



e News

NL FR EN DE CZ

September 2006

## NEWS

 Don't forget to subscribe to the **SCIA User Contest 2007**.

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## EVENTS

- SCIA presents, "**new release SCIA•ESA PT 2006**" in Vilvoorde (B) on 12th September 2006... [subscribe](#)
- SCIA presents, "**new release Allplan 2006**" in Vilvoorde (B) on 12th September 2006... [subscribe](#)
- SCIA organizes an **initiation day 'SCIA•ESA PT'** on the University of Ljubljana (SLO) on 21st September 2006. [more](#)

- SCIA organizes a '**Free initiation day, SCIA•ESA PT**' on Tuesday 3rd October 2006 in Arnhem (NL) ... [subscribe](#)

## UPDATES

- Recently the following new software versions have been released:
  - » **SCIA•ESA PT 2006.0.112**
  - » **ESA-Prima Win 3.80.112**
  - » **Allplan 2006.1**
 As a customer you have the possibility to download these in our [protected download section](#).
- There is also a **new update** of the Delft Geosystems programme **MSettle** available.
 

In the [release notes](#) all improvements are described.

## TRAINING

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

- » Basis course SCIA•ESA PT
- » Concrete
- » Non-linear calculation
- » Dynamics
- » EC3 Theory en practice
- » Tips & Tricks
- ...

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

## Dear SCIA eNews reader,

Did you enjoy your holiday? Did you get charged up again? We at SCIA are again full with great new ideas, one of which is the brand-new '**SCIA Jobs Network**'. Are you looking for a new challenge in your career or are you looking for new employees in your company? Go and visit our 'SCIA Jobs Network'!

We wish you a lot of reading pleasure with all interesting items in this eNews.

- » [Corporate News: SCIA launches its Business Training Centre on 19 September '06](#)
- » [Product News: Removal of local extremes and averaging of local forces in slabs in SCIA•ESA PT](#)
- » [The Market: Recruitment, SCIA innovates](#)
- » [Customer's Project: 'Carinox' Stainless Steel Plant, Belgium – Charleroi](#)
- » [Tips & Tricks: Picture Rendering in the Document in SCIA•ESA PT](#)

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## SCIA launches its Business Training Centre on 19 September '06

To support the international expansion SCIA has founded a training centre for its current and future business partners. SCIA is bringing innovative software and services to the construction market, a market that is constantly pursuing cost reduction and efficiency by adapting new technologies.

Being part of the Nemetschek concern, SCIA has now access to a wider network of sales & services organisations. To be successful in the market, the required competence is high: knowledge of products and technology, know-how of the engineering requirements of future clients, sales skills to be able to work out standard & tailor made solutions resolving client's pains, quality procedures in logistics (delivery, support,...), etc.



**More than 15 new partners are starting the training session at SCIA's headquarters**, all well cared for by the SCIA staff and external trainers. The new partners come from East- and Southern Europe (Turkey, Croatia, Slovenia, Spain, ).

For SCIA it is an important step in expanding its operations, therefore **the best professional attention is devoted to succeed in "going fast to the market"**.

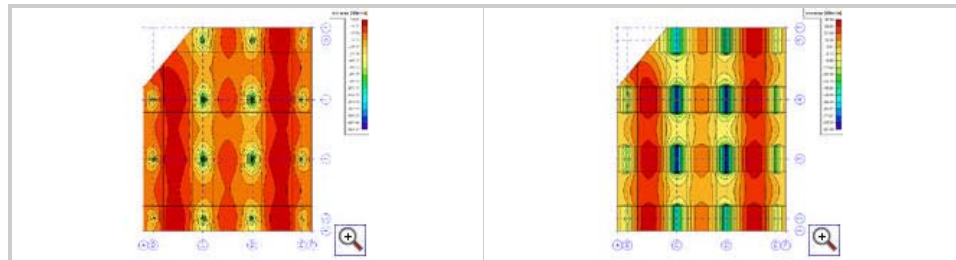
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## Removal of local extremes and averaging of local forces in slabs in SCIA•ESA PT

Probably every civil engineer who ever designed plated reinforced concrete structures came across the problem of local extremes of internal forces in slabs that occur in the location of local supports and at the ends of load bearing walls. These extremes follow from the principles of the finite element method and are unrealistic; even though they affect only a small vicinity of the local supports, they degrade the calculation results. They (these extremes) appear in graphical and text outputs, influence the search of extreme values, etc. Moreover, these unrealistic values are applied also in the calculation of required reinforcement areas and in checks of plates and walls, which may lead even to a failure of the calculation algorithm, as technical standards do not assume such extreme values.

**SCIA•ESA PT introduces new tools for the reduction of these extremes: averaging areas and averaging strips.** Both the tools provide for averaging of internal forces (bending moments, shear and axial forces) over the width of the defined rectangular area or strip. These averaged internal forces are displayed on the screen and in the document and, naturally, are used also as input data for the calculation of required reinforcement areas.

The user specifies the averaging areas or strips after the calculation and can immediately review the change in the internal forces. This enables him/her to adjust the width of the area interactively and analyze its influence on the size of e.g. hogging moments.



## JOBS



The images clearly show that the range of bending moment  $m_x$  decreased from  $\langle -185, 38 \rangle$  to  $\langle -82, 36 \rangle$ .

**The averaging strips are a part of the basic module and can be used for the design of plated and plate-wall structures according to all national technical standards implemented in SCIA•ESA PT.**

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## Recruitment, SCIA innovates

**Today recruiting a good engineer in Belgium and Holland has become a real challenge.** SCIA, continuously seeking for new talents, is well aware of this situation. The discussions with our customers are also often directed towards this subject: there really is a shortage of engineers in our sector, which also implies that real evolution possibilities turn up, in particular at SCIA.

