

NEWS

- New **SCIA•ESA PT training movies** are available in our online 'SCIA Movie Center'. [more ...](#)



- Visualize all SCIA•ESA PT projects at the client site with the **Nemetschek IFC Viewer**. [Try it now !](#)

- '**Online Projects nv**', member of the SCIA group is looking for a Managing Director / Sales Engineer [more ...](#)

- The new **SCIA•ESA PT 2007 catalogues** have been launched. **Download** it today from our [free downloads](#) section **or ask your local sales representative** for a hard copy.

- New items have been added to **FAQ** section. Here you can find the **answers on frequently asked questions** related to ESA-Prima Win, SCIA•ESA PT, Allplan, ...

- We kindly invite you to read our new White Paper "**Round-trip Engineering**, step-by-step". [more ...](#)

EVENTS

- SCIA invites you to the introduction of **SCIA•Pipeline** on 19th September 2007 in Bilt (NL). [more ...](#)

- SCIA organizes a '**free seminar SCIA•Scaffolding**' on 27th September 2007 in Ghent (B). [more ...](#)

- SCIA organizes '**a free initiation day Allplan Engineering**' on 31st October 2007 in Arnhem (NL) [more ...](#)

UPDATES

- Customers can download the following **new service packs** in our free [download section](#).

- » **SCIA•ESA PT 2007.1.015**
- » **ESA-Prima Win 3.100.015**
- » **Allplan 2006.2_2**

TRAINING

In the following months a lot of **trainings** are organised in our offices of **Herk-de-Stad** and **Arnhem** with, among others, the following topics:

- » **SCIA•ESA PT**
- » Basis course
- » Concrete
- » Dynamics

Dear eNews reader,

It is September; the holiday months have passed. Taking some time off has done us really good and we are entirely ready to provide you monthly in this new working year with the most up-to-date information from the construction world.

We at SCIA consider '**Innovation**' of paramount importance. You will see immediately that our **September-issue is full of it**: the SCIA company strategy, the last developments around IFC, far-reaching 3D animations realised by our customers, the new impressive BMW-centre in Munich - judge for yourself ...

We wish you a lot of reading pleasure!

- » **Corporate News:** Structural engineer, what are the key trends in your industry?
- » **Product News:** Implementation of new technologies in SCIA•ESA PT 2007.1
- » **The Market:** New futuristic BMW centre in Munich
- » **The Winning Project:** Waste water treatment plant in Hilversum (NL)
- » **Tips & Tricks:** Saving and reading an animation viewpoint in Allplan

Structural engineer: what are the key trends in your industry?

"Enabling Innovation in Construction" is the longstanding mission of SCIA.

Innovation became top priority so as to give an adequate answer to the current trends and threads: to the shortage of professionals (for design & for execution of projects) is responded with adopting productivity tools and with outsourcing. The materials price escalation (e.g. steel & concrete) is forcing designers to optimize the material use and to search for new materials or methods.

The future structural engineer is at the heart of **Information Modelling**, be it during design (3D FEM) or during detailing (steel & concrete 3D models). Recently **SCIA has launched the concept of Round-trip Engineering**, by which geometrical models and design models are digitally aligned. Also interoperability is high on the list, with the recent **first step certification of the IFC** (Industry foundation classes) implementation for SCIA, allowing transfer of structural models between different software programs. To improve the communication level during project execution **SCIA has started this year a new company Online Projects**, to distribute the successful **think project!** workflow & project management.

SCIA is bringing innovation on the international level through intensive training and support services, as well classical as virtual (using Internet tools). This strategy has resulted in a persistent growth of the company SCIA, as well in turnover as in staff. Our deep involvement in research & development projects with several partners is a guarantee that we will continue to help our clients with **new enabling technologies**: paperless 4D design, virtual modelling & simulation, green safe buildings, competence in building norms for multi-materials.

The Nemetschek Engineering Division, in which SCIA is playing a major role, is one of the largest players for structural engineering software.

Engineers, you can count on us to help you building the future.



