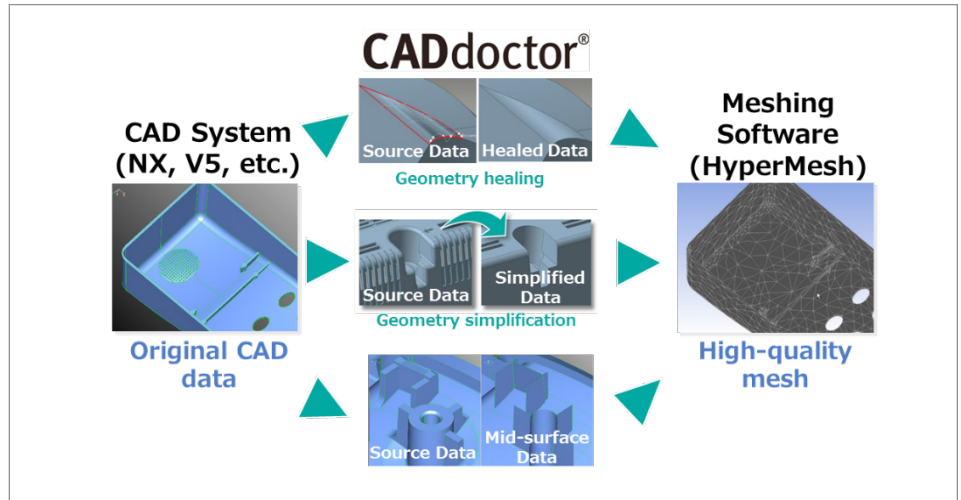


Arkal Automotive Optimizes FEA Data Creation Workflow with HyperMesh and CADdoctor



“Creating mesh directly on a model you received from your customer is simply not enough, you must simplify and clean your model, fast and easy! And that’s when CADdoctor comes for help.”

Konstantin Arhptsov
Simulation Department
Arkal Automotive

Challenge

Between company growth and increased demand, there is a critical need for Arkal Automotive’s simulation department to reduce preprocessing time. Surprisingly, the bottle neck is not in the CPU time, but rather, in the model preparation.

Solution

- Joint effort by Altair and Elysium Co. Ltd. to provide the required functionality to fulfill customer needs.
- Rely on standardized, state-of-the-art tools.
- Use CADdoctor *Translation* and *Simplification* platforms to reduce time in creating simplified models.
- Create a CAD model free of fillets, chamfers, ribs and bosses which is better for HyperMesh to use in the creation of 2D and 3D meshes.

Impact

- Streamline and accelerate the creation of models.
- A higher quality mesh is created by meshing models with the help of CADdoctor.
- Engineers have fewer repairs to make.
- Over 80% reduction in no. of elements with aspect ratio >7 and with shortest edge >.7 mm.

	Element size	No. of elements total	No. of elements with aspect ratio >7	No. of elements with shortest edge >.7
Without CADdoctor	3 mm	157,940	1,246	568
With CADdoctor	3 mm	145,834	185	114

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