

# Capture™

Integrated, Industrial-Grade 3D Scanner  
and Software Systems



# Capture™

The Capture™ scanners from 3D Systems deliver accurate and fast blue light 3D scanning technology in a portable, lightweight unit that can be hand-held, static and easily combined into a multi-scanner configuration. With the optional ProPack, you can seamlessly add hands free turntable scanning and transport your scanner safely in a high-quality case. The Capture comes in two models, the Capture and Capture Mini, which are integrated with Geomagic reverse engineering and 3D inspection software for rapid and highly accurate scan-to-3D processes.

## Get to market faster with the 3D digital thread

Streamline your workflow, incorporate quality inspection and deliver products to market faster with the power of 3D Systems' complete digital thread. Geomagic Capture delivers a bridge between physical parts and digital software tools for rapid design, engineering, production and quality control. Bring physical objects to CAD, recreate lost or damaged design files, verify dimensions, prepare for 3D printing and manufacture confidently.

## Inspect with confidence and reduce manufacturing errors

Instantly verify the quality of first article, production and printed parts using Geomagic Capture's fast, precise scan-to-CAD 3D inspection system. Fully integrated with the industry-proven Geomagic Control 3D inspection software, Capture's scan-based inspection solution provides precise measurement and fast reporting so you can easily discover design and production issues earlier.

## Add state-of-the-art scanning to your MCAD system

Geomagic Capture works flawlessly with SOLIDWORKS® via plugin and delivers feature-based CAD data to Siemens® NX™, Creo®, Pro/ENGINEER®, Solid Edge and Autodesk Inventor® via the Geomagic® Design X™ LiveTransfer tools.

## Scan faster with multi-Capture scanning

Quickly set up a multi-Capture array, and you can scan and process accurate 3D data even faster. What's more, the software's advanced automation and scripting tools make repetitive inspections easier than ever.

## Rapidly recover lost design data

Lost design data? Have an old part with no drawings? Geomagic Capture lets you quickly and easily recreate CAD data for highly complex and broken parts in one seamless scan-based design workflow. From there, you can go directly to 3D printing or manufacturing.

## Design from the world around you

Geomagic Capture ushers in a new design paradigm where existing objects provide inspiration for innovative new products. Improve upon, learn from, customize and reuse the designs that surround you every day.

## Reduce costs and increase efficiency

Complete Geomagic Capture systems, including integrated Geomagic software, cost less than other professional 3D scanners. For the first time, you can get the accuracy, the scanning envelope and the advanced software you need from a single vendor.

## Software Options

Geomagic Capture is delivered with a choice of powerful software for scan-based design, reverse engineering and 3D inspection.

### **Dx** Geomagic Capture for Design X

#### The ultimate in 3D scan-to-CAD solutions

- Scan directly into Geomagic Design X
- Easily handle massive mesh and point cloud data alignment, processing and refining, plus mesh construction
- Advanced and easy-to-use mesh editing toolsets
- Rapidly create feature-based solids or surfaces like you would in CAD
- Automated Accuracy Analyzer™ tools compare and validate surfaces, solids and sketches against original scan data
- Native output to SOLIDWORKS, NX, Autodesk Inventor, Creo, Pro/ENGINEER, Solid Edge and AutoCAD

### **W** Geomagic Capture for Wrap

#### Scan it, mesh it and surface it in minutes

- Scan into Geomagic Wrap
- Industry-leading, accurate and easy-to-use point cloud and mesh editing tools for a perfect 3D model
- Automatic surfacing plus advanced exact surfacing tools
- Create an automated data processing pipeline with macros and scripting tools
- Extract curves and primitive shape information to use downstream
- Save to multiple neutral file formats for archive, 3D printing and more

### **Gs** Geomagic for SOLIDWORKS

#### Plug-in software to enhance your existing CAD system

- Scan directly into SOLIDWORKS
- Utilize the industry-leading scan processing tools from Geomagic for:
  - Efficient, fast mesh and point cloud handling inside SOLIDWORKS
  - Mesh repair and polishing
  - Automated feature-based solid and surface extraction from the 3D scan
  - Validation of surfaces and solids created against the original scan data for accuracy

