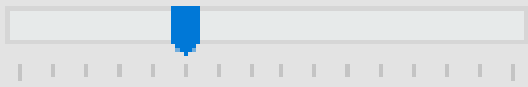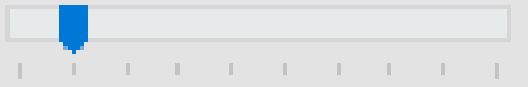www.picolay.de

PICOLAY

- the official channel -

– Understanding stacking parameters –

Set stacking parameters

Noise suppression (0...30) **10**

Narrow or widen patches (-/+10) **-2**

Filter: Smart ☐ Fixed (1...10) **2**

Prefer high ☐ / ☐ low frames

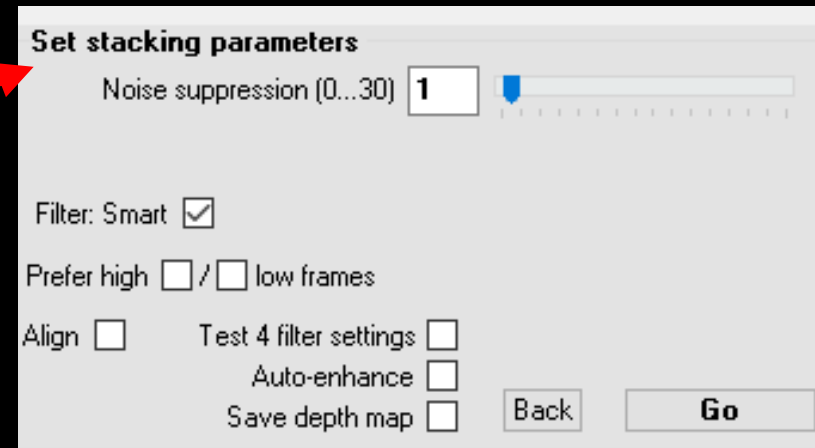Align ☐ Test 4 filter settings ☐
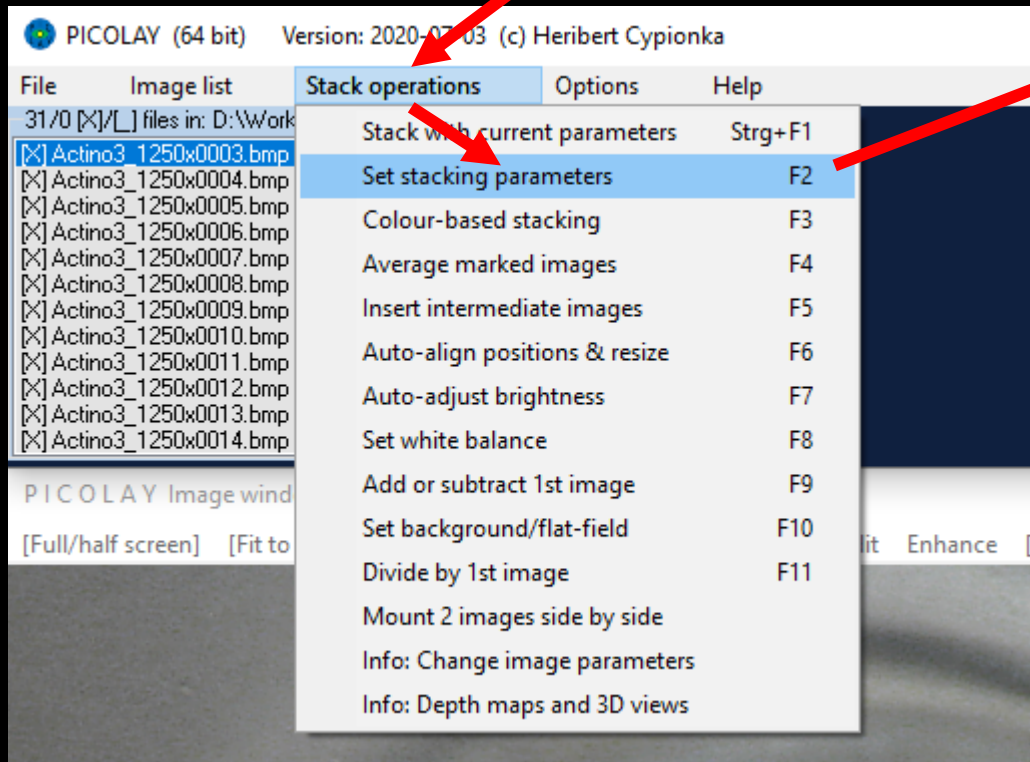
Auto-enhance ☐

Save depth map ☑

Back Go

PICOLAY tutorial by Heribert Cypionka

F2 or → Stack operations → Set stacking parameter ...

