VERSATILE AND EASY-TO-USE 3D LASER SCANNERS
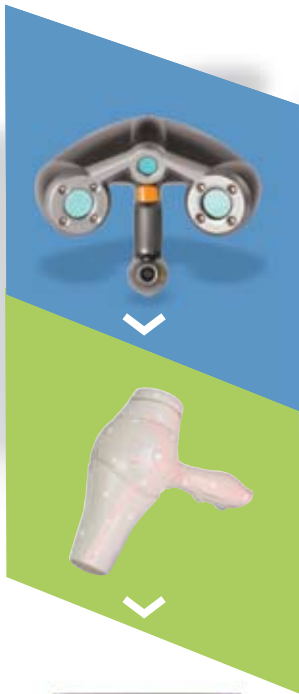
A WORLD OF APPLICATIONS

Z Corporation, producers of the industry's fastest, easiest-to-use and most versatile 3D scanners, makes 3D scanning ideal for a wide variety of environments and applications. The ZScanner family of 3D scanners is the industry's first handheld, self-positioning 3D scanner solution, making hard-to-reach surfaces readily accessible to scanning. From reverse engineering to packaging and digital archiving, Z Corporation's ZScanners meet the needs of many specialized applications, including:

REVERSE ENGINEERING

Create aftermarket product designs with speed and accuracy.

PACKAGING DESIGN

Design custom packaging by scanning product samples for exact geometry and texture data.

ERGONOMIC DESIGN

Readily scan handcrafted samples to produce complex designs from scratch.

PARTS INSPECTION

Capture, align and compare data to increase quality control both on the factory floor and in the field. ZScanners add value to a host of inspection applications, including casting verification, mould verification, the ability to determine wear/damage/originality comparisons and more.

DIGITAL ARCHIVING

Save money by digitally storing tooling, samples and prototypes.

DIGITAL MEDIA, GAMING AND ANIMATION

Produce digital media for computer games and movies from artist concept models.

ARTS AND CULTURAL HERITAGE

Generate high-resolution, low-impact scans for accurate restorations and reconstructions of priceless artwork and architecture; document, research and replicate art masterpieces for transportation, packaging, museum shops and historical archiving.

EDUCATION

Enhance the learning process across many disciplines, from engineering and architecture to the arts. Medical students, for example, can create highly detailed reproductions of complex organs and bone structures.

MEDICAL ORTHOSIS

Make custom-designed braces and other devices for precision comfort.

HOW Z CORPORATION SCANNER TECHNOLOGY WORKS

Connect the ZScanner® to your laptop with FireWire™ and add the reflective targets to the object. Quickly calibrate and start scanning.

Because it is a handheld device, ZScanners easily capture a complete scan of any object, at any angle, in any location.

ZScan® software creates a polygon mesh of the object's surface in real time so you can see what has and has not been scanned as you go.

EASY TO USE —
ANYONE CAN 3D SCAN

In just minutes, engineers, industrial designers, students and artists will be up and running with ZScanner technology. Handheld ZScanners have unprecedented flexibility, capturing virtually any object anywhere, allowing parts to be moved in mid-scan, and real-time surfacing that shows progress as you go, revealing hidden spots and ensuring a complete scan the first time.

VERSATILE —
USE ZSCANNERS ANYWHERE

Portable and lightweight, ZScanners are ideal for use in confined spaces, have no limit to the size of the parts that can be scanned, and can scan parts of any color. ZScanners eliminate the need to search for the "best fit" of multiple scans, saving time and improving accuracy.

AFFORDABLE —
MINIMAL INVESTMENT REQUIRED

ZScanners do not require the purchase of an expensive CMM, measuring arm, or external reference additive. ZScanners require virtually no setup time and have no mechanical parts that can cause significant downtime and require costly maintenance.

ACCURATE —
HIGH QUALITY DATA ACQUISITION
THE FIRST TIME

ZScanner technology is based on a surface optimization algorithm that helps ensure data quality. The more an object is scanned, the more accurate the data acquisition becomes. Conversely, with traditional scanning technology, the quality of the data suffers the more the engineer scans and the more those scans overlap.

A SOLUTION TO MEET YOUR NEEDS

Z Corporation 3D scanners are ideal for all application environments, from education and the fine arts, to the most demanding design and manufacturing applications that require the highest resolution possible.

