

Latest Release of Flux Opens the Door to Multi-Disciplinary Optimization for Design in Electrical Engineering

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Connections for Multi-domain Simulation with latest Flux 12.3 Release

TROY, Mich., May 10, 2017 – The leading software for low frequency electromagnetic and thermal simulation,

Flux™, now a part of the Altair HyperWorks® simulation platform, has released its new version, Flux 12.3. Using breakthrough technologies, Flux is the perfect tool for the analysis, design and optimization of modern applications such as electric rotating machines, actuators and sensors, high power electrical equipment, heat treatment or electromagnetic compatibility. Flux 12.3 includes several new enhancements, enabling users to achieve even higher quality meshes and experience new and efficient ways to deal with 3D CAD imports.

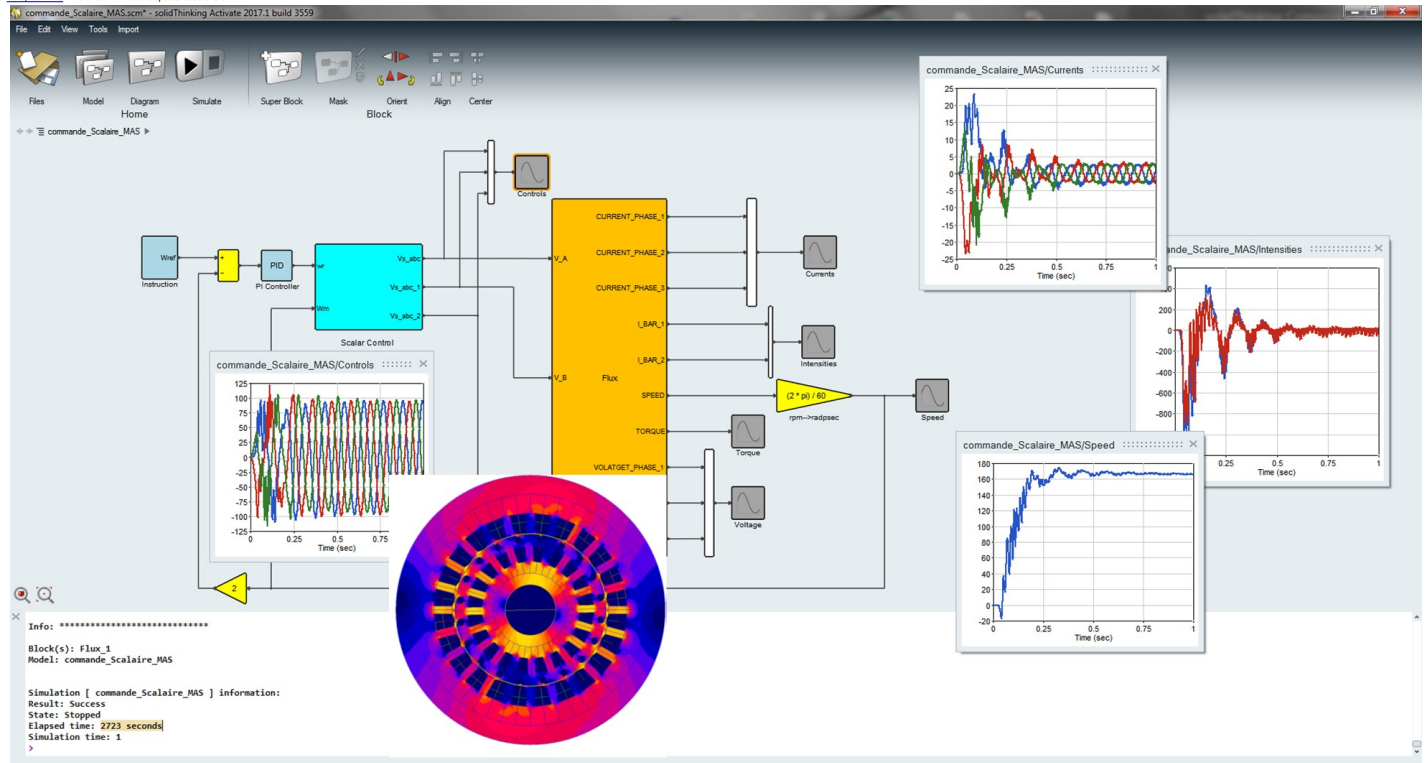
Key highlights offered in this release include:

- **Co-simulation with solidThinking Activate™ – Altair's solution for model-based development system simulation** - available for 2D, 3D and Skew Flux models. Flux embeds its own electric circuit editor but when it requires more advanced analysis this co-simulation is of great help. The coupling considers various phenomenon such as saturation, eddy currents, motion, control loops, system interaction, etc.
- **More precise evaluation of the heat transfer**, through a new coupling with Altair AcuSolve® – an accurate computational fluid dynamics (CFD) solver included in the HyperWorks suite.
- **New coupling with OptiStruct® – Altair's structural linear and nonlinear solver** - allows the calculation of vibrations generated by electromagnetic forces in electric machines to reduce their noise.
- **New robust and fast 3D mesh generation tools**, including a new volume tetrahedral generator and high quality meshing technology able to deal with complex geometries.
- **Easy 3D induction machine tool setting**, ensuring electric machine simulation in 3D, can be generated quickly and easily using the model templates.
- **Efficient optimization of electric systems**, minimizing the losses in a device or system, improving the response times, increasing the torque and reducing dimensions and weight. For complex cases, the **Altair HyperStudy®** optimization solution can reduce the computing time to a minimum with guaranteed accuracy of results, considering different physics, like reducing the noise of an electric motor interacting on the electromagnetic design.
- **A unique post-processing function** has been developed to help predict dielectric breakdown voltages with better accuracy, allowing for reduction of the usual oversizing in such devices.

*Flux now benefits from the latest technologies available in Altair, ensuring added value for our users. We have integrated new CAD import and meshing capabilities and speeded-up 3D model creation. Offering new connections with the other Altair simulation tools allows users to couple different physics and propose a complete simulation solution. With Flux 12.3 we have opened the door to multi-disciplinary optimization for design in electrical engineering.” said Vincent Leconte, Director Business Development EM Solutions, Altair.

The addition of Flux technology to the Altair HyperWorks suite of products in 2016 has further enhanced Altair's [electromagnetic simulation offering](#) by addressing the lower frequency simulation requirements of customers. This broad software coverage and domain expertise supports Internet of Things (IoT) industrial applications and the rapidly growing EM market.

To see Flux 12.3 live and to learn more about our EM product suite, visit us on June 20th in Baltimore for the **ATC - The High & Low of Electromagnetics** or in Europe, from June 29 to 29 in Frankfurt Germany for the **European ATC**. The event will feature special sessions on EM.



About Altair
Altair is focused on the development and broad application of simulation technology to synthesize and optimize designs, processes and decisions for improved business performance. Privately held with more than 2,000 employees, Altair is headquartered in Troy, Michigan, USA and operates more than 50 offices throughout 22 countries. Today, Altair serves more than 5,000 corporate clients across broad industry segments. To learn more, please visit www.altair.com.

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