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ESI is the pioneer and world-leading solution provider in virtual prototyping.

Market Data

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ESI releases Virtual Performance Solution 2012

Breakthrough Performance Engineering through End-to-End Virtual Prototyping

Paris, France – 22 November 2012 – [ESI Group](#), pioneer and world-leading solution provider in [Virtual Prototyping](#) for manufacturing industries, announces the release of [Virtual Performance Solution \(VPS\)](#) Version 2012. [Virtual Performance Solution](#) enables [ESI](#)'s customers to virtually assess and optimize the overall performance of a future product at a very early stage of the design process. It cuts product development costs and time-to-market by reducing the number of physical prototypes, and by significantly improving the whole design process efficiency throughout the supply chain.

In various industries, manufacturers are striving to develop greener and safer products, using lighter materials and innovative designs, while ensuring leading-edge functional standards, including safety, comfort, NVH (noise, vibration and harshness), acoustics, stiffness and durability. [VPS](#) addresses all these key attributes and allows engineers to handle interactions across multiple - and sometimes conflicting - domains efficiently. Leading-edge accuracy is achieved in each domain by accounting fully for non-linear physics and manufacturing effects.

[VPS](#) enables efficient multi-domain optimization to master safety margins and lower product weight, reduce the number of physical prototypes, shorten design cycles and cut development costs. Featuring a single-core model for all domains of performance, and the ability to run all load cases on a single cluster, [VPS](#) reduces drastically the model conversion tasks and errors, and the lead times induced by synchronization between domains, in comparison to using multiple solvers on multiple hardware platforms.

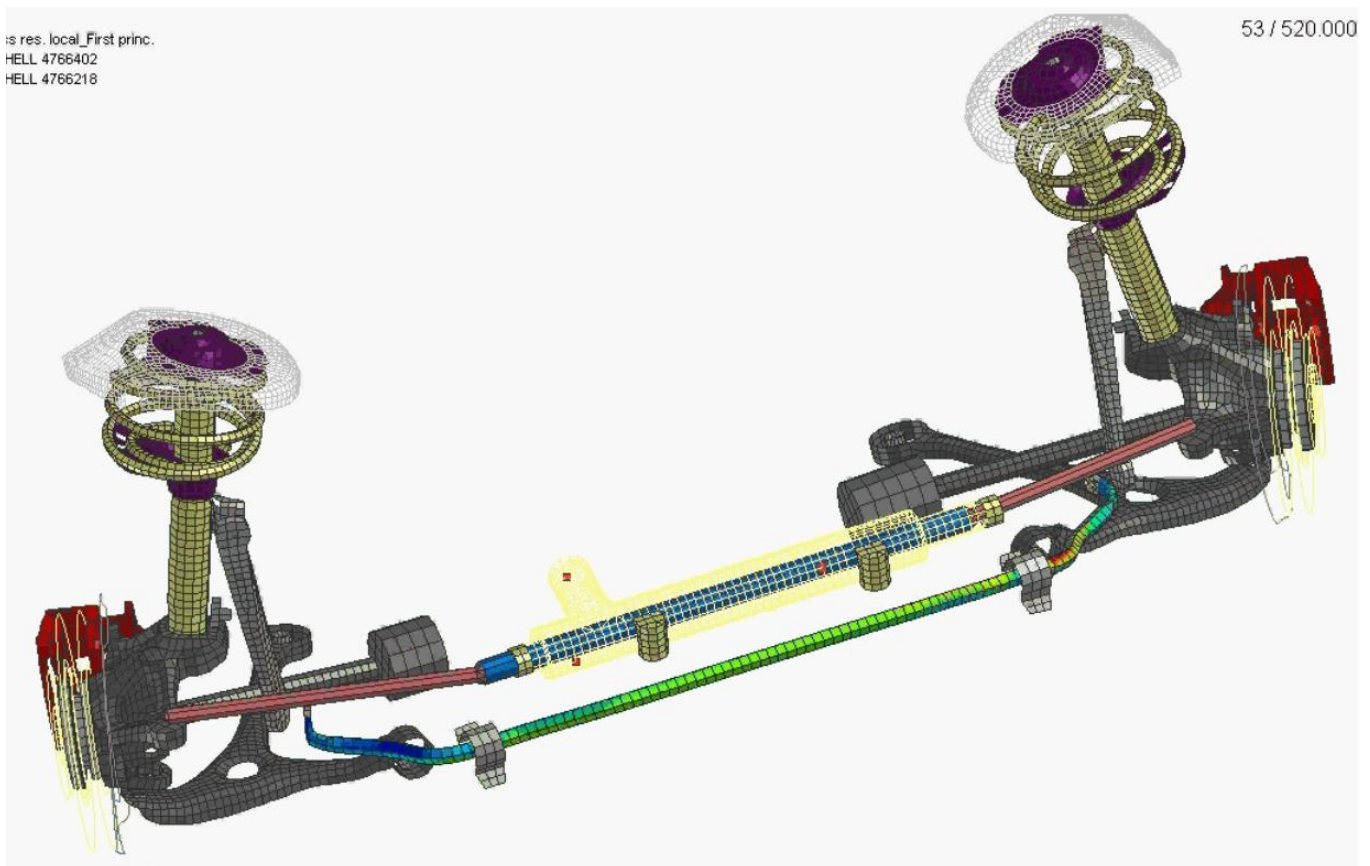
[VPS](#) delivers outstanding performance for massively parallel computing for all domains of performance, and increases the overall workflow flexibility. The unified user environment for all domains ([Visual-Environment](#)) enables the management and the synchronization of the virtual engineering processes. Costs associated with multiple software installation and maintenance are reduced, and the efficiency of the whole engineering process is significantly enhanced.

Tomáš Kubr, CAE Manager ŠKODA Auto comments “At ŠKODA Auto we have been using Virtual Performance Solution (VPS) for several years. Thanks to VPS we may be more efficient, using the same core model for crash, safety and linear statics. The One core model approach is already used for bonnet design and allows us to make better decisions about design changes in a reduced time cycle. We can benefit from this approach even more, which will allow us to introduce advanced chaining analysis such as springback after crash loads.”

Significant improvements in VPS 2012 specifically include:

- the modeling of non-linear phenomena for Strength and Durability;
- the modeling of highly damped components for Noise, Vibration & Harshness (NVH);
- the accuracy of airbag deployment for Safety;
- the handling of assembly pre-loads for all domains.

For more information on Virtual Performance Solution, visit our website: www.esi-group.com/vps



*Dynamic Stresses in a suspension component
Detail from a Virtual Prototype of a Full Vehicle*



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

About ESI Group

[ESI](#) is a pioneer and world-leading provider in Virtual Prototyping that takes into account the physics of materials. [ESI](#) boasts a unique know-how in Virtual Product Engineering, based on an integrated suite of coherent, industry-oriented applications. Addressing manufacturing industries, Virtual Product Engineering aims to replace physical prototypes by realistically simulating a product's behavior during testing, to fine-tune fabrication and assembly processes in accordance with desired product performance, and to evaluate the impact of product use under normal or accidental conditions. [ESI](#)'s solutions fit into a single collaborative and open environment for End-to-End Virtual Prototyping. These solutions are delivered using the latest technologies, including immersive Virtual Reality, to bring products to life in 3D; helping customers make the right decisions throughout product development.

The company employs about 900 high-level specialists worldwide covering more than 30 countries. [ESI Group](#) is listed in compartment C of NYSE Euronext Paris.

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