Auto Dies Face Correction For Warpage

DEP MeshWorks | Application Sheet

Auto die face correction process enables rapid CAD generation of a component that reflects the reverse warped position, based on warpage analysis

Challenge currently faced

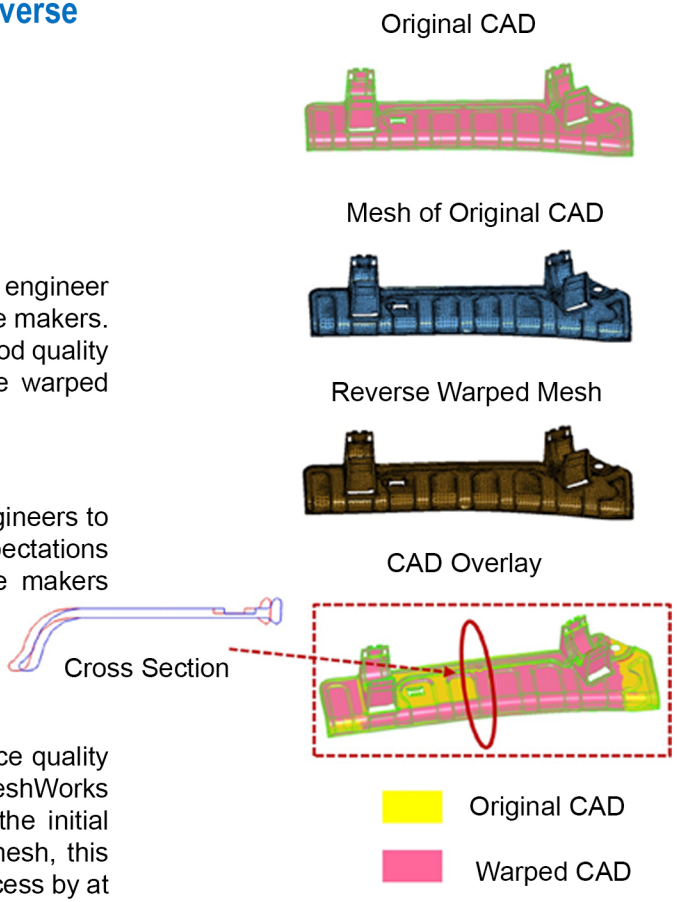
After the warpage analysis has been completed, the engineer needs to communicated these changes to the tool and die makers. it is virtually impossible for the engineers to generate a good quality CAD model that exactly matches the predicted reverse warped model

The Solution

MeshWorks has patented technology that allows the engineers to quickly generate a CAD model that meets the quality expectations of the CAD engineers. This will help the tool and die makers develop the die that factors in the warpage

Value

The standard process currently used creates poor surface quality data that ignores critical features, in contrast the MeshWorks process creates good quality CAD data equivalent to the initial CAD model that exactly matches the reverse warped mesh, this fast tumaround helps designers speed up the design process by at least 50%



Complete Pre & Post Processor

- Comprehensive FE/CFD pre & post processor with powerful tools for CAD clean-up, meshing (shell, tetra, hexa, hybrid, etc.), highly automated model assembly and results processing.
- Complex FE/CFD can be generated 30% faster and with better quality than other competitor products.

Customized Engineering Process Automation

- Customer CAE processes can be rapidly automated using a fast Record>Create-GUI>Plumb>Publish process.
- 2X to 10X time reduction can be expected for processes that are repeatable.

CAD & CAE Morphing Technology

- Reduces Finite Element (FE) & Computational Fluid Dynamics (CFD) model building time by 50% to 80%.
- Generated morphed CAD models representing optimized designs very rapidly and form the main link between CAE & Design teams.

Parametric CAE Technology

- Rapidly converts FE & CFD models to intelligent parametric CAE models, enabling fast design iterations & Design of Experiment (DoE) studies.
- Most comprehensive parametrization engine addressing several categories of parameters such as shape, gage, material, spot welds, seam welds, adhesives, design features, etc.

Multi-Disciplinary Optimization (MDO)

- Enables Multi-Disciplinary Optimization to meet design targets, minimize product weight, and minimize manufacturing cost using parameteric CAE models.