

PROMICRA

QuickPHOTO CAMERA 3.1

System for Digital Photomicrography, Image Editing
and Measurements

The screenshot displays the QuickPHOTO CAMERA 3.1 software interface. The main window shows a photograph of a wasp with a blue line segment indicating a measurement of 13.93 mm. A 2 mm scale bar is visible in the bottom right corner of the image. The interface includes a menu bar (File, Edit, Image, View, Measurements, Annotations, Imaging Devices, Modules, Window, Help), a toolbar, and a thumbnail browser on the left side. The thumbnail browser shows five images: sample1.jpg (2550 x 1919), sample2.jpg (4140 x 3096), sample3.jpg (2546 x 1919), sample4.jpg (2448 x 1520), and a larger image of the wasp. The status bar at the bottom indicates the image dimensions: 2550 x 1919 (20.48mm x 15.41mm) and the camera model: Lumenera® INFINITY Digital Camera.

Object Type	Measurand	Meas. Nr.	Value	Units	Description	Measurand	Length
Line Segment	Length	1	13.93	mm		Number of Measurements	1
						Minimal Value	13.93
						Maximal Value	13.93
						Average Value	13.930
						Standard Deviation	0.000

QuickPHOTO CAMERA 3.1

QuickPHOTO CAMERA 3.1 program is designed for acquiring of digital images from microscopes equipped with digital cameras, editing, annotating and saving of acquired images and measurements. This program is designed for use in all microscopic fields.

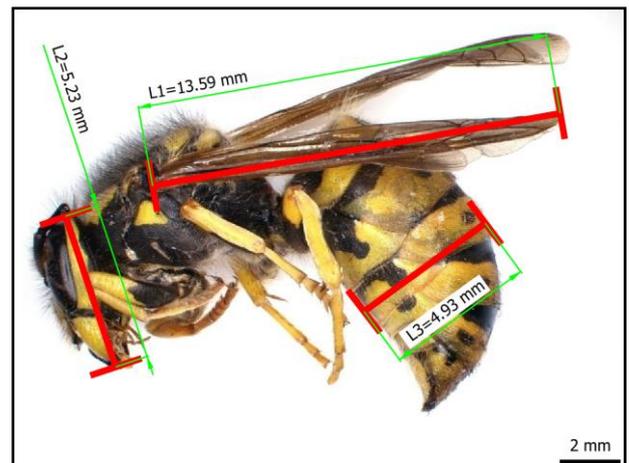
QuickPHOTO CAMERA 3.1 program is equipped with number of image editing functions as well as with functions for measuring of dimensions and insertion of calibrated scale bar. Using the function for time-lapse image acquisition, it is possible to acquire images in a predefined time interval.

Main Features Overview:

- **Image acquisition from a wide range of imaging devices** (microscopic digital cameras, DSLR cameras, analog cameras, scanners)
 - **Live view on a computer screen**
 - **Measurements in acquired images:** insertion of a calibrated scale bar, measuring of dimensions (line segment tool)
 - **Measurements in a live view*:** insertion of a calibrated scale bar, measuring of dimensions (line segment tool)
 - **Measured values are displayed in a well-arranged table with basic statistics.** Particular measurements can be annotated. Measured values can be exported (optionally with the image with measuring objects) to a Microsoft® Excel® file or a text file.
 - **Advanced functions for saving of multiple images at once**
 - **Option to automatically save acquired images to a predefined folder**
 - Support for zooming units, magnification changer units and magnification encoders (devices for automatic determination of currently used microscope magnification)
 - **Image editing functions, indication and annotation of interesting areas of the image, image descriptions**
 - **Advanced printing functions including interactive preview**
 - **Automatic time-lapse image capturing** with the options to control computer controlled illuminators and time-lapse HD video creation
 - Option to acquire images using a remote trigger (optional accessory)
 - Calibrations can be locked with a password protection; the calibrations are protected by a digital signature against unauthorized modifications
 - Support for work on two-monitor workstations
 - **Multilingual user friendly graphical interface**
 - Possibility to extend functions with additional modules (Deep Focus, RECORD IT, FLUO+)
- *These features are available only for some of the supported imaging devices.

