



Instructions Manual

INSPECTIS© CAP Basics V6.3.x

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Installation and Setup


Installing INSPECTIS Software

- Installation shall be done with full administration privileges.
- You might need to disable antivirus system of your computer temporary during the installation.


To install INSPECTIS software the user must run the provided installation file. Double-click on it and a new window will be displayed.

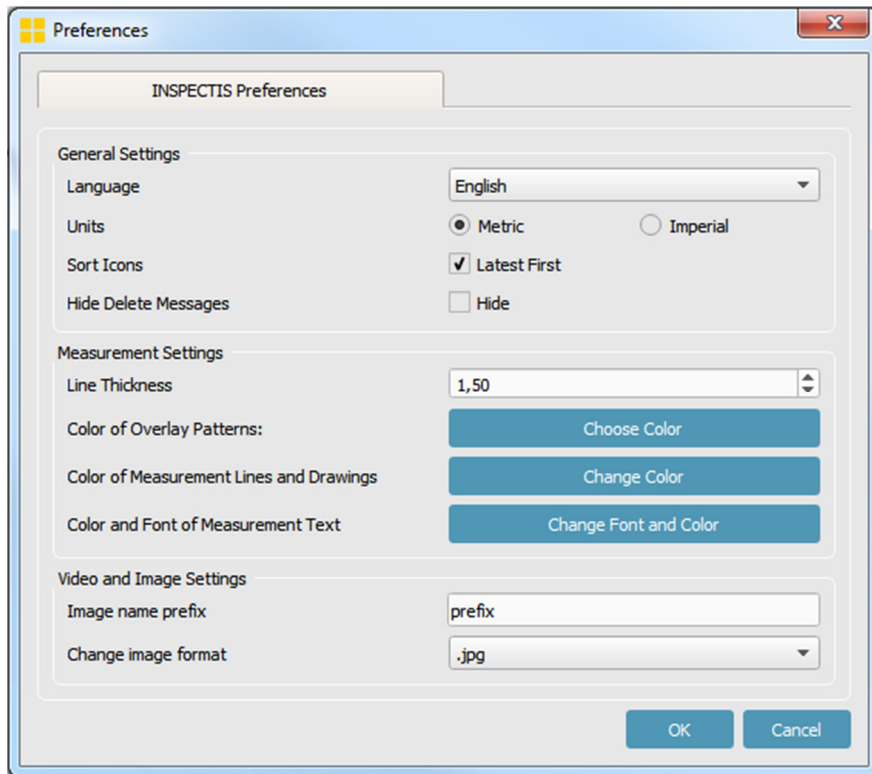
1. Click "Next" to continue.
2. Choose a folder in which to install INSPECTIS software. Click "Next" and "Next" again to start the installation.
3. Follow on-screen instructions to complete the installation.
4. When the installation is complete click "Close" to exit the window.

Running INSPECTIS for the First Time


1. Before launching INSPECTIS software please make sure device drivers of your Digital Microscope is installed and your Capillaroscope (Digital Microscope with lens) is connected to a free USB3.0, USB3.1 or USB3.2 port of your computer. Minimum 5Gbit/s data transmission is required.
2. Click on INSPECTIS  icon on your computer desktop and select **Run as Administrator** first time. Running as Administrator will enable you to register and activate the software automatically over internet.
3. Select language from the list.
4. From the "Software Version" selection window, select:
 - "INSPECTIS CAP Basics" if a full license has been ordered with the software protection USB dongle. All software functions will be enabled.
 - 15 days trial version for trying the software for 15 days. All software functions will be enabled for 15 days. Skip part 5 (license number).
5. Fill in license number (found in the package) and the other requested information.
6. If automatic on-line registrations is not possible, complete the Off-line Registration form and email it to info@inspect-is-com to get an software activation key.

Software Preferences

In Preferences, the user may change overall settings of the INSPECTIS software. Click on  icon to display the preferences window.



Device Settings


Click  to show the device settings menu.

