

ESI Launches IC.IDO 10.2, New Version of its Virtual Reality Solution For Industrial Applications

Real-time 3D simulation of physical behavior

Paris, France – September 21, 2016 – [ESI Group](#), a leading innovator in [Virtual Prototyping](#) software and services for manufacturing industries, launches the latest version of its [Virtual Reality](#) solution [IC.IDO 10.2](#). In this new version, ESI has strengthened its solution with the new modules IDO.SolidMechanics and IDO.Elastic, while significantly improving pre-existing modules. Benefiting from ESI's unique knowledge of material physics, the two new modules are based on a novel physical simulation solver, which provides unprecedented fidelity of real-time behavior for rigid and elastic parts.

If [Virtual Reality](#) has been a popular technology in the business of video games for several decades, its use for industrial applications only dates back to the late 2000s. Giving engineers the ability to immerse themselves in a virtual 3D environment, Virtual Reality is now used by leading industrial manufacturers to experience their future products and interact with them naturally and intuitively. By enabling engineers to experience a product early in its development, Virtual Reality helps manufacturing companies ensure design feasibility and avoid costly design errors. Maintenance operations and use cases can be evaluated before any real prototype even exists. Furthermore, Virtual Reality facilitates collective decision-making by allowing specialists and non-specialists to collaborate around the same model, whether they are on-site or remote.

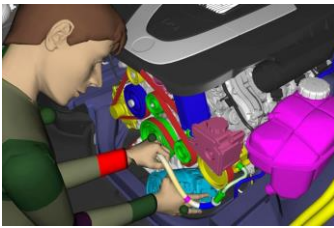


Image: Thanks to Virtual Reality, Audi can virtually simulate assembly processes in immersive 3D and optimize them step by step. Read the related article in [Audi's Engineering Blog](#) (in German).

Image courtesy of Audi AG

Among the many solutions available on the market, ESI [IC.IDO](#) excels at providing a Virtual Reality solution tailored to industrial needs. In particular, [IC.IDO](#) features models in real-scale and real-time. Its unequalled capacity to integrate material physics make it a powerful collaborative tool that is used by leading industry players across many industrial sectors, including [Audi AG](#), [Bausch & Stroebel](#), [Boeing](#), [Bombardier](#), [Caterpillar](#), [Ford](#), [Gabler](#), [MAN](#), [Mitsubishi Hitachi Power Systems Europe](#), [Renault](#), [Trumpf](#), and more.

In [IC.IDO 10.2](#), IDO.SolidMechanics enables the simulation of the dynamic behavior of multiple rigid components, simultaneously. Thanks to realistic spatial depiction of virtual products and the possibility to interact directly with them, operations such as assembly and joining sequences can now be simulated more realistically. Production or service specialists can be involved more efficiently in reviewing realistic virtual models, right from the conception phase. Inertia and gravity and collision and sliding when handling parts, are all addressed naturally and in real-time. Motion sequences can be exported and reused in IC.IDO or third-party CAD software. Alleviating manufacturers from the extensive training and experience associated with traditional MBD ([Multi-body Dynamics](#)) tools, IDO.SolidMechanics really constitutes a foundation for new generation real-time physical simulation.



The IDO.Elastic module extends IDO.SolidMechanics with simulation of 1D elastic components, including cables and hoses. Based on IDO.SolidMechanics' solver, IDO.Elastic predicts in real-time the dynamic behavior of individual flexibles, as well as complete wire harnesses and full cable branches. The module enables users to realistically simulate operations and assembly & disassembly processes. The possibility to move and modify elastic components and adapt physical parameters helps manufacturers to quickly determine the ideal routing and materials to be used. As a result, real-time assessment of the layout of elastic components is so realistic that it can be done from the early stages of development process all the way to design validation.



To reduce hardware investments, ESI IC.IDO is also available in desktop version, bringing the perfect complement to a CAVE/ power wall set-up.

Michael Bock, VR Expert at Volkswagen Commercial Vehicles, comments: *"The desktop version of IC.IDO enables collaborative work between engineering teams, while significantly reducing hardware cost. Thanks to this high-end DMU (Digital Mock-Up) solution, many issues can be solved immediately at the desktop, while preparing immersive review meetings."*

For more information about ESI's Virtual Reality solution IC.IDO, please visit <http://virtualreality.esi-group.com/> or [contact your local ESI subsidiary](#).

- Download our e-book **"Immersive, Interactive Virtual Reality for Engineering"** [here](#).



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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 virtually replicating the fabrication, assembly and testing of products in different environments. Today, coupled with Virtual Reality, animated by systems models, and benefiting from data analytics, Virtual Prototyping becomes immersive and interactive: ESI's clients can bring their products to life, ensuring reliable performance, serviceability and maintainability. ESI solutions help world-leading OEM's and innovative companies make sure that their products will pass certification tests - before any physical prototype is built - and that new products are competitive in their market space. Virtual Prototyping addresses the emerging need for products to be smart and autonomous and supports industrial manufacturers in their digital transformation.

Today, ESI's customer base spans nearly every industry sector. The company employs about 1100 high-level specialists worldwide to address the needs of customers in more than 40 countries. For more information, please visit www.esi-group.com/

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