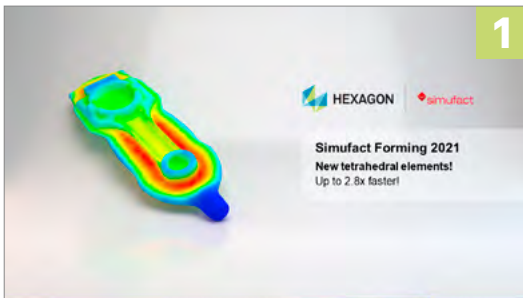




Simufact Forming

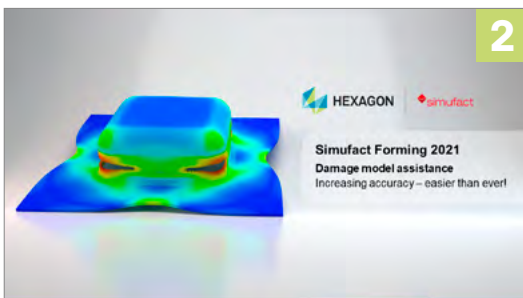
Top 5 Highlights in Simufact Forming 2021



1 New tetrahedral elements

Simufact Forming 2021 introduces tetrahedral element meshing, providing much faster calculation and higher accuracy model creation.

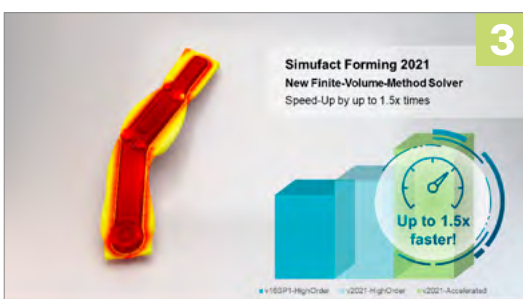
The user only needs to change the element type to the new integrated tetrahedral elements to benefit from a 2.8x increases in process simulation speed compared to previous versions.



2 New damage modelling assistant

For the first time, Simufact Forming introduces support for damage modelling. It is easy to use and the user benefits from increasing accuracy within his crash analysis. The damage model can have an enormous impact on the accuracy of predicting the damage occurrence as well as the force progressive failure. Until now the creation of a damage model has been very difficult.

The user can now enter the damage characteristics from experiments, including equivalent strain and the averaged Lode angle at failure. The new damage modelling assistant uses this to automatically calculate and calibrate the a damage model for future use.



3 New finite volume solver

A new 'Accelerated FVM solver' provides up to 1.5x times faster calculations compared to the existing Finite-Volume-Method (FVM) solver.

This increases the calculation speed of bulk metal forming simulation without compromising on accuracy. The user need simply change the solver type in the process definition to enjoy a faster and more interactive experience.



Simufact Forming

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4 First approach to predict properties under load

Simufact Forming 2021 introduces structure first-pass validation capabilities to help manufacturers validate the mechanical performance of the optimized part. This productivity-boosting feature can, for example, be used to determine the maximum load before the component fails and the force progression of a dynamic load.

This new feature offers users the capability to simulate new process types, such as hydroforming.



Result transfer to and from 3rd party product

MpCCI Mapper interface support makes it easier to process simulation results from the software. It provides advanced and robust methods to map, compare and transfer simulation results and experimental data in integrated simulation workflows. The user benefits from the capability to transfer results from 3rd party products prior to Simufact Forming and onwards.


5

User experience improvements

We have made no less than 1515 improvements (new features, bug fixes, documentation and other improvements) to Simufact Forming 2021 to make it the fastest and most stable version to date.

This includes a modern, bright user interface to an improved installation wizard.

Please note that we also have a new version numbering. From Simufact Forming 2021, future feature packs will be referred to as 2021.1 and service packs as 2021.0.1

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