

# ImageFocus Plus

Software

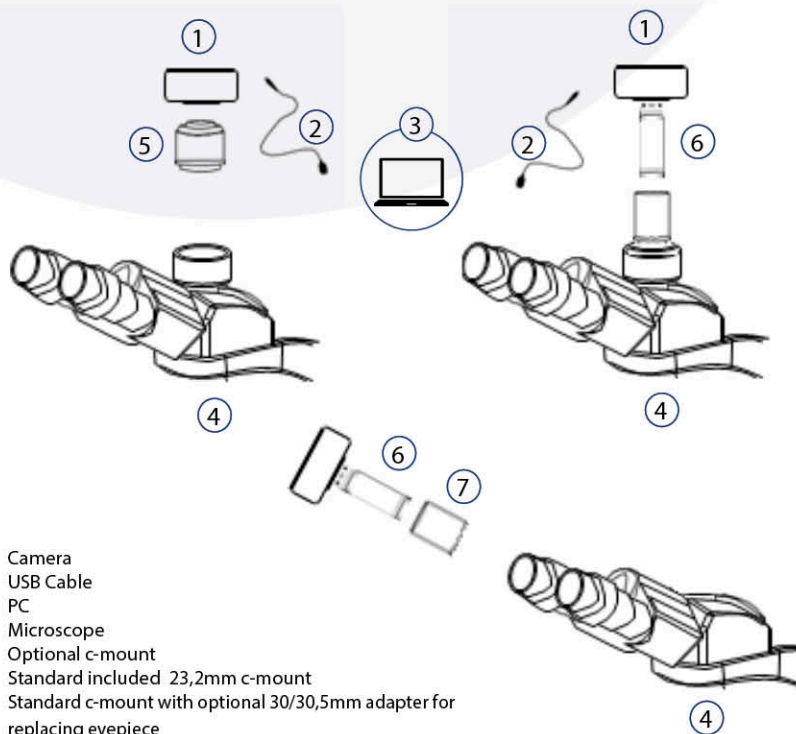


This guide is for information purposes only and does not constitute any commitment. If there is inconsistency between the image and the actual product, the actual product shall govern

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## 1. Camera installation



1. Camera
2. USB Cable
3. PC
4. Microscope
5. Optional c-mount
6. Standard included 23,2mm c-mount
7. Standard c-mount with optional 30/30,5mm adapter for replacing eyepiece

## 2. Software installation

### 2.1. System configuration recommendation:

|           |                         |
|-----------|-------------------------|
| OS        | Windows 7/8/10 (64bit)  |
| CPU       | Intel Core i5 or better |
| Memory    | 8GB or more             |
| USB ports | USB3.0                  |

### 2.2. Connect the camera to the PC

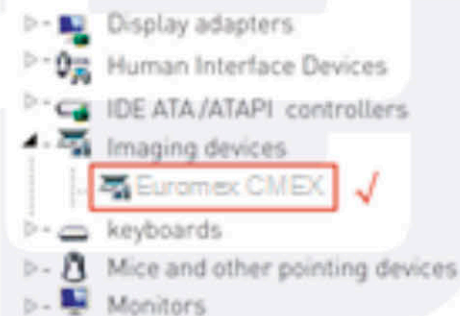
Insert the USB-Stick(or CD) comes with the camera, copy the software "ImageFocus Plus V2 Setup.exe" to the computer. Double click on it and follow the [Next] button to finish the installation. After [finish], a software shortcut will be created on the desktop



### 2.3. Go to the Device Manager

and check whether the driver is installed properly.

