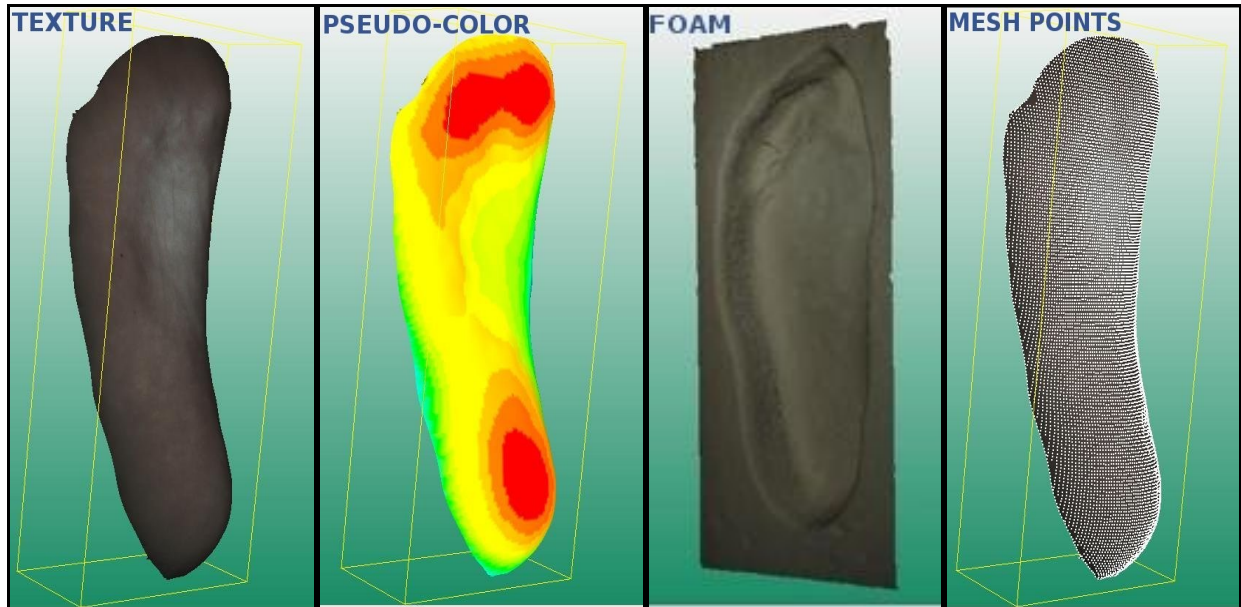
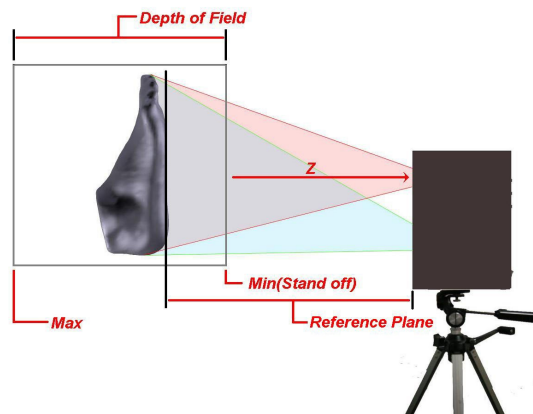


Thank you for your interest in the Vismach 3D **Orthotics** Digitizer.

The true 3D Capture System which works the way you do!



Capture the foot directly, or digitize foam impressions, casting socks, or plaster slipper casts.



Vismach 3D Orthotics Digitizer on a convenient tripod setup.



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www.vismach.com 2009-6-30

SPEED + ACCURACY + QUALITY = HIGHER PRODUCTIVITY

There are quite a few 3D technologies available in the market place. As 3D experts, we demonstrate the pros/cons of each technology, and why the Vismach 3D Orthotics digitizer delivers the best overall performance.

Technology	Speed	Accuracy	3D Mesh Quality
Vismach Pattern Projection	0.1~0.5 Sec.	High	High
Laser Scanning	3~10 Sec.	High	High
Flatbed Scanner	3~10 Sec.	Low	Low
Pressure Sensing	Not a 3D Measurement Technology		

ESTABLISHED SCIENCE + LONGER SERVICE LIFE

The Vismach 3D Orthotics Digitizer employs active “triangulation by fringe pattern projection”, which is a mature technology. It is widely used in 3D face, foot, body digitizing as well as industrial measurement and reverse engineering. A number of highly respected companies around the world offer 3D digitizing solutions based on structured light projection. It is **fast, accurate**, and generates **high quality 3D mesh**. It has **no moving parts** to wear out or require maintenance.

SAFE TECHNOLOGY

The Vismach system is **safe** on the eye because we use white light, not laser.