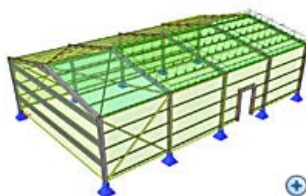
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Implementation of new technologies in SCIA•ESA PT 2007.1

SCIA•ESA PT 2007.1 has arrived and **two major new technologies** have been implemented successfully:

1. **Enhanced calculation of Floor systems with load distribution**
2. **IFC certification step 1**

1. SCIA•ESA PT Version 2007.1 comes with completely new possibilities for the input of ribbed plates, for floor structures made of hollow core panels or for steel-concrete composite floors in the analysis model.



The idea is to allow the user to define a floor based on a set of beams. The floor is calculated using Finite Elements and the exact load distribution respecting the 2D layout, including holes and steel girders, is achieved.

After the successful Finite Element calculation the user is able to use the internal forces from the 2D load spread calculation in the **SnapCheck** or **AutoDesign** of the individual beams. Thus the user is able to achieve proper load spreading and proper internal forces/checks for the beams ALL in one project.

2. The IFC 2x3 format has been enhanced in version 2007.1 by new capabilities:

- import of cross-sections with openings,
- import of beams with openings,
- import of 2D elements with clipping and openings in curved surfaces into the structural model.



- » EC3 Theory en practice
- » Finite elements
- » Non-linear calculation
- » Tips & Tricks

Allplan Engineering

- » Formwork shell and reinforcement functions (6 & 12 September 2007)

Allplan Architecture

- » Basis course (15 & 16 October 2007)

Here you find **all training dates with a programme overview** and you can register online.

JOBS

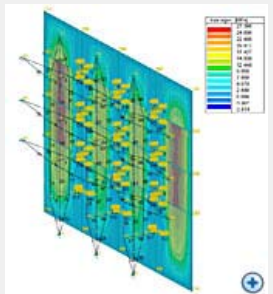
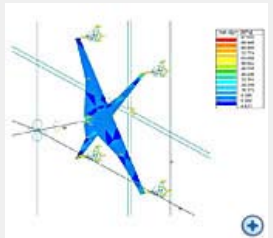
- » SCIA's customers are invited to add their **job vacancies free of charge** in our '**SCIA Jobs Network**'.



Please also check **SCIA's Job Openings**. Good luck!

GALLERY

- » Study of a glass structure.



SCIA USER CONTEST



Moreover, **SCIA has successfully passed as the 1st CAE producer with SCIA•ESA PT, this is the first step in IFC certification.**



With the IFC technology in SCIA•ESA PT it is today very easy to use the **True Analysis**, structural or analysis models in the exchange of data with external CAD or CAE programs. Even more one can use the IFC technology in the Round-trip Engineering.

The IFC technology is a new enhancement of the already vast "Building Information Modelling" functionality in SCIA•ESA PT.

For a complete list of all new features click here ...

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New futuristic BMW centre in Munich

Next October, the German car manufacturer BMW will inaugurate its new, original and futuristic centre 'BMW Welt' (BMW World) in Munich. Entirely realized out of steel and glass, the building will contain a **business space, shops and restaurants** as well as **rooms for business meetings**.

This impressive project was carried out using the software **think project!**¹, distributed to the Benelux countries by the company **"Online Projects"** (member of the SCIA Group).

The building, with a very futuristic architecture, arises as a spiral of glass and steel. It is a very avant-garde construction, composed of two cones, with a height of 28 meters and a diameter of 45 meter, which are placed 'point against point'. The slope has the shape of a volute. The roof is also curved and supported by a cone.

"A landscape of clouds" The architects' firm Coop Himmelblau imagined the building: it offers a vision of "a landscape of clouds". It will accommodate a commercial section, an interactive campus around the topic of mobility for children, shops and restaurants, a delivery point of cars and a centre for car accessories. **"The idea is to create a BMW centre so as to make it possible for the customer to discover a real BMW world".**



Renovation of the museum

On the same site is situated the BMW museum, it is connected to 'BMW Welt' by a bridge.

This year, the museum underwent large restoration works, e.g. the surface has been increased from 1.000 to 5.000 m². It is very famous for its 'flying saucer' shape; the museum shows exposures of vehicles, plane engines, and motorbikes. The new sight includes 'slopes seeming to float in space' but also ultramodern façades and crossing gangways. **The objective of all this work is having visitors discover BMW world in an optimal way.** "On average, we record more than 200.000 visitors per annum, which places us in the second place of the museums of Munich, just behind the 'Deutsches Museum'. In this respect, it is important that the new BMW Museum sets new trends", concludes Holger Lapp, director of BMW Mobile Tradition.

