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Getting Connected

ANSYS EKM helps engineering teams improve productivity by organizing simulation data locally and worldwide.

By Michael Engelman, Vice President, Business Development, ANSYS, Inc.

Connections are important, whether involving family, friends — or simulation data. New technologies hold great promise for expanding our reach into new networks, but they must be managed correctly to yield expected gains.

Successful companies recognize that simulation expertise is a valuable commodity, and that sharing this information is vital to streamline the development process and bring innovative products to market faster — a key to corporate success. Often, this expertise is localized to individuals or workgroups that informally function as mini centers of excellence. These workgroups tend to develop and maintain a company's best practices for simulation, as well as warehouse the simulation results from the projects they work on. As an engineering organization becomes more complex, projects begin to involve engineers with specialized expertise who often reside in different locations. No matter what continent they work from, engineers must collaborate and get connected on projects as if they shared a common office. More and more, companies are turning to systems like ANSYS Engineering Knowledge Manager (EKM) to capture and share simulation knowledge.

Consider the example of MANN+HUMMEL, one of the world's major automotive suppliers. Martin Lehmann, head of the organization's Simulation Filter Elements, commented, "We have engineers in Europe and India who frequently need to share models, CAE data and simulation results. They also need to collaborate in real time while performing CAE analysis. ANSYS EKM allows us to transfer and share simulation data very effectively. The product's extensive data management capabilities make it straightforward for our engineers to organize and

track multiple versions of files that are created during a typical design and analysis cycle."

While workgroups have a common need to stay connected, the needs of each simulation expert are unique. Any system designed to capture and reuse simulation data and best practices must make individuals' jobs easier and improve their productivity, or it will have poor adoption rates.

"First of all, a simulation data management (SDM) system must meet the needs of its primary users, CAE analysts and workgroups," said Keith Meintjes, research director for CAE at Collaborative Product Development Associates, an organization that provides companies with objective information for assessing technology, business goals, and objectives for engineering and manufacturing. "SDM is not simply an extension of a PDM system or a PLM strategy; CAE is far too complex for top-down solutions. Companies should first concentrate on implementing SDM for individual and workgroup productivity and for simulation quality. Once that is in place, they can consider aggregating the data and metrics to gain enterprise-wide benefits. SDM should be seen as a strategy to capture and reuse engineering knowledge and intellectual property. The benefits will accrue from dramatically improved engineering processes, not from populating some PDM database."

ANSYS EKM manages the richness and complexity of simulation data in a way that makes it easy for the individual to function in a workgroup, while making it possible to share the context of simulation with CAE users enterprise-wide. This software system allows organizations to get connected to streamline processes, protect intellectual property, share best practices and foster innovation. ■