# Does Your Model Hold Water?

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OK for 2D
(DraftSight, ACAD, etc.)

Holding Water =
Model Competency

NOT GOOD for
SolidWorks

# How to Hold Water

- 2D Imports
- 3D Imports
- 3D Exports
- FEA – SolidWorks Plastics

https://www.ptsdforum.org/c/attachments/hands-holding-water-jpg.14046/

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# 2D Imports

- DXF/DWG Import
- Check and Repair Sketch
- 2D to 3D
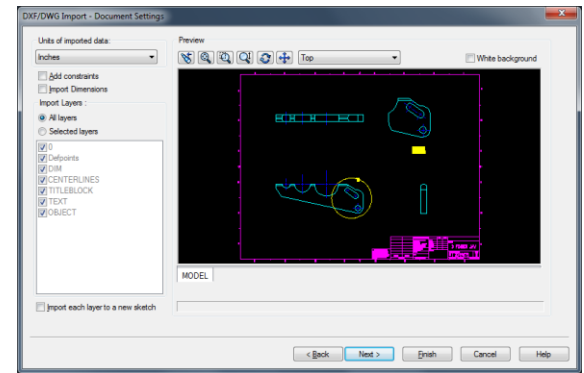
# How to Hold Water
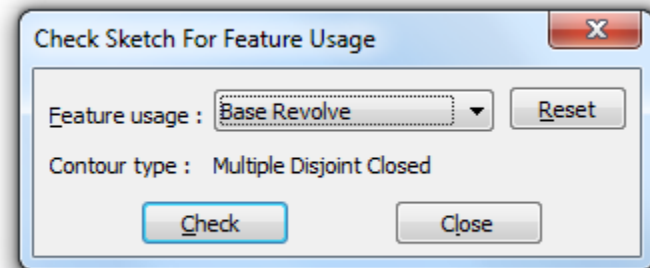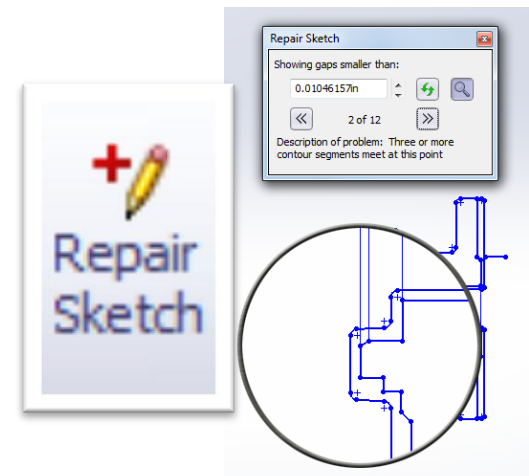
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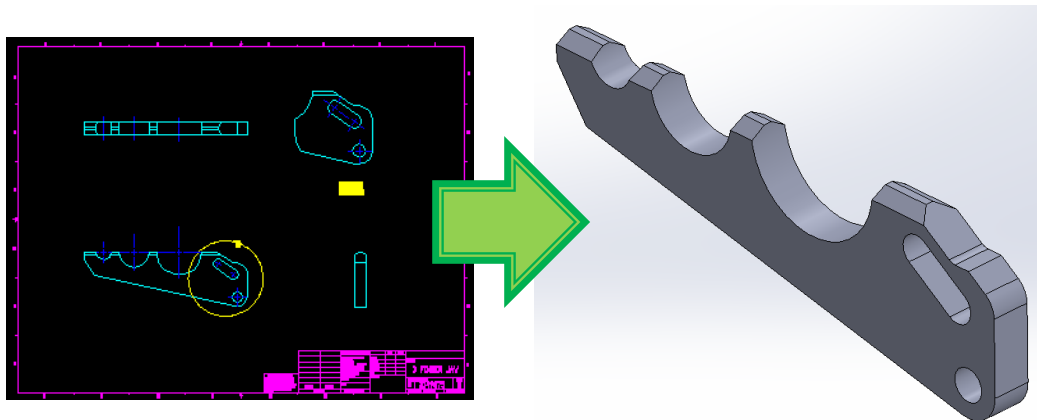THE POWER OF 3D DESIGN AND ENGINEERING

