Abstract:

This paper compares strategies to track the growing detailing (i.e. the “level of maturity”) of a design on the example of the embodiment design of an automotive body and reviews how they can be used in industry. The goal is to facilitate collaboration (i.e. communication and coordination) during concurrent design activities, in this case to enable the transfer of the product’s geometry to the simulation departments at the right points of time. Specifically, the question “What information is to be communicated from embodiment design to simulation at what point of time?” is to be answered. For this purpose, a typical scenario from automotive design is laid out. Several maturity models are compared to derive an understanding for a maturity model. This model is further based on ideal processes for setting up the CAD geometry to be transferred to simulation, which is also compared to how this process typically is implemented in industry. In the end, a first approximation of actual maturity levels is generated. These levels enable a better directed coordination of information transfer and show the general validity of the approach.

Stichworte:

concurrent engineering; maturity; concretization;