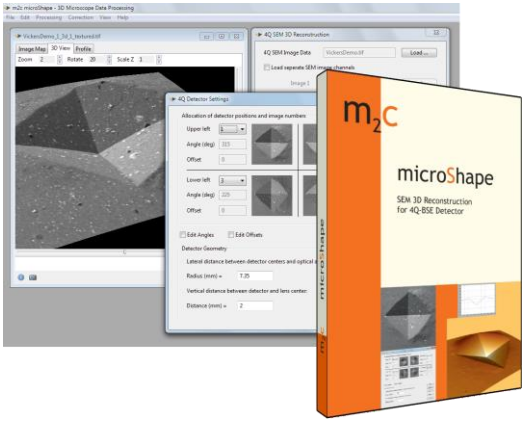
3D SEM software microShape



M2C *microShape* software creates, visualizes and analyses 3D surface models from SEM images. Your SEM must be equipped with a 4-quadrant backscatter electron (4Q BSE) detector. Generating 3D data is quick and simple: it only takes a few seconds to create and visualize the topography of your samples.

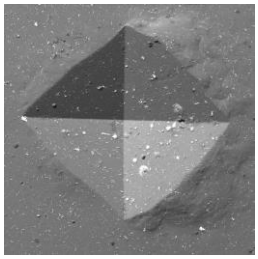
Enhance the capabilities of your SEM with *microShape* and make use of the following advantages:

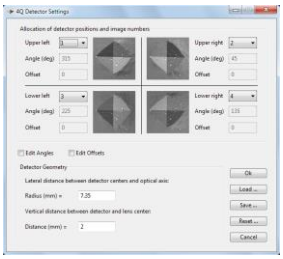
- 3D visualization of sample surface (topography)
- profile views
- 3D coordinates and height differences
- calculate spatial distances and angles

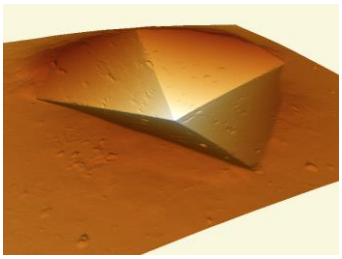
M2C *microShape* calculates 3D surface models of the sample using four images of the 4Q BSE detector and photometric image processing algorithms (shape-from-shading). With *microShape*, it is also possible to:

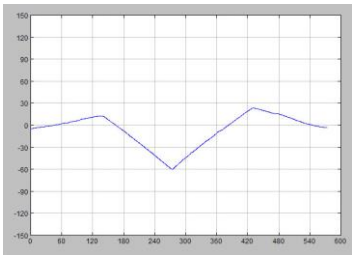
- measure profiles, heights, 3D coordinates, spatial distances and angles
- perform geometric operations on your 3D data: defined cropping, change spatial orientation and resolution
- correct your 3D data: adjust scale and shear in all spatial directions
- export your data for further analysis with other software packages
- configure different 4Q BSE detectors (detector geometry and specifications have to be provided by the manufacturer)

In order to obtain quantitative 3D data, a calibration of your SEM and your 4Q BSE detector is required. We recommend our 3D calibration structures and our calibration software *microCal*. M2C calibration structures are specifically developed for SEM 3D calibration due to their spatially distributed nanomarker for scale calibration and their micro-hemisphere for detector calibration. M2C software algorithms automatically compare the measured nanomarker coordinates to the specific reference coordinates of your 3D calibration structure and calculate scale factors in all spatial directions. These calibration factors can the be used to correct further measurements.









M2C *microShape* is available as stand-alone software, as plug-in for the microscopy image processing package SPIP(TM) (Image Metrology A/S), or, as an add-on to the SEM control software package DISS (point electronic GmbH).

System requirements: PC with Windows XP / 7 / 10. The software uses complex image processing algorithms. We therefore recommend a PC with a fast CPU.

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