Online course: Introduction to Dymola and Modelica

Current dates: www.kurse.ltx.de

Inquiries and Registration: kurse@ltx.de

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Duration
Four mornings, each from 09.00 a.m. to 1.00 p.m.

Course schedule
08:30 - 09:00 Login open, no program yet.
09:00 - 10:30 Course Teil 1
10:30 - 11:00 Break
11:00 - 12:30 Course part 2
12:30 - 13:00 Time for questions

Participation Fee
Participation fee per person is 1.160,00 EUR plus VAT.
Course material is included in the participation fee. You will receive the invoice after the end of the course. It is due for payment immediately without deductions.

Research discount
Members/Employees of universities and research institutions receive a discount on request (50 % discount for universities,
20 % for research institutions).

Registration
Registration should be made at least five days prior to the start of the course. After receipt of your written registration we will send you a confirmation. The number of participiants is limited to eight per instructor. If there are too many registrations, the order of registration decides about the participation.

Cancellation
If a participant cancels less than five days prior to the start of the course, there will be a fee of 100,00 EUR. If a participant cancels later than three working days before the start of the course or does not attend the course despite registration, the full course fee will be charged. We reserve the right to cancel or reschedule the course.

Instructor
Dipl.-Ing. Leo Gall has long-time experience in using Dymola in research and development projects and Modelica library development. He is a member of the Modelica Association.

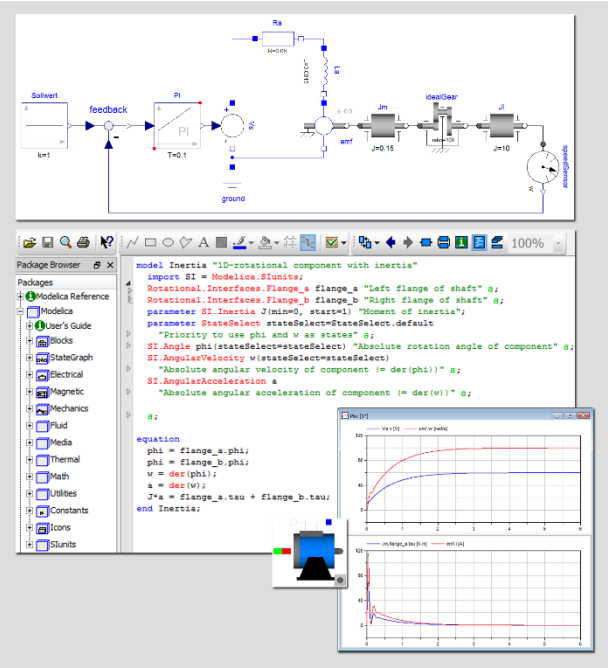
Target group
Engineers, scientists, mathematicians or people with a similar experience who don not yet have knowledge of Dymola/Modelica and want to work with it. Experience with simulation software will facilitate understanding of the topics discussed.

Technical equipment
We recommend two monitors or a large screen. It is useful during interactive exercises to be able to see both at the same time, the training material or webmeeting and your own Dymola window.

Dymola License
Please let us know if you require a course license (about one week before the course starts).

Course objective

Modelica was developed as a language standard for physically oriented modelling and simulation. Modelica also enables the exchange of complex physical models. Extensive open source component libraries are available. Modelica can be used to describe energy flows and thus physical conditions such as equilibrium conditions or Kirchhoff's laws. This facilitates the definition of mechanical, electrical, thermal and hydraulic subsystems and enables their graphical interconnection in compliance with physical laws.



The **Dymola** simulation system supports Modelica. With the FMI export, Modelica models can be integrated into more than 40 other modelling tools. There is also a Simulink interface (C-code S-functions) available.

In this course for beginners, the features of Dymola and Modelica are covered in lecture and the acquired knowledge is consolidated in practical exercises. About one third of the course time is spent on the practical course, in which set tasks are worked on under supervision.

After attending the course, participants should be able to assess the performance of Dymola and Modelica and work on simple tasks. The course also provides the basis for further immersion in Dymola.

Individual course

This course can also be held at your company or institution. Please contact us for a quote.

Agenda

Tuesday 9:00 – 12:30	Introduction to Dymola
	• Modelica vs. Dymola
	• First example built from Modelica Standard Library
	• Simulation with Dymola
	  ○ Integration algorithms
	  ○ Simulation settings
	  ○ Post-Processing
	Including hands-on exercises and coffee break

	Optional: Questions
Wednesday 9:00 – 12:30	Modelica Libraries • Connector concept • Create sub-models • More components (Sources, performance maps, read from files) • Creating own libraries Including hands-on exercises and coffee break
	Optional: Questions

Thursday 9:00 – 12:30	Modelica Language • Modelica language constructs • Create models from own equations • Functions, Records Including hands-on exercises and coffee break
	Optional: Questions
Friday 9:00 – 12:30	• Modeling of events • External interfaces: C, MATLAB, Simulink, FMI • Options: Data handling, Thermo-Fluid Modeling or MultiBody Including hands-on exercises and coffee break
	Optional: Questions