



The **FotoScan 3D**^(TM) Foot Scanner – a comprehensive foot scanning and measurement system



FotoScan 3D is a unique scanning system that creates instant 3D digital casts and delivers accurate and repeatable foot measurements.

A FotoScan 3D foot scan is a quick and simple photographic process, taking only a few seconds per foot. The result is a 3D digital cast, accurate to within 0.5 mm, that can guarantee the provision of high quality footwear and orthotics.

Uniquely, FotoScan 3D digital casts can also be displayed and saved in full colour. So as well as obtaining the detailed foot shape, you can also accurately measure and monitor ulcers and other serious skin conditions.

Leading-edge technology...

The FotoScan 3D foot scanner is the result of over 10 years of British research and development. It combines a practical, open platform hardware design with the most advanced stereophotographic software technology, to automatically create precise 3D images of the human foot from instant photographic scans.

Unlike complex and fragile laser-based systems, FotoScan 3D is a completely solid-state device that operates in normal lighting conditions. Instead of lasers, it uses a fixed system of cameras and projectors to capture simple digital images of the foot. Its 3D software then converts those photographs into highly accurate 3D foot models in a fast and fully automatic procedure.

A key benefit of FotoScan 3D is the 3D colour images it produces. This allows a deeper understanding of the digital foot shape for shoe and orthotic manufacture, improving quality and fit of medical devices. It also makes it possible to measure and monitor skin conditions, such as ulcers, and maintain records of treatment effectiveness.

Easy to use...

FotoScan is as easy to use as a digital camera. The customer or patient stands on the platform and places one foot on the transparent plate in the centre. The operator clicks the Scan button, the foot is illuminated and the photographs taken. The whole process is fully automatic and takes around 4 seconds. You simply repeat the process for the other foot and the scanning operation is complete.

Creating a 3D digital cast from the scans is a one click operation that can be done with or without the presence of the patient. The data is then instantly available for examination and measurement.

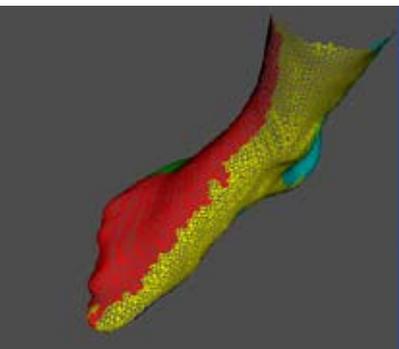
Accurate and flexible...

FotoScan 3D digital casts are accurate to within less than half a millimetre (0.5 mm). The clinician can therefore be totally confident of any measures obtained from the foot scan, as can the shoe or orthotic manufacturer.

FotoScan 3D is also a very flexible and versatile system. It can scan bare feet of any skin colour and any colour of sock or stocking. It will also scan foam boxes, plaster socks and casts. It is largely impervious to lighting conditions and can be used reliably in darkened rooms or brightly lit environments.

Ergonomically, the scanner is designed to be easy to stand on and safe to move around. Its open platform design makes it easy to place the foot in a corrective position and allows the operator to ensure that the most useful 3D digital cast is obtained.

FotoScan 3D foot scanners are used in clinics throughout the world and have a proven track record in the delivery of major improvements in the provision of custom footwear and orthotics.



FotoScan creates a full colour 3D image of the foot as well as accurate CAD data

"We have found FotoScan to be the most effective foot scanning solution on the market. It delivers excellent results and has helped revolutionise our shoemaking business"

FROMME ORTHOPADIESCHUHTECHNIK, GERMANY.



Precise foot measurement capabilities...

The FotoScan 3D Measure system is supplied as standard with the FotoScan 3D foot scanner. This powerful application allows you to directly measure a full colour digital cast using a range of measurement types, including:

- 2D – such as stick length, ball width, etc
- 3D – ball girth, instep, short heel, etc
- 3D line – allowing a combined measure of length and depth

These measures are consistent, repeatable and accurate to within 0.5 mm. This makes FotoScan 3D a perfect tool for obtaining reliable measures for stock or modular footwear.

Accurate and detailed wound measurement...

A key feature of FotoScan is the detailed full colour 3D data it produces. Combined with the FotoScan 3D Measure program, this means that you can accurately measure and record wounds and any other serious skin conditions.

The scanner will capture both the area and depth of the wound. The 3D line measures allow you to record depth and size of wounds from a range of angles, accurate to within 0.5 mm. The measures taken can then be saved with the scan, and compared against previous scans and measures. This capability makes FotoScan 3D a uniquely valuable method of monitoring wound treatment over time.

Digital casts for custom footwear and orthotics...

FotoScan 3D captures the complete foot in 3D, including the plantar surface. It can also scan foam boxes and plaster socks. As a result its 3D digital casts can be directly used in the manufacture of both footwear and custom insoles.

The benefits of using digital data in these areas are enormous. Its accuracy means that shoes and orthotics can be manufactured to a far higher standard of fit than through the use of traditional measurements and casts. Some shoemakers, for example, are now achieving a **98% first-time fit rate for custom orthopaedic shoes**, far beyond anything that has been achieved before and with huge benefits to both clinics and patients.

Digital data also means easy access to the worldwide market of footwear and orthotics. Digital casts can be emailed to labs and manufacturers anywhere in the world, allowing the clinician to take advantage of the most attractive technologies, products and prices in a global marketplace.



Technical Specification

▲ Camera/Projection

- Firewire high resolution digital cameras
- 50 watt texture projectors
- 35 watt render projectors
- Parallel port interface
- Firewire port interface

▲ Dimensions

Width	100 cm
Length	100 cm
Platform height	25 cm
Corner height	50 cm
Weight	45 Kg
Max load	200 Kg

▲ Electrical

- 110 or 240 volt
- 12 volt internal

▲ Scan Volume

Length 35 cm, Width 17 cm, Height 17 cm

▲ Software

- Automatic projector/camera control
- Multiple settings for skin/sock colour
- Single button foot scan
- Automatic 3D model building
- Two build modes
- Integrated 3D viewer
- View wireframe, slice or full colour
- Export to VRML, DXF, STL and RAW formats
- Keyboard/mouse interface
- Touch screen interface
- Fully configurable camera and 3D build settings
- FotoScan 3D Measure program

▲ System Requirements

- Microsoft Windows 2000/XP/Vista/Windows 7
- 1.8 GHz
- 512 MB RAM

▲ Warranty

12 months parts and labour

Precision 3D Limited
 Unit 53, Lynx Crescent
 Weston Industrial Estate
 Weston-super-mare BS24 9DJ
 United Kingdom

Tel. +44 (0)1934 633900
 sales@precision3d.co.uk
 www.precision3d.co.uk