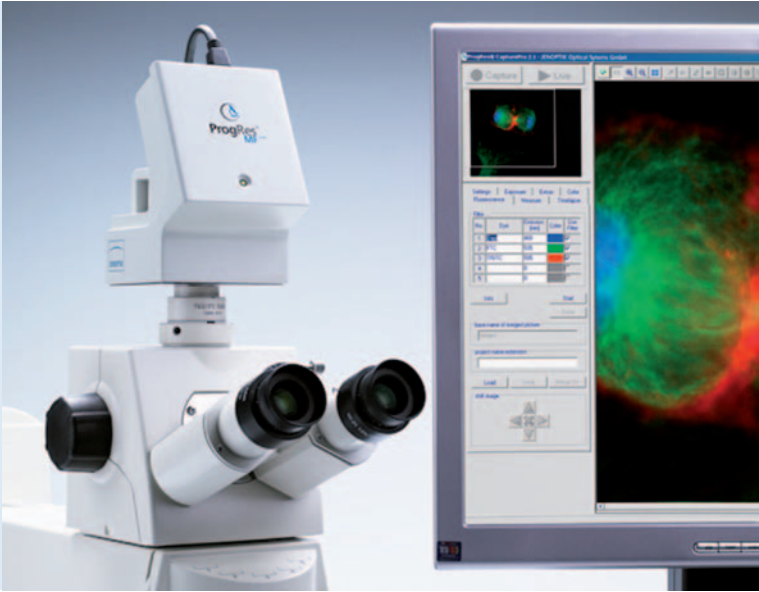




ProgRes[®] microscope cameras



Congratulations to your ProgRes® microscope camera!

This Quick-Start-Guide will help you to quickly install the ProgRes® microscope camera and the ProgRes® CapturePro application software, and will give you an overview over their main functions. For more information please refer to the ProgRes® CapturePro - Software manual which you will find on the installation CD and in the "Help"-menu of the ProgRes® CapturePro application software.



Important note: For the safe operation of your ProgRes®-camera, please observe the safety advice and the hardware requirements described in the instruction manual included in your delivery.

Easy installation

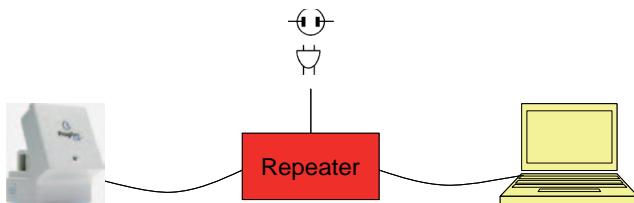
- Mount your ProgRes® microscope camera to the microscope by means of the C-Mount adapter.
- Click the file "ProgRes® CapturePro.exe" and follow the advice in the installation routine to install the ProgRes® CapturePro software.
- Connect the ProgRes® microscope camera to your computer by means of the FireWire- or USB-cable.

Desktop-computer

Power is supplied via FireWire- or USB-cable; you do not need to install any further equipment.

Laptop-computer


When using a ProgRes® FireWire-camera with a Laptop computer, power supply has to be provided additionally by using a repeater.






Note: Use only accessories which are included in your delivery or which are explicitly recommended by the manufacturer.

Software start

Double-click on the ProgRes® CapturePro-Icon . After starting the software, the live image will be displayed and you can immediately start working with the application software.

English

Hot Keys

F2	Capture
F3	Live
F4	Snapshot: Capture an image in the Live mode and save it directly in the live image resolution.
F11	Activate or deactivate Full screen mode.
CTRL+DEL	Delete marked form (context menu "Measure").
SHIFT+ CTRL+DEL	Delete all forms (context menu "Measure").
CTRL+B	Set marked form to background.
CTRL+F	Set marked form to foreground.
CTRL +S	"Burn" overlay into the image.
+ / -	Zoom in or out the image in Live and Capture mode.  Note: This function is not available in "Stretch" mode.

