

## ESI launches ESI-Xplorer, Systems Modeling Solution Integrated into its Visual-Environment platform

## Enabling engineers to manage increasingly complex systems early in the product development lifecycle

Paris, France – July 30, 2015 – <u>ESI Group</u>, pioneer and world-leading solution provider in <u>Virtual Prototyping</u> for manufacturing industries, launches ESI-Xplorer, a new systems modeling solution integrated into ESI's multi-domain simulation platform <u>Visual-Environment</u>. ESI-Xplorer is designed to address the needs of system engineers for systems design and analysis from the early stage of the product development process. ESI-Xplorer provides a complete model-based design platform, accounting for the physics involved, thus allowing engineers to accurately verify and validate system architectures. Integration of the product inside ESI's collaborative platform <u>Visual-Environment</u> enables manufacturers to bridge the gap between systems modeling (0D-1D) and product validation (3D).

"Managing the complexity inherent to advanced systems modelling requires mastering the architecture of the model, the multi-domain dynamic behavior, and the link between model, simulation and system engineering," said **Dr. Emmanuel Arnoux**, Expert in Systems Simulation, ADAS & Autonomous Driving Department at Renault. "This is why system simulation software is becoming a necessity."

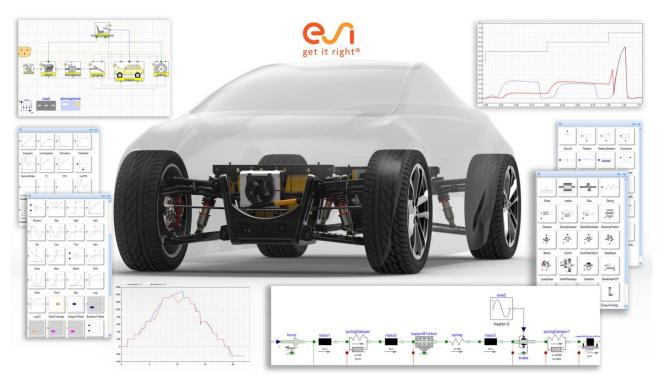
Since <u>acquiring CyDesign Labs Inc.</u> in October 2013, ESI has worked on the integration of systems modeling into its product portfolio. ESI's area of expertise, Virtual Prototyping, offers manufacturers a disruptive approach to test and pre-certify their products while cutting cost and lead-time. The integration of ESI-Xplorer into ESI's Virtual Prototyping platform <u>Visual-Environment</u> extends the scope of system modeling to system verification and validation, including virtual manufacturing, assembling and testing.

Thanks to ESI-Xplorer, system architects and system modeling engineers can now perform complex systems modeling, across multiple domains. Furthermore, through <u>Visual-Environment</u>, ESI's collaborative and open engineering platform, co-simulation between systems modeling (0D-1D) and product validation (3D) is now enabled. <u>Visual-Environment</u> enables the characterization of systems across multiple domains of physics – from crash test and passenger safety to mechanical, electrical, electronic, hydraulic, thermal control or electric power. Mathematically sound and user-friendly, ESI-Xplorer hides the complexity of the underlying physics while maintaining numerical rigor by using the open, non-proprietary, <u>Modelica®</u> language to define simulation models.

Furthermore, with the integration of ESI-Xplorer in ESI's <u>Visual-Environment</u> platform, users benefit from advanced functionalities enabling the storage and organization of mechanical models, control



models and data across organizations. <u>VisualDSS</u> decision support system enables project workflow automation, lean work management, and simulation content management.



<u>Image</u>: Example of 0D-1D systems modeling in Visual-Environment illustrating how ESI-Xplorer can assist the design and development of architecture, systems, parts and controls for automotive powertrains.

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

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ESI is a world-leading provider of Virtual Product Engineering software and services with a strong foundation in the physics of the materials of which products are built.

Founded over 40 years ago, <u>ESI</u> has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtually replicating the fabrication, assembly and testing of products in different environments. <u>Virtual Prototyping</u> enables <u>ESI</u>'s clients to evaluate the performance of their product, and the consequences of its manufacturing history, under normal or accidental conditions. By benefiting from this information early in the process, enterprises know whether a product can be built, and whether it will meet its performance and certification objectives, before any physical prototype is built. To enable customer innovation, <u>ESI</u>'s solutions integrate the latest technologies in high performance computing and immersive Virtual Reality, allowing companies to bring products to life before they even exist.

Today, <u>ESI</u>'s customer base spans nearly every industry sector. The company employs about 1000 high-level specialists worldwide to address the needs of customers in more than 40 countries. For further information, visit <u>www.esi-group.com.</u>

