Robust mesh quality improvement feature for Structural Shape optimization.

Setting:

- Structural shape optimization is a well established procedure during design.
- Processing of handeling structural model during the shape optimization process is obtained still needs to be improved in terms of robustness.
- This is especially true in terms of dealing with the internal volume mesh quality after the surface mesh optimized.

Your Tasks:

- Investigate the possible methodologies and tools for mesh quality improvement.
- Integrate the tool into the optimization framework that exists at the chair.
- Provide an interface to this functionality.
- Test the functionality with real world problems.

Project Characteristics

Modeling:	★★★☆☆
Mathematics:	★★★☆☆
Programming:	★★★★☆

Strain energy : -57%
Mass : -20%

Optimized surface

What happens to internal volume mesh ??

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