Selecting Device

Software automatically finds the installed Inspectis device and sets the optimum device settings upon start of the program. INSPECTIS software shows the device names accordingly on the status bar:

USB3.0 Digital Camera -> Inspectis USB3.0 DM

If another device is preferred, right click on the device name on the status bar to show the device list and select the desired device.

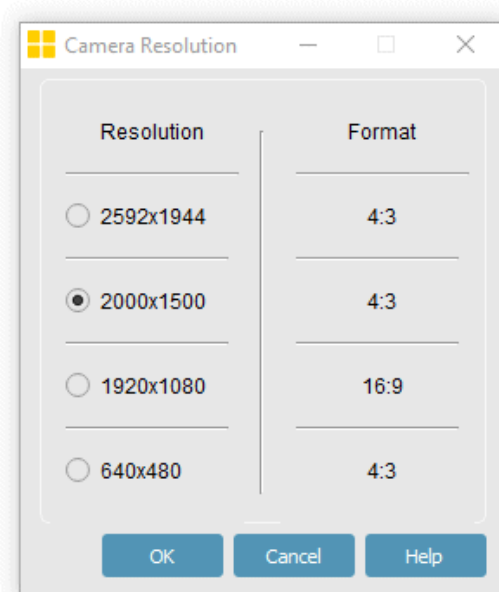
To select a device from the list of available devices, click  under Device Settings group or right click Device Name on status bar of INSPECTIS.

To automatically select your device, click  under Device Settings group. Software will search for Inspectis devices and select **Inspectis USB3.0 DM**.

To restart your device while software is running, press F12 on your computer keyboard.

Device Resolution

When attached to USB3.0 digital camera, Resolution and Format (aspect ratio) of the live image can be set according to below tab. Default resolution set for Inspectis USB3.0 DM is 2000x1500 pixels.

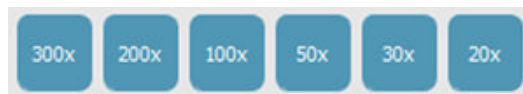


Selecting Magnifications

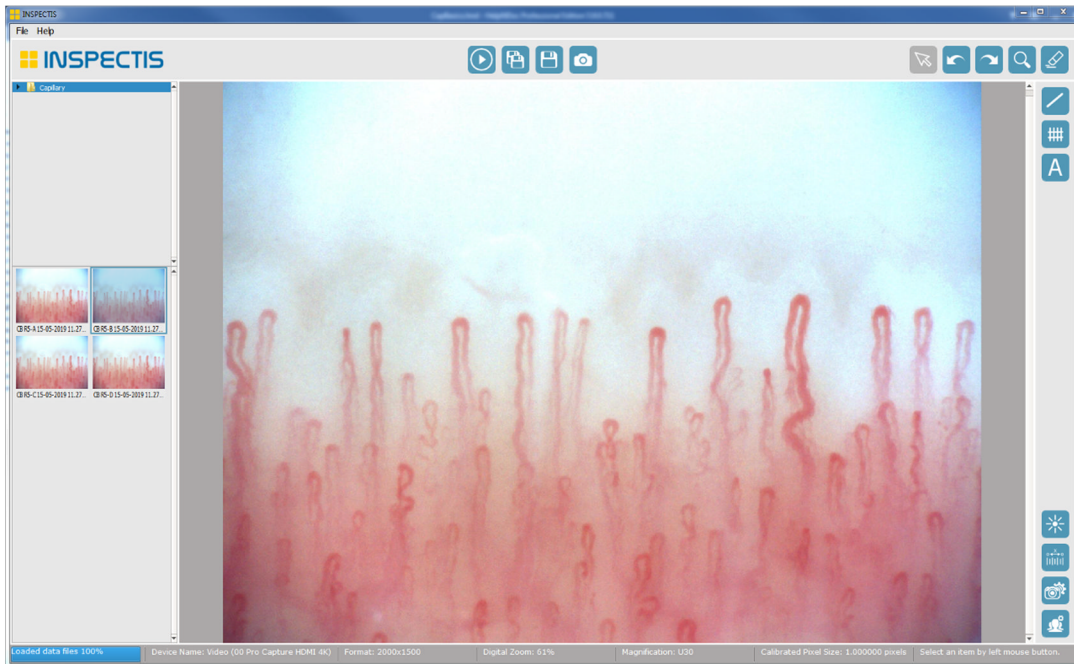
INSPECTIS CAP Basics software includes the pre-defined calibrations for all available lenses for the Capillaroscope device. There is no need for manual calibration.