OTHER TECHNOLOGIES HAVE SOME DOWNSIDES

Laser scanning scans a line of laser light across the foot to generate 3D mesh. It is an accurate method to scan stationary objects. However, when you try to scan foot with a laser line, any minute movement by the patient or the practitioner's hands holding the patient's foot will compromise scanning accuracy. Try holding your hands out perfectly still for 3-5 seconds, and you will see that you should introduce 1/2 inch (12mm) of movement easily. It's even worse when you are holding the patient's foot at the same time.

Recently, something that works like a flatbed scanner came on the scene, which scans the bottom of the foot and tries to generate three dimensional data based on the idea that the depth info can be deduced from contrast/shades. This method is called “shape from shading”; and, could work on some perfect (Lambertian Reflectance) surfaces under perfect conditions; but, **not** on real feet with all the variables involved. The result is generally low quality 3D mesh quality.

Then, there is “pressure sensing technology”, which has nothing to do with 3D measurement.

Although sometimes you will see a nice pseudo-color display as shown above, there is really no way to generate a 3D mesh based on a pressure distribution map.

THE VISMACH 3D Orthotics DIGITIZER SYSTEM



Package Contains:

- Vismach 3D Orthotics Digitizer Unit
- Vismach 3D Reconstruction Software
- Product documentation on CD
- Universal Power Supply (110-220V)
- USB Connection Cable
- Optional Carrying Case (Better protection, also serve as a temporary tripod)
- Optional Foot Switch (Free practitioner's hands from the computer mouse)
- One year limited warranty, parts & labor.

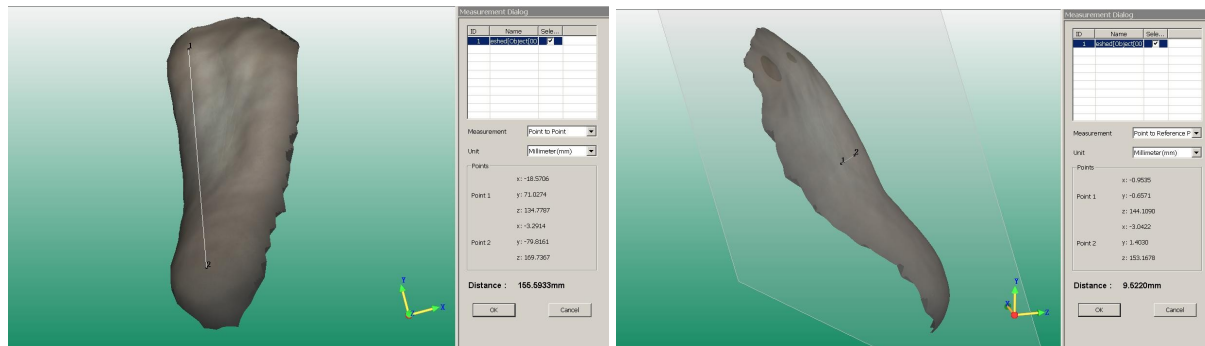
UNMATCHED VERSATILITY!

The Vismach 3D digitizer works with Windows **XP** or Windows **Vista** (32 bit). Output 3D file formats include **OBJ**, **STL**, **DXF**, **3DS**, **ASC** (Point File), **VRML2.0**, **NET** (Inspect), **VGG** (Vismach proprietary).

We will provide central fabricating orthotics labs with a **custom encrypted 3D file format** to secure client clinic's business. In this setup, the lab will receive both the LAB version and the Clinic version of the software, with the Clinic version only able to save to the lab-specific 3D encrypted file, and the LAB version being able to decrypt the 3D files. Vismach employs an industrial strength encryption scheme, and the encrypted 3D files are not readable by any other 3D software.

Each Vismach 3D digitizer is tested individually to ensure an accuracy of **0.5mm (0.02 inch)**. if you consider the shrinkage associated with plaster casting and casting socks is usually more than 1mm or 3%; and, the additional error incurred when these physical casts are again digitized (scanned) at a orthotics lab, you can be confident that the Vismach 3D digitizer provides superior accuracy for foot orthotic applications.