5 Steps to capturing a perfect image

English

5 Steps to capturing a perfect image

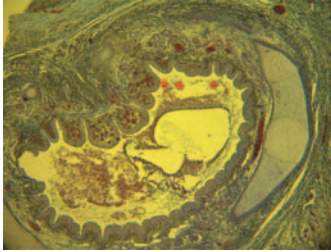


Image without white balance

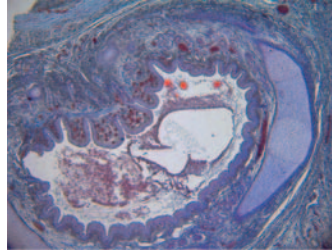

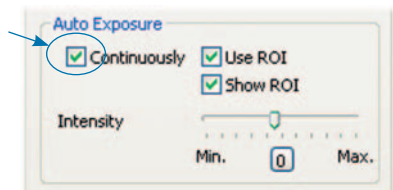




Image with white balance

① Set Auto Exposure - Register tab "Exposure":

"Continuously" is activated per default. To adjust exposure once, click "Auto Exposure"  in the icon bar.



② Set white balance:

- Click "White balance"  in the icon bar. Select a position in the image which has a neutral grey tint and which is **not overexposed**.
- Click "Reset white balance"  to reset the white balance.

Background information for setting a suitable white balance:

Ideally, the highest RGB-value of the selected position is approximately 230. The maximum RGB-value of 255 is not suitable for a white balance. The RGB-values of the cursor position are displayed in the status bar in the lower right corner of the image window.



Note: When resetting the white balance, the image will be reset to default values and can have a green tint. In this case, carry out the white balance again.

5 Steps to capturing a perfect image

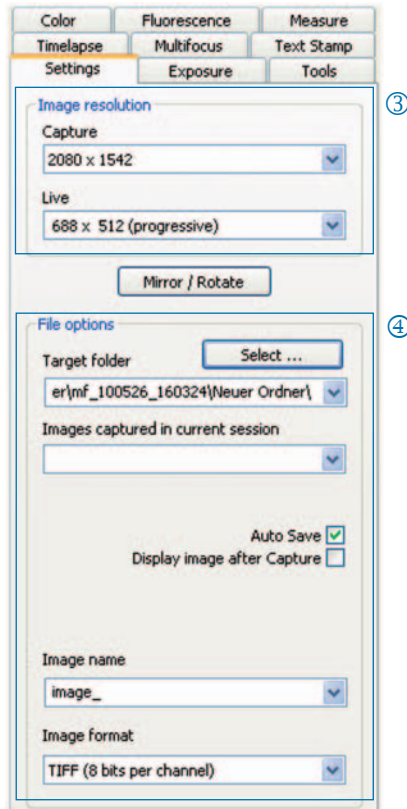
③ Set image resolution:

The image resolution is preset for your camera type. You can also individually set the image resolutions in the dropdown listboxes in the register tab "Settings".



④ Select target folder and image name:

Click "Select..." and select the storage place for the images in the explorer. The storage places selected in the current session will be displayed in the dropdown listbox "Target folder".

Select image name and saving format in the respective text box or dropdown listbox. A current number will be added to each image.



⑤ Capture images:

When you are pleased with the settings, click "Capture" . The image will be saved in the selected folder with the set resolution and can be loaded and displayed easily by using the "Gallery"-function .

English

Icon bar




























Icon bar



Note: If not all icon bar elements are displayed due to a too low image resolution, please press the F11-key.

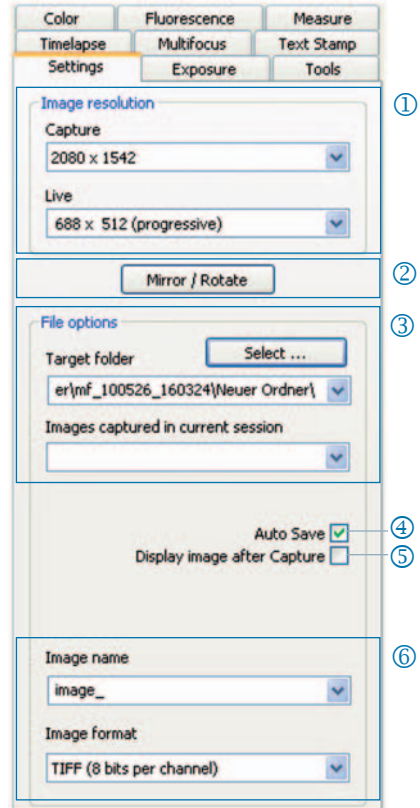
English

	Capture: Capture image
	Live / Freeze: Start or stop live image display.
	Print Image: Print or export up to 6 images in PDF-format directly from the application software.
	Load Image: Load a saved image.
	Gallery: Show or hide image gallery.
	Stretch to Window: Fit displayed image to the size of the window.
	True Pixel Size: Display image in 1:1-scale or select scale from the drop-down listbox.
	Zoom In / Zoom Out: Zoom image in or out.
	Hand-Tool: Shift the displayed image section.
	White Balance: Set white balance in the live image.
	Auto White Balance: Set automatic white balance in the live image.
	Reset White Balance: Reset created white balance.
	Black Balance: Create black balance in the live image.