Since the Capillaroscope is supplied with the 200x lens as standard, default magnification is set to 200x. If the lens is changed to another value, the magnification must be set accordingly.


Click on the current magnification icon  and select the new magnification.



Working with INSPECTIS Software



Live Video and Still Images

INSPECTIS software automatically shows the live image on start. To pause the live image, click  or SPACE BAR.

To start the live image again click  icon or press SPACE BAR.

Zooming

Both live and still images can be zoomed in and out digitally. Zoom functions are accessed by clicking



Zoom In [Shortcut Key: F4]




Zoom Out [Shortcut Key: F3]



Zoom to Fit Screen [Shortcut Key: F5]



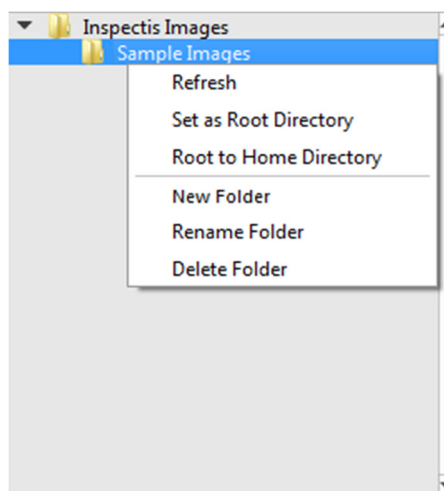
Full Screen [Shortcut Key: F6]. To close the full screen view, press ESC or press the  icon.

Digital zoom-in and zoom-out can also be done by the wheel of the computer mouse. Mouse cursor defines centre of the zoomed area. To pan the image when zoomed-in, press and hold the middle button of the mouse.

Folder Structure and Thumbnail View

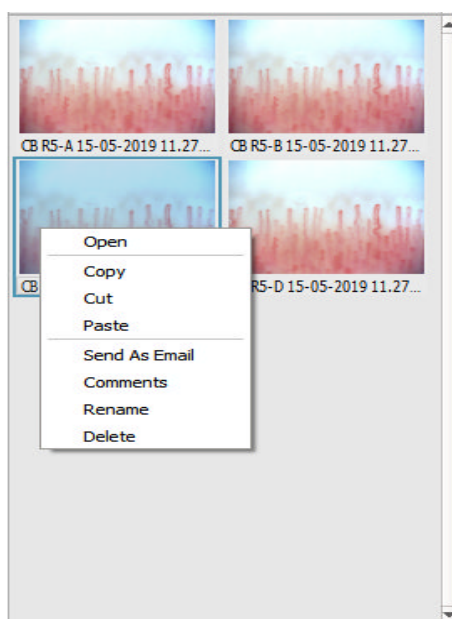
Right click on the folder structure and choose the working folder to be used for saving or recalling images and files. Working folder can be also selected via "File Menu -> Select Folder". Images and other files in the working folder are displayed as thumbnails in the Thumbnail View beneath the folder structure.

By right clicking on the file structure below folder functions can be accessed:



By clicking "Set as Root Directory ", other folders except for the selected working folder will be hidden. Clicking "Root to Home Directory" will display all folders.

By right clicking on a saved image icon, extra image functions can be accessed:



You can select one or multiple images at a time to Copy, Cut, Paste, E-mail or Delete.


Comments will be saved to the selected image file and automatically printed on Reports when you attach the image to the report.

