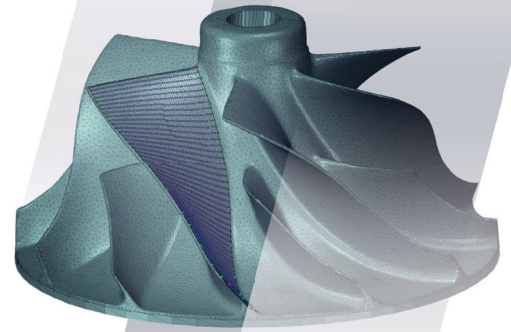# SpaceClaim

ANSYS SpaceClaim for Reverse Engineering
Edit Without Constraints to Perfect Each Feature

ANSYS® SpaceClaim® offers intuitive tools that are perfect for reverse engineering. With Space-Claim, STL files and solids can be easily altered to recreate perfect models for parts and fixtures. Imperfect data from worn components or a dirty scan can be corrected. For reverse engineering, SpaceClaim is unmatched in terms of power, ease of use, and flexibility.

Use ANSYS SpaceClaim to:

- Recreate organic shapes
- Convert faceted data like STL files into 3-D models
- Modify the geometry of worn parts
- Clean up messy scans

To save time, money, and hassle, there's no better tool than SpaceClaim for reverse engineering.

Challenges in Reverse Engineering

Clients often need 3-D CAD models for old products. Whether the original files were lost or the product predates modern manufacturing processes, the challenge remains. Reverse engineering can be a complicated, time consuming, and even frustrating process without the right tools.

Some scanned data is relatively prismatic in shape, but much is very organic in nature. More complex shapes can pose a dramatic increase in time and cost to convert the scanned data to usable 3-D files.

Designing fixtures can make a simple project complex, involving a lot of trial and error. Sometimes manufacturers wind up using vices and clamps to avoid the whole problem of fixture design, but this takes extra time and is not a robust solution.

3-D Modeling software can also be extremely complicated with a ton of needless features. If the software isn't frequently used, employees waste time finding the features they need amongst the clutter and have to re-learn the software each time they start a new reverse engineering project.
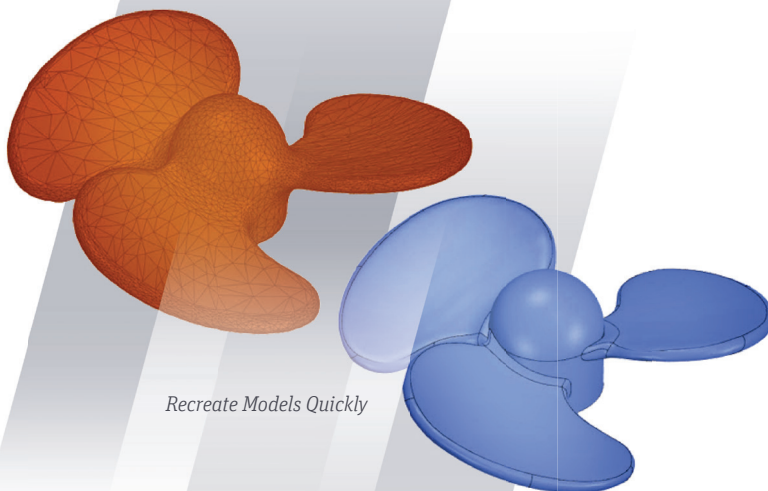
Recreate Models Quickly

Easily Create Solid or Surfaces from Organic Faceted Data

ANSYS SpaceClaim is the Best Solution for Reverse Engineering

SpaceClaim's cost-effective tools will solve your reverse engineering challenges with ease. The software can use an STL file, or other faceted data types, and convert it into a solid model.

Little blips in mesh data also can be easily remedied with SpaceClaim because the software was designed to work efficiently with STLs. Manufacturers can build complex solids quickly or use direct modeling commands while referencing an STL model. Surfaces are automatically fitted or curves are sketched along the facets of an STL file and effortlessly edited whenever necessary. These same intuitive tools can be used to recreate models, build fixtures or construct mating components as needed.

Whether the client wants to update an old design or the data needs to be cleaned up, SpaceClaim offers fast solutions.

Fit Smooth Curves Along Complex Surfaces and Recreate Models Quickly

How Can Manufacturers Leverage ANSYS SpaceClaim?

