TRAINING

SCIAENGINEER

SCIA ENGINEER – ADVANCED TRAINING SCAFFOLDING (3 DAYS)

Description

This three-day course focuses on the backgrounds and advanced applications for **scaffolding calculations according to EN12810-1 and EN12811-1**. You will learn how to use SCIA Engineer for scaffolds and couplers on the basis of practical examples. This training is geared to **advanced users**.

The participants will gain understanding into:

- modeling of scaffold constructions
- insert load cases and create load combinations
- ULS and SLS combinations and checks according to EN12811-1
- backgrounds and application of 2nd order calculations
- the importance of the general buckling mode (stability)
- insert and check of couplers with the correct stiffness (linear or non-linear)

What knowledge will you obtain?

Our Customer Service Engineer will explain the applications step by step, so that the participants can perform and verify a scaffold design that conforms to the code in a fast and accurate way. Specific results of the acquired knowledge include:

- modeling if scaffold constructions in SCIA Engineer
- understanding of how the theoretical requirements of the EN12810-1 and EN12811-1 codes are linked to the practical use of the scaffolding package of SCIA Engineer
- know when and how to perform advanced calculations (general buckling and 2nd order)
- correct and efficient modeling of couplers and interpret the results in the correct way

Program

Modeling

- modeling of scaffold constructions in SCIA Engineer
- explanation of the various materials (steel, aluminium)
- overview of the different cross-sections in SCIA Engineer

Load cases and combinations

- explanation of the three different load types according to EN12811-1
- input of loads on the model
- principle and usage of load combinations according to EN12811-1

TRAINING SCIA ENGINEER

Results

- visualizing the internal forces (normal forces, moments, …) and deformations

SLS scaffolding check – EN12811-1

- check of relative deformations according to EN12811-1

ULS scaffolding check – EN12811-1

- extensive scaffolding check according to EN12811-1

2nd order analysis

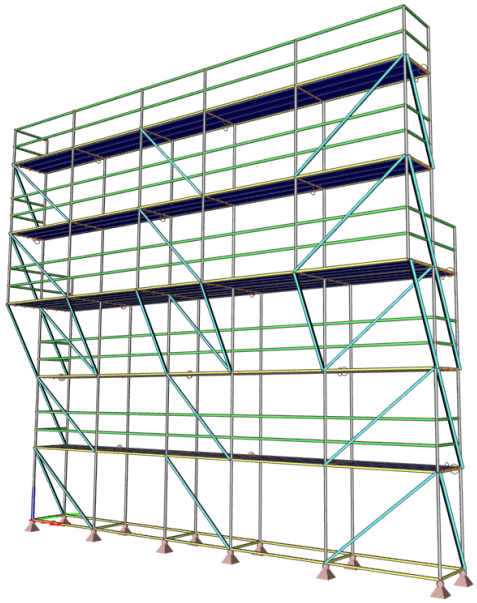
- backgrounds and use when entering global and local imperfections
- general principles of a 2nd order calculation in SCIA Engineer

Stability calculation (general buckling)

- determination of the critical load coefficients
- calculation of the various global buckling modes
- visualization and interpretation of the results
- use of these results in 2nd order analysis

Connections

- couplers (general couplers and manufacturer couplers) in SCIA Engineer
- coupler check
- non-linear gap
- non-linear supports and friction supports



Engineering Report

- generation of calculation notes

Template

- creation of project and engineering report templates for better efficiency

User blocks

- create, save and use user blocks for a fast structure design

Attributes

- use of attributes to generate a personalized list of materials

3th training day (optional)

- apply the gained knowledge on actual projects of the participants

SCIA A NEMETSCHEK COMPANY

SCIA nv - Industrieweg 1007 - B-3540 Herk-de-Stad (Belgium) - +32 13 55 17 75
For a complete list of all our international agencies and partners, visit **www.scia.net**

TRAINING SCIAENGINEER

Working method

The training is provided by an experienced engineer from the Customer Service Department of SCIA. To guarantee the interaction between the participants and the trainer, the course is given for a small group of up to 8 people.

Each **participant will use the software** and will put the different topics of the course immediately into practice, under the supervision of the trainer. At the end of the training you will have the necessary knowledge to **use the parts discussed in an autonomous and efficient way**.

At the beginning of the training, each participant will receive a **syllabus**. This includes a detailed explanation of the different functionalities and treated examples.

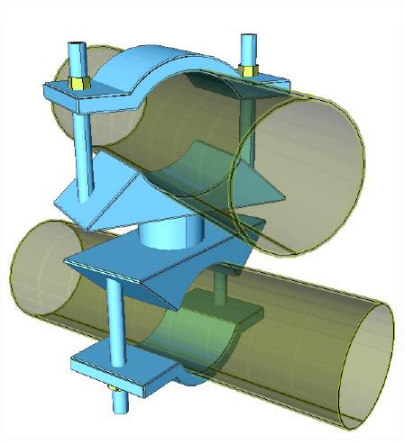
After the training, the companies who do not have the ability to use all the features discussed in the license of the software, will have the opportunity to request a free try-out license which is valid for 30 days.

Prerequisites

This course is adapted to more experienced users with the necessary general knowledge of structural design and scaffolding.

Certificate

Each participant will receive an official SCIA Engineer “Advanced training Scaffolding” certificate at the end of the training, signed by the trainer.



***Disclaimer**: The content of the training may be modified without notification (12/2015).*