In total, approximately 800.000 visitors yearly are expected on the BMW site of Munich.

¹ **think project!** is a solution based on the Internet, which gathers all relevant data and information of a project and places it at the disposal of the partners involved on a central platform. This approach simplifies the process of communication between the implied teams and facilitates the exchanges of information between the various structures and/or data-processing applications.



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The Winning Project: Waste water treatment plant in Hilversum (NL)



About SC Engineering and PT Baja Engineering
SC Engineering BV in Nijkerk (NL) and PT Baja Engineering Indonesia in Jakarta were established in 2003.

Their expertise lies in detail calculations and drawings of reinforced and prestressed concrete structures. Acquisition and management of all projects, as well as the preparation of structural calculations based on final design calculations provided by the client, are carried out by the office in the Netherlands.

In the Jakarta Indonesian office, all detail drawings of structural concrete structures, mainly bridges, tunnels and industrial complex structures are prepared.

All drafting is done in 3D with Allplan Engineering.

About the project

On the outskirts of Hilversum (NL), an area called **"Anna's Hoeve"** is situated next to a protected park **"Goois natuurreservaat"**. The municipality of Hilversum has decided to renovate and intensely clean up this area, in order to provide an area suitable for housing and recreation.

Pollution

The development of this area is very important as it is contaminated to such a high level that soil and water reservoirs (ponds) must be cleaned thoroughly. If not cleaned, the area becomes a threat to the people living there as the groundwater will be contaminated as well.

Housing projects

In the "Anna's Hoeve" area, several housing projects will be realized in harmony with the existing nature. The housing projects will partly finance the renovation and clean up works for this area.

Waste water treatment plant



Also in this area an existing waste water treatment plant will be replaced by a new and modern one. This plant is designed in accordance with the latest technology for waste water treatment, it is smaller so more space is left for housing.



Recreation

With new sport facilities and places for recreation in a well-designed landscape, future residents will find themselves in an agreeable environment.



RWZI Hilversum

The department for research and projects of Waternet has designed a modern waste water treatment plant. The civil structures of this project are designed by Royal Haskoning and Snelder architects. As a result, a set of 2D contract drawings has been issued for detailing.

Assigned by Royal Haskoning, SC Engineering BV and PT Baja Engineering Indonesia have prepared 3D models of the concrete structures and dimension drawings for the construction with Allplan Engineering.

The 3D models were made to facilitate 3D calculations with **SCIA•ESA PT**. Here we followed the comprehensive instructions from the client, so the 3D models of the structures could successively be used in the SCIA•ESA PT software.

The waste water treatment, the so called "membrane bioreactorship", is placed inside large concrete structures. This complex of structures is placed inside a hill. Only the control tower is exposed.

The results of the calculations will be used to automate rebar design with Allplan Engineering again.

Quote of the Jury:

"The concept of the whole project (tower and other buildings) is a good example of the possibilities of Allplan. The project is well integrated with the surroundings. The company took the challenge of modelling the structure in 3D and used the modules of Allplan to their extents. The presentation by means of this movie shows the interaction of the construction on the country-side and vice versa."

Other nominated projects in the Category 2 'CAD Engineering':



Please [download](#) or [order your copy](#) of the SCIA User Contest Book 2007 today.




Saving and reading an animation viewpoint in Allplan

If you want to **save an animation viewpoint in Allplan**, please proceed in the following way:

step 1: go to the menu window and start the '**2+1 animation**' window.

step 2: choose the wanted viewpoint of the animation.

step 3: click in the bottom bar of the front view on the icon : '**3D view**'.

step 4: click on the icon  '**taking over values**' in the animation window, the x,y,z, co-ordinates of the eye and targetpoint are taken over. Click on '**apply**' and the window of the front view becomes a perspective view.



You can save this perspective view with the function '**save load view**'. Click '**New**' and name the view.



To load a saved view:

step 1: go to the menu window and start the '**2+1 animation**' windows.

step 2: click in the bottom bar of the front view on the icon : '**save load view**'.

step 3: select the view



step 4: click in the bottom bar of the animation on the icon : '3D view'.
click on the icon : 'taking over values' in the perspective view.



Archive Tips & Tricks

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