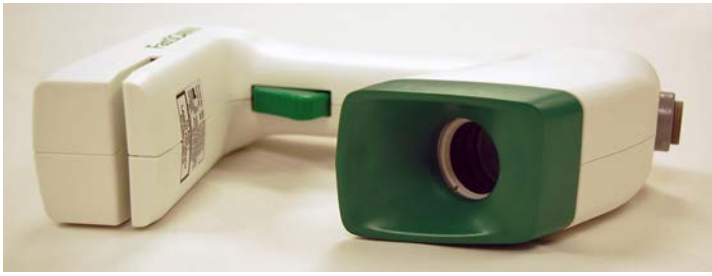
POLHEMUS
FIRST IN THE THIRD DIMENSION®

FASTSCAN II

THE ULTRA-PORTABLE DIGITAL SCANNER



INSTANT 3D SCANNING

FastSCAN II instantly measures 3D shapes by simply sweeping a handheld wand over an object. The wand is extremely lightweight and an optional rechargeable battery makes the system ultra-portable, making the FastSCAN II flexible, and easy to take on the go for the day. Scanning moveable objects is easier than ever, as the system reference receiver allows you to turn and rotate objects while scanning. FastSCAN II is easy to set up and seamlessly captures complex 3D images in real time. Unpacking to scanning takes less than two minutes.

HOW IT WORKS

Like its predecessor, the original FastSCAN, FastSCAN II projects a fan of laser light on the object while the camera views the laser to record cross-sectional depth profiles. The tracking aspect is achieved through embedded Polhemus proprietary electromagnetic motion tracking technology, which determines position and orientation of the wand. After a few sweeps, the finished scan is then ready to be exported to a host of popular 3D modeling, graphics, and CAD programs, or used within the included FastSCAN software.

FEATURES

AUTO STITCHES 3D IMAGES AS YOU SCAN—Scans stitch together in real-time, eliminating post-processing or the need to place registration marks on the object

EXPORTS TO INDUSTRY STANDARD FORMATS—More than a dozen export formats included

SURFACE EDITING—Select and delete raw data points from sweeps, allowing for raw scan modification

METRIC OR IMPERIAL UNITS—Allows for measurements in main display window to be calculated in millimeters or inches

PORTABILITY—Each handheld unit includes a compact carrying case for traveling and is available with a battery power portability kit

APPLICATIONS

- Orthotic and Prosthetics (OEM)
- Agriculture
- Woodworking
- Rapid Prototyping
- Forensics
- Animation
- 3D Digital Archiving
- And More!

RESEARCH

MEDICAL

TECHNOLOGY

SYSTEM OPTIONS

RBF SOFTWARE ENHANCEMENTS

- Automatic hole filling
- Smooth extrapolation of surfaces
- Mesh simplification while preserving scan detail
- Mesh is characterized by more uniform triangles

REFRACTION CORRECTION

Optical glass distortion correction that makes scanning through glass more accurate by mitigating refractive error

AAOP FILE FORMAT

O&P file format used with third party orthotic and prosthetic manufacturing software

SPECIFICATIONS

INTERFACE

USB

SOFTWARE

Flexible and intuitive, the FastSCAN II software allows the user a variety of options, such as adjusting scanning resolutions, linear measurements, customizing scan sweeps and controlling 3D views such as solid, wireframe or point and rotate, zoom, center and scale. Stylus mode for pinpoint reference marks on digitized surface.

Export formats to 3D Studio Max® (.3ds), ASCII (.txt), AutoCAD® (.dxf), IGES® (.igs), LightWave® (.lwo), MATLAB® (.mat), STL (.stl), Virtual Reality Modeling Language (.wrl), Wavefront® (.obj), Open Inventor® (.iv), Visualization Toolkit (.vtk) Polyworks® Scan (.psl), Stanford Polygon (.ply), RBF (.gxt) and optional AAOP file format

RESOLUTION

Resolution between points within the raw point cloud can be wand-to-object/reference receiver dependent and is typically as good as 0.01 mm (0.0004 inches)

SCANNING SIZE

Radius of object up to 50 cm (20 in)

ACCURACY

Practical accuracy determined by scanning a bowling ball and calculating the variation in radius over the point cloud surface: 0.18 mm (0.007 in) RMS error

COMPUTER REQUIREMENTS

- 1 GB RAM or greater
- 2 GHz Intel Pentium IV or greater
- Windows Vista® SP2 32 or 64 bit OS or later
- USB 2.0 or 3.0 port

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CLASS 1
LASER PRODUCT
IEC 60825-1:2007-03

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