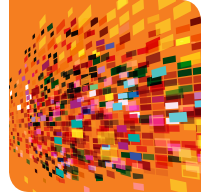


ZOE™ Fluorescent Cell Imager

Quick Guide



The ZOE Fluorescent Cell Imager with integrated digital camera and touch-screen interface makes cell imaging simple, fast, and intuitive. It is a complete imaging system with brightfield and multichannel fluorescence that is suitable for routine cell culture and imaging applications and does not require a darkroom for operation.



Position Mode

Starting the Experiment

1. Insert the supplied power cord into the instrument with its flat side facing down. Push until it clicks.
2. Place the sample on the stage. Use the Position mode to select the sample area of interest. The red crosshair, aligned with the objective lens, represents the actual imaging spot.
3. Tap the **Live** mode icon to start viewing the sample.



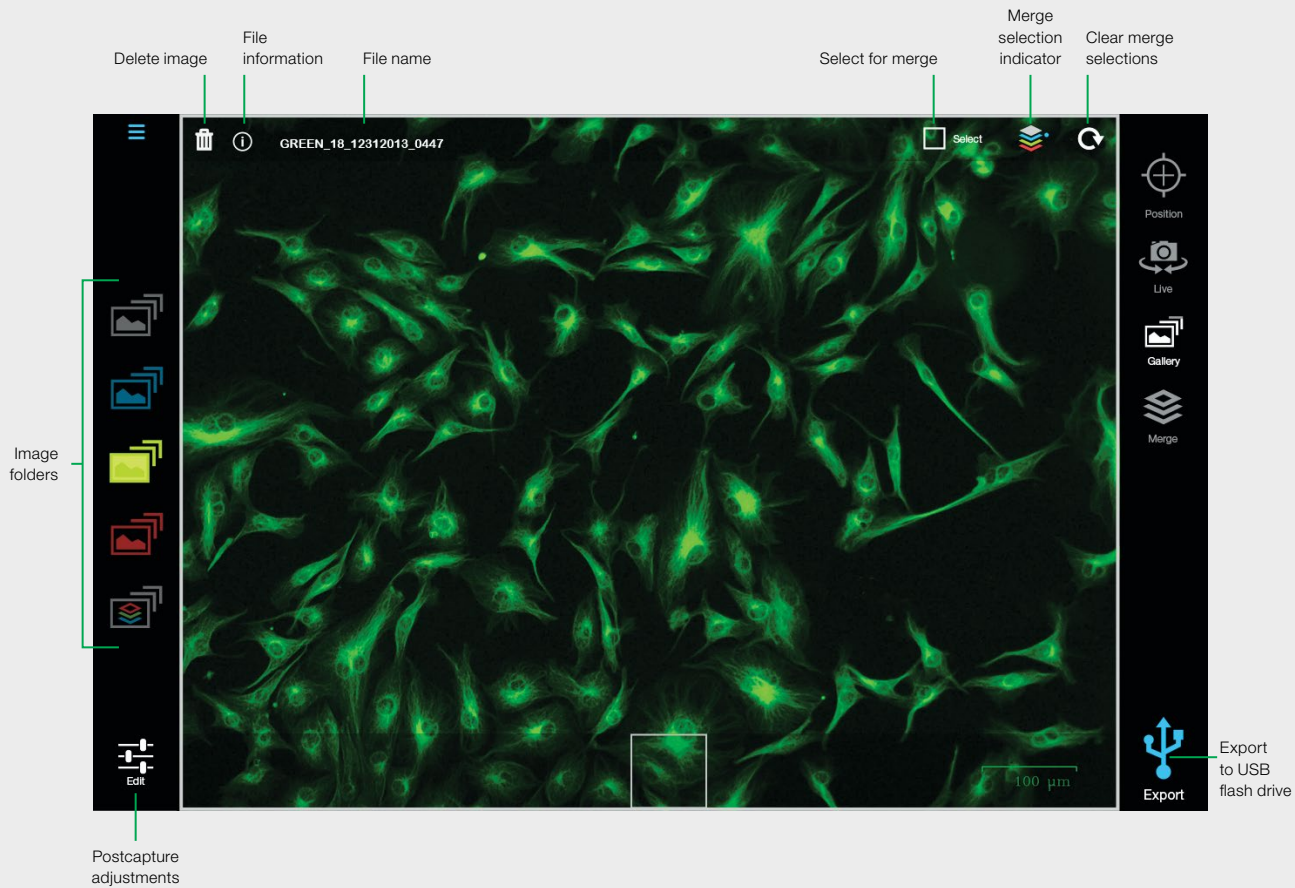


Live Mode

Using the Imaging Channels

1. Tap the light source control to turn on the light source (brightfield or one of the three fluorescence channels).
2. Focus the image using the focus knobs.
3. Use the Edit function to optimize imaging parameters (Gain, Exposure time, LED intensity, Contrast). In the brightfield channel, use the Q1, Q2, Q3, and Q4 checkboxes to further improve image contrast by using oblique illumination.
4. Use the motorized stage to rapidly relocate the sample viewing area. Move it by swiping the screen in the desired direction. Pinch to zoom to change the display magnification.
5. Tap the **Capture** icon to capture an image.
6. The captured image is automatically stored and displayed in the appropriate image folder in Gallery mode. For example, green images will go to the green folder in Gallery mode.

| Vessel Type | Z-Axis Position | Vessel Type | Z-Axis Position |
|-----------------------------|-----------------|---------------------------|-----------------|
| Microscope slide | 720 (± 100) | T75 flask | 2,500 (± 200) |
| 6-, 12-, 24-, 48-well plate | 2,000 (± 200) | T225 tissue culture flask | 3,200 (± 200) |
| 96-well plate | 3,500 (± 200) | Small petri dish | 1,200 (± 200) |
| T25 flask | 1,800 (± 200) | Large petri dish | 1,100 (± 200) |



Gallery Mode

Viewing Captured Images

1. Access captured images stored in the internal memory by tapping the folder icon: brightfield, blue, green, or red folder. Multicolor merge images are stored in the merge folder.
2. Swipe the screen to open the next image.
3. Pinch to zoom to increase the display magnification.
4. Use the Edit function to optimize imaging parameters (brightness and contrast).
5. Tap the **Export** icon to export captured images to the USB flash drive.