With SpaceClaim, users can:

- Quickly create complex solids from scratch
- Automatic surface fitting along facets of an STL file
- Sketch curves along the facets of an STL file
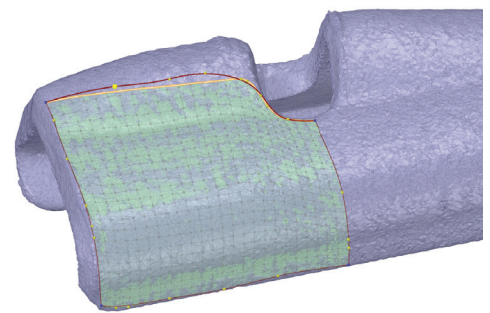- Easily create fixtures around mesh data

ANSYS SpaceClaim: A Wise Choice for Modern Manufacturing

In today's market, where profit margins are tight, it's important to consider every purchase carefully and avoid bloated software. Useless features not only clutter tool-bars, they inflate the price of the program. SpaceClaim, in contrast, offers everything you need to efficiently tackle reverse engineering projects with none of the software bloat.
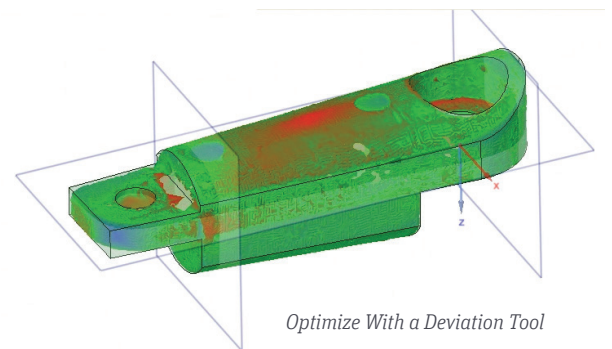
Optimize With a Deviation Tool

SpaceClaim saves on training time, too, with tools that are easy to learn. Dazzling in its efficiency, SpaceClaim gives businesses a real-world advantage. Clients get their projects completed ahead of schedule, and manufacturers save money on design time.

The best choice for reverse engineering, and your business as a whole, is SpaceClaim.
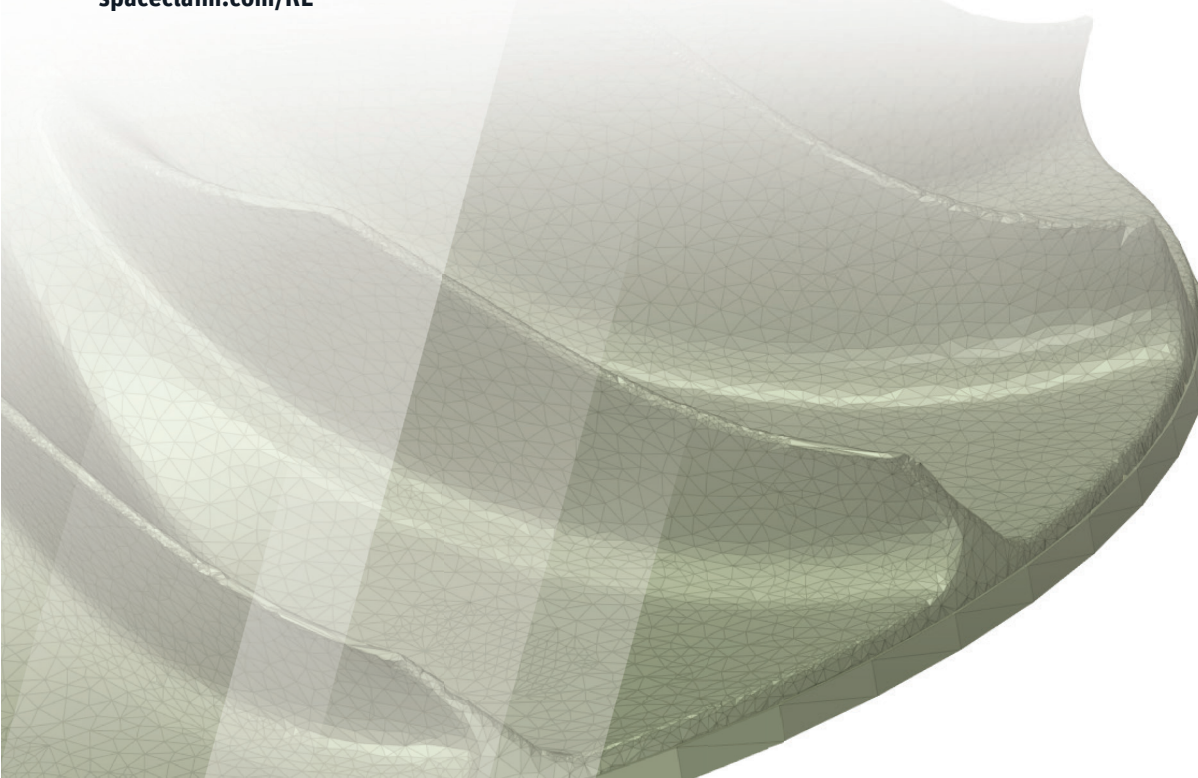
To learn more about reverse engineering with SpaceClaim, please visit spaceclaim.com/RE

ANSYS

ANSYS, Inc.
www.ansys.com
ansysinfo@ansys.com
866.267.9724

MKT0000136