Saving Images

There are three options for saving an image:



Capture Live Image [Shortcut Key: F11]. Captures a still image from live video of the connected device and saves it under current working folder as .png (default) or .jpg. Image will be automatically labelled with date and serial number.

If the live image is paused and there are measurements and overlays on it,  will only save the image without overlays and measurements.



Save Image [Shortcut Key: F10]. Saves the image, measurements and overlays under the current working folder as .png (default) or .jpg. Image will be automatically labelled with date and serial number with "*_measured*" suffix.




Save Image As [Shortcut Key: Ctrl+A]. Saves the image with user specified name and folder.

Loading Images

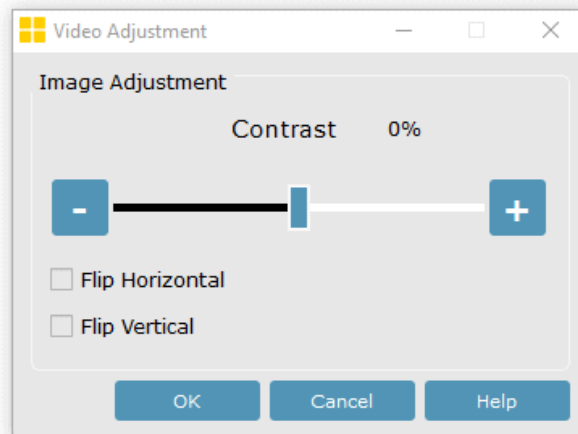
To load a thumbnail image or a document from the working folder, left click on it or right click and choose open. If the image contains measurement objects, the measurement results will also be loaded to the measurement table.

To load an image from another location, click "File/Open Image", then select the image to be opened.

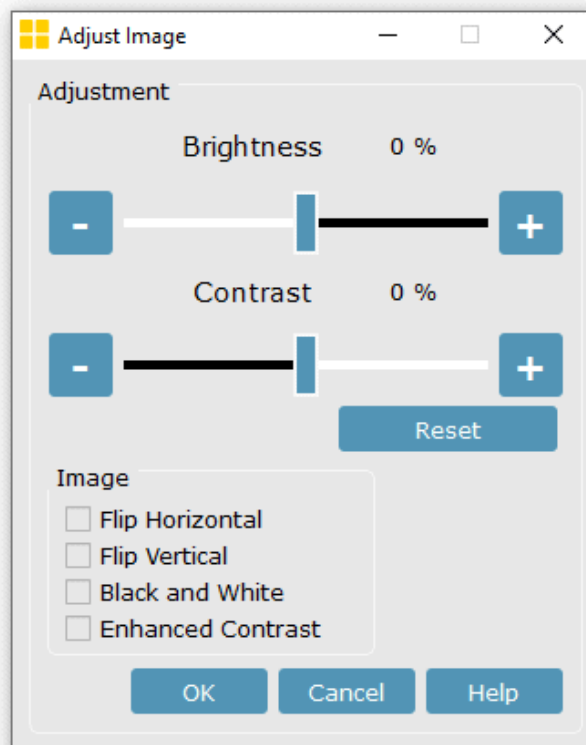
Image Adjustments

To adjust contrast and brightness of the image, click  icon. Depending on connected device and live or still image different adjustment windows will appear.