Click!

Stacking parameter panel

Noise suppression

Set stacking parameters
Noise suppression (0...30) `1`

Filter: Smart ☑

Prefer high ☐ / ☐ low frames

Align ☐   Test 4 filter settings ☐
     Auto-enhance ☐
     Save depth map ☐   Back   Go
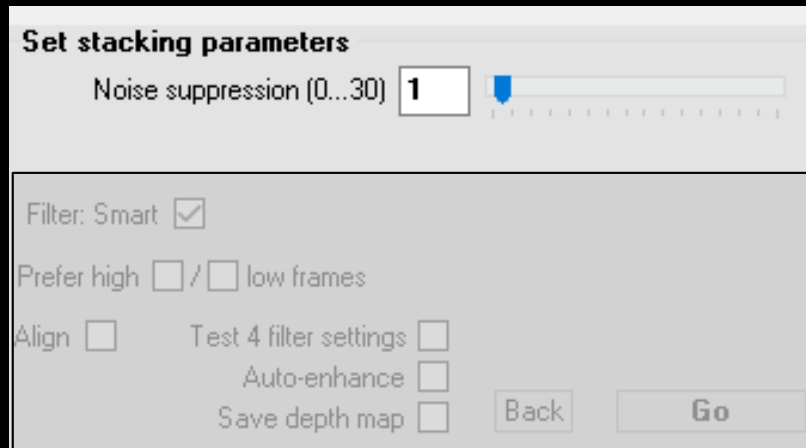
The stacking routine seeks structures, which are indicated by variations of pixel RGB-values. Variation can be caused by edges, peaks or noise. Noise suppression, can be helpful or mask structures. (Avoid noise by using low ISO values!)
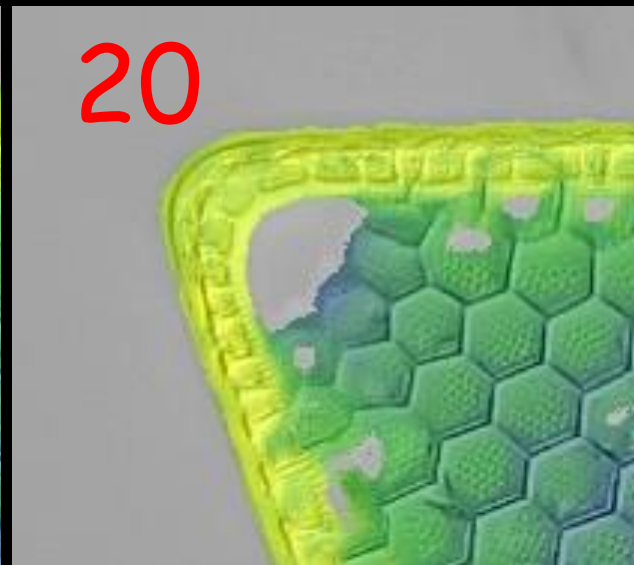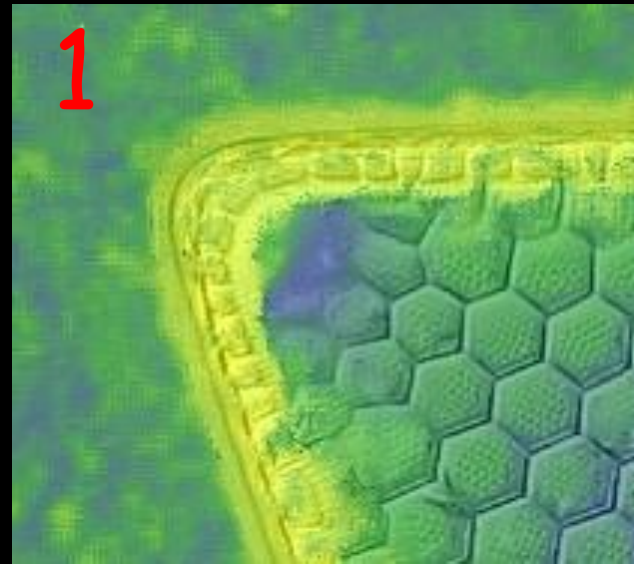
At noise suppression = 0, PICOLAY tries to see structures everywhere. At values > 0, grey areas of the depth map indicate areas without detail.

