

geomagic[®]capture[™]

*The one-stop software for 3D cameras,
digitizers & coordinate measurement machines*

Simple and to the point. Geomagic Capture makes handling point data from a 3D capture device almost as simple as processing pixels from a 2D digital camera.

Input any kind of data. Geomagic Capture can register point or polygon data from any 3D scanner. It handles ordered or unordered data, multiple scans or a single point cloud. It is designed for fast, memory-efficient processing of very large data sets.

Output to any format. Geomagic Capture outputs to the most popular standard formats as well as a wide range of proprietary formats.

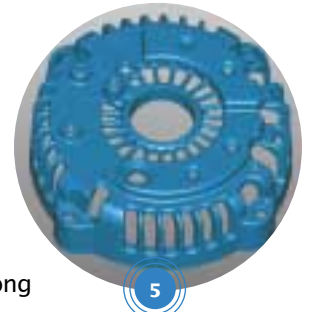
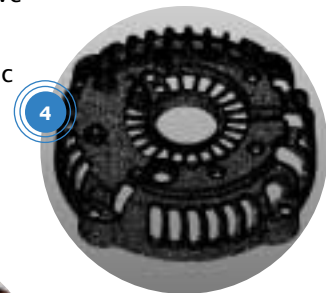
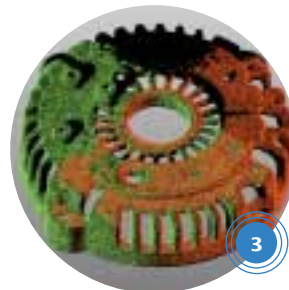
Register multiple scans. Geomagic provides automatic global registration for multiple scans that have been placed together using a turntable or a positioning device such as a CMM. For multiple scans collected without any positioning information, users can select the 1- and 3-point manual registration tools to join neighboring scans, then use global alignment to tighten the fit.

Stop jumping through hoops. Geomagic Capture solves the problem of having to deal with multiple vendors when scanning a part into CAD or graphics software. It is fully integrated with Geomagic Studio,[®] which offers solutions for polygon editing (Geomagic Wrap[®]), automated surfacing (Geomagic Shape[®]), and polygon reduction (Geomagic Decimate[®]). It can also

be teamed with Geomagic Qualify,[™] Raindrop's software that allows automatic inspection of CAD files or built parts that are out of tolerance.

Open a gateway to 3D photography. Geomagic Capture uses a simplified process that resembles photography rather than 3D modeling, which requires specialized skills. 3D photography enables you to easily turn physical objects into digital assets for design, engineering, customized manufacturing and web-based marketing.

Go with the acknowledged leader. Since 1996, Raindrop Geomagic has provided the best tools for creating polygon models and NURBS surfaces from scanned point clouds. Manufacturers worldwide – including Toyota, Harley-Davidson, Align and many others – turn to Raindrop Geomagic as their technology partner for mass customization. Minolta, 3D Systems and PTC are among the companies that have selected Raindrop Geomagic as a strategic technology partner.



www.geomagic.com

Geomagic Capture Features

Point Processing

- random, uniform and curvature sampling
- curvature-based hole filling
- noise reduction*
- outlier selection
- shaded point display*

Scan Registration Tools

- 1-point/3-point registration*
- global registration*
- merge*

Polygon Creation / Editing

- wrap triangulation*
- curvature-based hole filling
- make open/closed manifold
- flip orientation

Tools

- delete, crop
- mirroring/scaling
- measure distance
- test intersections

User Interface

- multiple object support
- dockable toolbars
- programmable hotkeys and mouse
- context-sensitive help
- selection tools (area, line, paint, lasso)

Color Data Support

- import/export XYZRGB (ASCII), VRML2 with per-vertex color
- brightness/contrast correction*

File I/O

- import: ASCII, 3DS, DXF, IGES, NAS, LWO, OBJ, PLY, STL, VRML, WRP
- scan import: Steinbichler, Perceptron, Digibotics, Hymarc, Minolta (Vivid), Laser Design
- export: ASCII, 3DS, DXF, IGES, IV, OBJ, OOGL, PLY, STL, VRML

System Requirements

- Operating System: Windows 98, Windows 2000, Windows NT 4.0 Service Pack 4
- CPU: Pentium II 300-MHz or above
- Disk Space: 500 MB or more
- Memory: 128 MB or more
- Display: OpenGL 1.1 or above
- Video Card: 1024x768 resolution, 24-bit color or above; OpenGL 1.1 compliance
- Tested Cards: Wildcat Pro, Wildcat 4000, Oxygen GMX 2000, Oxygen GVX1, Diamond Fire GL1, Asus GeForce 256

*Multi-threaded operations for multi-processor computer systems.

How to Capture It

Geomagic Capture is available to 3D scanner manufacturers for bundling into their devices. It can be purchased by end-users as a standalone product or as part of Geomagic Studio software. For more information, contact Raindrop Geomagic or visit our web site.

www.geomagic.com

Image data collected using a Minolta Vivid 900 laser scanner.