

# SurfaceWorks®

## Freeform Design for SolidWorks

### Freeform modeling with confidence

Elegant, sensuous shapes sell. SurfaceWorks gives you the freeform modeling tools you need to secure the competitive edge.

### Work smoothly from art to part:

from rough concept through part design iterations to integrated downstream analysis and manufacturing.

SurfaceWorks now is more closely integrated, powerful, faster, and easier to use than ever before. Its relational modeling techniques are consistent with SolidWorks - indeed, it is the only truly embedded surface solution for SolidWorks!

### Protect your investments

Extend SolidWorks' world-class solid modeling capabilities with SurfaceWorks' bi-directionally associative, parametric, freeform surface modeling. This dynamic software duo provides cost-effective industrial and mechanical design solutions for complex shapes and geometry modifications.

- **Freeform saves time and money**

The SurfaceWorks-SolidWorks combination is simply better than expensive, difficult-to-use industrial design software.

- **Be up to speed quickly**

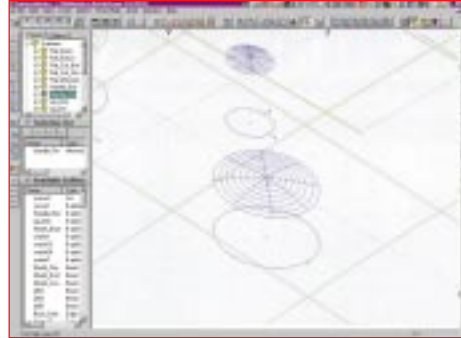
SurfaceWorks' user interface is SolidWorks-like. If you know SolidWorks, viewing models and interacting with parent/child relationships and constraints in SurfaceWorks is easy.

- **Get the best of both worlds**

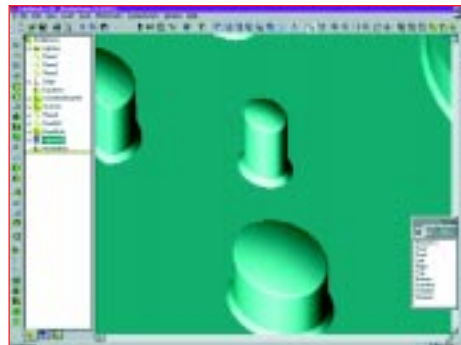
Move effortlessly between solid and surface modeling technologies. SurfaceWorks makes it easy to use the appropriate tools for your design needs.

- **Work from art to part in a unified system**

Use SurfaceWorks to model freeform parts inside SolidWorks, then send your data directly to downstream applications. SurfaceWorks' single-database integration ensures engineering integrity and eliminates errors common to multiple-database engineering.



SurfaceWorks "blister" surfaces made from SolidWorks parent sketches. Moving, shaping, or resizing any of the SolidWorks entities regenerates SurfaceWorks surfaces.



The SurfaceWorks surfaces were used in SolidWorks to create the tops of the buttons.



Answering machine images courtesy of Dave Sharbaugh, Point by Point.

*"We actually gained time though we were implementing new technology - including a 5:1 productivity gain creating the buttons!"*

*"Design relies so heavily on iterations. The key is that the two products are so well integrated."*

*"I can't imagine designing efficiently with a less integrated approach."*

**Dave Sharbaugh**

Point by Point

*"SurfaceWorks increases our productivity, gives us greater design flexibility, and lets us respond to our customers' needs in much less time."*

*"The bottom line — we can do more now and in much less time."*

**Michael Brenner**

Founder and President  
Engineering Metrology Services



*"Another critical advantage is full integration between SolidWorks and SurfaceWorks.*

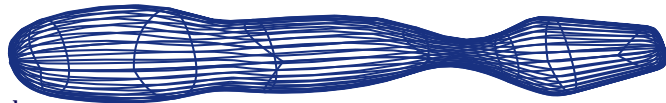
*I can model not only parts, but also molds and other tooling necessary for manufacturing.*

*I know the geometry is integrated and related. The combination of the two packages is a real time saver."*

**Todd Himes**

Engineer

Optima Wheel



The toothbrush design takes its parent curves straight from the designer's sketchpad. Surfaces were generated from these longitudinal curves (no cross section data needed). The model can be easily edited by changing the shape of any or all of the initial curves.



- Get surface model data from SolidWorks sketches, reference planes, 3D curves, edges, and faces. Or import an IGES file directly into SurfaceWorks.
- Attach surfaces directly or indirectly to SolidWorks entities.
- Use the best surface for your design needs. SurfaceWorks provides more than a dozen surface types, including tangent boundary, lofted, B-spline, sweep, and trimmed.
- Design for G0, G1, or G2 continuity between surfaces.
- Volume-enclosing surfaces become base-solid features in SolidWorks.
- Multiple-surface faces can be stitched into a single imported surface.
- Edit SolidWorks parent entities, and child surfaces created in SurfaceWorks update automatically.
- Connect from SolidWorks to downstream applications. Or export SurfaceWorks-enhanced IGES files directly from SurfaceWorks.

Shoe inserts designed using SurfaceWorks' Tangent Boundary Surface. This entity gives you detailed shape control over the interior of a surface and lets you set G0, G1, or G2 continuity with adjacent surfaces.



**SurfaceWorks**  
Freeform Design for SolidWorks

AEROHYDRO INC.

54 Herrick Road  
PO Box 684

Southwest Harbor, ME  
04679 USA

Phone 1-877-244-4141  
(toll free in U.S.A. and Canada)

Main Office 207-244-4100

Fax 207-244-4171

SurfaceWorks is available through SolidWorks resellers. Call today for a reseller near you.

[www.surfaceworks.com](http://www.surfaceworks.com)

[info@surfaceworks.com](mailto:info@surfaceworks.com)



Image courtesy Todd Himes, Optima Wheel

### System Requirements

- Pentium (or higher) PC
- Windows 95, 98, or Windows NT
- SolidWorks current version
  - 64 MB RAM
  - 25 MB free disk space

SurfaceWorks is a registered trademark of AeroHydro, Inc. All other brand or product names are trademarks and registered trademarks of their respective holder.

© 1999 AeroHydro, Inc.