

AUTO-MONTAGE

3D IMAGING IN ACTION

Meeting the challenge

Publishing, analyzing and documenting images of many types of samples from your optical microscope often yields disappointing results. This is due to the height of many samples exceeding the depth of focus of your optics. Without **Auto-Montage** the images acquired are partially focused and cannot effectively convey the important properties of the original sample. This creates a considerable problem when analyzing and attempting to publish pictures of a very large proportion of samples.

Delivering the solution

Auto-Montage is a powerful new system that solves this problem simply, effectively and inexpensively.

An immensely valuable by-product of the process is a wealth of 3D images, depth information and comprehensive 3D measurements.

Auto-Montage starts by rapidly capturing a series of your sample images taken at different focal depths. These 'source images' are rapidly analyzed and all high detail regions are combined into a single perfectly focused image.

A Depth Map is automatically generated which is used to create the stunning 3D images and 3D analysis data.

'Auto-Montage has made all the difference -
at last we can communicate what we see with clear pictures'

Enjoying the benefits

Auto-Montage allows you to obtain exactly the images you need regardless of the type of sample and magnification. You can now communicate what you are seeing to your colleagues through prints and image files. You can also publish images that show your samples in impressive 3D detail. The measurement facilities allow you to generate novel and vital height data.



Starting with the best image

Auto-Montage comes with a very high quality camera which attaches to your microscope. The camera is connected to **Auto-Montage's** digital image capture and remote control hardware, all controlled through a simple image capture interface which displays a crystal clear, high resolution, live image.

A series of images is captured as the focus knob is turned. Each partially focused image (source image) is instantaneously captured, stored and automatically numbered.

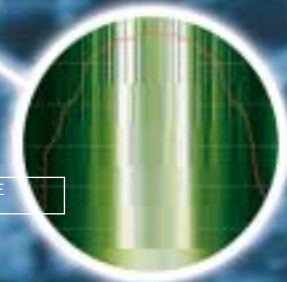
Full automation and z-calibration

Auto-Montage's motorized z-stepper turns the fine focus knob automatically in precisely measured steps. It makes the capture of a large number of images very quick and simple and provides instant calibration of the z-axis. The z-stepper is an important component for labs requiring accurate height data, high throughput automation and zero distortion 3D surface models.

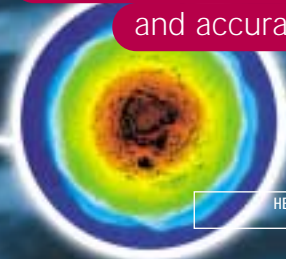
Some optical systems such as certain stereo microscopes and macro lenses do not have an easily turnable fine focus knob that can be driven by the z-stepper. Under these circumstances, Syncroscopy's Z-Focus Table can be placed under the optics and used to hold the sample. The focus table is then controlled by the z-stepper.



DEPTH PROFILE



'We get height information so easily
and accurately using this system'



HEIGHT CODED CONTOURS



3D SURFACE MODEL

A solution for all applications

When the partially focused source images have been collected they can be immediately processed using **Auto-Montage's** powerful algorithms. A press of the Montage button will reveal the perfectly focused image and 3D data being created in real-time.

Users can select from a range of unique methods to suit your application and the type of data you need to obtain. Other parameters such as patch size and filter allow you to adjust the sensitivity of the algorithm to the resolution of the structures present in the image.

This selection ensures that the widest range of samples can be processed to produce the finest fully focused image and 3D data.