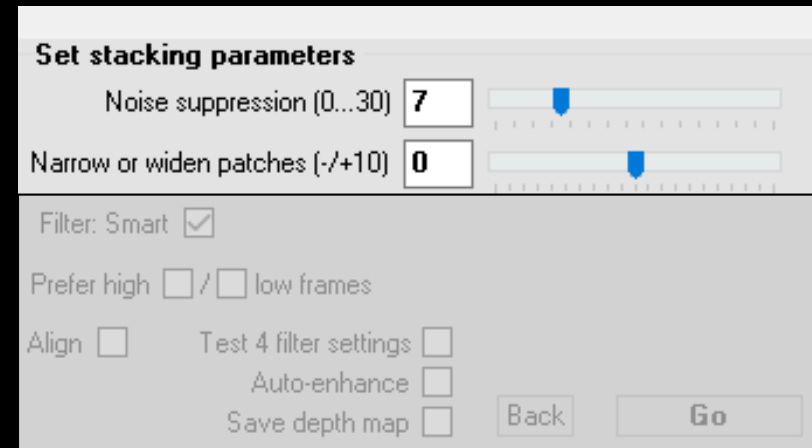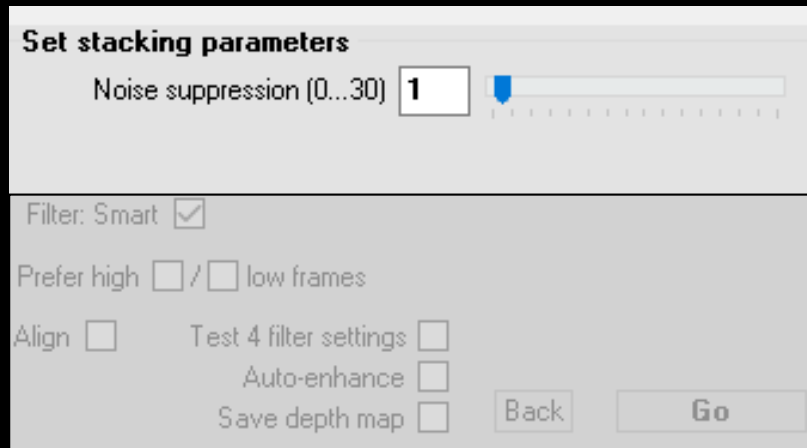# Noise suppression (Test-stack diatom Triceratium)

See Tutorial #1

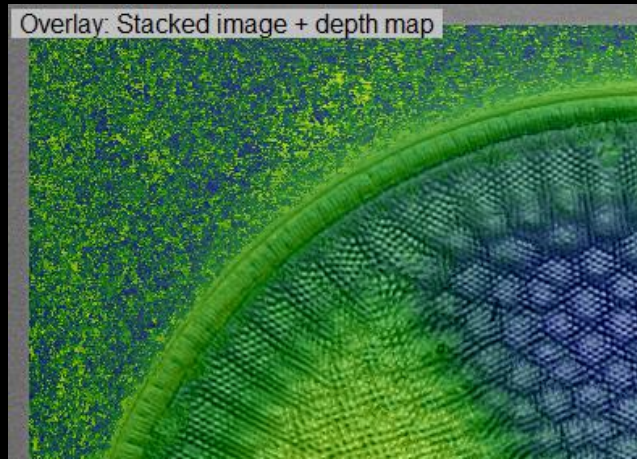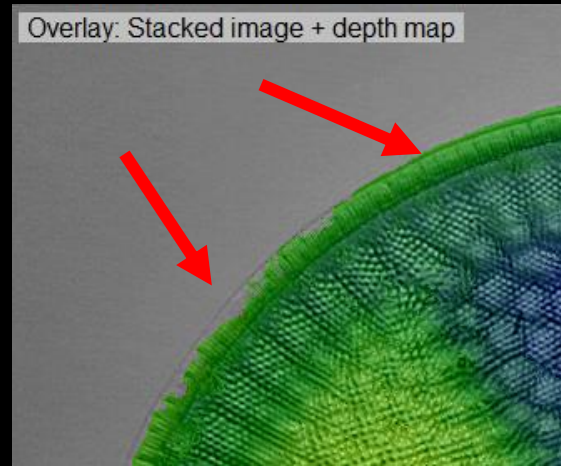# Noise suppression (Overlay of depth map & stacked image)