So as to go beyond the traditional recruitment procedures (advertisements, Internet site, publicity and head-hunters) **SCIA applies the Belgian motto: "together we are strong". To achieve this, we propose our customers and partners to publish their job offers on our site.** As professionals of the construction world frequently visit our site, they will be able to find a whole range of vacancies for all kinds of profile types and ambitions.

It is already possible to publish your employment offer on our site or consult the ones which are already on line, on the address:

<http://www.scia-online.com/int/careers.html>



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## Project 'Carinox' Stainless Steel Plant, Belgium – Charleroi

**Customer:** Technum N.V.

**Owner:** Carinox (Arcelor-group)

**About Technum:**

**Technum N.V.** is a dynamic, internationally oriented and strongly growing multidisciplinary office for engineering and consultancy with establishments in Antwerp, Ghent, Hasselt, Leuven and Ostend. Technum provides services for the authorities, industrial and service-providing companies, project developers, international institutions, etc. for each project, single or multidisciplinary, and for each project phase. Technum has the capacity, expertise and creativity required to guarantee clients specialised and complete guidance in numerous fields.

**About the project:**

The new Carinox stainless steel plant in Charleroi is now well underway to achieve a production of 1 million tonnes of stainless steel per year. Following the ramp-up phase, the steel plant should reach full capacity at the beginning of 2007.

The total investing sum was 250 million Euros; the steel structure ran up to a total of 15 million Euros. The total surface of the plant is 23.000 m<sup>2</sup>; the maximum height is 53 m.

Technum executed the design engineering, included static calculation, detail calculation for connections, general arrangement drawings, material take off, grating drawings, detail drawings so that each workshop could start immediately the workshop drawings for columns and crane girder entirely detailed.

**Steel structure details:**

- The total weight is 7533 ton:
  - the part of the columns: 1700 ton
  - crane girders: 1900 ton
  - floors: 650 ton
  - roof: 754 ton
  - walls: 425 ton
  - rest: auxiliary structures
- Crane capacity:
  - EAF-bay: 300 ton
  - AOD-bay: 360 ton
  - Casting bay: 100 ton
  - Tundish bay: 60 ton
- Bins level on 43 meter:
  - dead load: 700 ton
  - capacity: 6000 ton



All the design engineering was done in ESA-Prima Win. The roof-structure and columns, even as the walls, are calculated in a 3D-model, the longitudinal bracings in a 2D-model.

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## Tips &amp; Tricks: Picture Rendering in the Document in SCIA•ESA PT

SCIA's customers are invited to **advertise their job vacancies free of charge** in the new '**SCIA Jobs Network**'.



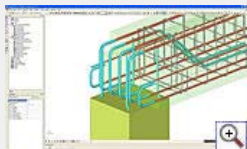
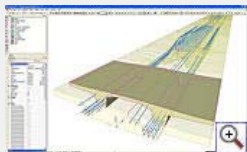
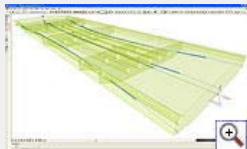
Our website counts several thousands of visits of young engineers and draughts men every week. You and SCIA, together we are so much stronger if we work together finding the right people within **one dedicated job network**.



Just **send us your open jobs** today by using **this form** and we will put it online **within the next working day**.

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

## GALLERY

Screenshots illustrating some **new features in SCIA•ESA PT 2006**

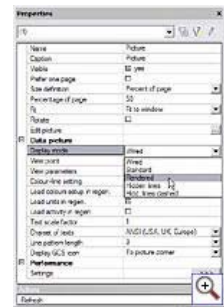
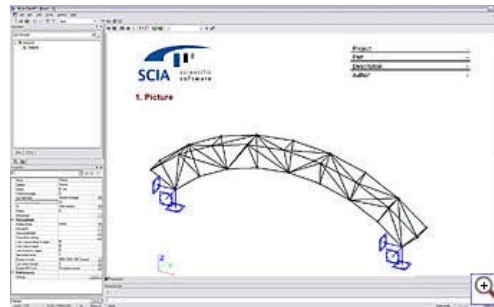


When viewing a structure in the general environment, it is possible to **show the surfaces** of the structure and to **render** these surfaces using the respective buttons   in the Command Line.

For 1D members it is required to first activate the surface because if no surface is activated, nothing can be rendered. For 2D members this is not required since a 2D member by default 'is' a surface.

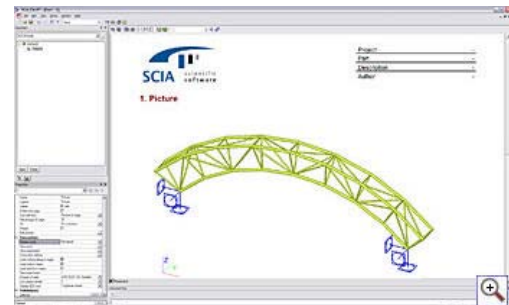
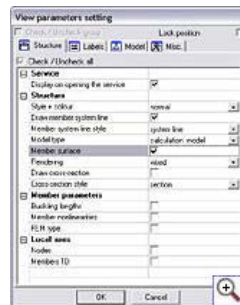
This same idea is used in the document. When a **Wired** view of a structure is sent as a picture to the document, the properties of the picture can be edited using the **Properties Window**:

When the **Display mode** is changed from **Wired** to **Rendered**, nothing happens: the rendering is activated however the surfaces are not yet visible.



The solution is thus to activate the **Member surface** through the **Structure** tab of the **View Parameters**.

After activating the surfaces, the structure is shown with its rendered surfaces:



It is important to keep this in mind since the applied procedure does not require the user to exit the document: all picture manipulations can be done through the Properties Window.

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