ZScanner® 600
The Most Affordable, Portable, 3D Laser Scanner

The ZScanner 600 extends Z Corporation's fast-growing line of uniquely handheld, self-positioning scanners, providing high-resolution 3D data capture to a broad base of users at a value price.

ZScanner® 700
The First Self-Positioning, Real-Time Surfacing, 3D Laser Scanner

The ZScanner 700 is the first truly portable laser scanner. This state-of-the-art 3D scanner helps engineers improve design and inspection throughout the manufacturing process. Connected to a laptop via a single FireWire cable, setup is quick and scanning objects is easy, fast and accurate.

ZScanner® 700 CX
World's First Handheld Color 3D Laser Scanner

The ZScanner 700 CX extends the proven, handheld ZScanner 700 platform by providing data capture in full color for more realistic and informative concept models and 3D visualization. The ZScanner 700 CX is suitable for a range of applications, from product design, cultural heritage, anthropology, archeology and art applications to digital archiving, animation, packaging, medical orthosis and education applications.

- True color acquisition
- Automatic, 100% accurate texture mapping
- Adjustable and uniform texture resolution
- Optimal file size
- Dual scanning mode

ZScan® Software
Speed and Automate the 3D Scanning Process

ZScan software automatically produces an .stl file for import into a 3D CAD software package or output to a 3D printer. ZScan software features an easy-to-use, intuitive interface, provides real-time processing from scanned data to mesh, and allows you to increase or decrease mesh resolution without having to rescan.

- Customize 3D controls to imitate other 3D applications
- Automatic decimation for optimized mesh output
- Windows XP and Vista 64-bit support

The ZScanner product family brings speed, ease of use, accuracy and unprecedented versatility to 3D scanning.

ZScanner® 700 PX

The Only Handheld 3D Laser Scanner with Large-Scale Photogrammetry

The ZScanner 700 PX combines the portability and ease of use of the award-winning ZScanner 700 platform with built-in, consistent photogrammetric accuracy, for up to eight times greater accuracy when scanning very large parts such as automobiles and aircraft. The ZScanner 700 PX is suitable for reverse engineering and inspection applications, as well as 3D archiving, complex shape acquisition, measurements archiving, and damage assessment.

- Built-in AICON™ photogrammetry software provides photogrammetric processing, control software for post-processing and reporting, automatic calibration, automatic referencing, adapter correction and feature measurement
- Eliminates leapfrogging and multiple setups, preventing exponential error accumulation
- ZScanner 700 PX provides an unlimited and configurable working volume
- Scanning and photogrammetric data is automatically stored and processed in just one step
- A Decimate Triangles slider enables higher resolution while maintaining larger triangles on flat surfaces for smaller .STL files
- Portable, light weight, with easy plug-and-play set up

ZScanner® 800

High-Resolution 3D Scanner for Demanding Application Environments

The ZScanner 800 includes all the capabilities of the ZScanner 700, plus higher resolution and accuracy suitable for demanding 3D inspection applications as well as reverse engineering, design, manufacturing, digital mockups and simulations.

- Provides 5X the resolution and 2X-3X the accuracy of the ZScanner 700
- A third high-definition camera increases scanning resolution and accuracy within 40μm (microns) and detects changes in surface height down to 50μm
- Employs the first-ever automatic, multi-resolution function that self calibrates the resolution based on the type of surface being scanned
- Uses a simple, push-button activation for high resolution mode