Narrow or widen patches

At noise suppression values > 1, patches with and without details will show up. The edges of those can be modified by narrowing or widening patches.
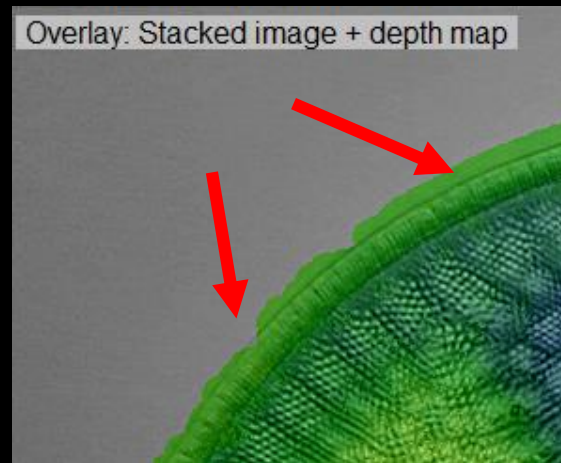
Noise suppression/patches: ExamplesS

Noise suppression: 0

18

Widen patches: +8

Filter: Smart (= flexible) or constant at 1 … 10

Set stacking parameters

Noise suppression (0…30) [1]

Filter: Smart ☑

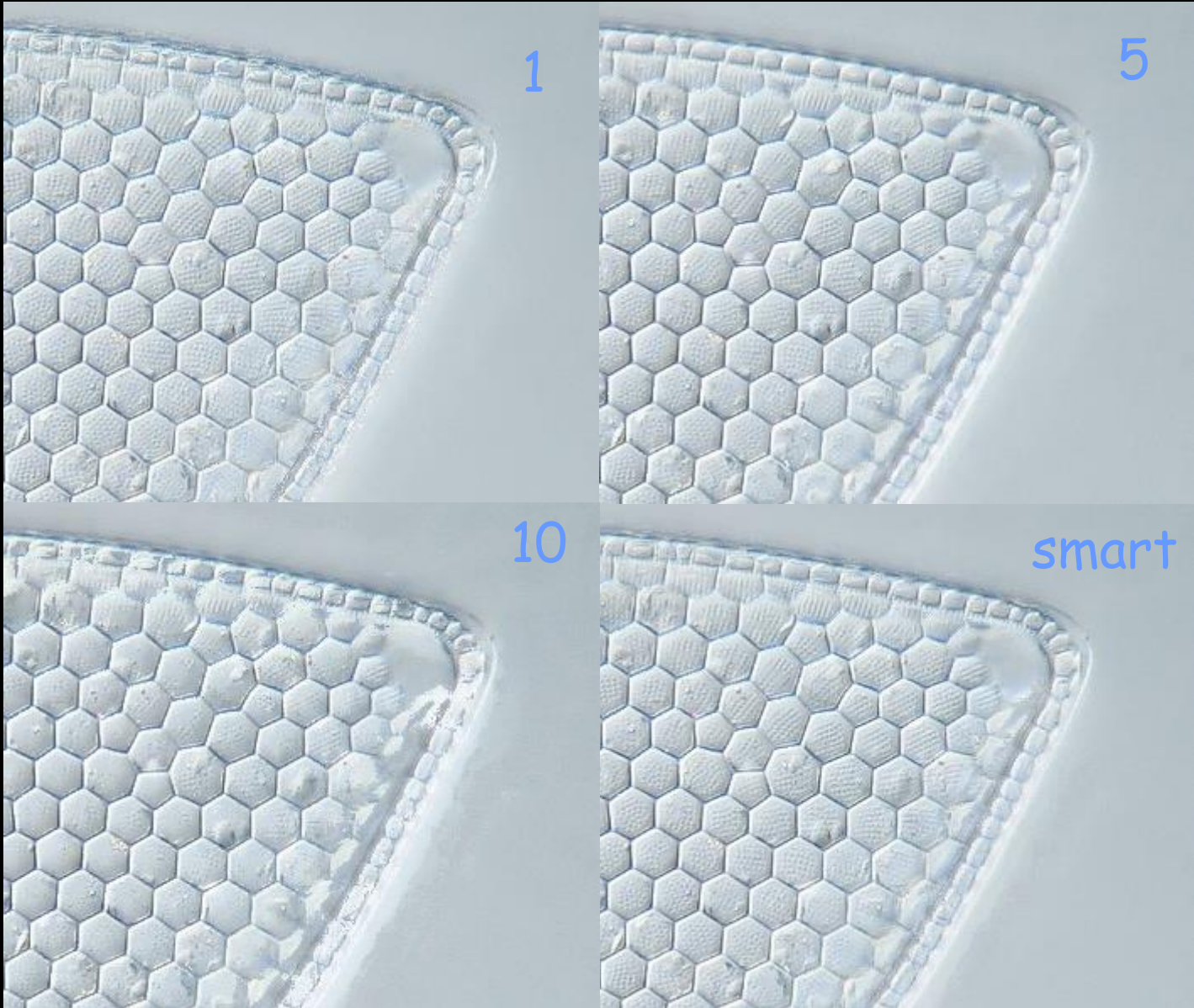Prefer high ☐ / ☐ low frames

Align ☐   Test 4 filter settings ☐
                      Auto-enhance ☐
