SCIA ENGINEER – BUCKLING LENGTHS FOR STEEL (1/2 DAY)

Description

During this course of half a day, the principles of the provision and use of the **system lengths** in SCIA Engineer are explained in detail, as well as the **buckling parameters** and the corresponding **buckling lengths**. This will be done on the basis of **practical examples** that are interesting for both **new and experienced users**, who can convert the tricks immediately into practice in current projects.
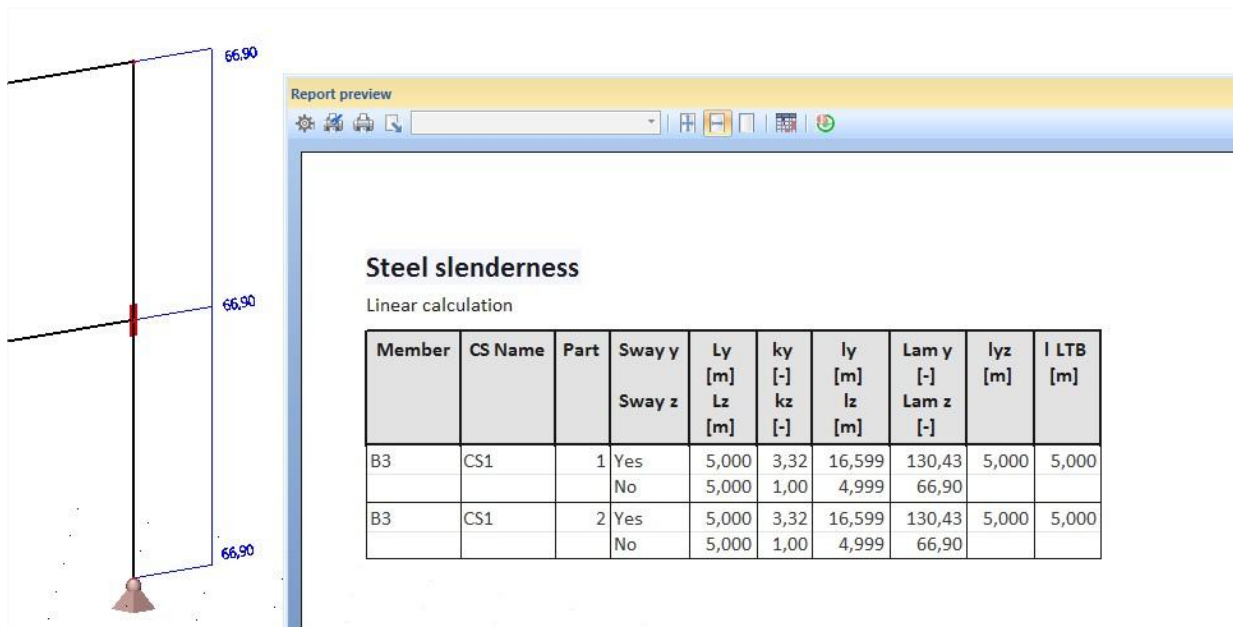
What knowledge will you obtain?

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 domain of buckling systems and gives you so the necessary knowledge and confidence to use it in the future.

At the end of the training, you are able to:

- verify the buckling lengths calculated by the software and adjust them if necessary
- provide the correct parameters to perform a flexural buckling check according to the code
- verify the relative deformations of bars in a quick manner

Report preview

Steel slenderness

Linear calculation

Member	CS Name	Part	Sway y / Sway z	Ly [m] / Lz [m]	ky [-] / kz [-]	ly [m] / lz [m]	Lam y [-] / Lam z [-]	lyz [m]	l LTB [m]
B3	CS1	1	Yes	5,000	3,32	16,599	130,43	5,000	5,000
			No	5,000	1,00	4,999	66,90		
B3	CS1	2	Yes	5,000	3,32	16,599	130,43	5,000	5,000
			No	5,000	1,00	4,999	66,90		

Program

Buckling ratios and buckling lengths
- How are these elements calculated by SCIA Engineer?
- How can the system lengths be represented graphically?
- Can the buckling lengths be entered manually?
- Which parameters have an influence on the buckling ratios?

Buckling curves
- What buckling curves are used … and in which case?
- What is the influence on the type of profile in the buckling curve used by the software?

Flexural buckling check
- What procedure must be followed so that SCIA Engineer performs an adequate control as recommended by the chosen code?
- What elements can be adjusted and which parameters affect the control?