ZScanner® Product Line

	ZScanner® 600	ZScanner® 700	ZScanner® 700 CX	ZScanner® 700 PX	ZScanner® 800
Overview	Economical, handheld, portable, easy to use	Handheld, portable, easy to use, professional accuracy	Color, handheld	Large-scale, AICON photogrammetry, portable, easy to use	Benefits of ZScanner 700, plus 5X higher resolution
Applications	Design, manufacturing, cultural heritage	Reverse engineering, design, manufacturing, digital mockups, simulations	Reverse engineering, design, manufacturing, digital mockups, simulations, digital archiving, animation, packaging, medical orthosis, education, cultural heritage, art applications	3D scanning very large objects, reverse engineering, 3D inspection	Reverse engineering, design, manufacturing, digital mockups, simulations, 3D inspection applications
Weight	0.98 kg 0(2.1 lbs)	0.98 kg (2.1 lbs)	1.3 kg (2.85 lbs)	1.27 kg (2.80 lbs)	1.25 kg (2.75 lbs)
Dimensions	160 x 260 x 210 mm (6.2 x 10.2 x 8.2 inches)	160 x 260 x 210 mm (6.2 x 10.2 x 8.2 inches)	172 x 260 x 216 mm (6.75 x 10.2 x 8.5 inches)	172 x 260 x 216 mm (6.75 x 10.2 x 8.5 inches)	171 x 260 x 216 mm (6.75 x 10.2 x 8.5 inches)
Sampling Speed	18,000 measurements per second	18,000 measurements per second	18,000 measurements per second	18,000 measurements per second	25,000 measurements per second
Laser	Class II (eye safe)	Class II (eye safe)	Class II (eye safe)	Class II (eye safe)	Class II (eye safe)
Number of Cameras	2	2	3	3	3
XY Accuracy	Up to 80 microns (up to 0.003 inches)	Up to 50 microns (up to 0.002 inches)	Up to 50 microns (up to 0.002 inches)	Up to 50 microns (up to 0.002 inches)	Up to 40 microns (up to 0.0015 inches)
Resolution	0.1 mm in Z (0.004 inches in Z)	0.1 mm in Z (0.004 inches in Z)	0.1 mm in Z (0.004 inches in Z)	0.1 mm in XYZ (0.004 inches in XYZ)	0.050 mm in XYZ (0.0019 inches in XYZ)
ISO	50 µm + 250 µm/m	20 µm + 0.2 L / 1000	20 µm + 0.2 L / 1000	20 µm + 25 µm/m	20 µm + 0.1 L / 1000
Texture Resolution			50 to 250 DPI (user-configurable)		
Texture Color			24 bits, sRGB-calibrated		
Depth of Field	30 cm (12 inches)	30 cm (12 inches)	30 cm (12 inches)	30 cm (12 inches)	30 cm (12 inches)
Exported File Formats	.DAE, .FBX, .MA, .OBJ, .PLY, .STL, .TXT, .WRL, .X3D, .X3DZ, .ZPR	.DAE, .FBX, .MA, .OBJ, .PLY, .STL, .TXT, .WRL, .X3D, .X3DZ, .ZPR	.DAE, .FBX, .MA, .OBJ, .PLY, .STL, .TXT, .WRL, .X3D, .X3DZ, .ZPR	.DAE, .FBX, .MA, .OBJ, .PLY, .STL, .TXT, .WRL, .X3D, .X3DZ, .ZPR	.DAE, .FBX, .MA, .OBJ, .PLY, .STL, .TXT, .WRL, .X3D, .X3DZ, .ZPR
Regulatory Compliance	CE	CE	CE	CE	CE
Data Transfer	FireWire	FireWire	FireWire	FireWire	FireWire
Power Source	FireWire	FireWire	FireWire	FireWire	FireWire
Laptop Compatibility	Intel®, Core™ 2 Duo processor, 2GB RAM, NVIDIA Quadro NVS 320M graphics (256 MB dedicated video memory) required with Windows Vista® Business or Windows® XP Professional	Intel®, Core™ 2 Duo processor, 2GB RAM, NVIDIA Quadro NVS 320M graphics (256 MB dedicated video memory) required with Windows Vista® Business or Windows® XP Professional	Intel®, Core™ 2 Duo processor, 4GB RAM, NVIDIA Quadro NVS 320M graphics (256 MB dedicated video memory) required with Windows Vista® Business 64-bit or Windows® XP Professional 64-bit	Intel®, Core™ 2 Duo processor, 4GB RAM, NVIDIA Quadro NVS 320M graphics (256 MB dedicated video memory) required with Windows Vista® Business 64-bit or Windows® XP Professional 64-bit	Intel®, Core™ 2 Duo processor, 4GB RAM, NVIDIA Quadro NVS 320M graphics (256 MB dedicated video memory) required with Windows Vista® Business 64-bit or Windows® XP Professional 64-bit
Package Software	ZScan® Lite	ZScan®	ZScan®	ZScan®	ZScan®