

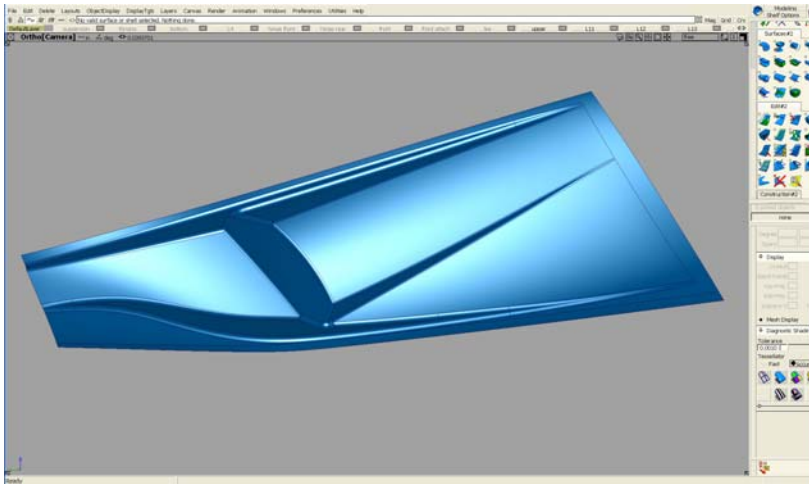
FreeForm® Modeling Plus™ v8.2 — Solutions

Solution: B-side surface shortcut

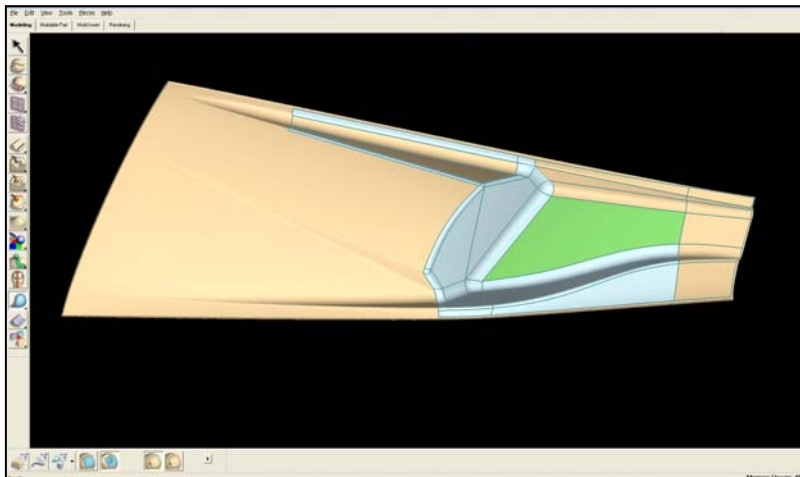
Problem: Complex surface models with sculpted shapes, complex blends, and difficult intersections often fail in CAD systems when thickening (offsetting) to create B-side (inside) surfaces. Inside surfaces are necessary for completing internal details such as ribs and bosses.

Solution: The inherent nature of FreeForm digital clay ensures that the most complex surface models can be offset with complete success, and because requirements for B-side surface appearance are usually more relaxed compared to the A-side, curves and surfaces can rapidly be created over the offset clay.

The following sequence illustrates:



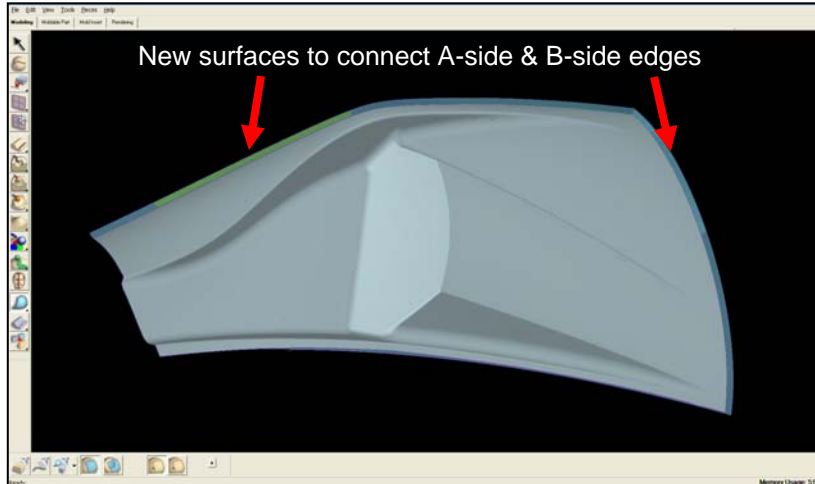
1. A complex surface model was developed using Alias® software, and exported as IGES surface data. IGES surfaces were imported into the FreeForm Modeling Plus system.



2. The imported surfaces were converted to digital clay and given a 1/8" material thickness. Curves were quickly laid down over the B-side surface of the clay, using the clay as a haptic guide. Surfaces were then built to conform to both the curves and the clay.

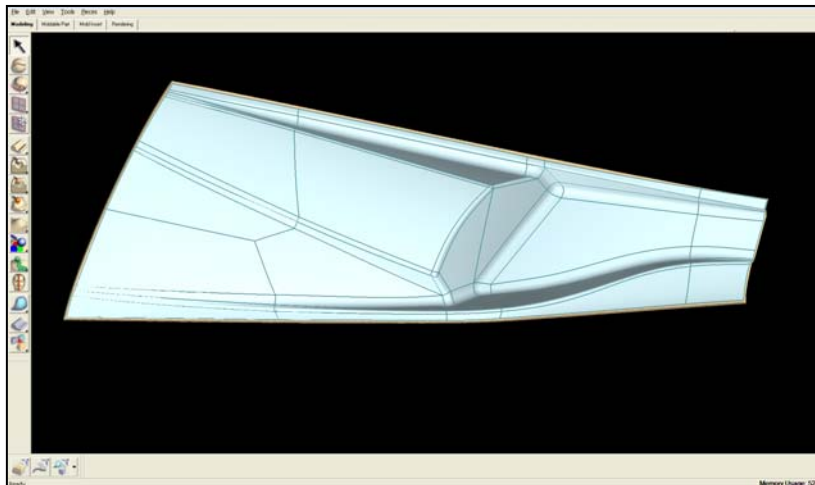
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3. The B-side surfaces were completed.

New surfaces were created to connect the original A-side and B-side edges.



4. All of the surfaces were then stitched together for export as a Parasolid® (solid) part to be used for downstream modeling of internal elements.