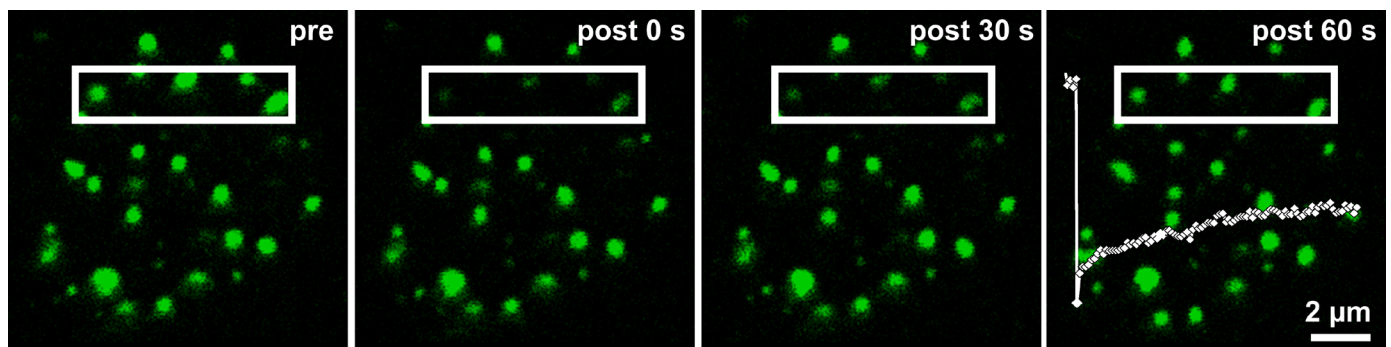


# Pixel-precise bleaching & great range of calculation tools

## FRAP for ZEISS ZEN Imaging Software

Fluorescence Recovery After Photobleaching (FRAP) for ZEISS ZEN Imaging Software is designed to study molecule interaction and motion. With the FRAP, your Regions Of Interest (ROIs) can be bleached with pixel-precise while the advanced software the module enables an individual setting option.

Laser line, laser power, and bleach protocol can now be individually adjusted to your needs and requirements. Manage online experiment feedback and recording tools to display the fluorescence recovering phase. Furthermore, FRAP has an exponential fit function for one or two components.



Sample image of EGFP-CENPI in HepG2 cells before bleach ("pre"), and at the indicated time points after the bleach ("post"). The recovery curve (superimposed in the last image shows the recovery from bleach at 0 s to 60 s, intensities in AU) can be used to calculate the diffusion coefficient of the molecule.

### Highlights

#### Pixel-precise bleaching

Define your ROIs with pixel-precise through an easy setup of FRAP experiment

#### Enhanced estimation tool

Estimate global diffusion constant to molecules by basic fit functions

#### Improved calculation tool

Calculate the immobile and mobile fraction of a molecule, the recovery half-time and diffusion coefficient

#### Individual settings

Adjust laser line, laser power and bleach protocol to your working requirements

### Upgrade your ZEISS microscope

Upgrade your ZEISS microscope with the FRAP option and benefit from pixel-precise bleaching and a great range of molecule investigation-tools.

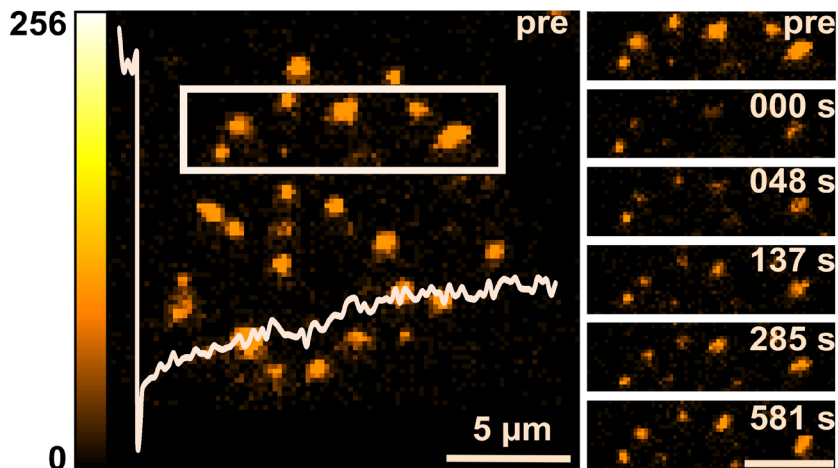
As technical requirements may apply on some systems, please contact us to learn more about FRAP and how your imaging will benefit from an upgrade: [microscopy@zeiss.com](mailto:microscopy@zeiss.com)



Seeing beyond

# FRAP for ZEISS ZEN Imaging Software

Great range of investigation tools



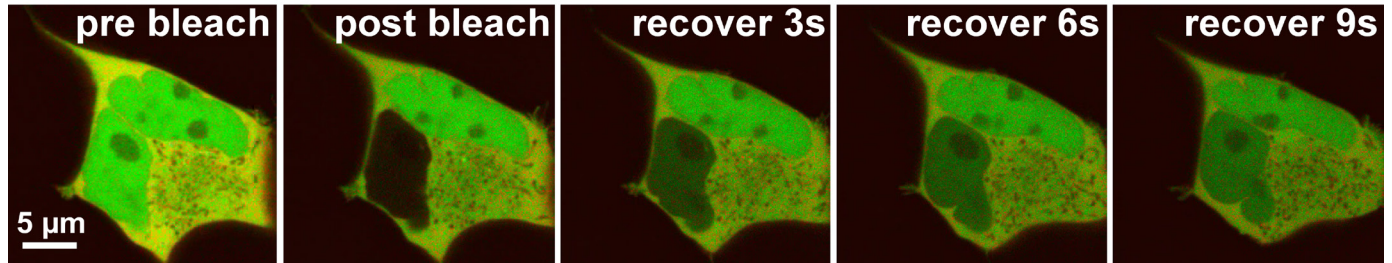
Sample image of EGFP-CENPI expressed in HepG2 cells before bleach (pre, left panel), and at different time points after the bleach (0, 48, 137, 285 and 581 s, right panels). Intensity color coded

## Availability

The FRAP upgrade is available for the following software:

ZEN pro (blue edition)	
ZEN desk (blue edition)	
ZEN desk (black edition)	<input checked="" type="radio"/>
ZEN system (blue edition)	
ZEN system (black edition)	<input checked="" type="radio"/>
ZEN lite	
ZEN 2 core	
ZEN 2 starter	

Included in ZEN     Optional in ZEN



Sample image of GFP expressed in HepG2 cells before bleach (pre bleach), after the bleach (post bleach) and at different time points after the bleach.



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www.zeiss.com/microscopy