BETA
SIMULATION SOLUTIONS

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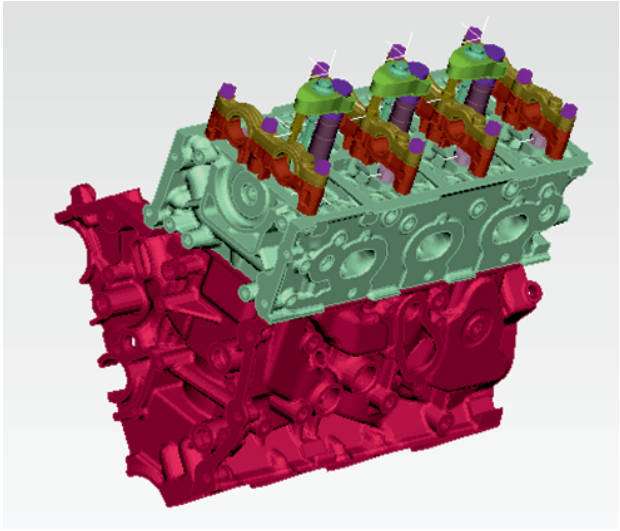
AUDI: Engine modelling using ANSA & META

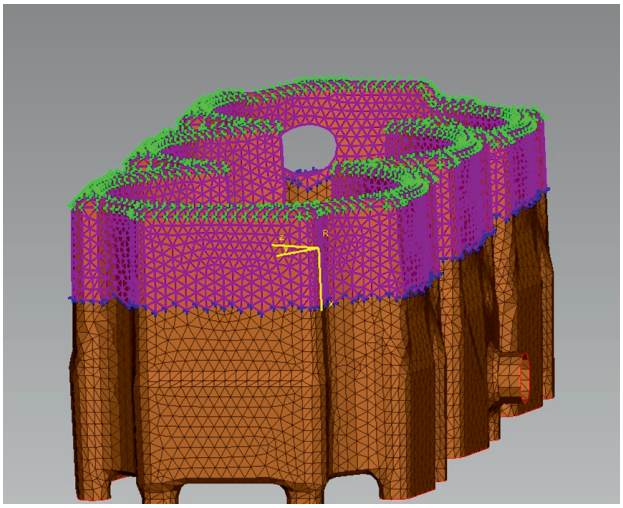
Challenge

- The preparation of an Engine Model for a Static Analysis with ABAQUS using ANSA & META.



Approach

- Based on pure geometric data, a procedure has been established in which the geometrical data are translated into ANSA files. Possible geometrical errors are fixed. A Surface Mesh using automate and semi-automate functionality has been generated, fullfilling the special treatment on certain areas. The Volumes have been meshed using 2nd order Tetra Elements. Then a full Model has been set up for a static analysis using ABAQUS. A toolbar has been created in META to automate the Evaluation of the results. Quick modifications of the model shape, in order to examine how these will affect the results, can be done easily using the ANSA Morphing tool.



Results

- The established procedure using ANSA & META eliminates the bottlenecks and reduces the needed time for preparing an ABAQUS model.

"Using ANSA & META we succeed to improve our procedure for an Engine Model Static Analysis"

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