Measuring Functions (in acquired images):

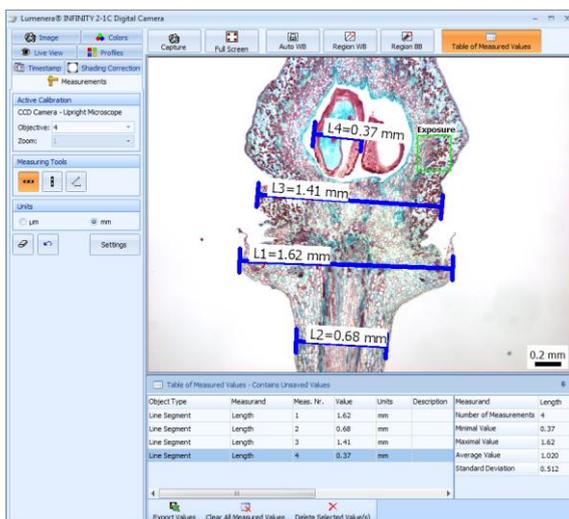
- **Measuring of dimensions** - line segment tool (options to freely move the labels with measured values, to change the color and thickness of the measuring line segments)
- **Insertion of a calibrated scale bar** (options to define type, size and colors; vertical or horizontal position)
- Measured values are stored in well-arranged table with the option of exporting (optionally with the image with measuring objects) to a Microsoft® Excel® file or a text file.
- Measured values can be stored directly within the image file when saved as JPEG or TIFF type.



Measurements in a Live View*:

- Measurements directly in a live view (no need to acquire an image to perform measurements)
- **Insertion of a calibrated scale bar** (options to define type, size and colors; vertical or horizontal position)
- **Measuring of dimensions** (line segment tool)
- Exporting of measured values to a Microsoft® Excel® file or a text file

*These features are available only for some of the supported imaging devices.



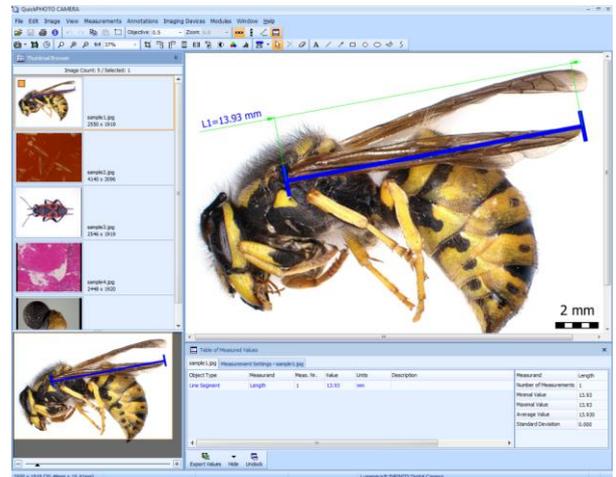
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Image Editing Functions

The images are immediately after acquisition transferred to a computer and prepared for processing. The *Thumbnail Browser* enables easy switching to another opened image by a single mouse click. The *Navigator* window facilitates the work with the magnified images.

The images can be edited using the following functions:

- **Crop** (crop size can be defined in pixels, μm or mm)
- **Rotation** (by 90° clockwise and counter clockwise)
- **Flip and mirror**
- **Resize**
- **Brightness and contrast adjustment**
- **Color balance adjustment**
- **Histogram adjustment**
- **Filters** (sharpen, blur, negative, grey scale, median filter)
- **White balance and black balance**
- **Indication of interesting areas** (line, arrow, ellipse, rectangle, circle and freehand drawing tools)
- **Insertion of text annotations**



The Advantage of Working with Layers

All inserted objects (drawings, annotations, measurements) are displayed in a separate layer “above the image”. It is possible to modify (change of the line's color and thickness, change of size, change of position), delete, or hide them at any time. It is also possible to delete the whole layer with inserted objects or merge it with the image.

Time-Lapse Image Capturing

The built-in *Timer* module enables a time-lapse image capturing (automatic image capturing in defined time interval). The *Timer* module is capable to control the computer controlled illuminators. That way the illumination can always be switched on only for the time necessary for image acquisition to prevent a negative long-term effect of the illumination to the specimen.

Time-Lapse Video Creation

The built-in *Time-Lapse Video* module can be used to create HD video clips (with resolution up to 1920 x 1080 pixels) from time-lapse captured images. For example when several (or several thousands) images of a slowly moving or changing object are acquired, the *Time-Lapse Video* module can be used to create a video file in which the movement will be recorded in a speeded-up form.

Control Panels of Imaging Devices

Each of the supported imaging devices can be controlled by a dedicated control panel. The control panel contains a live view from the imaging device and elements for control of its functions and properties.

Imaging Devices Controlled via TWAIN Interface

The imaging devices, which do not have their own control panel in QuickPHOTO CAMERA 3.1 program, can be controlled via TWAIN interface. Those devices can also be used in conjunction with built-in *Timer* module as well as with *Deep Focus* z-stacking module.

Minimal System Requirements:

Processor	Operating Memory	USB Ports	Operating System	Minimal Monitor Resolution
Single-core 2.4 GHz or multi-core	1 GB	2x USB 2.0/3.0	Microsoft® Windows® XP(SP3)/Vista/7/8/10	1024 x 768 pixels

Supported Imaging Devices:

Complete list of currently supported devices can be found on the website: www.promicra.com.

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