

# Leica Application Suite

**MultiStep**

Living up to Life

**Leica**  
MICROSYSTEMS

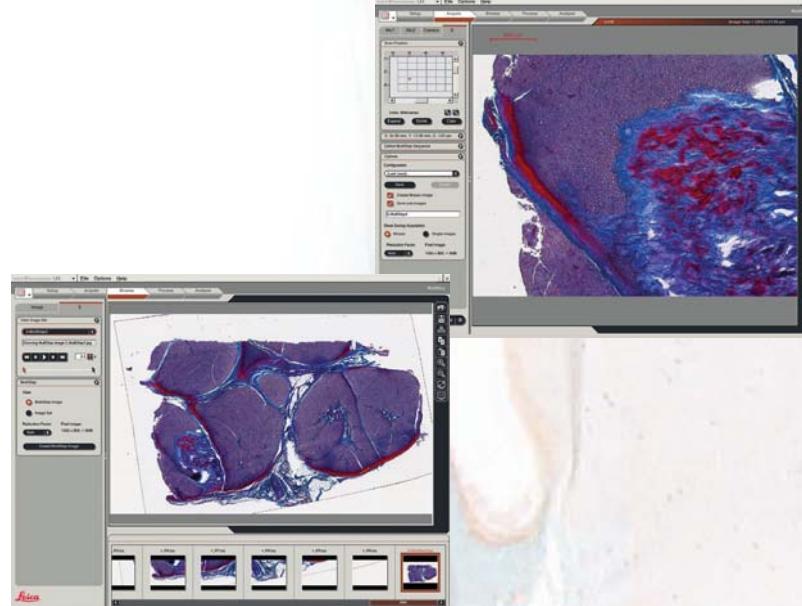
# MultiStep Imaging!

## Automatic Image Acquisition

LAS MultiStep is an optional module that when used with a Leica microscope, motorised scanning stage and digital camera, automatically acquires images at XY positions defined by a rectangular pattern. The camera can acquire images as soon as the stage has reached the specified position and halted. The images are stored to the hard drive in tiff, bmp or jpeg format and can be recalled individually for further analysis or stitched together to create an assembled overview mosaic image. Furthermore, the defined sequence and parameters that have been used during image capture can be saved and retrieved at a later date.

## Other benefits include:

- Total microscope and digital camera control in a fully integrated manner.
- Intuitive view of scan images through the sophisticated gallery from which images can be selected for closer inspection.
- Live images can be annotated with calibration markers to provide a quick and easy guide to image size.
- Scanning sequences and microscope settings can be saved and recalled to increase efficiency whilst saving valuable time.



# Multiple Scanning!

## Scanning Definitions

LAS MultiStep provides users with the opportunity to define scanning patterns specific to individual needs. This includes the ability to enter the dimensions of a specimen, establish the origin of the scanning pattern and set the magnification of the image, which in turn determines the number of fields acquired. Furthermore, the scanning pattern can be paused if the focal position needs adjusting or extending.

The entire sequence can also be stored and recalled for any future routine requirements to save valuable time and increase efficiency by using stage scanning and focusing algorithms.

## Scanning Analysis

During scanning analysis, LAS MultiStep enables users to correct the focus position through the «predictive focus» functionality. Having manually focused a number of defined areas of a specimen, a «best fit of focus plane» can then be calculated and used during subsequent analysis.

Additionally, LAS MultiStep offers a reduction factor option so that large Mosaic images which are difficult to manipulate, can be reduced in size into more manageable dimensions.

LAS is based on Windows PCs and provides a cost-effective and uniform environment, compatible across the Leica range of microscopes and Digital FireWire cameras.



## LAS MultiStep

LAS MultiStep is a highly versatile imaging module that can be used with many specimen types for users interested in materials science, quality control, forensics, bioscience, pharmacology and many more areas. LAS MultiStep imaging can be used for applications such as:

- **Specimen Scanning –**

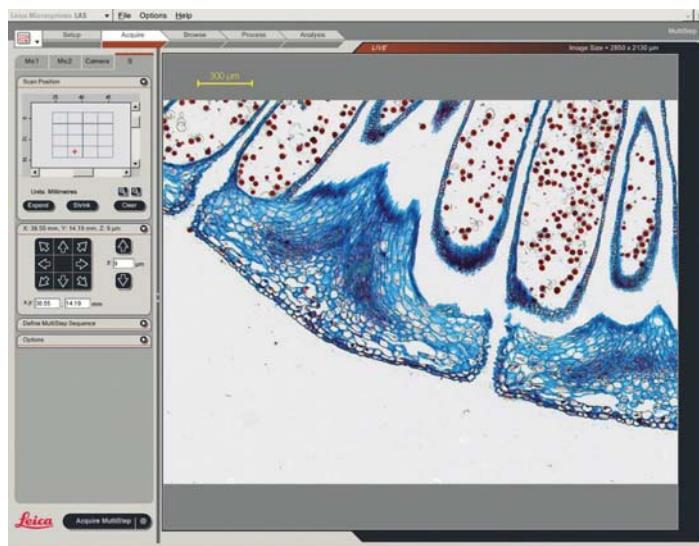
specify a repetitive rectangular scan pattern for automatic analysis defined by the number of X and Y steps and step sizes in each direction.

- **Mosaic Scanning –**

take images from a stage scan pattern and stitch them together to form an overview image. LAS MultiStep also allows objects of interest to be viewed more closely by simply pointing to an area of significance within the mosaic image and zooming.

- **Well Plate Scanning –**

MultiStep can be configured to automatically move from one well to another by specifying the X and Y step distance. The shutter can optionally be closed to ensure specimen protection whilst the stage is in motion.



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### Order number

**12730074** Leica Application Suite – MultiStep Module

[www.leica-microsystems.com/LAS](http://www.leica-microsystems.com/LAS)

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