	Reset Black Balance: Reset created black balance.
	Focus: Set focus in the live image.
	Auto Exposure: The exposure time in the live image is adjusted automatically once.
	ROI for Auto Exposure: Select an image area. Based on this area, Auto Exposure for the entire image will be calculated once.
	Select Crop: Select image region for live and captured image.
	Switch to B/W resp. RGB mode: Display image in Color mode or in Black / White mode.
	Scale: Show measurement scale.
	Annotation: Insert text or pointer annotation into the image.
	Measure: Insert measurement shape into the image.
	Select Shape(s): Mark and select overlay element (annotation or measurement shape).
	Select Camera: Select camera and display serial number.
	Help: Display program information and manual.

Settings: Set general settings for image capture

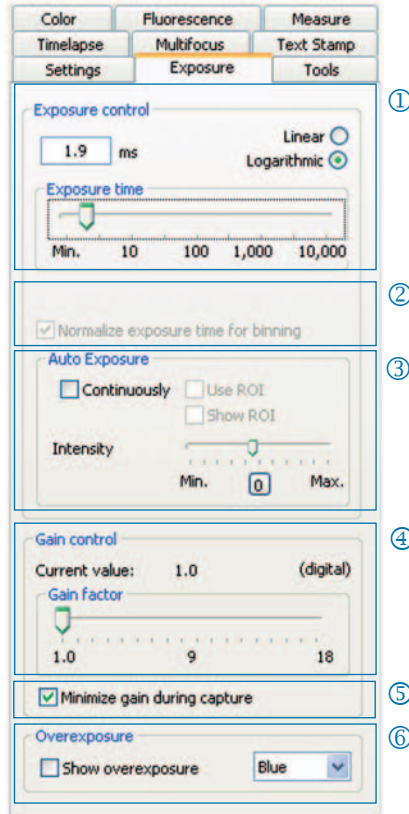
- ① **Image resolution:** Set resolution for live image and captured image.
- ② **Mirror / Rotate:** Change orientation of the live image and the captured image.
- ③ **File options:** Set target folder in the explorer and in the dropdown listbox. The images captured in the current session are displayed in the dropdown listbox.
- ④ **Auto Save:** Save images automatically without prior prompting.
- ⑤ **Display image after Capture:** To achieve higher image capture rates in Timelapse mode, please deactivate this function.
- ⑥ **Image name / Image format:** Insert the image name in the dropdown listbox and select the format in which the image will be saved. The images will be saved under this name and a current number will be assigned to each image.



Note: Please do not use any blank spaces or special characters in the image name (register tab "Settings"), otherwise you will not be able to capture and save images!

Exposure: Set exposure settings

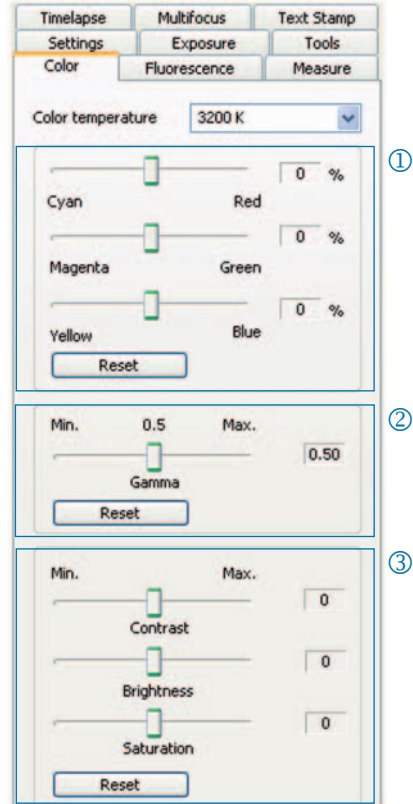
- ① **Exposure control:** Insert the exposure time in ms into the text box, or use the slider bar to adjust the exposure time.
- ② **Normalize exposure time for binning:** In Binning mode, the exposure time for the captured image will be displayed here.
- ③ **Auto Exposure:** Exposure will either be continuously adjusted over the entire image or it will be calculated based on a selected region of interest (ROI). By adjusting the intensity with the slider the image is set generally “brighter” or “darker”.
- ④ **Gain control:** The image signal can be amplified and exposure time can be reduced to achieve a higher live image frame rate.
- ⑤ **Minimize gain during capture:** When capturing an image, gain will be converted into exposure time, and background noise in the captured image will be minimized.
- ⑥ **Overexposure:** Overexposed image regions will be highlighted in color.