- If there is NO YELLOW FLAG with the camera under Imaging Devices in Device Manager, the driver is installed successfully
- If there is YELLOW FLAG, you need to reinstall the driver



## 2.4. Double-click the ImageFocus Plus V2 shortcut

to start the software. When running the software, the current frame rate is displayed in the exposure control

## 2.5. The software version number, camera model

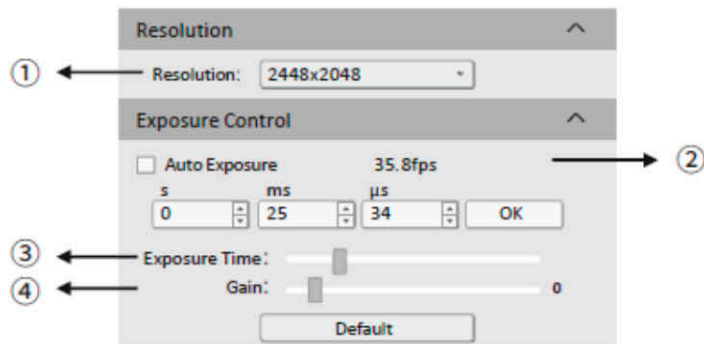
and computer configuration information will be obtained from the information in the info menu at the top right of the software

**Note:** If the camera is connected correctly, the camera device will automatically recognize and enter the preview state when the software is turned on. If get the “No Camera” error, it could be the camera is not detected by the PC or the driver is not installed properly. Please go to Device Manager to check the camera driver installation status

# 3. Software settings

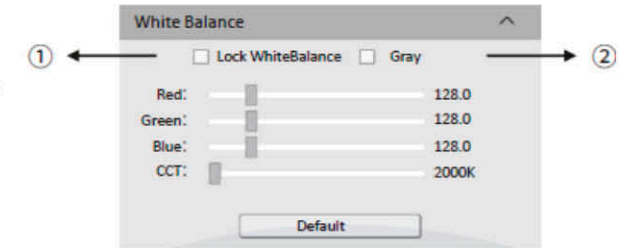
## 3.1. Basic Settings

1. Click the resolution drop-down box to select the working resolution.
2. Display and view the live preview frame rate
3. Observe the preview screen, and select the automatic or manual exposure setting according to the actual application requirements to obtain the desired image intensity
4. Depending on the application requirements, adjust the gain value to obtain the required image signal enhancement effect

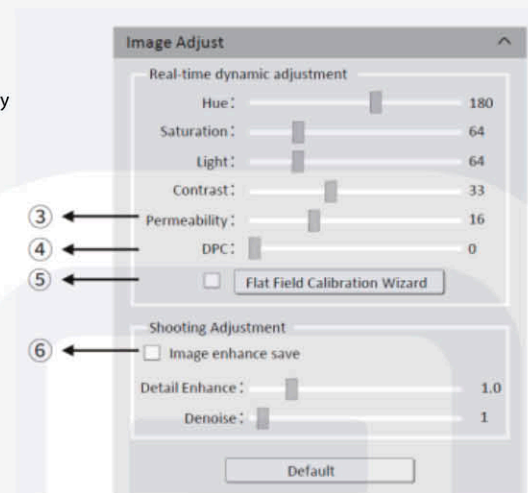


## 3.2. Image Adjustment

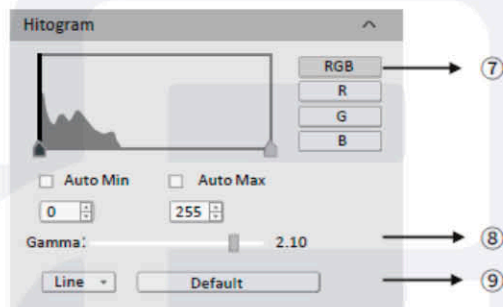
1. Move the sample under the objective to an evenly illuminated featureless position to set white balance, then check the option [Lock White Balance]. This will prevent the camera from performing automatic white balance recalculation, which would result in chromatic aberration
2. After selecting [Gray], the preview screen will turn into monochrome mode
3. When the preview shows a hazy effect, adjust [Permeability] to restore the clear picture
4. When the preview image has dead pixels and color points, adjust [DPC] the dead pixel correction function to effectively remove the dead pixels to obtain a cleaner image



