Geomagic Freeform®

Geomagic® Freeform Plus™

Precise. Organic. Engineered.

3D SYSTEMS

Geomagic Freeform®

Geomagic® Freeform Plus™

Geomagic Freeform® and **Freeform Plus**™, the industry's most comprehensive organic design solution, enable you solve complex precision-design and manufacturing challenges. As the leading hybrid design platform on the market, it allows you to easily address challenging tasks within existing scan-to-print or CAD-to manufacturing workflows.

Design With A Different Approach

Break through the limitations of traditional CAD design and bring your visions to reality. Geomagic Freeform offers a comprehensive design and sculpting toolset allowing you to sculpt, detail and deform virtual clay models into any form you desire. Take your designs to the next level with the advanced toolsets in Geomagic Freeform Plus. Design for manufacturability is made easy by employing hybrid based conversions, surfacing, CAD editing tools, and mold prep tools, giving you the best of organic and digital design.

Design Anything with Built-in Precision

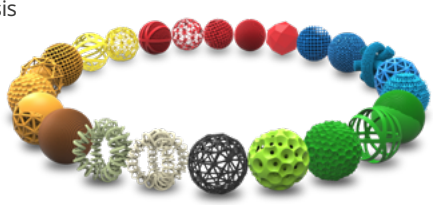
Geomagic Freeform picks up where traditional CAD software stops. This hybrid modeling system has the flexibility and benefits of many different modeling paradigms incorporating Surfaces, Solids, Mesh, SubD, and Clay. Make smooth surfaces and razor sharp edges with SubD, model precisely defined CAD shapes with NURBS and Solids or deform and emboss shapes with Clay.

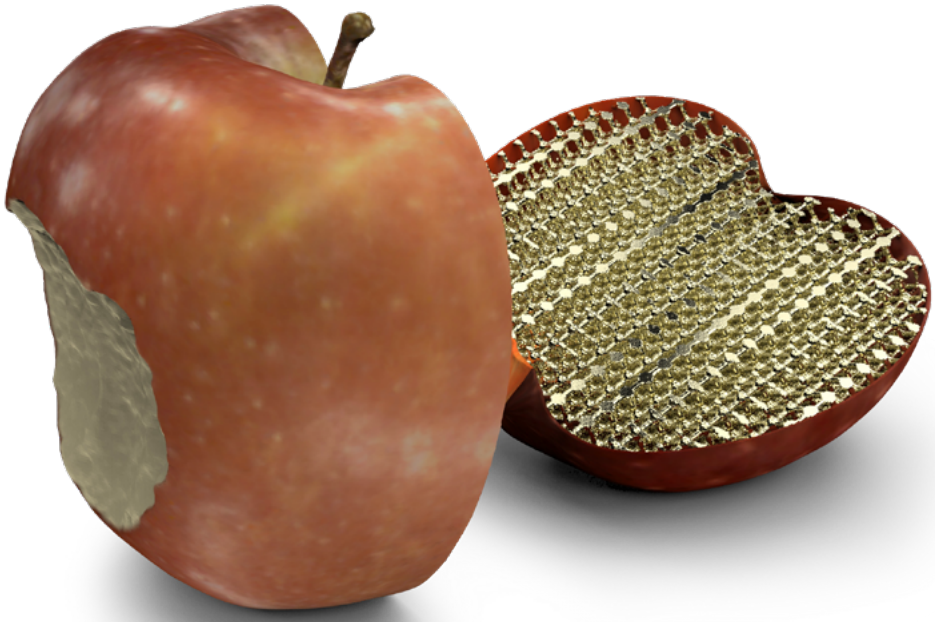
Add Organic Design to Traditional CAD

Geomagic Freeform is purpose-built to get your design into production, including its robust interoperability tools to handle import and export of 3D file formats including STL, OBJ, PLY, IGES, STEP and other neutral formats. Freeform Plus supports additional CAD formats. Combine CAD files with sculpted features to create accurate organic solids that are defined by explicit dimensions.

Add Structure to your Design

Geomagic Freeform's comprehensive StructureFX™ toolset delivers the freedom to select existing patterns or create custom complex, internal and external lattice structures for lightweight and beautiful designs. Advanced tools create functional cages for applications such as custom medical implants. These tools work alongside the advanced 3D print analysis tools for perfect and successful 3D printing of your designs.





Apple scan courtesy of Artec
www.artec3d.com

Precise. Organic. Engineered.

Quickly Import and Repair 3D Data

Easily import STL, CAD, scan and other 3D data from any source and instantly use them in your designs. Quickly repair faulty and low-grade 3D data into smooth workable models. Employ sculpting and embossing tools to form texture layers into real, physical geometry that can be immediately 3D printed, used in traditional manufacturing or easily exported in a wide range of formats for downstream workflows.

Manufacture Directly from Your Designs

Geomagic Freeform Plus allows you to identify and remedy potential manufacturing issues early in the design process so you can retain artistic control while avoiding production surprises and costly oversights. Confidently 3D print your designs with pre-printing analysis tools to ensure the part prints right the first time. You can also use Freeform data to quickly 3D print casting patterns for fast, accurate creation of investment casts. Powerful voxel technology exports water-tight models requiring no additional costly model repair software.

