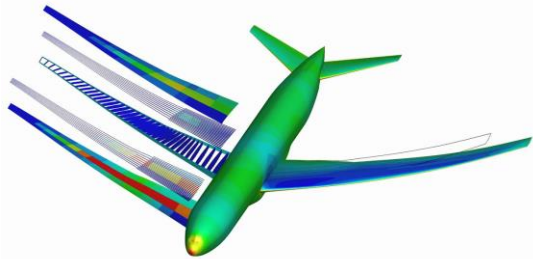
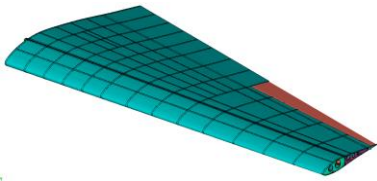


## Weight optimization for aircraft stabilizer driven by parametric CAE model

### About the Client

The client is one of the premier aerospace design and manufacturing company.



### The Challenge

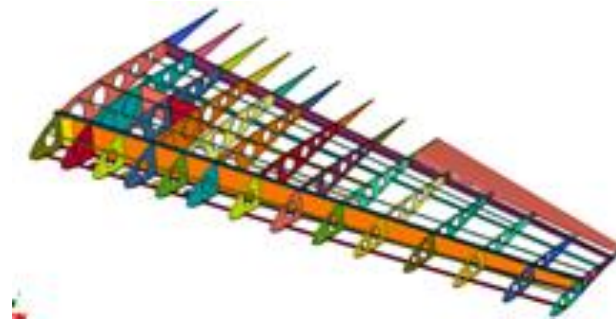
The client invited DEP to look at ways to optimize the weight of the stabilizer considering the number and location of the ribs. This needed to be done without any performance degradation.

### The Solution

MeshWorks was considered for this project due to its tool sets which really make optimization a reality by considering various types of design parameters that impact structural performance metrics.

For the aircraft stabilizer, the rib location and number of ribs were considered as design parameters besides the skin panel thickness. Multi loading scenarios were considered alongside with DoE of design parameters. Ultimately, this

process helped the team evaluate various design configurations and weight saving opportunities. MeshWorks together with Solvers & Isight proved to be an ideal match to automate the entire process of optimization with a parametric CAE model as the start point



### The Result

Based on the detailed investigation, the DEP team presented the viable solutions, along with the entire process of parametric CAE model based optimization

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