

Creating CAD Geometries in Ansys Discovery Software using 3D Scans

Challenge Exercise: Tennis Racket with Holes

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Ansys Software used

Ansys Discovery™ 3D product simulation software is used throughout the different sections of this resource.

Challenge Exercise: Tennis Racket with Holes

Now you have completed the tutorials for converting 3D scan data into CAD geometries for the field hockey stick, tennis racket (without holes), and pickleball paddle, this exercise aims to apply all the skills learned across the tutorials to convert additional tennis racket scan data with a significant number of holes and errors within the scan data.

Exercise:

Convert the “Tennis Racket (Holes)” STL file provided within the resource file into a CAD geometry using Ansys Discovery software.

Tips:

- Ensure all “Holes” are removed from the geometry.
- Experiment with different tools within the facets ribbon tab to achieve optimal results.
- Take your time and review each step, ensuring understanding of each step you are completing.

The following figures show you should be aiming to achieve:

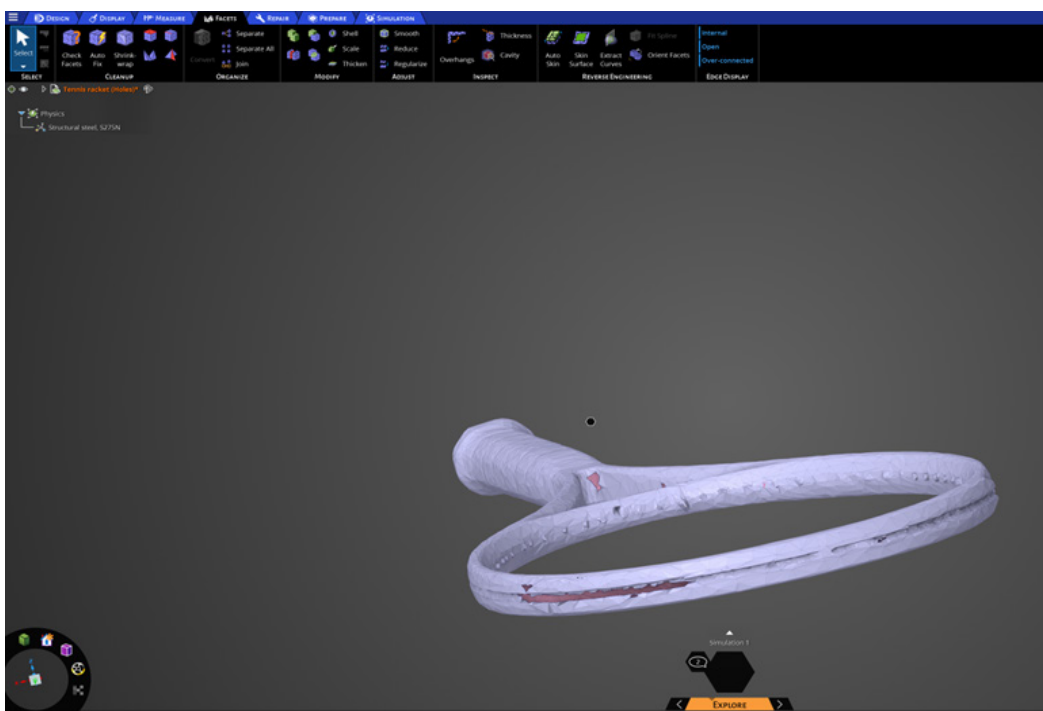


Figure 1: Importing the tennis racket (Holes) STL file

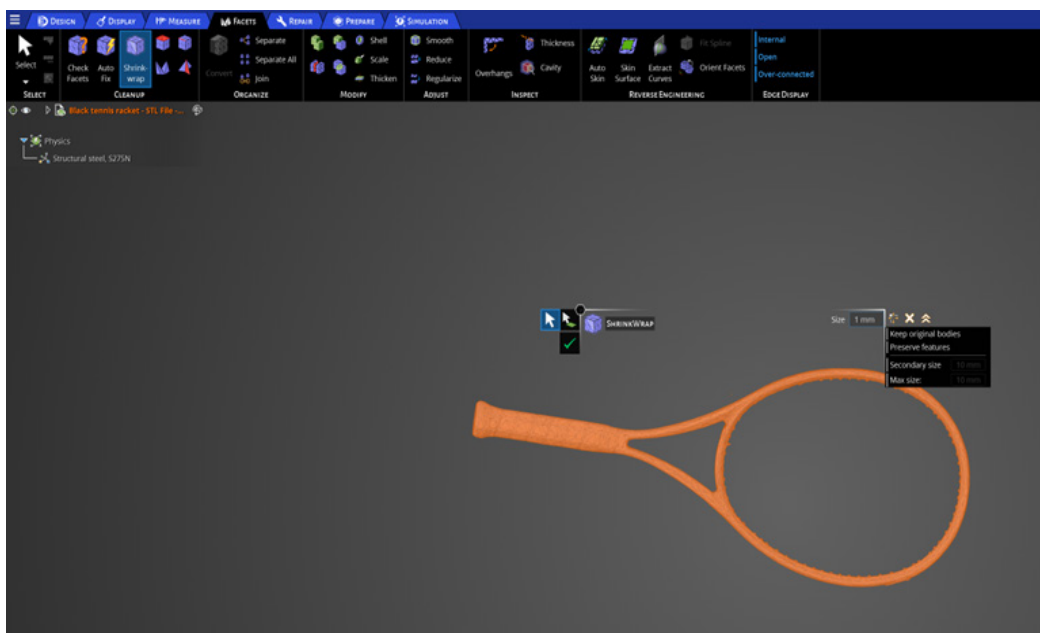


Figure 2: Applying a shrink wrap to the scan data.

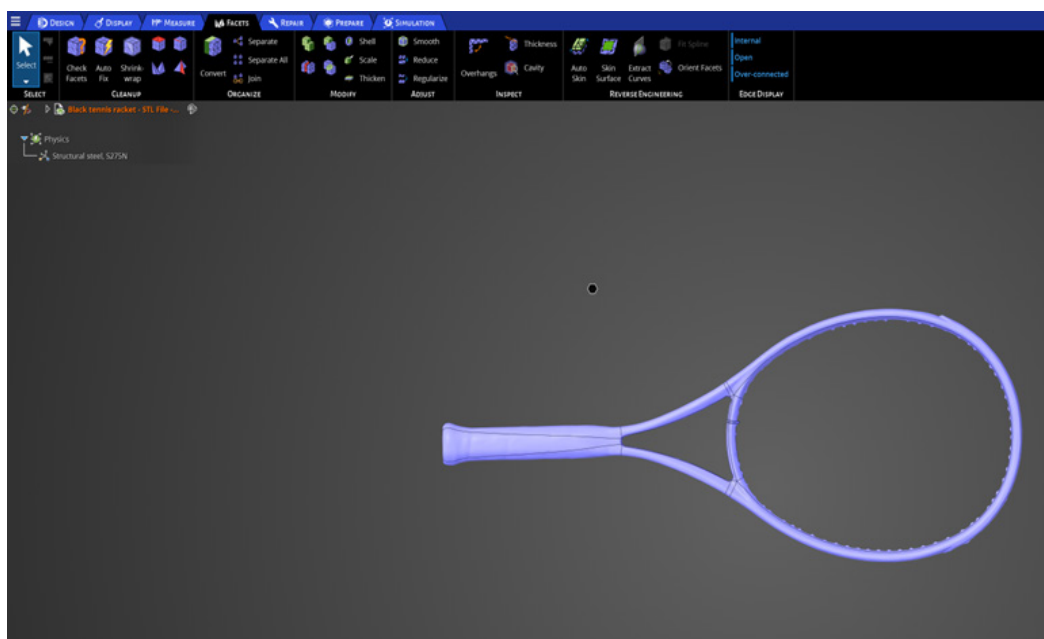


Figure 3: Converting the scan data to CAD geometry.

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Document Information

This case study is part of a set of teaching resources to help introduce students to structures, fluids, or heat transfer (physics areas supported by Ansys Discovery).

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