PRESS RELEASE

Solving development tasks effectively with SimulationX 3.7
New version of the popular simulation software now available

Dresden, November 2, 2015 – ITI GmbH, one of the global leaders in system simulation, begins with the introduction of version 3.7 of its internationally acclaimed simulation software SimulationX. The new release comes with enhanced functionalities and an unmatched usability for an efficient, intuitive design experience. Twelve brand new libraries as well as 350 new and improved models for simulations of batteries and ship systems, for instance, extend the software's range of applications also for design engineers. This new version stands out with its great many ways of interactive simulations making the program one of a kind in terms of usability compared to other simulation tools. Advanced control elements for real-time modifications during simulations as well as unique thermodynamic state diagrams help users analyze the behavior of multiphysics systems fast and accurately. As a fully functional Modelica® tool, SimulationX 3.7 is now even more powerful and flexible and paves the way to cloud-based simulations through the interface standard FMI 2.0.

Unmatched usability for even more convenient simulations
The extremely user-friendly focus and efficiency are well reflected in the new control elements for real-time modifications during simulations, for example, which allow users to interact with the simulation at any time. Innovative thermodynamic state diagrams show the states of fluids in real-time during a simulation in the diagram view and can be integrated directly in the modeling environment. Users are thus enabled to see the system's behavior immediately during a simulation to understand and optimize it without the need for additional software programs. Other innovations, such as the Motion Track sensor for easier evaluations of transmission concepts or the support for multiple screens to show different model views simultaneously, save users a great deal of time in the modeling process and make their work a breeze.

New features for advanced system modeling
SimulationX 3.7 comes with an array of new features and extensions: brand new libraries and hundreds of new and improved models enhance the development of mechatronic systems. They include libraries for drive technology, thermodynamics, energy technology, vehicle transmissions, planar linkages, chain drives, dynamic heat exchangers and electrical energy storage solutions. The validated transmission and controller models as well as pre-configured models for automatic transmissions (AT) and automated manual transmissions (AMT), dual-clutch transmissions (DCT) and manual transmissions (MT) allow users to assess transmission concepts early on. Models from the new library Chain Drives permit early analyses and precise improvements of the transmission and transient oscillation behavior as well as of eigenfrequencies of chain drives with respect to the control and drive systems.
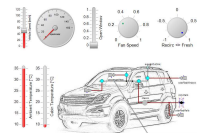
Pre-configured and validated linkage models from the new SimulationX library Mechanisms enable users to design and optimize drive geometries within one model structure regardless of the linkage's complexity. With the library Dynamic Heat Exchangers, users can analyze detailed thermodynamic processes, such as heating up, cooling down, vaporization and condensation, and make early predictions about dynamic effects. Also battery aging can be accurately predicted with the new SimulationX library Electrical Energy Storages which has been developed in close collaboration with the AIT Austrian Institute of Technology, Austria's largest non-university research organization.

Advanced interface and modeling standards for more freedom
As a driving force from the very beginning, ITI has played an active role for years in the ongoing development of the FMI standard and the integration of the Modelica® Standard Library in SimulationX. Thanks to FMI 2.0 and the nearly complete integration of all examples from the Modelica® Standard Library, users benefit from increased openness and flexibility. SimulationX leaves it to the users to decide whether they want to use pre-configured models from the SimulationX libraries or whether they prefer custom-built models and libraries based on Modelica. FMI 2.0 allows for various model import and export options, for co-simulation and for cloud-based system simulation online. In addition to that, Functional Mock-up Units (FMUs) can be used for real-time simulations in hardware-in-the-loop (HiL) environments, for example.

25 years of ITI, 15 years of system simulation with SimulationX
With its 25th anniversary and 15 years after the introduction of SimulationX 1.0, ITI proves yet again with SimulationX 3.7 that it can turn a complex simulation task into a simple solution for development engineers. "With SimulationX, ITI has always pursued the goal to provide users with a user-friendly tool to enable them to design, test and optimize even the most sophisticated mechatronic system with ease. Industry-specific application packages for typical development tasks are designed to meet the many different requirements of manufacturers, suppliers and service providers and comprise libraries with validated, fully parameterized models and proven analysis methods. This enables also simulation novices to make the most of system simulation in no time", says Dr. Andreas Uhlig, Managing Director at ITI. Thomas Neidhold, Head of Software Development at ITI, adds: "With each new version, our customers expect from us news ways and new approaches that enable them to react even faster and more flexibly to changing market requirements. Besides the many new libraries and models, SimulationX 3.7 lives up to this also through new and improved features, interfaces and analysis methods. Apart from that, we always strive for better simulation performance and increased usability and efficiency with each new SimulationX release. After all, users should be able to focus on what they are best at: finding the perfect design – from the very beginning."

About ITI
ITI GmbH based in Dresden, Germany, was founded in 1990 and is an international IT and engineering service provider. ITI develops and distributes the simulation software SimulationX for applications in model-based product development throughout various industries and the education and research sectors. The company supports the development of new products with comprehensive engineering and programming services throughout the entire design process. Workshops and seminars at the ITI Academy complete the spectrum of services. More than 700 customers worldwide trust ITI's simulation solution ranging from the automotive, energy, medical technology, aerospace and mining industries to mobile machinery and the oil and gas sectors. ITI's customers include renowned names like ABB, BMW, Baker Hughes, Caterpillar, Daimler, Hitachi, Honda, Husky, Liebherr, Nikon, Schaeffler, Siemens, Veolia, Volkswagen and ZF. ITI has about 70 employees. With partners around the world, the company has a vast network of distributors and service providers for its simulation software SimulationX. For more information about the company, visit www.itisim.com.

About SimulationX

SimulationX is one of the best known software brands in the field of system simulation. The interdisciplinary simulation tool is used for designing, modeling, simulating and analyzing complex dynamic systems. Users benefit from a great number of ready-to-use model libraries that enable simulations of the interactions between different physical effects – from 1D and 2D mechanics, multibody systems, drive technology to hydraulics, pneumatics, thermal and thermodynamics to electronics, magnetics, acoustics as well as analog and digital control engineering – post-processing included. SimulationX supports the modeling language Modelica® and the interface standard FMI and comes with a variety of open CAx interfaces. For more information about the product, visit www.simulationx.com

About Modelica

Modelica is a registered trademark of the Modelica Association. For more information about the modeling language, go to modelica.org/documents.

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