

# QUICK START GUIDE

Micrometrics® SE Premium 4.x

Capturing, Measuring  
& Annotating Images



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## QUICK START GUIDE

**Before you use this QUICK START guide to get started on capturing images, you must first install the Micrometrics® SE 4.x software, connect the camera, then launch the Micrometrics® SE 4.x software from the Windows Start menu.**

## Image Capture Controls

### Exposure

Use the **Exposure** slider to adjust your image to the appropriate or desired brightness level. You can also select the **Continuous Auto Exposure** to have the camera automatically adjust the image for different lighting conditions.

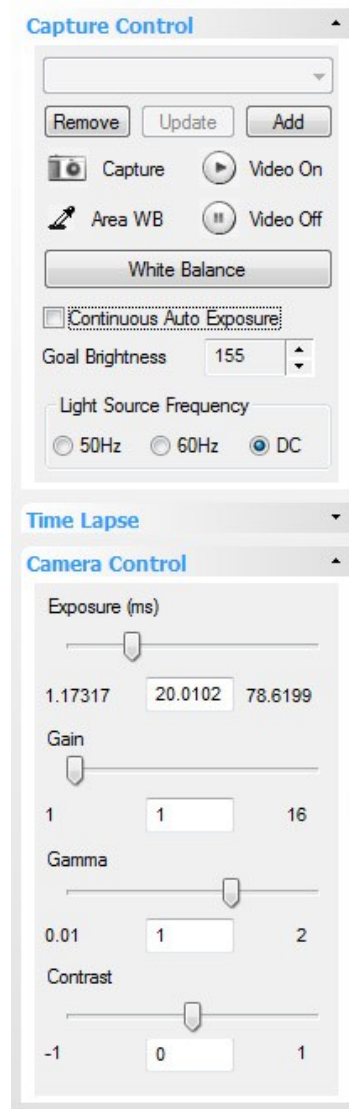
### White Balance

To perform a white balance, remove your image from the camera's field of view and click on the **White Balance (WB)** button. Or, by clicking the **Area WB** icon on a specific white area of your image.

### Image Capture & Saving An Image

To capture an image, click on the **Capture** icon, or double-click on the preview window.

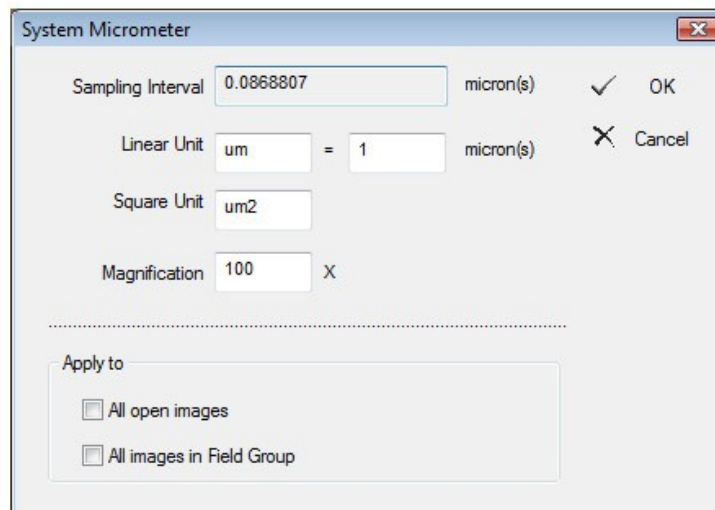
Choose **File** from the drop down menu and select **Save** or **Save As** to save the captured image.



## Calibration

### Measuring

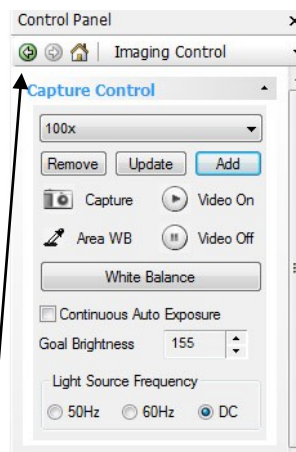
1. Turn off the **Fit to Window** option (located in the View drop down menu at the top).
2. Place a stage micrometer on the microscope stage and focus on the micrometer.
3. Open the SE Premium software and obtain a live image of your micrometer. Adjust your light intensity and camera settings as necessary to obtain a good, sharp image on the screen.
4. After obtaining a live image using the **Command** menu at the top, click **Adjust > Magnifications & Units**. You'll be prompted to enter your total magnification which is a function of your eyepiece magnification multiplied by your objective magnification. (i.e., 10x eyepiece X 10x objective = 100x magnification).



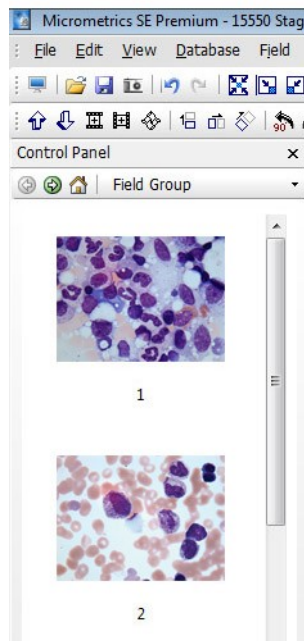
**Measuring**

5. After entering the total magnification, click **OK**. You may click the boxes to apply to all open images or images stored in the **Field Group** *in the future*, assuming they were captured at this same magnification.