Relative deformation
- How is the relative deformation calculated in SCIA Engineer?
- What is the influence of the buckling system on the relative deformation?
- Is het possible to execute a check on the values of the relative deformation?

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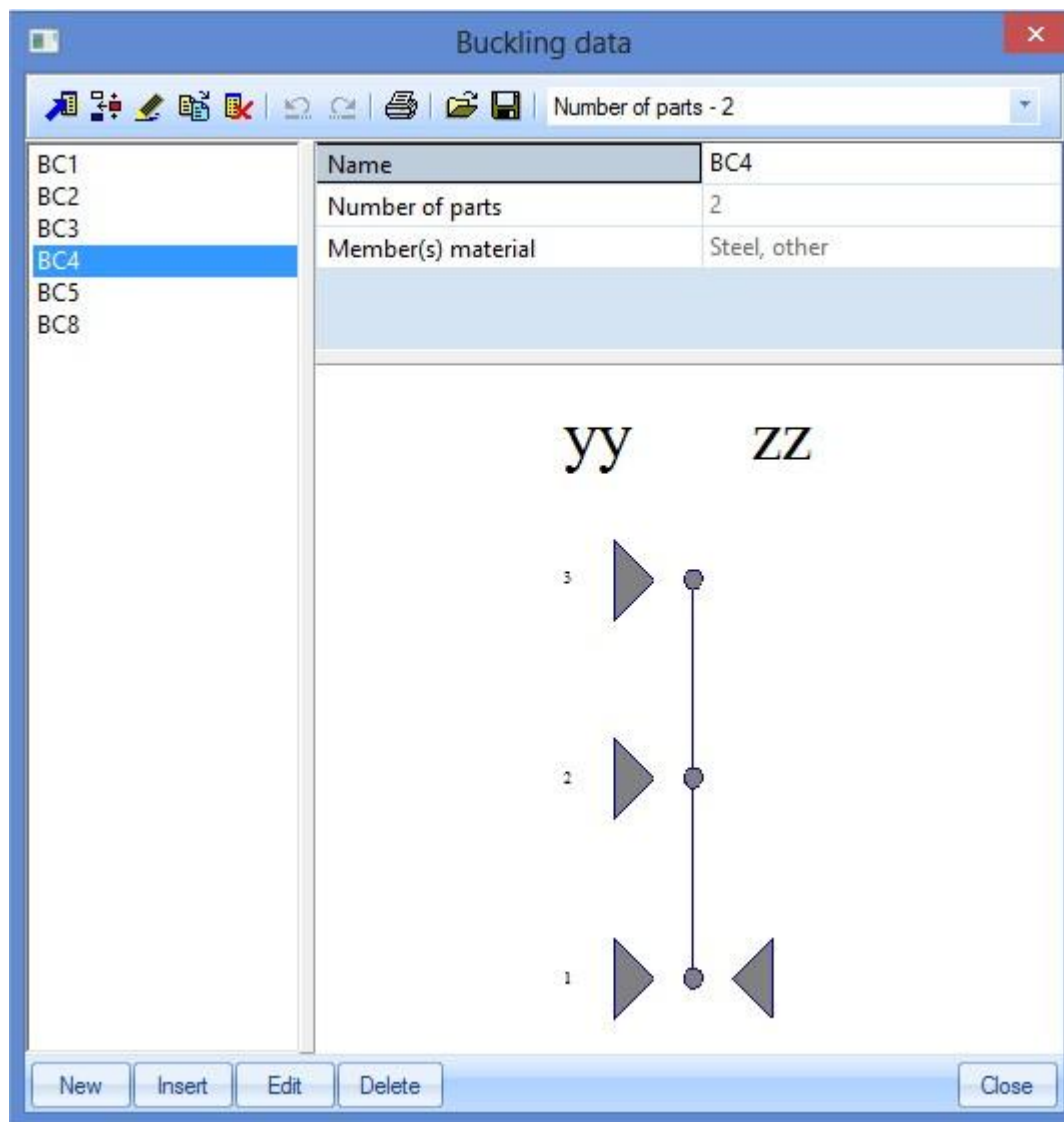A basic knowledge of the principles of SCIA Engineer is recommended.

Certificate

Each participant will receive an official SCIA Engineer "Buckling lengths for steel" certificate at the end of the training, signed by the trainer.

Disclaimer: The content of the training may be modified without notification (11/2015).

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**