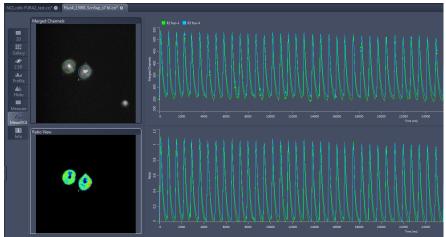
# Analyze physiological time series data &

# acquire full flexibility

## **Physiology for ZEISS ZEN Imaging Software**



#### Upgrade your ZEISS microscope

Upgrade your ZEISS microscope with the Physiology option and benefit from analyses of physiological time series data.

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

Sample image of Flu-4 labeled cells which are stimulated resulting in fast fluctuations in intensity that correspond to rising and falling calcium levels.

With the Physiology module for ZEISS ZEN Imaging Software, you can analyze physiological time series data, especially to measure fast ion fluctuations. This happens in a fully interactive and flexible manner with advanced charting and analysis functions. Using the Physiology function you specify user-defined measurement regions (ROIs) before the acquisition of your time-lapse experiment and analyze their time-dependent changes in intensity online during acquisition. Ratios can also be calculated and displayed online.

#### Highlights

#### Impressive insights

Observe fundamental and delicate parametric changes in ion imaging time-lapse experiments within living cells and tissues

#### **Operation feedback**

Receive detailed feedback at every time point of the acquisition which allows you to interact with the data as required

#### Flexible combination of dimensions

Combine the Physiology module seamlessly with other modalities e.g. triggered acquisition, dual camera, etc.

#### Full flexibility

Furthermore, you can change acquisition speed and execute predefined hardware settings as appropriate online.

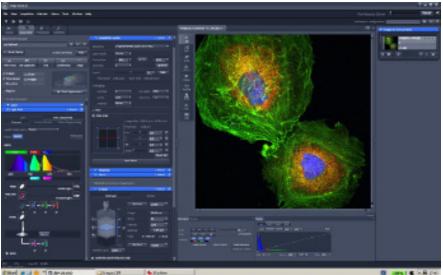
Change your acquisition speed using definable switches and annotate experiment conditions



#### Seeing beyond

### **Physiology for ZEISS ZEN Imaging Software**

Acquire full flexibility

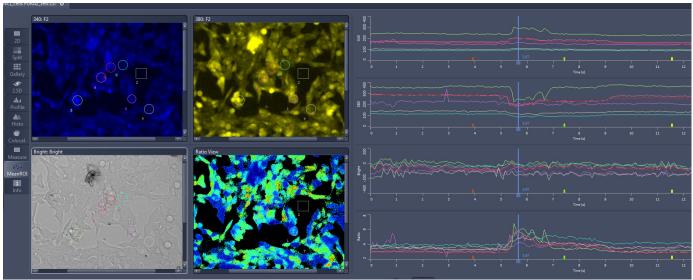


Physiology module for intensity analyses over time; 3D VisArt for 3D rendering of the image stacks.

#### Availability

The Physiology upgrade is available for the following software:

ZEN pro (blue edition)	0
ZEN desk (blue edition)	0
ZEN desk (black edition)	0
ZEN system (blue edition)	0
ZEN system (black edition)	0
ZEN lite	
ZEN 2 core	
ZEN 2 starter	
Included in ZEN Optional in ZEN	



The sample image of cells which are load with FURA-2 dye and are imaged sequentially is 340 nm and 380 nm over time. Additionally, the cells are monitored with a bright-field image.





microscopy@zeiss.com www.zeiss.com/microscopy