

**NEW
3D scanner**

SMARTTECH 3D
Optical measurement systems

SCAN3D med

- 3D scanners for medical applications and much more...

The most innovative technology dedicated
to the digitization of human body.

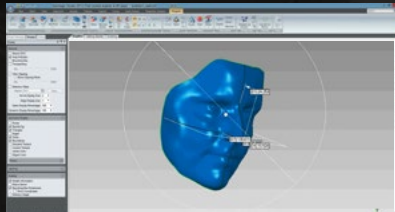


**WHITE LED light
technology**

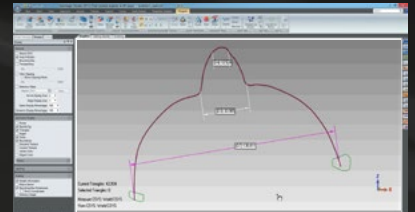
Single scan in 0,7 second



Cloud of points with XYZ coordinates and
RGB color - raw scanned data



3D model for plastic surgery planning



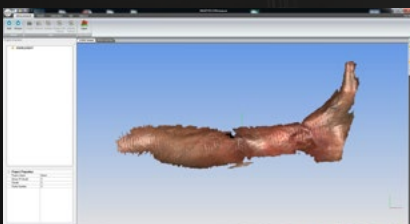
Virtual dimensioning of 3D scanned model

MEDICINE

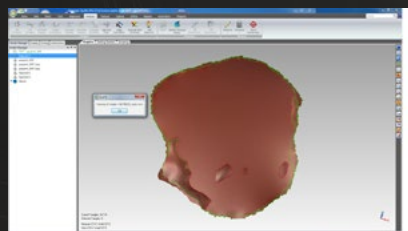
The latest generation of scan3D is a complex digital solution dedicated to achieve accurate and colorful representation of a scanned body. The 3D scanner operates in a very safe measurement technology using white structured-light which allows the scanned person to feel comfortable and at ease during the process.

The result of the 3D scanning enables us to do, for example, a quick plan of an operation, a detailed dimensional analysis of skin lesions, a project of prosthesis or to create a visualisation.

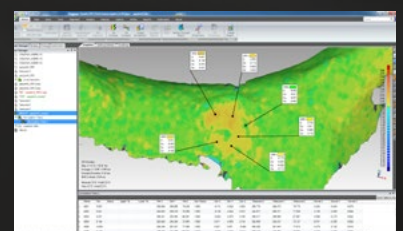
Using the panoramically merged results we can create a virtual model of the body enabling us to do all types of measurements and become very helpful during the treatment planning.



Color model of a wounded leg
- result of 3D scanning



Calculating the surface of wounds
and measuring the amount of missing skin



Analysis of the healing process

SECURITY AND IDENTIFICATION

The 3D scanning technology can be also used in the security sector. New methods of identification based on the characteristic shape of body parts are now possible thanks to the colorful and accurate data provided by a 3D measurement. Using a 3D scanner we are able to create a digital archive of suspects, which will not only ease the identification but also allow us to simulate the changes in appearance.

COMPUTER GRAPHICS

The 3D scanner scan3D med, beyond just the medical application, can be also successfully used by CG artists. A color triangle mesh that shows the scanned model can be easily achieved within a few minutes, allowing graphic designers to focus on the animation and creating the environment.

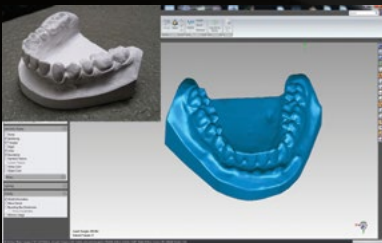
The resulting point cloud can be freely processed depending on the application. All points in the cloud represent the surface of a scanned body with X, Y, Z coordinates and RGB color. This data can be easily transformed to a triangle mesh and saved in an OBJ file format, including the mapped texture.

MAIN ADVANTAGES:

SAFE - the 3D scanning process is based on the technology of white LED structured-light. There is no laser or physical contact involved during the scanning. The detection system is produced in accordance with required safety regulations. The patient will not get any uncomfortable feeling due to the complete contact-less measurement method.



ACCURATE - The applied VDI/VDE 2634 norm sets the standards in the optical 3D scanning process. The scan3D med line is factory calibrated, therefore the digital measurement is metrologically approved. The cloud of points that represents the scanned surface has an accuracy of up to 0.01 mm.



EASY - The scan3D med is ready to work directly out of the case. Using it does not require any sophisticated measurement knowledge from the operator. The intuitive software interface helps provide data analysis with full understanding from the doctor's as well as the patient's side.

FAST - The body measurement has never been so quick. The 3D scanner is able to measure over a million points that represent the scanned surface within 0.7 second. This amount of time can be compared to taking an x-ray photo. Thanks to the new multithreaded SMARTTECH software - the data calculation and analysis can be done during patient's single visit.



3D print of a human face

SCAN3D med x2 - Integrated system of a few 3D scanners

The stationary system of a few integrated 3D scanning units assures the full repeatability of results (which is very difficult for handheld 3D scanners). Additionally this solution enables complete automation of the measurement allowing us to scan hundreds of people per day.

Planning plastic surgeries, designing prostheses monitoring the healing process, creating digital archives or digitizing the actors are just the tip of the iceberg of 3D scanning application. No matter what you are going to use it for - you can be sure that the results will be accurate, patients will be comfortable and astonished by the new technology, and above all, the effects of your work will be even better.



Integrated system of two 3D scanners allows us to make a measurement from different angles