English

Color: Set color settings

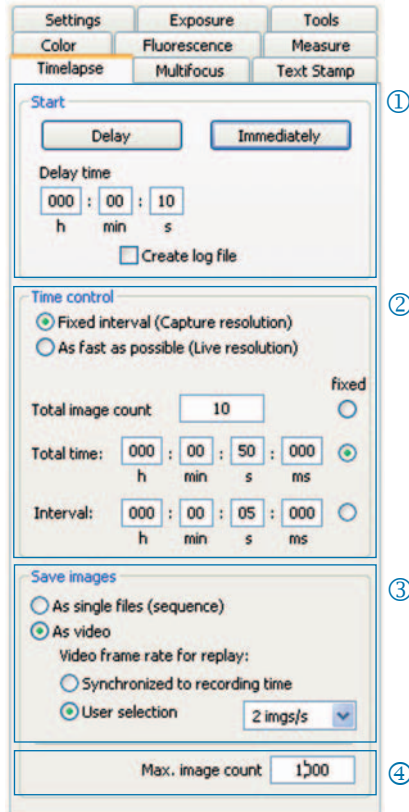
- ① **Color adjustment:** Set the balance between the RGB-basic color and the complementary CMYK-color.
- ② **Gamma:** Use the slider bar to adjust the gamma value.
- ③ **Contrast / Brightness / Saturation:** Adjust contrast, brightness and saturation by using the slider bars.



 **Note:** For an evenly balanced high-contrast color reproduction use the preset gamma value 0.5. For the linear reproduction of image data set the gamma value to 0.33.

Timelapse: Time-controlled image capture

- ① **Start:** Select whether the image capture is started immediately or with a time delay - insert the delay time if necessary.
- ② **Time control:** Image capture is carried out either as fast as possible or within a preset interval.
- ③ **Save images:** Save the images as single files or as a video sequence. The frame rate is either synchronized to the recording time or it is individually set by the user.
- ④ **Max. image count:** After reaching the number of images inserted here, image capture will be stopped. The maximum image count depends from the storage capacity of your computer.



English

Settings for fast image recording:

- Deactivate "Fit to screen".
- Set BMP file format.
- Deactivate "Display image after capture" in the register tab "Settings".
- Capture images as single files.

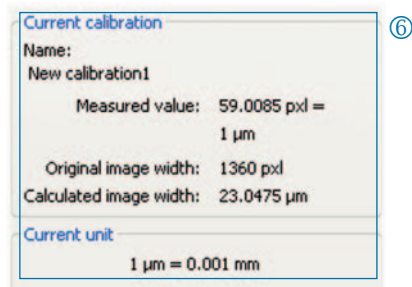
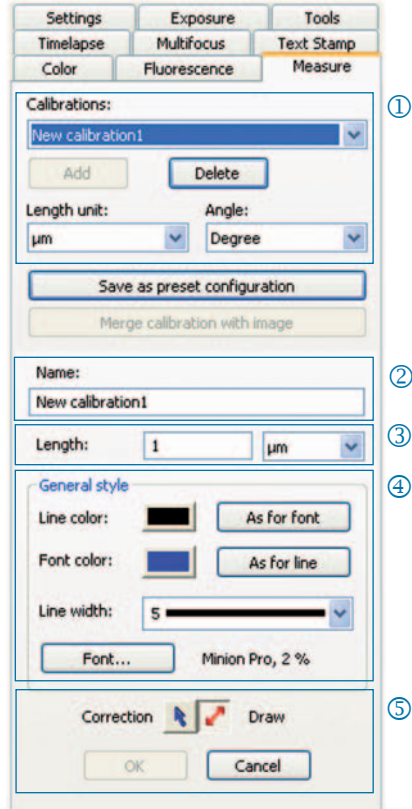
Measure: Create a measurement calibration

First, place the calibration standard on your microscope.