                  Save depth map ☐   Back   Go
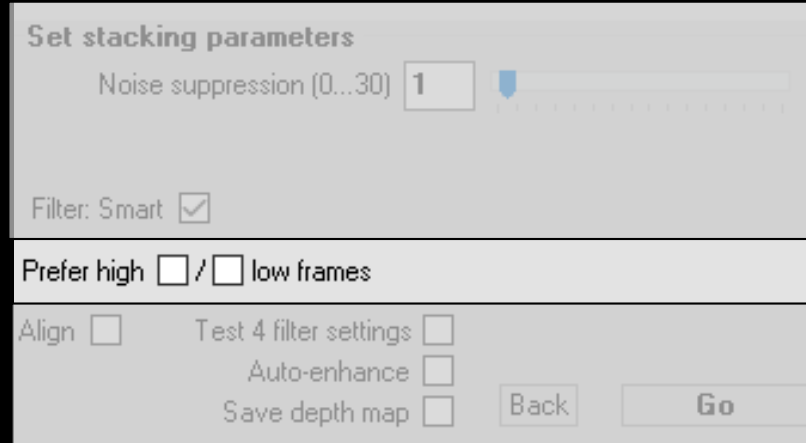
Filter: Smart ☐   Fixed (1…10) [5]

The search for structures is done with three filters ('peepholes'): 1 = fine = close neighbourhood, 5 = medium neighbourhood, or 10 = coarse. 'Smart' automatically mixes the results of the filters. Alternatively, one can use a constant filter mixture 1 … 10, and eventually combine the results.

Filter: Smart (flexible) or fixed to 1 ... 10
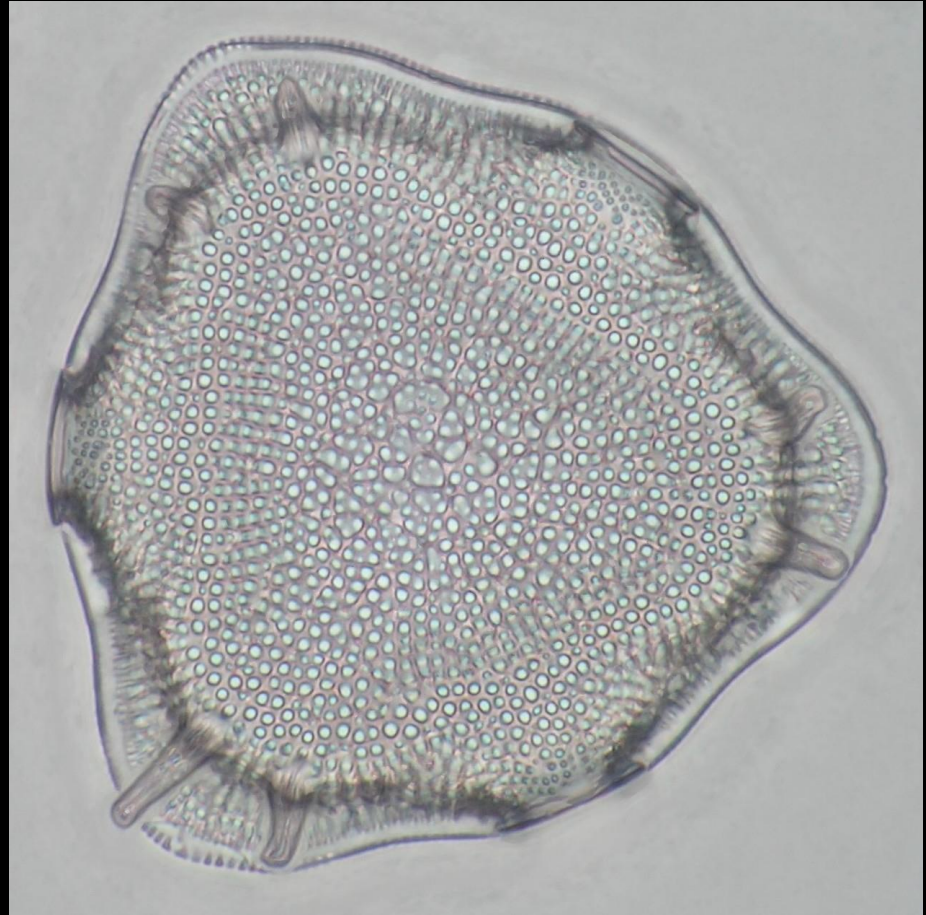
Prefer high or low frames

