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Microscope VIS Pro: Quick set-up guide

(Version: 02/2024)

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1. First steps

The software includes a sidebar on the left with all necessary adjustment option-groups to begin the initial setup. You can open these groups by clicking on the small arrows or by clicking on the group name.

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Snap:	2560 × 1922 ×
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 \rightarrow Under 'Camera list' you can find your connected camera. To start the live stream, click on the camera directly. Make sure that the beam path on your microscope is switched to the trinocular view.

 \rightarrow Under 'Capture & Resolution' you can set the resolution for the Live video resolution, as well as the snapshot resolution settings and the format. Via 'Snap' you can take a picture and via 'record' you can start recording a video.

 \rightarrow When the Exposure & Gain group is expanded a green rectangle marked with Exposure will be overlaid on the video window.

The exposure is set on 'Auto Exposure' by default which is what we normally recommend.

You can also unceck the auto exposure if you want to adjust the eposure manually. Drag the green rectangle to the darker areas if you want to increase the video brightness and drag it to the brighter area if you want to decrease the video brightness.

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2. Length units

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The default setting upon installing the software is that the unit is shown in 'Pixel'.

File Edit View Browse Setup Capture Im-	ige Process Layer Measurements Options Window Help
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🖸 Camera List 📃	<u> </u>
ODC832	

This can be re-set here under Options>Measurement:

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Measurement						×
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	Millimeter		mm	System	1000	
Sheet	Micrometer		μm	System	1e+06	
Object	Nanometer		nm	System	1e+09	
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3. Calibration

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In order to do any measurements, it is important to first calibrate the software according to each magnification that is used on the microscope. To do this, a micrometer slide is included in the scope of delivery of your camera.

Switch your microscope to the desired magnification and put the micrometer in the middle of the field of view and focus in on the ruler. Also switch your zoom ratio to 100%. This zoom ration can later be adjusted and the calibration values will automatically be adapted so the measurement is still correct.

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What kind of measurement unit is set here, does not matter in this step. This unit will likely have changed to the length unit which you have set previously.

In order to start the calibration, click on the Options>Calibrate command or click on the symbol in the toolbar.

MicroscopeVIS2.0Pro File Edit View Browse Setup C	apture Image P	rocess Layer Measurements	Opt	ions Window Help	
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ODC832				Edit Dye List Auto Correction	
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A red line with pixels number and the currently set length unit is overlaid on the video window and the calibration window opens.

PROFESSIONAL MEASURING

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6			1328,206 pixels	s, 0,600 mm			
	Calibrate				×		1
	Magnification	10X	~	ОК			Ш
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History		0					

- Try to align the two ends of the red line with the ruler scale (try to pull the red line as long as possible to keep the calibration accuracy).
- Enter or select the current microscope magnification. You can either use the dropdown menu to select a magnification or simply write in your desired magnification (if you are using a stereo microscope for instance).

Calibrate					
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Actual Length	4X 10X	Milli	Magnification	22,5x ×]
Pixel	20X 40X		Actual Length	0,6	Millimeter (mm) 🛛 🖂
	100X		Pixel	1328,206]
Resolution	2213676,71	Pixe	Resolution	2213676,71	Pixel/Meter

If everything is set correctly, click 'OK' to end the calibration. The magnification 10X (this is the number I entered) will be available in the magnification dropdown box on the video window toolbar now.
 se Setup Capture Image Process Laver Measurements

Important: Repeat this calibration step for each magnification you want to do measurements in!





If you ever want to delete any calibrations click on Options>Magnification. A window will open with all saved magnifications where you can select and delete them.

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Name 10X			Resolution 2213676,71		ОК
					Cancel
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PROFESSIONAL MEASURING



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4. Setting a scale bar

Select Measurements>Scale Bar or click the symbol on the toolbar and it will bring up a scale bar window.



Put the desired scale length in the edit box to determine the sale bar length. The unit is chosen according to the current length unit in the Options>Measurement>Length Unit page and the set calibration.

After clicking 'OK' the scale bar will show up in your open video tab. You can move it wherever you like. On the lefthand side, in the tool bar you will have options to adjust the scale (text and color, font size, etc.).



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5. Saving Images with measurements or scales in them

Once you've taken a snapshot of your image, this picture will open up in a separate tab:

Video [ODC8	01*				
	0				

The software works with different layers, so your image is one layer and your measurements and scales, comments, etc. are separate layers.

If you want to save the image with the scale bar or measurement in it, you must merge together the different layers. In order to do so, you select Layer>Merge to image. A window will open.

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	69	Merge to Image	F2					
		Export						
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You can adjust the font size and style in which it should be merged onto the image layer and click 'OK'. This will automatically open another image tab with the image, now will all layers merged together:

Video [ODC832]	0001.jpc	(0002*				
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Now the image can be saved with the measurements, comments, and documentation.

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