



ESI and Modelon Sign a Strategic Partnership for Model-Based Simulation

Modelon's Modelica-based libraries to be integrated in ESI's SimulationX

Paris, France – April 17, 2018 – [ESI Group](#), leading innovator in [Virtual Prototyping](#) software and services for manufacturing industries, announces the creation of a partnership between its subsidiary specialized in the field of model-based simulation, ESI ITI, and [Modelon](#)*. The companies will join forces to support industrial manufacturers in delivering innovations at a faster pace and reduced cost. Modelon's comprehensive suite of Modelica™-based libraries, a reference in the field of systems engineering, will be progressively integrated into [ESI's SimulationX](#), the software platform for simulating multiphysics systems. As a first step, the upcoming version SimulationX 3.9.3 will feature [Modelon's Fuel System Library](#), dedicated to the aerospace sector. The availability of this new library will contribute to the early prediction of systems behavior for various operating modes and flight conditions.

Swedish company Modelon offers a comprehensive suite of libraries for system modeling that delivers state-of-the-art system models for a wide range of industries, including the automotive, aerospace, industrial machinery, energy and processing sectors. Modelon's libraries are built on the [Modelica](#)** standard, a modeling language allowing engineers to reuse and exchange dynamic and mechatronic system models throughout different software applications.

"We're thrilled to welcome ESI's SimulationX to the growing list of platforms that utilize our proven and feature-rich suite of Modelica-based libraries," said Magnus Gäfvert, CEO at Modelon. "We're confident that this integration and partnership will enable SimulationX users to streamline their design and simulation processes. Our goal is to provide comprehensive solutions to all industries, and our initial focus on aerospace applications will be key in addressing their customers' priorities."

"The addition of Modelon's libraries to the vast collection of existing SimulationX libraries offers our users the largest model base available for system simulation," said Dr. Andreas Uhlig, Managing Director, Systems Engineering, ESI Group. "We are excited that the global community of Modelon customers can now take advantage of the well-established SimulationX platform. This partnership strongly promotes the Modelica standard and encourages smart solutions for systems design, validation, test and operation."

The [Fuel System Library](#) to be implemented into SimulationX 3.9.3 enables engineers to design aircraft fuel systems with real-time capable models, including gravitational and geometrical effects as well as air-fuel mixtures. The library is intended for the analysis and verification of a system's behavior during various dynamic operating modes and flight conditions. The Fuel System Library is



a versatile tool for system and component development and allows the assessments of system performance and transient characteristics. The models have been designed to be efficient and numerically robust and can therefore handle complex large-scale systems. Component models include ejectors, pumps, tanks, valves and pipes.

Furthermore, the Fuel System Library permits the creation of geometric, real-time capable models with any degree of gravity and acceleration for accurate predictions about the entire flight envelope. Engineers benefit from an efficient representation of air-fuel mixture properties for robust and fast simulations of large systems. The library provides a configurable level of detail for faster simulations and an appropriate complexity, for example the option to switch thermal effects on or off.



Image : Modelon's Fuel System Library will be integrated in SimulationX 3.9.3

**Modelon is a registered trademark of Modelon AB.*

***Modelica is a registered trademark of the Modelica Association.*

SimulationX is a registered trademark of ESI ITI GmbH.

For more information about ESI's SimulationX as simulation environment for Modelica, please visit:
<http://www.simulationx.com/simulation-software/experts/modelica-simulation>

For more information about the Modelon Library Suite, visit:
<http://www.modelon.com/products/modelon-library-suite>

For more ESI news, visit: www.esi-group.com/press



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About ESI Group

ESI Group is a leading innovator in [Virtual Prototyping](#) software and services. Specialist in material physics, ESI has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtual prototypes, allowing them to virtually manufacture, assemble, test and pre-certify their future products. Coupled with the latest technologies, Virtual Prototyping is now anchored in the wider concept of the *Product Performance Lifecycle™*, which addresses the operational performance of a product during its entire lifecycle, from launch to disposal. The creation of a *Hybrid Twin™*, leveraging simulation, physics and data analytics, enables manufacturers to deliver smarter and connected products, to predict product performance and to anticipate maintenance needs.

ESI is a French company listed in compartment B of NYSE Euronext Paris. Present in more than 40 countries, and addressing every major industrial sector, [ESI Group](#) employs about 1200 high-level specialists around the world and reported annual sales of €141 million in 2016. For more information, please visit www.esi-group.com.

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About Modelon

Modelon provides software solutions and expert services to organizations worldwide that use model-based simulation tools to design and develop technical systems. Modelon's Library Suite, Creator Suite, and Deployment Suite deliver a unified picture of product system interaction and performance – from product concept to operation. Headquartered in Lund, Sweden, and with global reach, Modelon is an industry leader in model-based systems engineering with a focus on leveraging open standard technologies. www.modelon.com