This parameter is useful with transparent objects. One can gradually enhance or suppress structures from deeper layers.

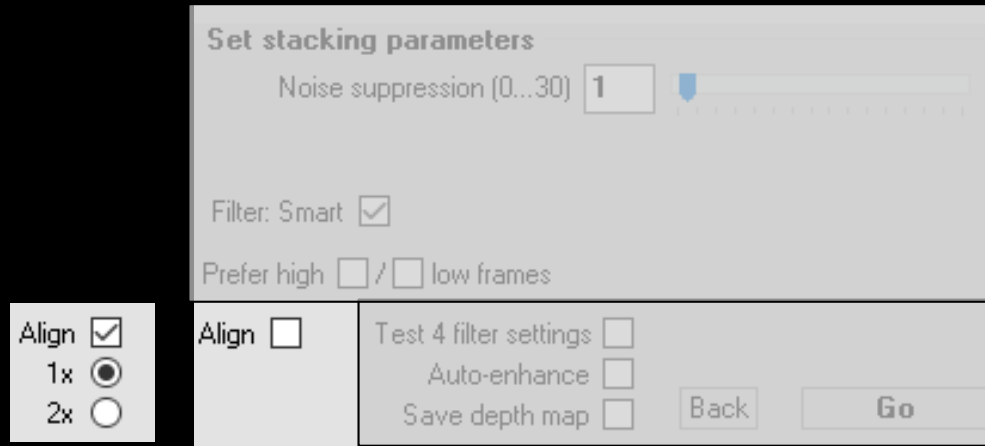# Prefer high or low frames

Preference: 0   70 %

Image alignment

Close-up and macro images need alignment, microphotographs not always. You have to decide ...

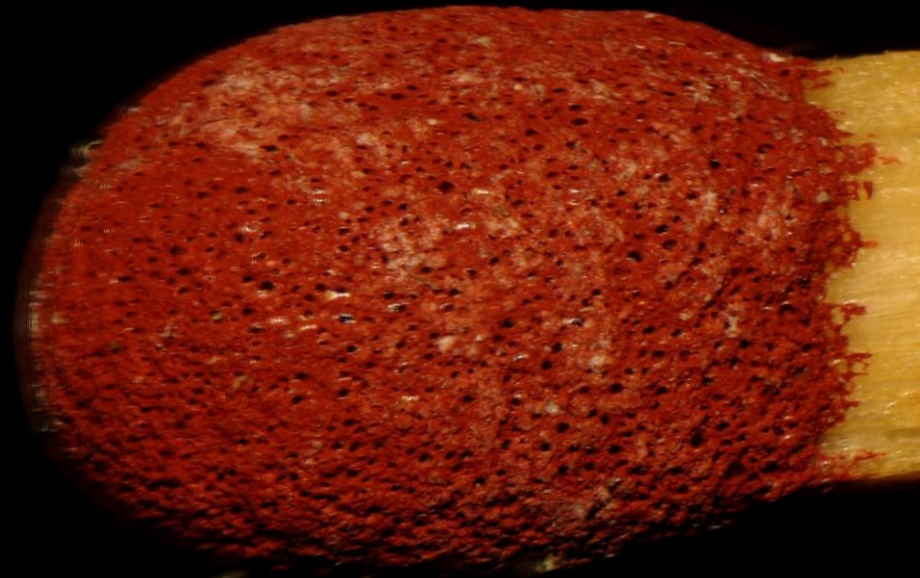Alignment corrects (1) displacement, (2) rotation and (3) size differences. (1) is obligate, (2) and (3) can be set under Options. (Default setting: Rotation = off)
Align 1x aligns 'on the fly', starting with the last image.
Align 2x first aligns the images to that in the middle of the stack, saves them ('xy...') and then perform Align 1x as well.