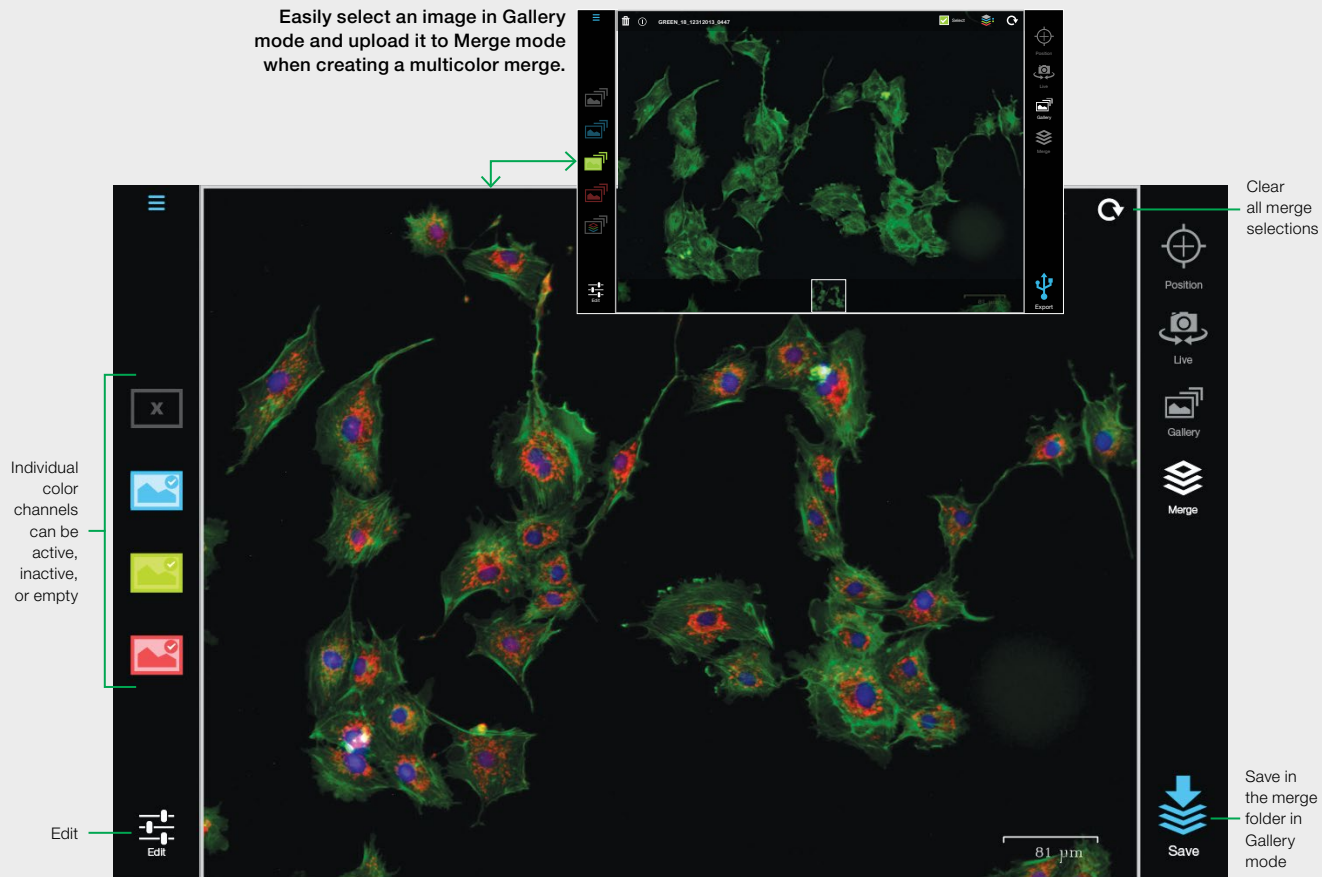
Merge Mode

Creating Multicolor Merge

When capturing images that will be overlaid, all images should come from the same field of view and must be of the same magnification (use the scale bar displayed in the lower right corner during image capture as a guide).

1. In Live mode turn on the light source you wish to use.
2. Adjust the settings in Edit if desired and tap the **Capture** icon.
3. Live mode switches to Gallery mode and the just-captured image is displayed. If satisfied with the image, tap **Select**; the selected image is uploaded in Merge mode. The merge selection indicator is updated to show all currently selected colors.
4. Return to Live mode and repeat steps 2 and 3 for the remaining colors you wish to use in the merge.
5. Go to Merge mode, in which all selected images are automatically overlaid.
6. Optimize brightness and contrast in Edit if desired, then tap **Save** to save the merge as a single image file in the merge folder (in Gallery mode), from which it can be exported to a USB flash drive.

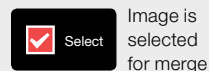
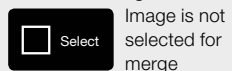
Easily select an image in Gallery mode and upload it to Merge mode when creating a multicolor merge.



Merge Controls

In Gallery mode the following controls are available:

Select for Merge



Merge Selection Indicator