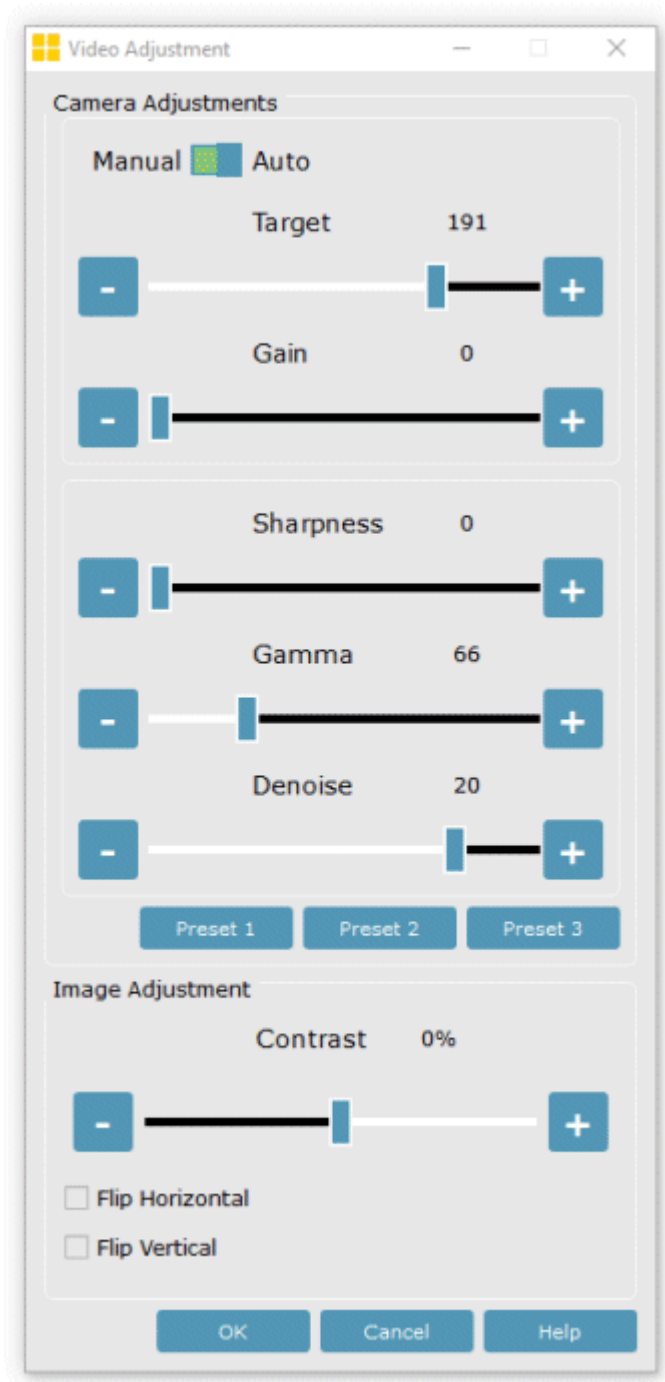
If image is live, user can change orientation of the image and contrast value.



If the image is still, its brightness and contrast can be adjusted. In addition, Black and White and Enhanced Contrast can also be applied to still images.



If your connected device is Inspectis USB3.0 DM camera, the adjustment device will be according to below picture:



Choose between predefined setups Preset1, Preset2 and Preset2 to get your preferred live image quality.

Measurement and Analysis Tools

INSPECTIS CAP Basics software provides calibrated distance measurement tool. However, in order to perform accurate measurements, current magnification shall be calibrated in the software. If you select an uncalibrated image, measurement results will be presented in pixels.

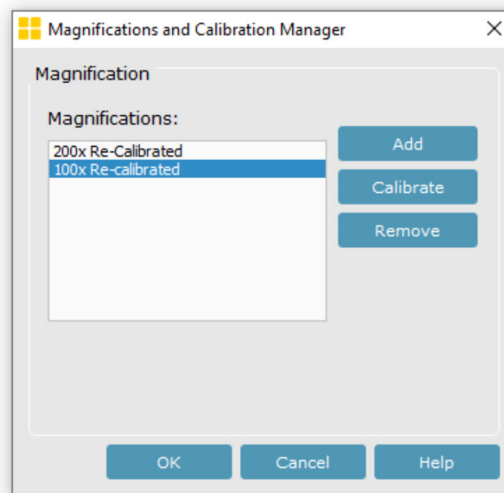
Magnification and Calibrations

Magnification Manager


Magnifications can be added, calibrated or removed via Magnification and Calibration Manager. Click on



