

# ESI presents its Virtual Prototyping solutions at the International Paris Air Show

## Software & services for the virtual engineering of aeronautic parts, systems and components

Paris, France – June 16, 2015 – <u>ESI Group</u>, pioneer and world-leading solution provider in <u>Virtual Prototyping</u> for manufacturing industries, announces its participation in the <u>51<sup>st</sup> International Paris Air Show</u> in Le Bourget, June 15 to 21, 2015. <u>ESI</u> will present its solutions enabling industrial manufacturers in the aerospace sector to virtually build, test and experience products, thereby reducing or eliminating the need for real prototypes. Making the most of today's digital capabilities including HPC and Cloud Computing, ESI's Computer-Aided Engineering (CAE) software empowers aircraft manufacturers and their suppliers to achieve disruptive innovations at a faster pace and managed cost.

During the Paris Air Show, ESI experts will demonstrate software solutions for the full Virtual Prototyping from parts, to components and at the full system level: following a path through virtual manufacturing, virtual performance testing, to immersive experience of the product and its interaction with its environment in virtual reality. ESI's solutions for virtual manufacturing encompass casting, sheet metal forming, welding & assembly processes, as well as the various processes involved in the manufacturing of composite parts. New materials and new manufacturing processes have become increasingly important for aerospace companies as they secure their production ramp-up and to introduce the major innovations necessary to achieve weight reduction and fuel savings whilst meeting or exceeding aircraft performance requirements. Virtual manufacturing enables companies to evaluate new materials and manufacturing processes quickly and therefore accelerate innovation.

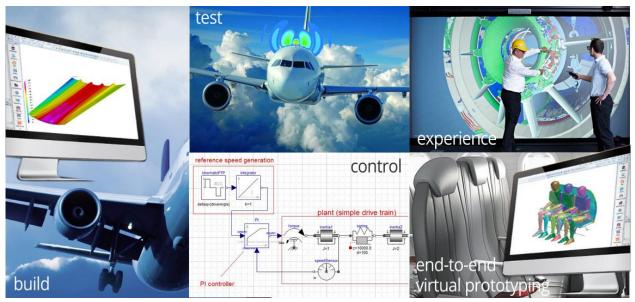
ESI will also present its software solutions for the virtual performance testing of future products. Such testing can be achieved well before any physical prototype is available, by building and testing realistic virtual prototypes, thus enabling manufacturers to detect design errors very early on in the product development process and avoid costly, late program design changes. Among ESI's virtual performance solutions, <a href="VA One">VA One</a> is the all-in-one simulation software used to test the vibro-acoustic performance of products, parts or components across the full frequency range. Many aerospace companies including NASA and AIRBUS Group, depend on VA One to diagnose potential noise and vibration problems up front in the development process to improve product performance.

Also featured at the Paris Air Show, ESI's software <u>CEM Solution</u> addresses Electromagnetic Compatibility and Interference issues (EMC/EMI) related to the onboard electronics and complex cable networks found in aircrafts and aerospace devices. With its large model-handling capacity,



high operating frequencies, and sophisticated scenarios, CEM Solution helps aerospace manufacturers take electromagnetic modeling one step further in their quest for innovation.

ESI will also showcase Pro-SiVIC™, a software introduced through <u>a recent acquisition</u> that addresses the interactions of an aircraft with environment. Sample aeronautic applications include the simulation of airplane lighting systems important when taxiing. Pilots rely on such aircraft lighting systems; they are critical to on ground safety and faultless visibility must be guaranteed. Pro-SiVIC™ provides full, immersive virtual 3D dynamic tests, recreating the conditions of real tests on the ground and even during flight situations.



<u>Image</u>: With ESI's solutions, aeronautic manufacturers and suppliers accurately model parts, systems and components from the early design stages. (Images courtesy of Boeing and Expliseat).

As Virtual Reality (VR) is increasingly used by manufacturers across all industry sectors, ESI will demonstrate how its leading VR solution IC.IDO helps with the development of new aerospace components; supporting fully immersive 3D engineering reviews (real-scale and real-time), providing a platform of virtual maintenance training, and enabling interactive product presentations. IC.IDO will be featured at the booth of <u>AEROCAMPUS Aquitaine</u> (Hall 4, B165, Aerospace Valley Area), Europe's leading aircraft maintenance training center. IC.IDO helps optimize aircraft maintenance by reducing technical constraints, cutting the time and cost of grounding an aircraft, and avoiding possible material damage due to operational errors. Using <u>Diiice</u>, <u>Immersion</u>'s latest immersive Virtual Reality system for state-of-the-art immersive 3D, AEROCAMPUS Aquitaine will demonstrate <u>its use of IC.IDO</u> to train maintenance technicians operating on <u>Dassault Aviation</u> aircraft.

Aircraft manufacturer and equipment supplier <u>Daher</u> will also deliver live demonstrations of IC.IDO, illustrating how Virtual Reality can be used to set up assembly line scenarios for its new TBM900 aircraft. With IC.IDO, Daher can evaluate, validate and optimize assembly methods and associated processes. Virtual Reality allows them to simulate extremely complex sets of operations for their production lines without the need to run trials on the shop floor or to stop the production. Virtual Reality will be used as a virtual showroom for its aerostructures and integrated logistics offering.



Also during the International Paris Air Show, ESI will display Virtual Seat Solution, its unique software dedicated to the end-to-end Virtual Prototyping of seats. From manufacturing to testing a seat, and to experiencing it in Virtual Reality, Virtual Seat Solution enables full virtual precertification. ESI customer Expliseat recently shared the story of their success with this solution: developing and certifying the lightest aircraft seat in the history of civil aviation. This significant weight reduction translates into an estimated 3 to 5 percent fuel saving – or \$300,000 to \$500,000 per aircraft per year.

#### Meet ESI at the International Paris Air Show!

ESI will be at booth BC80 (Hall 4) with other members of the competitiveness cluster Pôle Astech and the Paris Chamber of Commerce (CCI Ile de France). To book a one-on-one meeting or a product demo, please contact Gaëlle Lecomte, Marketing Manager, ESI France.

For more information about ESI solutions, please visit www.esi-group.com/industries/aerospacedefense.

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

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### **About ESI Group**

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, 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. Virtual Prototyping enables ESI'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, ESI'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, ESI'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  $\underline{www.esi-group.com}$ .

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