

Siemens PLM Software Unveils NX 12

CIMdata Highlight

On September 6, 2017, at a Siemens PLM Software gathering for industry analysts, Mr. Bob Haubrock, Senior Vice President, Product Engineering Solutions offered early looks at the strategy and content of NX 12, Siemens PLM Software's flagship CAD solution. Targeted for commercial release at the end of October 2017, NX 12 showcases three major technical thrusts into areas of high industry interest. The release contains major enhancements for generative design, additive manufacturing, and multidiscipline design. CIMdata views all three directions as important and timely advances.

CIMdata defines generative design as a collection of tools and techniques that help to arrive at feasible product designs, including geometry, from statements of requirements and constraints. Topology optimization is the most notable generative design process. Siemens PLM Software's solution for topology optimization is built on a mesh geometry foundation now included in their Parasolid geometry kernel. The kernel supports a mix of precise geometry (Nurbs and analytic) and mesh/planar faceted models that Siemens PLM Software calls Convergent Modeling. CIMdata recognizes that this mix of geometry will advance not only generative modeling processes, but spark innovation in CAE meshing, scanning, and reverse engineering that will prove to be a boon to NX and Parasolid users.

On the topic of additive manufacturing, Mr. Haubrock emphasized the leveraging of convergent design's mesh geometry to generate lightweight lattice structures within models while maintaining structural integrity. The design creation and editing implementation supports user interaction with mesh geometry and precise edges and faces using the same modeling operators familiar to NX users. CIMdata believes this level of integration will encourage its adoption.

NX 12's third major set of enhancements center on the integration of solutions from Siemens PLM Software's recent acquisition of Mentor Graphics, a leader in electronic design automation. In support of the industry trend toward increased electrical components in product designs, there is a demand for improved cross-disciplinary design and tighter integration of mechanical with electrical and electronic systems. NX 12 delivers improved integration with Mentor's Xpedition suite of solutions for PCB design. In addition, NX 12 provides impressive integration with Mentor's Capital suite of solutions for wireharness design.

CIMdata views the strategic directions of NX taken by Siemens to be well in tune with product developer needs. It offers them competent solutions and competitive advantages for creating innovative products.

About CIMdata

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