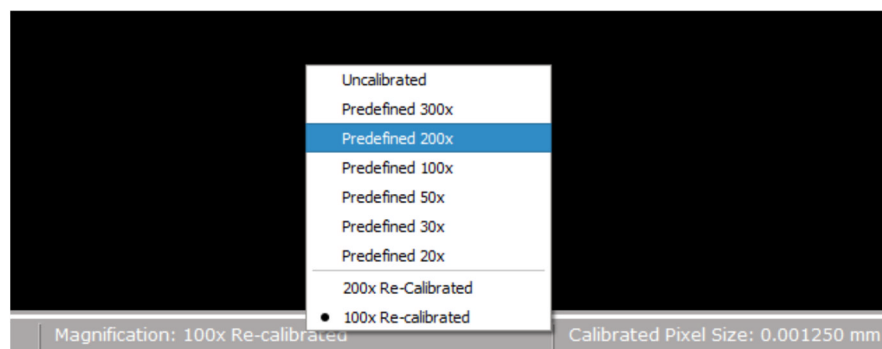
icon to display the dialogue.



Selecting Magnifications

To select a magnification, open the Magnification and Calibration Manager dialogue , select the desired magnification and click OK button.

For quick selection of magnifications, right click on the Magnification on the INSPECTIS status bar and choose desired magnification.



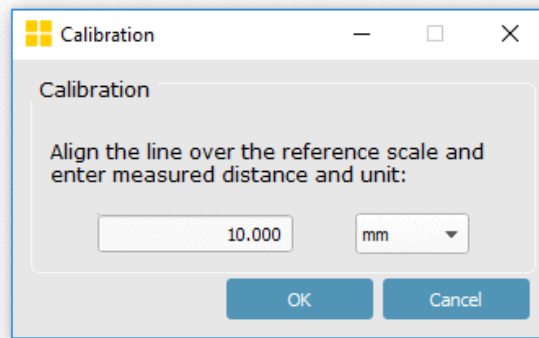
Adding New Magnifications

Before adding a new magnification, place an accurate ruler or micrometre scale under the microscope and make sure the live image is on focus.

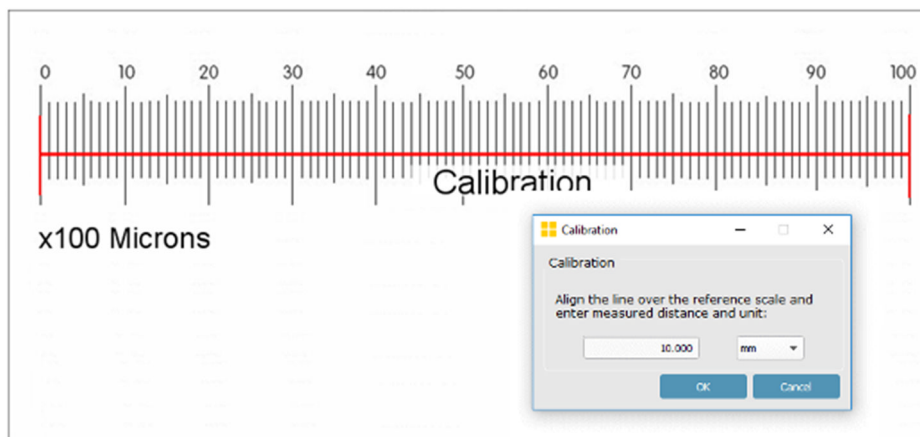
Open Magnifications and Calibration Manager and click Add button. Type preferred name of the magnification and press OK button. Live image will be paused, and the calibration procedure will start automatically. See the next section for calibration procedure.

Calibrating Magnifications


Before starting to calibrate a magnification, place an accurate ruler or micrometre scale under the microscope and make sure the live image is on focus. Select the desired magnification and click Calibrate in the Magnifications and Calibration Manager dialogue. The live image will be frozen and calibration windows with calibration line will appear.







Select, drag and align both ends of the calibration line to the matching lines on the reference image. Type in the distance and select the unit (mm or um) in the calibration window. If imperial units are selected in Preferences, imperial units will be shown in calibration window. Click OK to end the calibration process.




