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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 releases a new version of ProCAST, the leading software solution for casting process simulation

### Reducing turnaround time by half

Paris, France – November 12, 2013 – [ESI Group](#), pioneer and world-leading solution provider in Virtual Prototyping for manufacturing industries, announces the release of [ProCAST 2013.5](#) along with its dedicated user environment [Visual-Cast 9.0](#), both designed to enable foundries to improve casting yield and quality thanks to more efficient processes and solvers.

[ProCAST](#), ESI's casting simulation software, results from over 25 years of collaboration with major industrial partners and academic institutions all over the world.

The solution offers an extensive suite of modules and tools enabling foundries to meet the most challenging industrial requirements. [ProCAST](#) is well adapted to predict distortions and residual stresses after casting and addresses specific processes including core blowing, centrifugal, lost foam, semi-solid and continuous casting.

*"ProCAST empowers foundries to address the most technically demanding tasks in casting, while reducing lead time, increasing productivity and controlling cost. This release offers best-in-class casting simulation in a single, integrated and customizable environment. The new fluid flow solver delivers twice faster turnaround time and improved accuracy," says Marco Aloe, Product Manager, ESI Group.*

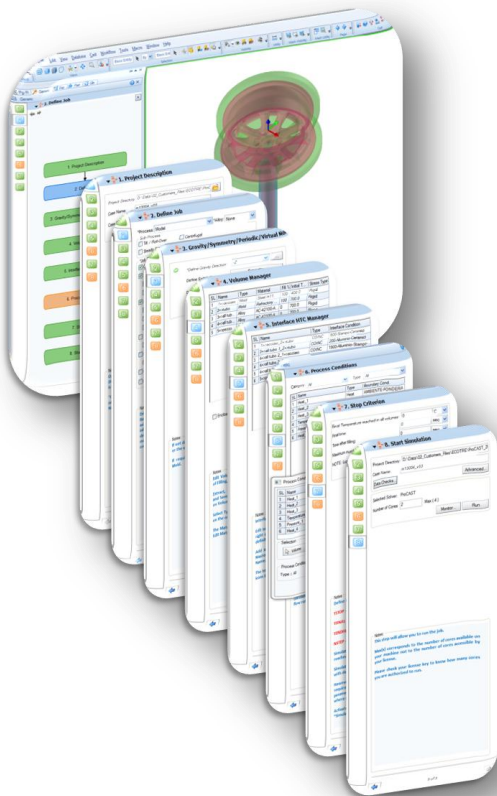


[ProCAST 2013.5](#) features a new version of the fluid flow solver that benefits from the accuracy of the Finite Element Method (FEM), the efficiency of the Finite Volume Method (FVM), and the speed of the Multi-Grid linear solver used by many prominent CFD software packages.

*Image: Misrun prediction  
(Courtesy of Swerea)*



ProCAST's improved fluid flow solver and the modified porosity model enable the precise modeling of large titanium structures made by centrifugal casting, as demonstrated in the frame of the COLTS project, an international co-operation between China and Europe.



ProCAST's user environment Visual-Cast 9.0 provides significant improvements in turnaround time, offering faster and more intuitive handling capabilities. In addition, foundries can now design their very own workflows; encapsulating practices and adjusted to particular needs.

To answer the growing needs of advanced casting simulation, the release incorporates the Time-Temperature Transformation (TTT)/ and Continuous Cooling Transformation (CCT) approaches for modeling Heat Treatment, and the full integration of the CAFE module to model grain structure.

New capabilities dedicated to specific processes are also introduced, including a die locking force indicator, a new turbulence model, and an improved misrun prediction model.

Importantly, the thermodynamic databases used to compute the material properties are extended.

*Image: Workflow tailored to foundries for efficient Virtual Product Engineering*

For more news or information about ESI's Casting solutions, please visit [www.esi-group.com/casting](http://www.esi-group.com/casting)

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## 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 on 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 1000 high-level specialists worldwide covering more than 40 countries. ESI Group is listed in compartment C of NYSE Euronext Paris.



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