- ① **Calibrations:** Click “Add” and draw the calibration line. Select length or angle unit in the dropdown listbox.
- ② **Name:** Insert the name of the calibration into the text box.
- ③ **Length:** Insert the length of the calibration line. This value refers to the distance referenced by the calibration line.
- ④ **General style:** Select font, font color, line width and line color.
- ⑤ **Correction / Draw:** Click “Correction” to modify the existing calibration. Click “Draw” to draw a new calibration line.

When clicking “OK”, the lower area of the register card will change and the data of the current calibration will be displayed.

- ⑥ **Current calibration:** When selecting a calibration in the dropdown listbox, the data of this calibration will be displayed in the lower area of the register tab.



Measure: Set and edit overlay

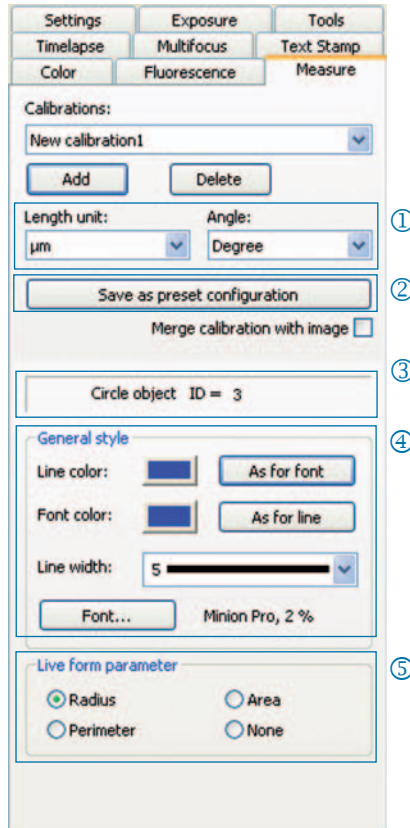


Click "Measure" in the icon bar and select the measurement shapes (overlay elements) from the dropdown listbox.

All measurement shapes in the image can be listed in a table, which will be displayed when clicking "Show results" in the dropdown listbox of the button "Measure".

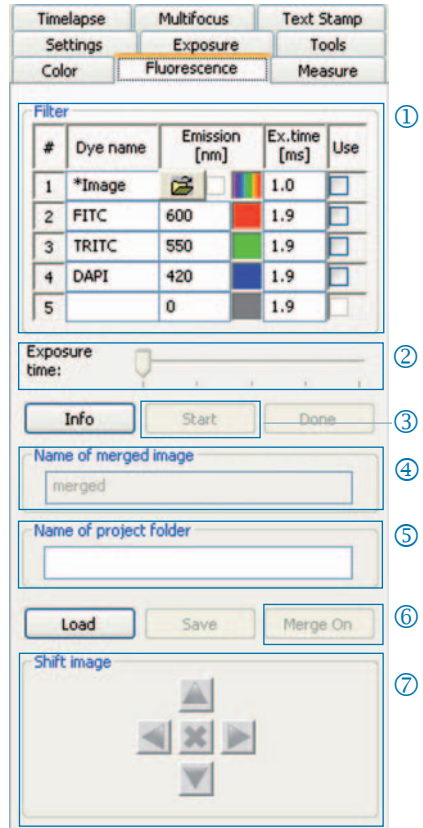
English

- ① Length / Angle: Set length and angle unit for the measurement shape.
- ② Merge calibration with image: Merge the overlay into the image and save it as part of the image file.
- ③ Measurement shape and ID
- ④ General style: Set font, font color, line width and line color for the measurement shape and the caption.
- ⑤ Live form parameter: Select live parameter display of the shape.



Fluorescence: Capture and save fluorescence images

- ① **Filter:** Insert dye name and emission of the filter or activate brightfield image (SHIFT + * + *name*).
- ② **Exposure time:** Use the slider or insert exposure time when prompted at the start of the routine.
- ③ **Start:** Start fluorescence routine. Follow the advice in the dialog boxes.
- ④ **Name of merged image:** Insert name for merged image.
- ⑤ **Name of project folder:** Insert name for fluorescence project folder.
- ⑥ **Merge On / Merge Off:** Merge captures of each filter to one image. Click "Save" to save merged image.
- ⑦ **Shift image:** Shift single filter captures in a merged image.



Important note: Please do not use any blank spaces or special characters in the image name (Register tab "Settings"). Set the gamma value to 0.33 (Register tab "Color").