Macrophoto from binocular stereomicroscope

Off
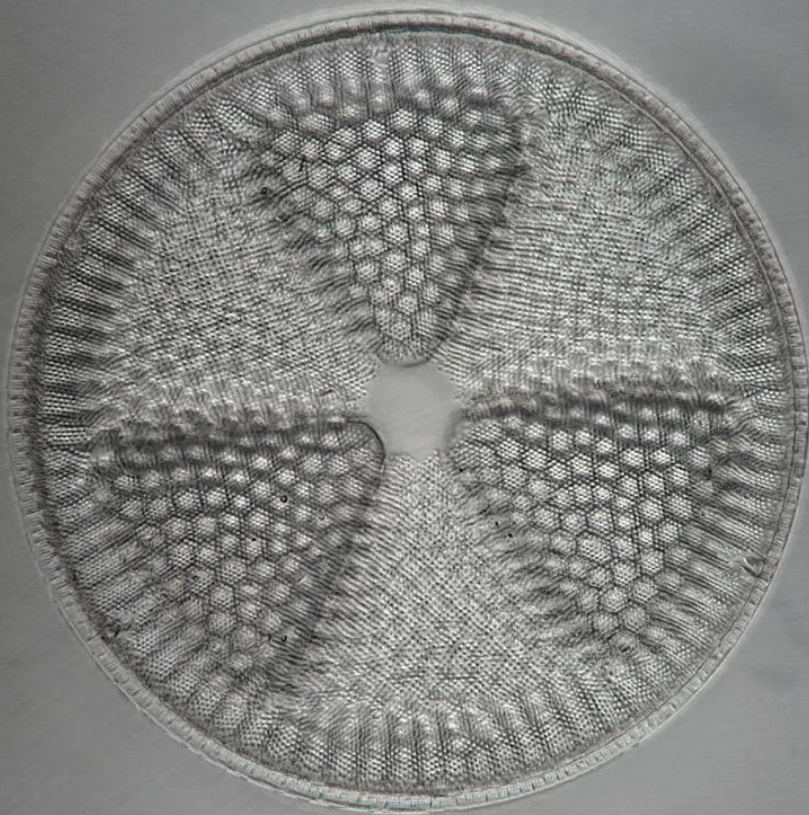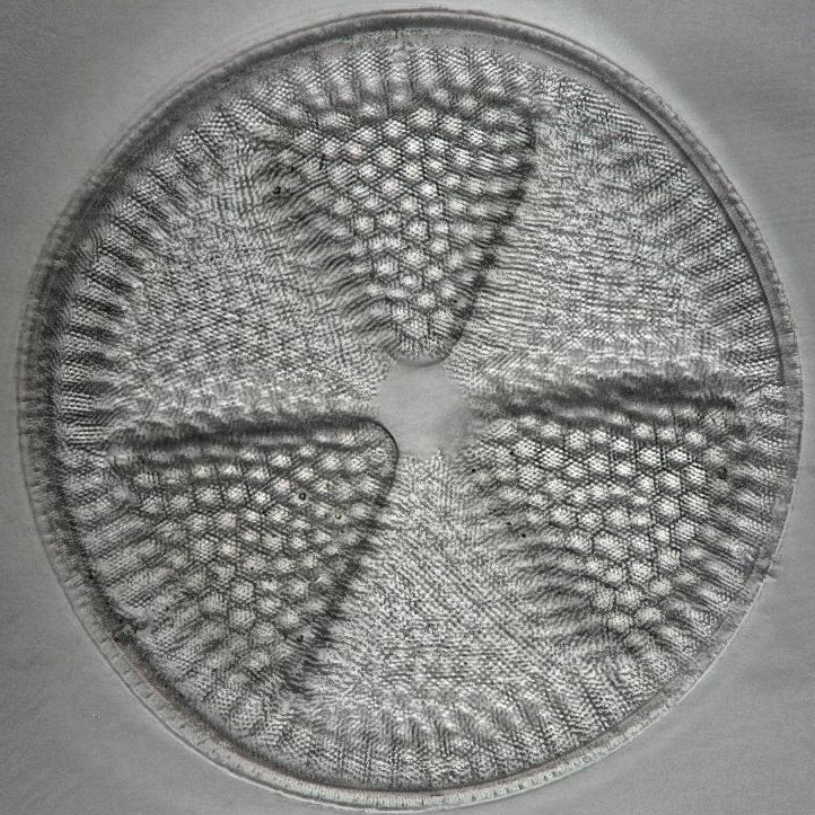
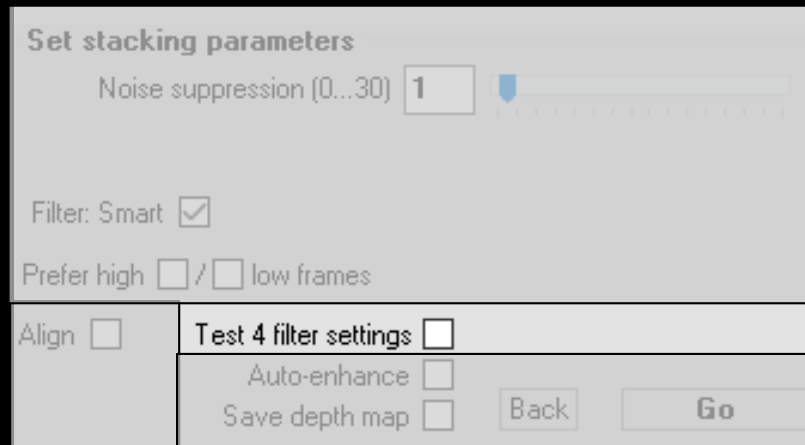On (1x)