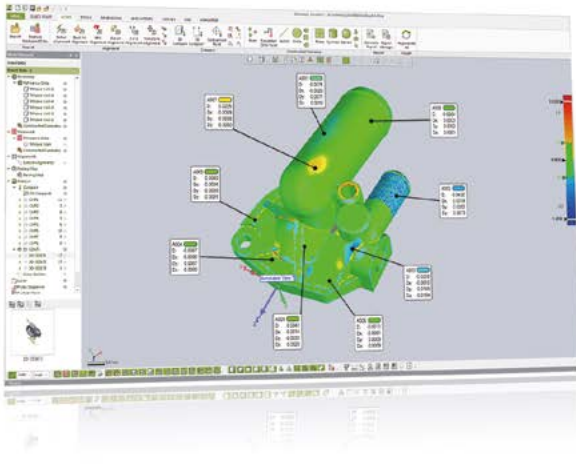
### **Cx** Geomagic Capture for Control X

#### Advanced 3D inspection and metrology solution

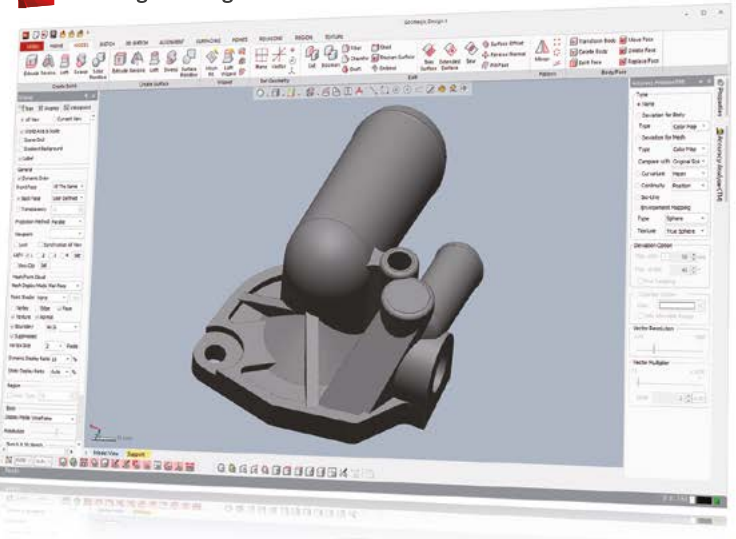
- Scan directly into Geomagic Control X
- Instantly analyze part accuracy compared to existing CAD data
- Automate data processing and analysis with macros and scripting tools
- Analyze part shape and form and check geometric controls with our GD&T and PMI tools.
- Rapidly create PDF reports for sharing with engineering teams

Bring physical objects directly into CAD, supercharge your product development process, and automate precise 3D inspection with Geomagic Capture®—the powerful, integrated, industrial-grade 3D scanner and software system

#### Cx Geomagic® Control X™



#### Dx Geomagic® Design X™



## Key Features

- Choice of 2 professional-grade, high-definition scanning devices
- Simple to set up and use
- Accurate scanning to as little as 0.034mm
- Integrated turntable add-on for hands-free scanning (optional)
- Bundled with industry-leading Geomagic scan-based design and 3D inspection software
- Automated scanning options
- Multi-scanner configuration options
- Supports scanning direct into SOLIDWORKS and transfers 3D data to other mainstream MCAD platforms through Geomagic Design X
- Fast, precise 3D inspection

## Enhance your scanning with the Geomagic Capture ProPack

The Geomagic Capture ProPack gives you the power of portable hands-free 360° scanning. This all-in-one addition to your Geomagic Capture scanning experience includes a powered, fully automated rotary turntable plus fixturing arms to hold parts in place. It's secured in a form-fitting hard case that has spaces to include your Geomagic Capture scanner and tripod.



# Scanner Options

Geomagic Capture and Capture Mini allow you a choice of field of view sizes and accuracy.



PROPERTY	CAPTURE	CAPTURE MINI
Dimensions (L x W x H)	276 x 74 x 49 mm	155 x 109 x 49 mm
Weight	1.35 kg	1.04 kg
Depth of Field	180 mm	70mm
Stand-off Distance	300 mm	157 mm
Field of View	124 x 120 mm (near) 190 x 175 mm (far)	87 x 68 mm (near) 88 x 87 mm (far)
Data Capture Rate	985,000 points/scan (0.3 sec per scan)	985,000 points/scan (0.3 sec per scan)
Accuracy	0.060 mm	0.034 mm
Resolution	0.110 mm at 300 mm; 0.180 mm at 480 mm	0.080 mm at 157 mm; 0.100 mm at 227 mm
Computer Requirements	Gigabit Ethernet interface, 4 GB Memory or greater, 512 MB Video Card or better	

## About OR3D

OR3D is a premier partner with 3DSystems, providing CAD, reverse engineering and inspection software tools through the range of Geomagic products. As the UK's main accredited training partner to 3D Systems, we supply and provide training for Geomagic Design X, Geomagic Control X, Geomagic Freeform and Geomagic Wrap.



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