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Corrosion protection by E-coating is widely used in automotive industry, and simulation of this manufacturing process increases constantly because of the valuable information obtained in different phases of the development process of a car. Appropriate meshing strategies are necessary to meet the requirements to the simulations with respect to preparation speed and accuracy: In early design phase, it is recommended to use surface wrapper and remesher. When CAD data gets more precise at later stages, it becomes worth to invest in surface mesh preparation to obtain precise surface representation. One of the latter approaches consists of remeshing parts, offsetting faces, and subsequent boolean unite of all parts.

The benefits of the preprocessing effort of both methods with respect to turn-around time and quality of simulation results will be evaluated in the presentation.

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Industries:

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[STAR Global Conference 2013](#)^[2]

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