DEP MeshWorks

Optimization of an Instrument panel (IP) system in a quick turnaround time

About the Client

Client is one of major global Tier 1 supplier to automakers.

The Challenge

To arrive at quick implementation of design countermeasures for Head Impact and use of CAE parameterization based optimization for Knee Impact

The Solution

DEP MeshWorks Shell rib insertion tool is a great value for tuning energy absorption in the Instrument panel. The shell rib creation is carried out on the CAE model itself thus avoiding the need for CAD data. The ability to parameterize the number of shell ribs help to quickly arrive at optimal performance during head impact. The combination of shape and gage parameterization tools in MeshWorks help parameterize the structural members in the knee bolster zone thus helping to optimize the knee impact performance.

The DEP Edge

DEP MeshWorks has tools under Design Enablers that help create design countermeasure right on CAE models without the need for CAD data. Shell rib insertion of plastic trim is one such design enabler of create value for Instrument panel regulatory work and optimization of performance. The ability of shape and gage parameterization helps optimize brackets in the knee bolster zone.

The Result

Through the MeshWorks driven process DEP was able to optimize Instrument panel (IP) systems for FMVSS 201 and FMVSS 208 performance for many vehicle programs. The automakers have benefited from quick turnaround leading to time and cost saving.

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