

# Face of the future

Innovative imaging solution for 3D photography developed for skin analysis and simulation

**T**he 3D LifeViz™ Mini is a compact 3D camera for skin analysis and simulation of the face. Developed by Photometrix Imaging from Pontypridd in South Wales, and Quantificare, from Valbonne in France, it is the only portable camera system capable of skin analysis and simulation.

The first applications for the cameras were in clinical trials for the photo documentation and measurement of wound volume, psoriatic plaques and cosmetic and aesthetic volumising effects with botulinum toxin and hyaluronic acid fillers. Augmented with a 3D simulation tool and a skin complexion analysis module, the technology has progressed and is used by aesthetic dermatologists and plastic surgeons to simulate images in 3D.

The technology uses dual beam pointers to reproduce pictures quickly, without the need for repositioning systems. The photos are automatically stitched and the patient's face is reconstructed in 3D, allowing a consultant to project the image of the patient into the future and show a simulation of the face after treatment.

The instruments are based on a particular version of stereo-photogrammetry where the 2D images are merged by a computer into a 3D representation. The technology enables quantification of volume changes and detection of fine surface details. The accuracy achieved by this reconstruction is essential for complying with the precision of the medical sector, and the photographic systems are portable and reproducible. The technology allows plastic surgeons, dermatologists and aesthetic doctors to improve their patient's follow-up care using



”

'Our researchers have worked tirelessly to achieve an accurate 3D reconstruction with a reliable geometry. This 3D reconstruction is completed by 3D matching to offer high reproducibility between pictures over multiple visits and the technology enables quantification of volume changes and detection of fine surface details.'

**Aurore Baud**  
Marketing & Sales Coordinator  
QuantifiCare

different measurement capacities allowing before-after treatment comparison in 3D.

The development of the product was a collaborative effort, with input from a range

of Welsh companies aiding the process from design through to regulatory testing. Photometrix Imaging Ltd is currently working with Cardiff Metropolitan University and two Welsh hospitals to extend the application of the technology into other aspects of healthcare for the future.

## Profile

**Product**  
3D imaging solution

**Applications**  
Skin analysis and simulation

**Contact**  
Peter Plassmann  
Photometrix Imaging Ltd  
8 Forest Grove  
Pontypridd CF37 1UB, UK  
T: +44 (0)14434 83717  
E: peter.plassmann@southwales.ac.uk  
W: www.photometrix.co.uk