Measurement Tools

To activate the current tool for performing measurements left click on the  icon.

To modify, move or delete a measurement activate the **Select Tool**  and click on the specific measurement. **Select Tool**  is automatically enabled after each measurement.



All measurements can be undone or redone using **Undo**  and **Redo**  respectively.

To clear all items, click on .

Saving Measurements

Measurement results as well as calibration information are always saved together with the picture as described in [Saving Images](#) section. All the saved measurements are part of the image and cannot be changed as they are burned into the image.

Distance Measurements

Measure Distance: : Measure a linear distance. Press and hold the left mouse button, drag to draw a line from A to B on the image and release the button to finish. Select  is enabled after each measurement.

Press and hold Ctrl key on computer keyboard to make Horizontal or Vertical Distance measurements.

To adjust position of measurement lines and text:

Click and drag end of measurement lines to change the distance.


Click and drag measurement lines to move all.

Click and drag the text box to move.

Thickness and colour of measurement lines as well as font size of the text can be changed in [Preferences](#).

Number of displays measurement value decimals can be changed in [Preferences](#).

Reference Tools

To select a reference tool right click on the current icon  on the right menu bar. Reference tool group will pop-up.



Left click on the desired tool activate/deactivate. Last selected tool icon will replace the menu icon for quick access.



Crosshair: Left click to activate/deactivate Cross-hair on the screen.

Thickness and colour of the crosshair can be changed in [Preferences](#).



Grid: Left click to activate/deactivate the grid on the screen. A new window will appear to input the size of the grid on the first time activating the rectangle. Right click on the icon to change the grid size. To move the grid, click on it and drag to the desired location. To reset the grid to the centre of image field, right click and select Reset Grid.

Thickness and colour of the grid can be changed in [Preferences](#).



Rectangle: Left click to activate/deactivate Rectangle on the screen. When Rectangle is selected first time, new window will appear to define width and height of the rectangle. Right click on the Rectangle icon to change the rectangle size next time. To move the rectangle, click on it and drag to the desired location. To remove the rectangle to its original centre position right click and Reset Rectangle.

Thickness and colour of rectangle can be changed in [Preferences](#).



Reference Scale: Left click to activate/deactivate a calibrated Reference Bar on the screen.


Colour of reference scale bar can be changed in [Preferences](#).

Annotation Tools

To select an Annotation Tool right click on the current  icon on the right menu bar. Annotation tool menu will pop-up.



Annotation with Line: Draw the line and a text window will appear. Write a text or leave it blank to

just draw a line. To annotate only a text, just click instead of drawing a line. Select  is activated when annotation is completed to let you adjust position of the line and text box! Select annotation line or text box by left click and right-click your mouse button to delete all or to rename annotation text.



Counting Objects: Choose the desired category from the counting window and count objects on the image by left clicking on each item. The counted object will be mark with the first letter of the selected category followed with the current count. After finishing counting objects, click **OK** to close category window.

Name of the categories as well as their font size and colour can be changed in [Preferences](#).

Font size, line thickness and colour of annotation can be changed in [Preferences](#).

System Requirements

Minimum System requirements:

Component	Minimum specification
CPU	Intel Core i5, CPU @ 2.5 GHz or faster
Operating System	Windows 10/11 (x64 version Professional, Enterprise)
Memory	16 GB or higher of RAM
Hard disk	200 GB of Free Space
Display	Laptop: 15.6" / 1920 x 1080 (Full HD) PC: 24"-27" / 3840 x 2160 (4K)
Ports	One USB 3.0 or USB3.1 or USB3.2 port (5Gbit/s) Two USB 2.0 port

Recommended computers by Inspectis:

- **Station:** HP Workstation Z2, Intel Core i7, 16 GB RAM
Laptop: DELL Latitude 3520, Intel Core i7, @ 4.8 GHz, 8 GB RAM 15.6", Full HD
 HP EliteBook, Intel Core i7, @ 4.2 GHz, 8 GB RAM 15.6", Full HD

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