

Process Simulation Software Nuclear and Thermal Power Plant Applications

Apros Training Courses, June 2024

The following Apros Training Courses will be organised by VTT in the beginning of June 2024:

- General Features, Monday June 3rd Wednesday June 5th
- Simantics Constraint Language (SCL), Thursday June 6th
- Nuclear Features, Friday June 7th.

Apros is a tool for system-wide modelling and dynamic simulation of industrial processes. With Apros, one can build a dynamic model of an installation including process systems, automation systems and electrical systems, using engineering data and P&I diagrams as reference data. Apros is globally used, for process and automation engineering, for safety analyses, for operator training and for many other applications. For more information, see http://www.apros.fi/en/.

<u>The three-day General training course</u> is targeted for new users, no previous modelling background is required. During the course, the main software features are introduced, the unit model libraries and calculation principles are presented, and example models are built up in hands-on exercises. The course is supervised by Apros top experts. The course gives sufficient knowledge to join a project team building and using Apros simulation models as well as to initiate one's own modelling projects.

<u>The one-day SCL training day</u> promotes modelling and simulation efficiency by scripts. SCL is a functional programming language used in Simantics-related products (https://www.simantics.org/). In Apros applications SCL can be used e.g., for running simulation experiments, configuring model structures, introducing calculations in User Components, modifying model parameters, and making queries. These features will be covered in the course. A prerequisite for attending the SCL training course is basic knowledge of Apros, e.g. the General training course.

<u>The one-day Nuclear Features course</u> is targeted for new users who will be working with nuclear applications. During the course the principles of using the nuclear features of the software are introduced, the available nuclear model libraries are presented, and example models are built up in hands-on exercises. The course gives sufficient knowledge to join a project team dealing with Apros nuclear simulation models. A prerequisite for attending the Nuclear Features training course is basic knowledge of Apros, e.g. the General training course.

The participants shall use their own laptops (64-bit Windows, computer mouse needed) in the training. The Apros software will be installed beforehand, and the course fee includes a 1-month evaluation period of the software. In case of any problems to use your own laptop, please contact the course coordinator. Note that the participation in the Nuclear Features course and the delivery of an Apros Nuclear evaluation version for use outside of Finland requires a relevant Export License issued by the Ministry of Foreign Affairs of Finland. We will apply for the Export License based on your registration form. Kindly register in good time! We will inform you upon the decision by the Ministry. See www.nuclearsuppliersgroup.com.

The training will be held in VTT's premises, address Kivimiehentie 3, Espoo Finland.

The prices for the training are: General Features training 1740 \in (+VAT), SCL training 700 \in (+ VAT) and Nuclear Features 580 \in (+ VAT). Please note that the maximum number of participants in the course is 8 and the minimum is three (3) participants. The trainees are accepted in the order of registration. Please use the registration form below and include your signature. VTT will send a confirmation message by e-mail.

For more information about the course and assistance in practical arrangements, please do not hesitate to contact us.

<u>Contact person:</u> Mr. Sixten Norrman E-mail: <u>sixten.norrman@vtt.fi</u>

Phone: +358 40 593 8685







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Registration

To register, please fill in and sign this registration form and send it to sixten.norrman@vtt.fi (P.O.Box 1000, FIN-02044 VTT). The deadline of the registration is Friday, May 17th, 2024. Due to the Export License need for the Nuclear-day, please register earlier if you come outside of Finland.

Course dates and prices (tick your choice):				
	General Features (3 days)	June 3 rd – 5 th , 2024	1740 € (+ VAT)	
	SCL (1 day)	June 6 th , 2024	700 € (+ VAT)	
	Nuclear (1 day)	June 7 th , 2024	580 € (+ VAT)	
Total sum (+ VAT)				

Name:			
Title:			
Organization:			
Contact Address			
Address:			
Postcode and town:	Country:		
Phone:	Email		
Invoice Address – if not the same as the Contact Address			
Address:	Lowerton		
Postcode and town:	Country:		
Organization VAT number for invoicing:	Organization order number:		
Additional information e.g. educational background and special interests regarding the training course.			
Date and Place:	Signature + clarification of signature:		
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