This deck is meant as a passage for bicycles and pedestrians. The construction rests on two reinforced concrete abutments with two lateral bearings which intercept the vertical loads and a central bearing for coping with horizontal transversal loads.









The spatial structure consists of various element types: coffers below, entry portals, upper ledgers, two main arcs, elliptical diagonals and three envelope curves. Scia Engineer was used to define the steel quality and the plate thicknesses that were required for the fabrication of the structural elements. Between the two entry portals, two types of 'elliptical diagonals' are distributed symmetrically along the structure. Over 250 parametric sections were entered into the software, ensuring full compliance with their geometry

The original architectural design required the development of a very complex Scia Engineer calculation model. This model allowed making adaptations to the structure and by optimizing the position of the diagonals, introducing arcs, adding variation in thicknesses and steel grades, this bridge meets all the requirements of a modern bridge and a work of art.

Quote of the Jury: "The project shows the splendid result of a merger between the architectural design, which aims to be an organic structure, and engineering skills supported by flexible software that is able to deal with complex sustainable structures.





## Free Tryouts

► Via our webshop we also offer the following Full Free Tryouts...













Play YouTube Movie
 Download pdf: "Hans Wilsdorf Bridge - amsler bombeli et associés"



# Tips & Tricks: Table Input - new functionality in Scia Engineer 2011

One of the novelties of Scia Engineer 2011 is the 'Table Input'. Its main advantage is the numerical input and adaptation of structural entities, which are immediately linked to the 3D graphical window. It also allows for a direct and bi-directional link between Scia Engineer and MS Excel, by simply copying and pasting the table content. This offers new (modelling) opportunities for the Scia Engineer user!

The Table Input option can be activated via: View menu > Toolbars > Table Input. The Table Input window is added just below the 'Command Line', but can be relocated by the user. Tabs are available for structural entities (nodes, 1D and 2D members), supports, loads and load panels, and layers. Each table shows all entities of the same kind that have been added to the project; for each entity several columns (properties) are available. To add/hide properties, the 'Column selector' can be used (Image 1).

Column selector						
2	S2	beam (80)				
3	S3	beam (80)				
4	S4	column (10				
5	S6	beam (80)				
	Imac	hann /9/1				

B Co	py/Dele	ete row ecton
KS KS	K4	CS1-HEA220
K14	KO)	CS1-HEA220
K15	K11	CS1 - HEA220
K21	K16	CS1-HEA220
K22	K18	CS1 - HEA220
K28	K23	CS1-HEA220
K29	K25	CS1 - HEA220



D2 + (3		£ +(CO5(82/10)+5/N(C2			
	Α	В	C	D	
1	NS	0	0		
ž	142	0	. 1	3,29	
3	143	1	0	2,9850	
4	164	1	. 1	3,2845	
5	N5	2	0	2,90	
6	145	2		3,23	
7	147	3	. 0	2,8600	
ŝ	148	3	1	3,165	
9	N9:	4	0	2,7631	
10	N10	4	- 1	3,0026	
11	N11	5	. 0	2,6327	
12	N12	5		2.9322	
13	N13	6	0	2,4700	
		Image 4			

If the user has selected some entities in the 3D window, the according rows are highlighted in the table, and vice versa. Rows (and thus the structural entities) can be copied and deleted and new rows can be inserted (Image 2).

The content of a cell can be adapted by simply clicking it. The 'Multiple edit box' allows the substitution of all selected cells by a value/property defined in the input field (Image 3).

It is also possible to search for a specific element by typing '?Element name' in the input field.

Another very useful option is the possibility to filter on property, via the two combo boxes in the toolbar. To sort the entities by a specific property, click once or twice on the header of the property's column.

To send information to Excel, the content of a Scia Engineer table can be selected (e.g. by [CTRL]+[A]), copied by [CTRL]+[C]), and then pasted (by [CTRL]+[V]) into an Excel sheet. In this Excel sheet, for instance, structural entities (nodes/members) can be renamed or renumbered easily. It is also possible to round off node co-ordinates. Afterwards the adapted content is pasted back into the Scia Engineer table. The link can also be used in the other direction. If you have a table with node co-ordinates at your disposal in Excel (possibly obtained via a certain formula), you can copy and paste it into Scia Engineer's 'Node table', where the new nodes will be created (Image 4).

Thank you for reading our eNews... See you in 2012!



If you are not yet receiving the monthly Nemetschek Scia eNews, you can subscribe here ...

Nemetschek Scia nv - Industrieweg 1007 B-3540 Herk-de-Stad - Tel: +32 13 55 17 75 - Fax: +32 13 55 41 75 Nemetschek Scia - Copyright © 2011 - info@scia-online.com