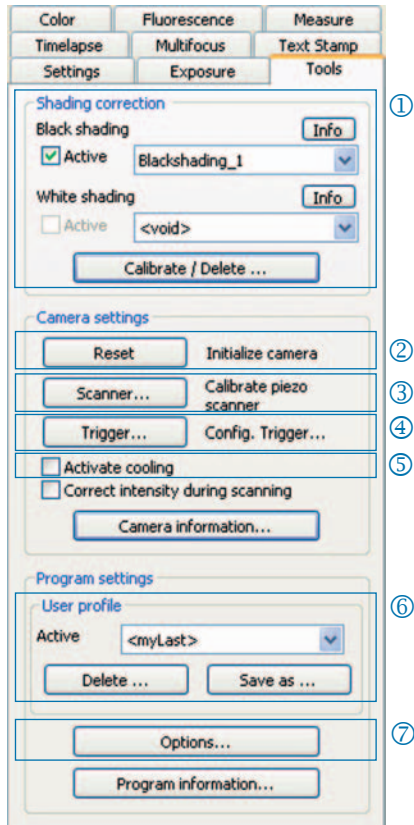
Merge brightfield image with fluorescence images:

- Insert SHIFT + * + *name* into the textbox "Filter".
- Mark the checkbox to activate the use of the brightfield image.
- The brightfield image will be captured as part of the fluorescence routine.
- The brightfield image can also be loaded by clicking the folder icon.

Finish the fluorescence project by clicking "Done".

Tools: Functions for improving image quality

- ① **Shading correction:** Click “Create / Delete...” and follow the advice in the dialog windows.
- ② **Reset:** Reinitialize camera connection.
- ③ **Scanner:** Start scanner calibration - only available for scanner cameras.
- ④ **Trigger:** Set configuration for Trigger In and Trigger Out - only available for trigger cameras.
- ⑤ **Activate cooling:** Activate or deactivate cooling - only available for cooled cameras.
- ⑥ **User profile:** Save and load user profile.
- ⑦ **Options:** Hide register tabs and set language.

**Background information on the user profile:**

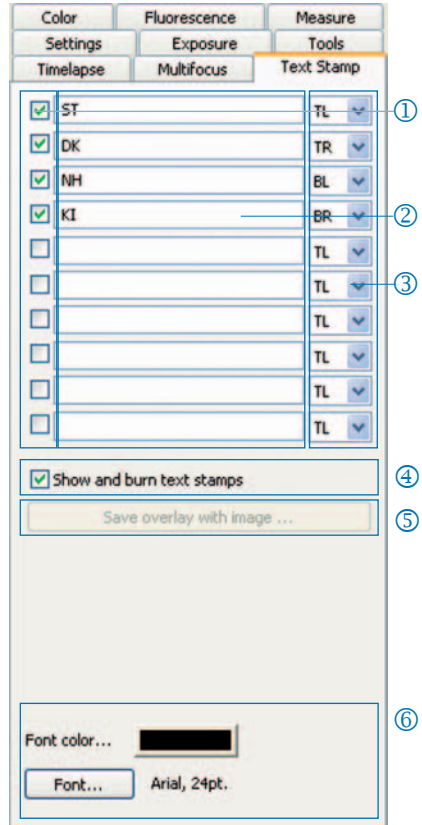
The current settings can be saved in the user profile. The user profile “mylast.cxp” is continuously updated. To permanently save settings in a user profile, click the button “Save as...” and insert the name of the profile. Saved user profiles can be directly selected and loaded from the status bar.

Text Stamp

Text Stamp: Insert caption in the image

- ① Activate or deactivate text stamp.
- ② Insert name for text stamp.
- ③ Set position for text stamp.
- ④ Display all text stamps and merge them with the image when clicking „Capture“.
- ⑤ Merge text stamp into the loaded image and save image with overlay.
- ⑥ Set font and font color.

English



Multifocus: Create image with high depth of focus

- ① **Start:** Click “Start” to start multifocus capture.

Save: Save merged multifocus image.

Done: The multifocus session is finished.

Click “Capture” to capture an image.

- ② **Status:**
 Green: Please click “Capture”.
 Yellow: Please click “Start”.
 Red: Please wait.

- ③ **Cut border area:**
 Cut borders where undesired effects (artifacts) can occur.



Note: Only the final merged multifocus image will be saved as a BMP- or TIFF-file when clicking “Save”. Intermediate steps will not be saved.

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