5. When the light source is not uniform, or the preview image has dirty spots, use the [Flat Field Calibration Wizard] option to correct the image default background and obtain greater uniformity
6. Check [Image enhance save] to perform detail enhancement and noise reduction processing to obtain the desired image effects. This function is only effective when image capture is saved, and real-time effect preview is not supported



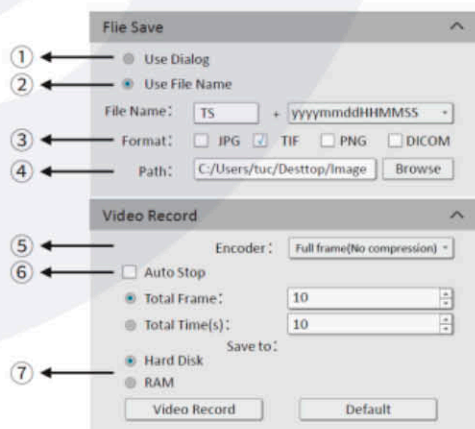
**Note:** CMEX -f series cameras do not support color temperature, hue, light, permeability and image enhancement



7. RGB channel selection, view the grayscale map of different channels
8. [Auto Min]&[Auto Max] automatically obtains the pixel values of the darkest and brightest intervals with even distribution. (Single channel does not support automatic color graduation)
9. Appropriately adjust the gamma value, change the brightness value of the gray tone of the image, and increase the layering of a monochrome image

### 3.3. Image capturing

1. Select [Use Dialog]: the software will pop up the Dialog to set the picture save path, picture name and format when taking pictures
2. Select [Use File Name]: A file will be saved with the name "TS" as default, but the name can be customized. "Customized name + time stamp" is supported. A name can contain up to 64 bytes
3. File format: Support JPG \TIF \PNG \DICOM, default to TIF, and can be checked simultaneously, but at least one of them must be chosen
4. Under default status, the image file shall be saved to a file folder specified in defined [Path]; user could modify the saveing path through [Browse]
5. The video provides two encoding modes: [Compression] and [Full frame (No compression)]. [Full frame (No compression)] is chosen as default
6. Select [Auto Stop], the recording mode is available in [Total Frame] and [Total Time]. [Total Frame] is chosen as default. Unselect [Auto Stop], user could manually click to stop the current video recording
7. [Hard Disk] In the process of capturing images, the function will automatically write the data into disk. Which is suitable for long-term shooting. [RAM] Save the data into computer memory; after image capturing, write the data into a disc file. Limited by the size of memory space, this mode is not suitable for a long time capturing images



### 4. Precautions

**CAUTION**

|   |  |
|---|--|
| <br>Do not disassemble                          | Do not disassemble, repair or modify on your own. Otherwise it will cause damage to the camera chip or devices on the circuit board. |
| <br>Do not contact water                        | Avoid allowing the camera to get wet, since this may cause the failures such as circuit board device corrosion, burnout and so on.   |
| <br>Do not subject the camera to physical shock | Avoid physical impacts such as dropping or banging.  |
| <br>Immediate repair request                    | Unplug the data cable, then request Euromex Microscopes to have the authorized dealer or sales for repair.                           |

**Note:** Man-made damage including self-disassembly, water ingress, physical shock and so on is not within the scope of warranty



## 5. Maintenance

1. Avoid removing the lens cap in a dusty environment
2. When removing the lens cap or mounting a lens, hold the camera face down to prevent dust from falling on the sensor surface
3. When the camera is not being used, the lens cap should be replaced
4. Use a professional dust removal tool to remove any dust on the camera optical filter.
  - If dust gets on the filter, it should be removed using low pressure air
  - For stubborn oily dust, the surface can be gently wiped using a lint-free cotton swab dipped in ethanol
5. If it still cannot be cleaned, contact the after-sales personnel for assistance. The use of non-professional equipment for cleaning is prone to lead to scratches on the filter surface
6. Use only the original power adapter. Ensure the adapter and associated cables are free from items that may cause damage. If the power adapter is damaged, please contact the supplier for an immediate replacement

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