



TRAINING

SCIAENGINEER

SCIA ENGINEER – NON-LINEAR AND STABILITY CALCULATIONS (1 DAY)

Description

During this one day course, the principles of **non-linear calculations** in SCIA Engineer are explained in detail. It will also discuss the **stability calculation** with the corresponding results. This will be done using some **practical examples**. The learned principles can be immediately put into practice in current projects.

What knowledge will you obtain?

A process of clear and precise handling will be treated for a more effective and efficient use of each of the studied functionalities.

This training provides the necessary elements for the full understanding of how the software works in the field of non-linearities and thus gives you the knowledge and confidence to use it in the future.

At the end of the course, you will be able to:

- Use local and physical non-linearities.
- Perform a second order calculation within SCIA Engineer with the correct geometric imperfections.
- To complete a stability calculation to locate the instabilities.

Program

Non-linear calculation

- How can you create non-linear combinations (according to the code)?
- In what way can the local non-linearities be inserted (tension members, cable elements, ...)?
- Which method should be used (Timoshenko, Newton-Raphson)?
- What about physical non-linearities?
- Which geometric imperfections can/have to be taken into account?

Stability calculation

- How can you create stability combinations (according to the code)?
- What is the difference between the linear and the non-linear stability calculation?
- How do the calculated results should be interpreted?
- In which way can these results be used for further calculation?



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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.

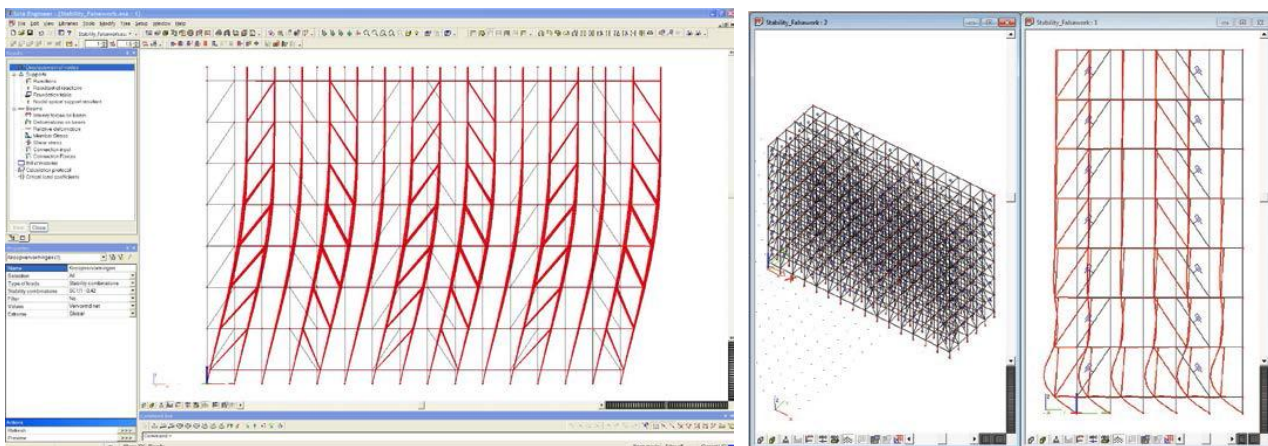
After the training, the companies who do not have the ability to use all the features discussed in the license of the software, will have the opportunity to request a free try-out license which is valid for 30 days.

Prerequisites

A basic knowledge of the principles of SCIA Engineer is recommended.

Certificate

Each participant will receive an official SCIA Engineer “Non-linear and stability calculations” certificate at the end of the training, signed by the trainer.



Disclaimer: The content of the training may be modified without notification (04/2016).