

“DEMOCRATIZATION OF SIMULATION” IN AN AUTOMOTIVE SUPPLIER

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ABSTRACT

The term “democratization of simulation” has achieved significant popularity recently and carries a certain message of encapsulation and forward deployment of computer simulation to allow it to be used by a larger share of the engineering community. While CAE specialists have a role to play in analytical validation, business needs are dictating usage of simulation by all parts of engineering to drive cost down in a compressed product development cycle. This suggests the potential for many advantages, including more interaction between design and analysis and the execution of analytical DOE early in development cycle. However the implementation of this democratization requires far more than encapsulation and automation through a thin client environment. It also requires clear definition of the important elements of simulation and synthesis in product creation, their preferred sequence and flow, clear identification of data models, seamless integration of tools to control the process. The organizational boundaries, resource constraints and varied analytical approaches have to be overcome to create an efficient multi-physics simulation process. This paper will provide insights into the ongoing development of these processes within a Tier 1 automotive driveline supplier.