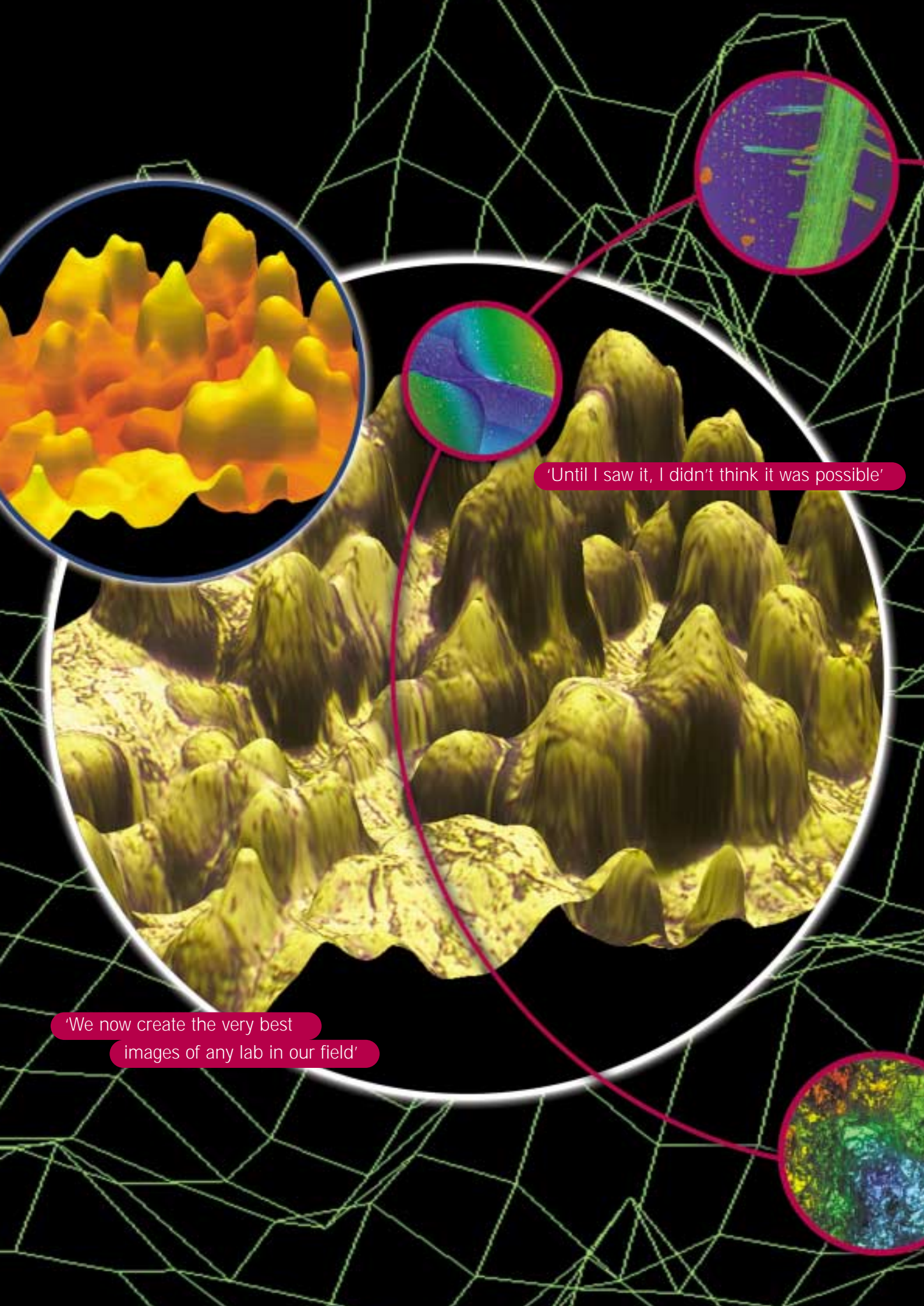
Improve the productivity of your lab

The modern, busy lab needs an image documentation system that is effective, flexible and easy to use.

Auto-Montage's user interface has been carefully designed to make the creation of your perfectly focused images and associated 3D data as efficient as possible.

Image capture is fully automated with the z-stepper, making the handling of large numbers of source images effortless. Creating 3D data and montaging images is a simple two step process. A selection of simple, resizable toolbars provides instant access to all major functions.

Templates can be set up which store all the important configurations so that the same conditions can be easily recalled and applied to other samples.



'Until I saw it, I didn't think it was possible'

'We now create the very best images of any lab in our field'

TURN YOUR MICROSCOPE INTO AN INFINITE DEPTH OF FOCUS, 3D IMAGING WORKSTATION

- Produces perfectly focused images regardless of the depth of focus of your optics
- See your samples like you've never seen before with Auto-Montage's 3D surface model, stereo pair, color relief and anaglyph views
- Everything you'll ever need from a digital imaging workstation with integrated image capture, microscope control and documentation facilities



- It's versatile and easy to use, an essential new tool for every microscope
- Gather unique sample height data with Auto-Montage's depth maps and height measurements
- Increase your lab's efficiency - full automation with the integrated focus control
- Get more data from your samples with Auto-Montage's comprehensive 3D measurement facilities

UNIQUE
IMAGING

D I G I T A L 3 D M I C R O S C O P Y Auto-Montage