Alignment

Microphoto 1250 x magnification

PICOLAY

Affinity Photo

Off

On (obligate !?)

Test 4 filter settings

Set stacking parameters

Noise suppression (0...30) `1`

Filter: Smart ☑

Prefer high ☐ / ☐ low frames

Align ☐	Test 4 filter settings ☐
	Auto-enhance ☐
	Save depth map ☐ Back Go

This feature tries parameter combinations to approach the perfect settings.

PICOLAY (64 bit)

File   Image list

20/4 [X]/[_] files in: D:\Bild

[_] pystkd.bmp
[_] pystkd_sup6.bmp
[_] pystkd_fil3.bmp
[_] pystkd_fil9.bmp
[X] diat63x0003.bmp
[X] diat63x0004.bmp
[X] diat63x0005.bmp

Auto-enhance

Set stacking parameters

Noise suppression (0...30) `1`

Filter: Smart ☑

Prefer high ☐ / ☐ low frames

Align ☐   Test 4 filter settings ☐

Auto-enhance ☐
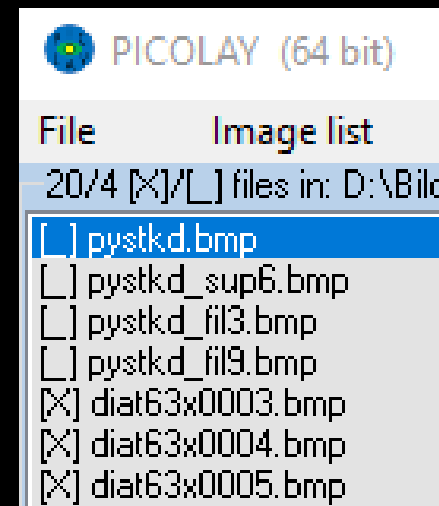
Save depth map ☐   Back   Go
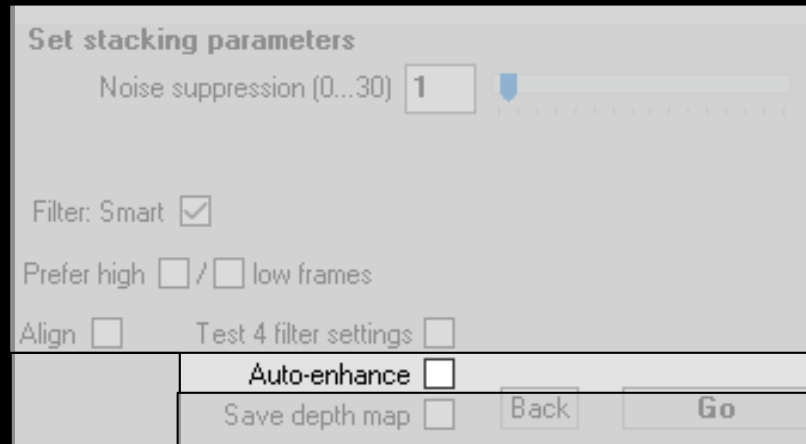
- Enhances contrast, sharpness and colour saturation of the stacked images.
– For beginners, image enhance functions of PICOLAY do a better job.
- Do not use prior to cloning from originals to the stacked image!

Save depth map

- A "must have" for 3D fans. ☺

- Depth maps obtained with different parameters combinations may be combined...

www.picolay.de