I-MAGE 400

I-mage Analyzer 400 ....says it all!

Particle size analysis
Dynamic Shape analysis

Dynamic Shape Characterization (DSC)

The DSC is a shape characterization system for particles using in-situ image analysis of the sample. Digital particle images are collected and analysed on a vast range of shape parameters. The Video Microscope synchronized with a strobe light captures 'still' pictures continuously while particles are in dynamic flow. It is not necessary to stop the flow or limit monitoring to stationary objects. Multiple images are enhanced, processed, and analysed automatically to ensure full representation of the sample. Both image and statistical data can be printed or stored for a permanent record of the sample. The software intuitive interface simplifies workflow and speeds up image acquisition times while providing powerful features such as image stitching, object counting and volume views.

Modularity

Interchangeable measuring cell modules enable analysis of particles in virtually any state: liquids, powders, slurries, aerosols, pastes, thin films and emulsions. Special cells facilitate the measurement of high concentrations.

With the I-mage 400, shape measurements on hundreds of thousands of particles from 1 micron to as large as 4,5 mm can be obtained in minutes. The I-mage features high optical quality with a high contrast image that facilitates the definition and measurement of even low contrast objects.

HIGH-RESOLUTION – LOW NOISE

A CMOS high density 5.9 megapixel sensor produces high resolution Images. USB 3.0 data transfer allows fast focusing at high resolution and easy capture images in all types of observation methods such as brightfield, differential interference contrast and phase contrast.

HIGH SENSITIVITY, LOW NOISE

Quantum efficiency and read noise have been greatly improved, providing better capability for acquisition of fluorescent images with better signal-to-noise ratios than ever before.

HIGH-SPEED LIVE DISPLAY

Fast USB 3.0 data transfer means fast, smooth live updating of images for finding samples or focusing, even at full resolution.

SUPERIOR COLOR REPRODUCTION

Outstanding and lifelike color reproduction and developing superior algorithms for creating results that look like the actual samples. These algorithms are used in all of the color cameras in the digital sight lineup.
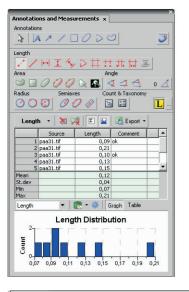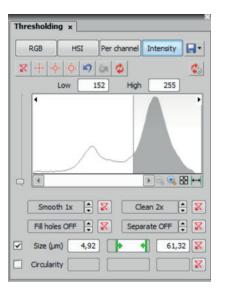
IMAGE 400
with LED light source

Specifications

Image Source	1/1.8 inch Color CMOS Image Sensor Size: 6.91 x 4.92 mm
Recordable Pixels	2880 x 2048 2 Vertical and 2 Horizontal Pixels Average: 1440 x 1024
ISO Sensitivity	Standard: equivalent to ISO 50 (Selectable from ISO 50 to ISO 3200 equivalent)
Live Display Mode	All pixels (2880 x 2048), 15 fps 2 Vertical and 2 Horizontal Pixels Average: (1440 x 1024): 30 fps
Exposure Time	100us – 30sec
Photometry mode	*Average Photometry*: Average Intensity within the Photometry area. *Peak Photometry*: Maximum Intensity within the Photometry area
Exposure Control	*One Time Exposure*: Exposure time is adjusted automatically for one-time within the optimum range for the camera *Continuous Automatic Exposure*: Automatic exposure adjustment is performed continuously to keep the exposure within the camera *Manual Exposure*: Exposure time and Gain settings are done manually
Exposure Correction	+/- 1EV, Step: 1/6EV
Interface	USB3.0
Power Supply	AC 100 – 240AC, 50Hz/60Hz
Power Consumption	Approx. 30 Watt
Operating Environment	0 – 40C, 60% RH max (without condensation)
Software Operating System	Windows 7+
Small Footprint	51cm x 20cm x 27cm (lxbxh), 10kg

Manual Measurement (Interactive Measurement) and Image Annotation

Interactive Measurement allows easy measurement of length and area by drawing lines or an object directly in the image. The results can be attached to the image and also exported as text or to an Excel spreadsheet. Annotation such as arrows, circles, squares, text are also available.
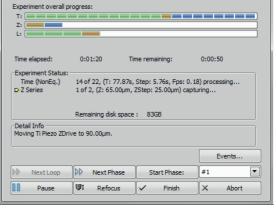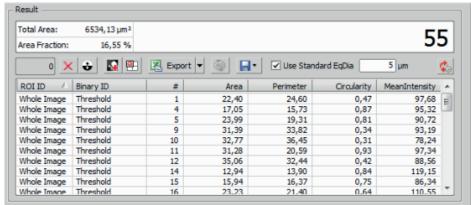
Output of analyzed results

AUTO MEASUREMENT (OBJECT COUNTING)

Auto Measurement measures the number or area of objects which are extracted from images by the creation of binary layer through thresholding using RGB/HIS or intensity values. The results can be listed or exported a text or an excel file. It is possible to save and reuse thresholding parameters.
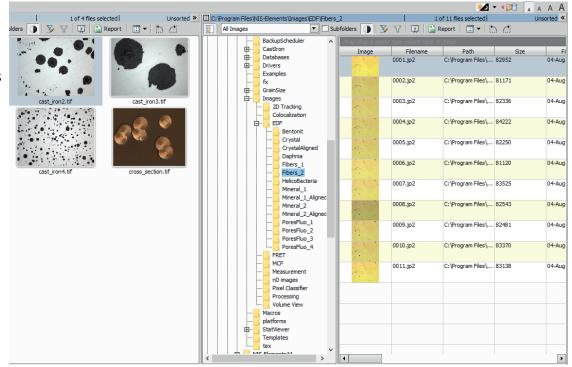
DATABASE
of the IMAGE 400

DATABASE

Using the organizer function, captured images are displayed in thumbnails for easy retrieval of the desired image. By simple clicking on the thumbnail image in this view, the image is easily opened. Sorting and filtering this database of images and datasets using acquisition details such as objective settings, date and author is an easy method for data management as well

USER RIGHTS/CONTROL

For safe system management, it is possible to individually limit each user authorization using the user account of Windows (such as the Administrator or Guest etc). It limits the authorization and modification of the device settings, optical configuration and layout editing.

YOUR DEALER