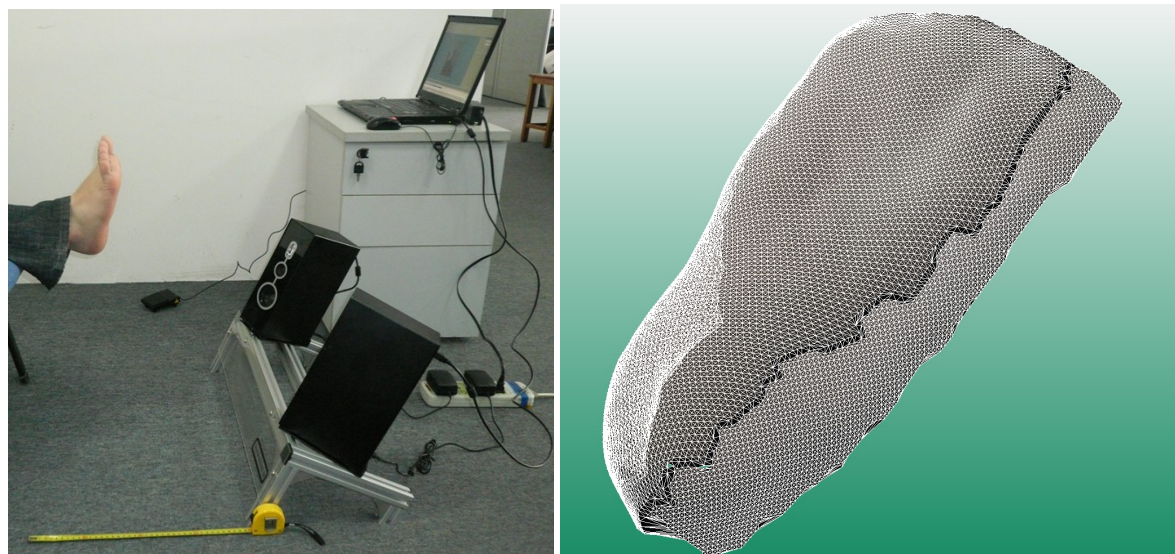
The Vismach software also supports linear measurement functions:



Linear measurements between two points and arch height measurements.

Need Digital Images for a UCBL ?

Vismach even offers the solution for labs or clinics which require a high number of UCBL type orthotics. The **Dual-Unit** setup is specially designed for this purpose.



The dual-unit setup brings the game of 3D scanning to a more sophisticated level. Vismach is the first solution provider in 3D plantar surface capture to deliver a build-in **3D mesh registration** and **merge** function. Due to advanced nature of this setup (although the process is just a few simple steps), we only recommend this solution to customers after they gain some level of understanding of 3D registration and merge.

Specification Sheet:



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Application	Acquiring 3D digital model of naked plantar surface without toes, under non-weight bearing condition with subtalar joint in neutral position. Also captures foot wearing nylon stocking (with toe area). Can digitize plaster casts, foam impressions, and casting socks.
Lighting	Relatively dim office lighting, diffusive and homogeneous. No darkroom required.
Standoff	400mm (16 inch) nominal, 350mm (14 inch)~530mm (21 inch) range
Acquisition Time	0.1 second for 3D geometry. 0.5 second including color texture captures.
Accuracy	0.5 mm or 0.02 inch in X, Y, Z directions.
File Format	OBJ; STL; DXF; 3DS; ASC; VRML 2.0; NET (Inspeck); VGG (Vismach proprietary)
Operating System	Windows XP; Windows Vista (32 bit)
Computer	Pentium-4 1GMhz or above, Memory 512M or more.
Power supply	90~264V 50/60HZ AC power, worldwide compatibility
Size	280 X170 X 90 mm or 11 X 6.7 X 3.5 inch
Weight	3.0 Kg or 6.6 lb
Package Includes	<ol style="list-style-type: none"> 1. Vismach 3D Orthotics Digitizer hardware unit 2. Power adaptor 3. USB connection cable 4. Installation CD or USB drive (Installation software, User Guide, and Tutorial)
Options	<ol style="list-style-type: none"> 1. USB foot-switch (to free practitioner's hands from the mouse). 2. Study carrying case (protection during transport and temporary tripod). 3. Dual-Unit aluminum frame.
Customization	<ol style="list-style-type: none"> 1. Custom Orthotics digitizer appearance 2. Custom software graphic interface 3. Custom 3D VGG file format encryption to allow a LAB control over Clinics. 4. Other special request projects.

Vismach is positioned as a 3D digitizing, 2D image processing, and computer graphics company. We depend on local partners to market our products and provide daily support to end-customers. As such, we are highly flexible in terms of delivery **customized OEM products**. And our cost structure highly competitive.

THE BOTTOM LINE

Individual practitioner's should contact us to find out how to own your own low cost system today, without the hassle and expense of royalties, and renewable licenses. Use the Vismach System to replace most or all plaster and foam; and, keep more of your own money!

Fabricating Labs should contact us to find out how to have **your own brand-name 3D Orthotics Digitizing** system without the risk and expense of development. You now have the tools you need to build a loyal and secured client base. Plus, the vast improvement in turn around time, will enable you to expand your geographic reach as far as you wish. Vismach has the technology and experience to help you in the development of the business model of your choice.