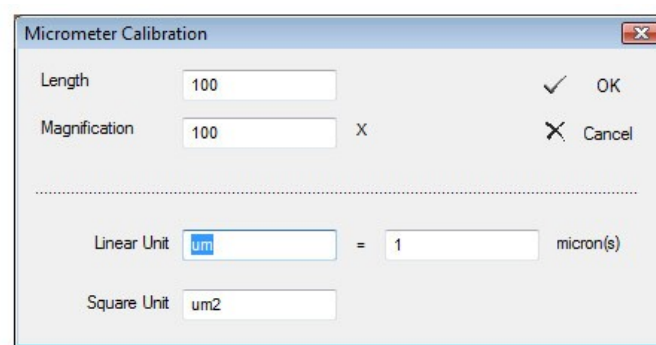
6. Click the **Capture** icon to capture an image. The image should appear in your Field Group. The Field Group is hidden behind the **Camera Control Panel** on the left side of your screen. You can toggle back and forth between the Camera Control Panel and the Field Group by clicking on the green button with the white arrow at the top of this panel.



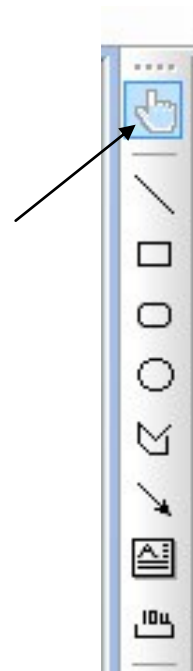
7. Double-click the image in the **Field Group** to move it to the main working area.



8. From the drop down menu at the top of your screen, click **Measure > Calibrate**.
9. Using your mouse, draw a line between two points on the stage micrometer by left clicking and dragging your mouse to the next point and releasing. When prompted, enter the length of the line in microns (i.e., 1 inch = 25,400 microns), then click **OK**.

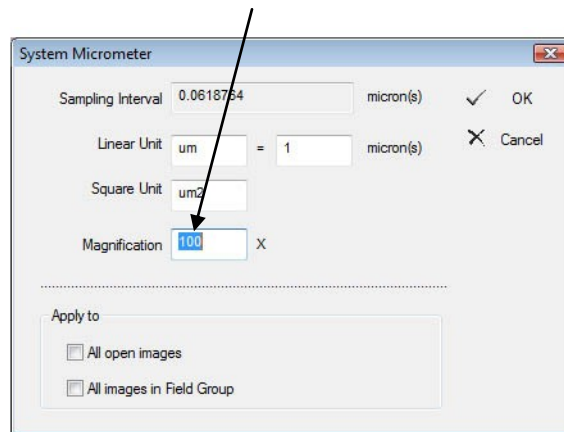


10. Verify the calibration is correct by clicking on the drop down menu **Measure > Caliper** icon then left click to draw another line against the micrometer to verify the length of the line is correct. To return the mouse from a crosshair to a cursor, click on the hand tool in the panel on the right of the screen.
11. Once you have verified the calibration for this objective and eyepiece magnification to be correct, you need to add this calibration to the **Saved Presets** so it may be recalled. To add this calibration, click the **Add** button at the top of the **Capture Control** panel on the left. When prompted, enter the name you wish to call this **Preset** in the dialog box that appears then click **OK**.



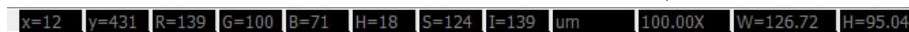
- To calibrate your next magnification, switch to another objective. Focus on the stage micrometer and repeat steps 3-11.

**NOTE:** You must tell SE Premium you have changed magnifications before capturing an image in a new magnification. To do this, choose **Adjust > Magnification & Units** from the drop-down menu and input the new magnification.



### Locating Calibration Information

Calibration information for the live preview and captured images can be located on the **Status Bar** located on the bottom right-hand corner of the application window. The calibration setting is the third item from the right. The **Status Bar** can be found under the **View** drop-down menu if it is not showing.



### Measuring Captured Images

Once you have calibrated the software, measurements can be performed on any captured image. Measurements options can be located in the drop down **Measure** menu. To measure an image, select a measurement option from the Measure drop-down menu. The cursor becomes a crosshair. Choose your starting point and left click, drag your mouse to the end of the image being measured, and left click to finish the measurement.

### Measuring Options

From the **Measure** drop-down menu, you can select the number of decimal places and other options, such as nomenclature.

To change the size or color of a measurement, select the **Overlay Size** or **Overlay Color** from the **View** drop-down menu.

### Adding Measurements & Annotations to An Image

**NOTE:** Measurements and annotations are not kept permanently in an image unless it is burned into the image.

To permanently add measurements and annotations to an image, choose **Annotate > Burn Into Image** from the drop down menu at the top.

**NOTE:** the .SIF file format retains all calibration and measurement information. For future measurements, be sure to save in the .SIF file format.



## **Limited Warranty**

### **Digital Cameras for Microscopy**

This digital camera is warranted to be free from defects in material and workmanship for a period of one (1) year from the date of invoice to the original (end user) purchaser.

This warranty does not cover damage caused in-transit, damage caused by misuse, neglect, abuse or damage resulting from either improper servicing or modification by other than ACCU-SCOPE approved service personnel. This warranty does not cover any routine maintenance work or any other work that is reasonably expected to be performed by the purchaser. No responsibility is assumed for unsatisfactory operating performance due to environmental conditions such as humidity, dust, corrosive chemicals, deposition of oil or other foreign matter, spillage or other conditions beyond the control of ACCU-SCOPE Inc. This warranty expressly excludes any liability by ACCU-SCOPE INC. for consequential loss or damage on only grounds, such as (but not limited to) the non-availability to the End User of the product(s) under warranty or the need to repair work processes.

All items returned for warranty repair must be sent freight prepaid and insured to ACCU-SCOPE INC., 73 Mall Drive, Commack, NY 11725 – USA. All warranty repairs will be returned freight prepaid to any destination within the Continental United States of America. Charges for repairs shipped back outside this region are the responsibility of the individual/company returning the merchandise for repair.

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