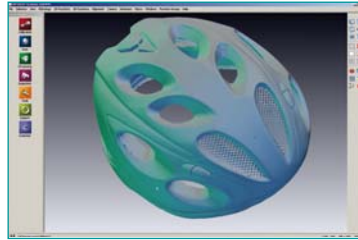
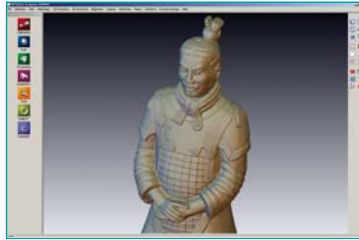


smartSCAN^{3D}

THE NEW 3D DIGITIZATION SYSTEM



The Breuckmann company has the objective to provide our precise 3D metrology technique to an even wider range of users.

Facing this challenge we developed the **smartSCAN^{3D}** for our customers. The new system shall be positioned for target markets interested in reliable digitization tasks. Therefore we see applications for high performance digitization for technical tasks, education, art, cultural heritage – always with the emphasis on creating reliable and accurate data.

The **smartSCAN^{3D}** system is designed to replace our **triTOS** and **optoTOP-SE** systems.

Flexibility

The **smartSCAN^{3D}** sensor setup can be configured either as Duo version with one projection unit and two colour cameras or as Basic version with only one camera. With this design, the system is suited for a wide range of applications. Furthermore the **smartSCAN^{3D}** convinces due to its new, compact design and easy handling.

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Technical Data:

Image Processing	
Host computer	Core™2 Duo, ≥ 2 GHz, ≥ 2 GB RAM, ≥ 60 GB HD, Open-GL-Graphic adapter
Image data interface	IEEE 1394 (FireWire®)
Operating system	Windows XP
Measurement software	OPTOCAT for Windows, alignment of views by means of index marks and object geometry; merging, compression, filtering
Data interface	ASCII, BRE, STL*, PLY*, VRML*
* detailed specification on inquiry	


Sensor	
Principle of operation	Miniaturised Projection Technique
Light source	100 W halogen
Sensor weight	4 kg
Imaging	1 or 2 digital colour CCD-cameras
Digitization	1384 x 1036 pixels per camera
Operating distance	700 mm
Min. depth resolution	from 2 µm (depending on the FOV)
Acquisition time	< 1 s

Accessories	
Host computer	Notebook or Laptop
Tripod	
Calibration	carbon fibre calibration tools

Fields of View: specifications of Duo version

Image diagonal (FOV)	[mm]	90	150	225	300	450	600	 <p>Resolution and accuracy of the stereo version are typically 50% better than the mono version.</p>
X,Y resolution	[µm]	55	90	120	180	270	360	
Resolution limit (Z)	[µm]	1	2	4	6	8	12	
Feature accuracy	[µm]	± 12	± 20	± 30	± 40	± 60	± 80	

Fields of View: specifications of Basic version

Image diagonal (FOV)	[mm]	90	150	225	300	450	600	
X,Y resolution	[µm]	55	90	120	180	270	360	
Resolution limit (Z)	[µm]	2	4	8	12	16	24	
Feature accuracy	[µm]	± 20	± 30	± 45	± 60	± 90	± 120	

January 2008, technical data are subject to change without notice



Breuckmann GmbH
 Industrial 3D Image Processing and Automation
 Torenstraße 14 • D-88709 Meersburg
 phone: +49 (0) 75 32 • 43 46 - 0
 fax: +49 (0) 75 32 • 43 46 - 50
 Email: info@breuckmann.com
 Web: www.breuckmann.com