

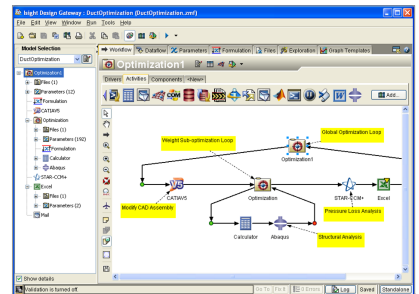
Simulation and Optimization United, Automated, Distributed

> SIMULIA's first post-acquisition releases of Isight and Fiper leverage distributed computing to accelerate design exploration for improved product performance.

The SIMULIA brand of Dassault Systèmes (Providence, RI, and Paris, France, respectively) has released Isight and Fiper 3.5, the first new release of these simulation process automation and design optimization solutions following SIMULIA's acquisition of Engineous Software. Isight and Fiper form a team that leverage distributed computing environments and, in Dassault's words, enable manufacturing companies to bring better-performing products to market by improving "the efficiency of identifying optimal design parameters." The improvements begin with Isight at the center.

Formerly known as iSIGHT-FD, Isight 3.5 is an open desktop solution for creating simulation process flows. The core idea behind Isight is that engineers continually need data—parameters and results—from, say a CAD, CAE, Excel, Matlab, or proprietary application as inputs to another engineering system. Entering data manually is inefficient and error prone, which not only slows product development but can cause havoc when modeling and simulating. Isight provides a suite of tools that enable you to combine multiple cross-disciplinary models and applications to create an automatic simulation process flow, which you can then use to explore design alternatives and identify optimal performance parameters.

Components form the building blocks of Isight's process flows, and Isight comes with a library of components. Additional components are available. Dassault describes components as "containers" that have their own interface for integrating and running major third-party simulation applications, such as Abaqus, CATIA V5, or NX, directly within Isight. Isight's component architecture also lets you integrate your own proprietary applications, scripts, and databases.

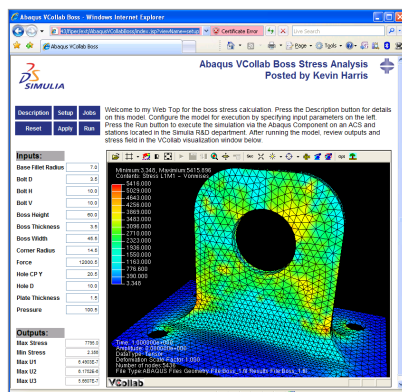


Isight from the SIMULIA brand of Dassault lets engineers and designers integrate multiple third-party applications to create simulation process flows.

Fiper 3.5 is one such component add-on technology for Isight. The Isight and Fiper combination enables you to use a Web-based interface to deploy and execute highly complex, multidisciplinary design processes by distributing and parallelizing the execution across available compute resources. You can control where models execute and the process by which they run, which, says the company, allows you to use hardware and computing resources optimally. Fiper integrates with existing enterprise Web application servers and databases, and Version 3.5 has been enhanced with support for Distributed Resource Management (DRM) of simulation jobs through the integration of Platform Computing's Load Sharing Facility (Platform LSF).

"The addition of the open and industry-proven Isight and Fiper technology to SIMULIA's product suite provides our customers with an unmatched capability for automating and accelerating design exploration," stated Steve Crowley, director of product management, SIMULIA, Dassault Systèmes in a press statement. "The new capabilities in Isight and Fiper 3.5 will help customers reduce design time and manufacturing costs, while improving product performance, quality, and reliability."

For more information on Isight and Fiper 3.5, visit the Dassault SIMULIA website at www.simulia.com/products/sim_opt.html.



Fiper, an Isight add-on technology, lets you use a customizable Web-based interface to deploy Isight simulation process flows, distribute and parallelize their execution across available compute resources, and share results.

Isight 3.5 comes with engineering techniques such as optimization, Design for Six Sigma, approximation methodologies, and Design of Experiments. It has interactive postprocessing tools that help you explore the design space from multiple points of view, 64-bit native support, and an expanded search facility that lets you find parameters, files, or what Dassault calls components in your simulation process flow.

EDITOR'S PICK: SIMULATION AND OPTIMIZATION
UNITED, AUTOMATED, DISTRIBUTED

by Anthony J. Lockwood | Published April 8, 2009

Dear *Desktop Engineering* Reader:

We've become so conditioned to working so inefficiently that we often take no notice of the fact. Take how you probably use those best-in-class applications for product development. You get the results from one, then you manually cram them somehow into the next program, fix the data-entry errors, repeat, and rinse until you've optimized your product. This is a colossal waste of time, money, energy, and talent. But, hey, well, that's how it's done. With Isight the SIMULIA brand of Dassault is out to put a stop to that nonsense by enabling you to do all that the way it can and should be done.

Isight provides the intelligence and tools you need to bring multiple, best-in-class, cross-disciplinary models and applications together to create an automatic simulation process flow for exploring design alternatives and identifying optimal performance parameters. It comes with engineering techniques ranging from Design for Six Sigma to Design of Experiments. It has interactive postprocessing tools that help you explore your design space from multiple points of view.

But its real genius is that it brings CAD, CAE, and all this stuff collectively known as engineering tools together. That means you can integrate, say, CATIA, Ansys, Matlab, Excel, whatever—even your own proprietary applications. No re-entering data or exploring it in isolation from the world you want it to affect and assuming you understand how it all fits together. You work the whole of the design—the big picture so to speak—and its constituent pieces as a continuum rather than as separate sets of results. Since Isight automates multiple simulations with all this input, you truly evaluate and investigate multiple design alternatives to discover what you're doing and where you're going efficiently.

SIMULIA announced its Fiper add-on technology along with the newest version of Isight. With Fiper, you can deploy and execute your complex simulations over a distributed computing environment. It supports Platform Computing's Load Sharing Facility (Platform LSF), so you optimize hardware resource usage, providing further efficiency as well as the capacity to execute extremely complex simulations.

I'm banging this efficiency drum because high efficiency is even more crucial to success these days with the economy so tight. Still, your real takeaway is that Isight enables you to do complex, high-end multidisciplinary simulation and modeling as it should be done in a modern design environment.

You can learn more about Isight and Fiper 3.5 from today's Pick of the Week write-up. There are links additional data including a webinar series on how Isight can enhance design exploration and quality engineering that I recommend you check it out.

Thanks, Pal. -- Lockwood

Anthony J. Lockwood
Editor at Large, *Desktop Engineering Magazine*