Easily Communicate in 3D

The stand-alone Freeform Viewer will display clay models from Geomagic Sculpt and Geomagic Freeform. Simple visualization, zoom, rotate, pan, measure and cutaway tools allow others to see a model without having to be proficient in the software.

Use 3D Tools for 3D Tasks

For the ultimate in expressive freedom and faster modeling, Geomagic Freeform products work exclusively with the included 3D Systems Touch haptic devices to deliver freedom of motion and the physical sensation of sculpting in a virtual environment. This more intuitive way of interacting with your 3D design reduces learning curves, speeds design and allows you to deliver top-notch 3D data.

Freeform Industries

Academic & Education
Automotive & Motorcycle
Ceramics
Characters & Creatures
Collectibles & Giftware
Confectionery
Consumer Products
Dental
Engraving, Relief & Flatware
Film & Video
Fine Arts & Sculpture
Footwear
Home Décor & Housewares
Jewelry, Coins, Medals
Medical
Packaging
Personal Products
Sporting Goods
Tooling
Toys & Promotional

Geomagic Sculpt and Freeform Feature Comparison

Geomagic's organic 3D engineering systems transform the way designs are brought to life, and meet a full spectrum of design needs Geomagic Sculpt offers simple but fast organic design to 3D print. Geomagic Freeform provides more tools for advanced design, and Freeform Plus takes the toolset to the next level by providing extensive hybrid design support, broader interoperability, and the tools you need to prep your part for mold tooling and manufacturing.

KEY PRODUCT FEATURE	SCULPT	FREEFORM	FREEFORM +
Voxel-based modeling	●	●	●
Mesh conversion and boolean support	●	●	●
SubD surfacing, modeling	●	●	●
StructureFX - LayerFX, CageFX, SurfaceFX	●	●	●
Manual patterning of pieces onto surfaces or in free-space	●	●	●
Automatic surfacing of clay or polygon models for export as NURBS surfaces	●	●	●
3D printability analysis Enhanced	●	●	●
Integration with 3D Sprint	●	●	●
Independent clay file viewer	●	●	●
2D Sketch tools, including Outlined Text	●	●	●
Export of Orthographic or Turntable Modes (bmp, jpg, or png with transparency option)	●	●	●
3D import of polygon and CAD neutral formats (.stl, .obj, .ply, .xml, .zpr, .iges, .stp, .step)	●	●	●
SubD surface texturing		●	●
StructureFX - CellularFX (Lattices)		●	●
Bend and twist tools		●	●
Cage and lattice deform		●	●
2D Slicer tool for part analysis as well as extraction of sets of offset images and profiles		●	●
Shell Cut creates new surface following layer of profile cut objects		●	●
MultiVox Viewing and Painting New		●	●
Export of volumetric data (.3mf, Image Stacks) New		●	●
Conversion of SubD to NURBS			●
Batching and background processing of reduce and export			●
Wrap for Freeform			●
CAD solids and surface tools Enhanced			●
Complex draft analysis and correction			●
Automated mold parting line function			●
Mold parting surface extrusion from parting line curves			●
3D import of CAD native formats (.x_b, .x_t, .sldprt)			●
Import of volumetric data (DICOM, Image Stacks) New			●
Dynabot® record-and-playback platform for enabling task-based automation Enhanced			●

* Geomagic Freeform is not a medical device and 3D Systems makes no claims that it is intended to treat, plan, or diagnose. However, there is evidence and publicly-available research that indicates many customers are successful using Geomagic Freeform in their own patient-specific solution workflows and are following all local regulatory requirements.

Contact Information

AMERICAS
geomagic.sales.americas@3dsystems.com
Cary, NC, USA : +1.800.691.1839
Brazil : +55.11.3318.5100
Mexico : +52.(644).114.6401

APAC
geomagic.sales.apac@3dsystems.com
South East Asia : +60.12.398.8473
Australia & New Zealand : +61.450.593.739
India : +91.98404.78347

CHINA
geomagic.sales.china@3dsystems.com
Hotline : +86.400.890.7899

EMEA
geomagic.sales.emea@3dsystems.com
Mörfelden-Walldorf, Germany: +49.6105.3248.100

JAPAN
geomagic.sales.japan@3dsystems.com
Tokyo : +81.3.5798.2510

KOREA
geomagic.sales.korea@3dsystems.com
Seoul : +82.2.6262.9900

3D SYSTEMS

3D Systems provides comprehensive 3D products and services, including 3D printers, print materials, on-demand parts services and digital design tools. Its ecosystem supports advanced applications from the product design shop to the factory floor to the operating room. As the originator of 3D printing and a shaper of future 3D solutions, 3D Systems has spent its 30 year history enabling professionals and companies to optimize their designs, transform their workflows, bring innovative products to market and drive new business models.
Specifications subject to change without notice. 3D Systems, Geomagic and the 3D Systems Logo are trademarks of 3D Systems, Inc.
All other trademarks are the property of their respective owners.

www.3dsystems.com