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

#### Market Data

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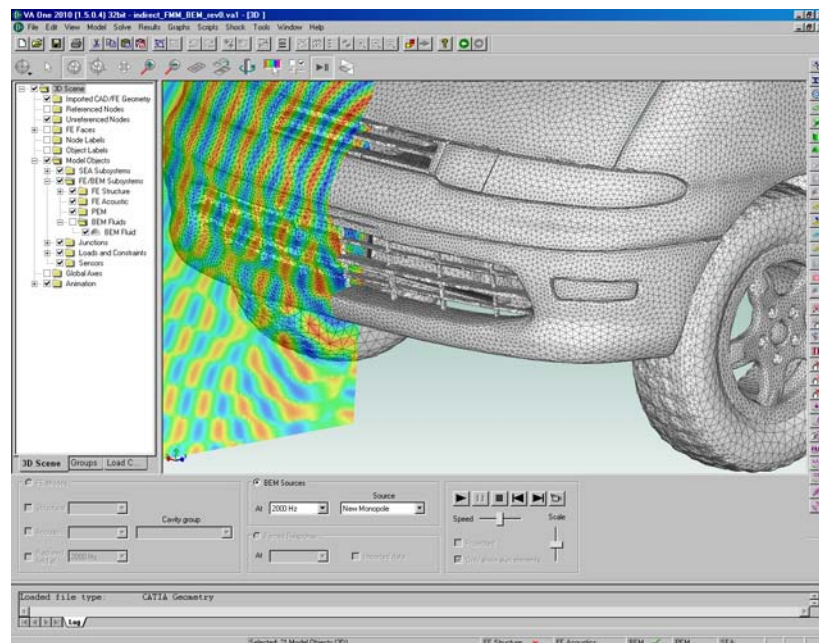
#### Connect with ESI



## ESI Announces VA One 2010

**Latest release of noise and vibration software includes advanced methods for response diagnosis**

**VA One** is a complete solution for simulating noise and vibration across the full frequency range and seamlessly combines Finite Elements, Boundary Elements, and Statistical Energy Analysis (SEA) in a single model. This new release includes over 80 major enhancements and is focused on improved methods for response diagnosis.



VA One model of sound radiated by vehicle horn at 2kHz (using Indirect Fast Multipole BEM analysis)



### ***Advanced methods for response diagnosis***

Diagnosing the response of a system is an important step in a vibro-acoustic analysis that can provide physical insights and help guide the design of various counter measures. The [VA One](#) 2010 release simplifies this process and includes advanced methods to be applied to this task. In particular, the Statistical Energy Analysis (SEA) module now includes functionality for automatic identification of dominant transmission paths (using advanced algorithms from Graph Theory), along with sensitivity analysis for quickly determining the key parameters that control the response. Furthermore, the low frequency Finite Element and Boundary Element modules include expanded functionality for panel contribution analysis to help identify key radiating surfaces.

The [VA One](#) 2010 release also includes functionality for calculating complex or coupled modes for any combination of Finite Element, Boundary Element, Poroelastic Element and SEA subsystems in a model. This new functionality is ideal for diagnosing damped resonances, particularly in open systems or for systems that contain foam and fiber noise control treatments.

The Fast Multilevel Multipole Boundary Element (FMM BEM) solver has also been significantly enhanced and now covers a wider kD (kiloDalton) range and includes both direct and indirect formulations. This enables FMM BEM models to be applied to a broader range of applications across a wider frequency range.

The Hybrid module has been complemented and includes new functionality for quickly modeling the mid-frequency response of unbaffled structures such as satellite antennas and solar arrays. A significant number of improvements have also been made to the [VA One](#) environment to simplify model management and improve productivity.

*“At VTT we provide high-end technology solutions and innovation services that enhance our customers’ competitiveness”* said **Jukka Tanttari**, Senior Research Scientist, VTT. *“VA One is a standard tool in our analysis process and helps us diagnose and improve vibro-acoustic performance.”*

*“We are pleased to announce the release of VA One 2010”*, said Dr. **Phil Shorter**, Director of Vibro-Acoustic Product Operations, ESI Group. *“This release includes over 80 major enhancements across all modules and ensures that our users have access to state-of-the-art methods for vibro-acoustic analysis and design “.*



For more information, please visit: [www.esi-group.com/products/vibro-acoustics](http://www.esi-group.com/products/vibro-acoustics)

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#### About ESI Group

[ESI](#) is a pioneer and world-leading solution provider in virtual prototyping that takes into account the physics of materials. [ESI](#) has developed an extensive suite of coherent, industry-oriented applications to realistically simulate a product's behavior during testing, to fine-tune manufacturing processes in accordance with desired product performance, and to evaluate the environment's impact on performance. [ESI](#)'s solutions fit into a single collaborative and open environment for End-to-End Virtual Prototyping, thus eliminating the need for physical prototypes during product development. The company employs over 750 high-level specialists worldwide covering more than 30 countries. [ESI Group](#) is listed in compartment C of NYSE Euronext Paris. For further information, visit [www.esi-group.com](http://www.esi-group.com).