# 3D Imports

- File Translation
  - Translate the feature history
  - <span style="color:red">Translate the body database</span>
- Why do Imports Fail?
  - Different tolerances
  - Translation Mapping
  - Missing entities
- Diagnosis and Repair

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# 3D Exports

- For previous SolidWorks versions (no feature history)
  - Use Parasolid (*.x_t)
  - The modeling kernel for SolidWorks is Parasolid
- For other CAD systems
  - Ask "What is the native format/kernel?"
  - Export to that format if possible
  - Otherwise, use common neutral file type
    - STEP, IGES, ACIS
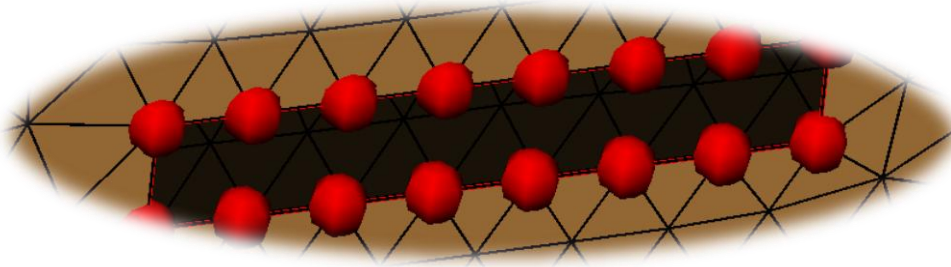  - Use Save As → Options to modify output

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# FEA – SolidWorks Plastics



Summary

Waterproof
No

Number of Mesh Group
1

Element Intersections
0

Non-manifold
0

Bad Elements
0.00%

Very Bad Elements
0.00%

Max Aspect Ratio
3.36

Unmatched Elements
0

Basic Flow Analysis (200C <...

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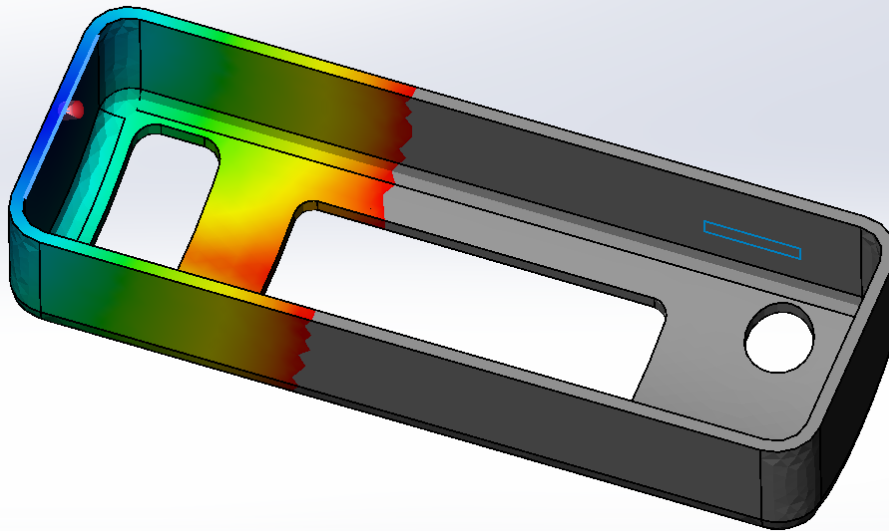
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# Credits

- ## 3D Import/Export
  - ◦ Mold Design Using SolidWorks Certified Training
  - ◦ Provided by Quest Integration

- ## Plastic Injection Analysis
  - ◦ SolidWorks Plastics Certified Training and Software
  - ◦ Provided by Quest Integration

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