NAFEMS Simulation Data Management (SDM) Working Group

Mission

The mission of the NAFEMS Simulation Data Management Working Group (SDMWG) is to provide a vendor-neutral, end-user driven consortium that promotes the advancement of the technology and practices associated with the management of engineering simulation data management and processes. This includes education, communication, promotion of standards, and development of requirements that will have general benefits to the simulation and analysis community with the identification of benchmarks and major strategic issues (grand challenges).

Vision

The SDMWG vision is that SDM is to be cost-effective, easy to use, and ubiquitous. SDM is integrated with the business, engineering modeling and simulation processes, used for work-in-progress and completed data, collaboration, knowledge capture, reuse, and long-term archival. Data management methods are integrated with simulation analysis methods, ranging from closed-form to highly complex multiphysics numerical models.

Engineering simulation data encompasses the data, models, processes, documents and metadata intrinsic to performing modeling, simulation, and analysis. SDM provides for the management of data objects and metadata at all levels of granularity and abstraction, including design and analysis parameters, requirements, and results. SDM solutions are integrated with other systems and databases that manage engineering and product data.

SDM systems are available for managing and executing a wide range of modeling and simulation data and processes, across the breadth of engineering disciplines, supporting a heterogeneous analysis environment. Integration of design, test, and manufacturing data with modeling, simulation and analysis is supported.