User Guide

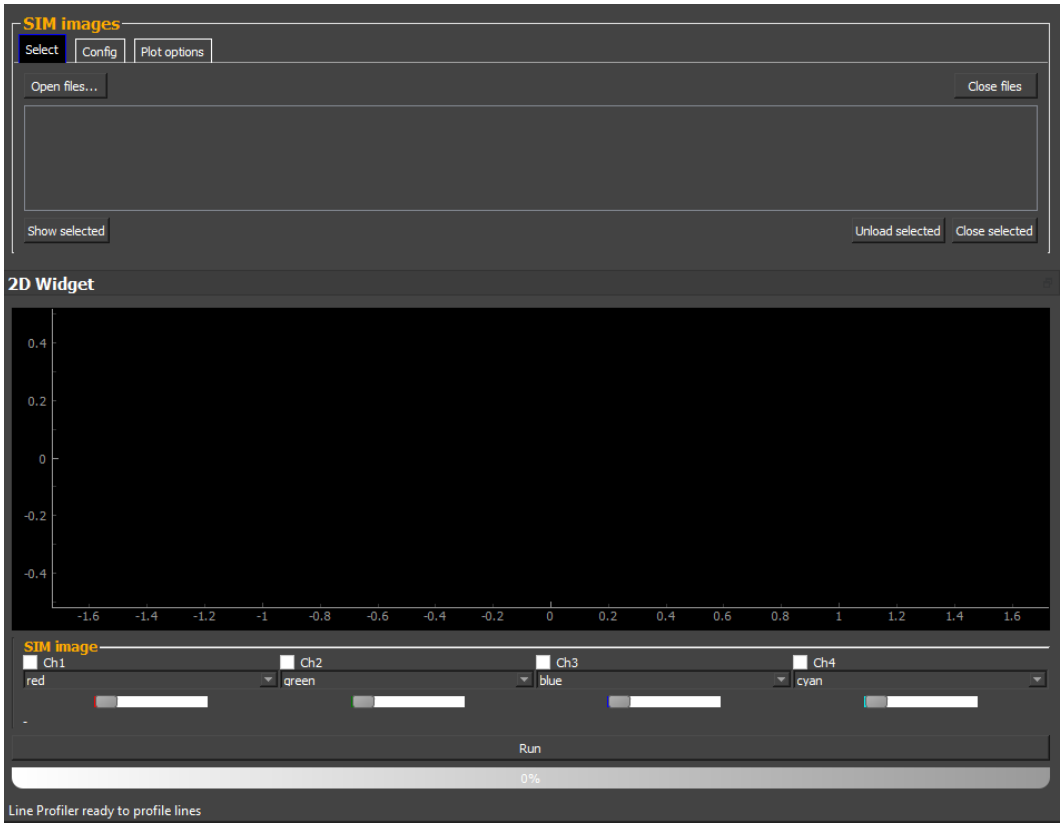

Figure 1: In the „Select“ tab press the „Open files...“ button, to open a file dialogue. Select the .czi, tiff or .lsm file you want to evaluate. The file name should now be displayed in the images list. Click on the file name to select it. Press the „Show selected“ button. Check the checkbox for the channel you want to see on the bottom. For computational reasons one channel microtubule files are copied to the second channel. Press run selected, to start line profiling.

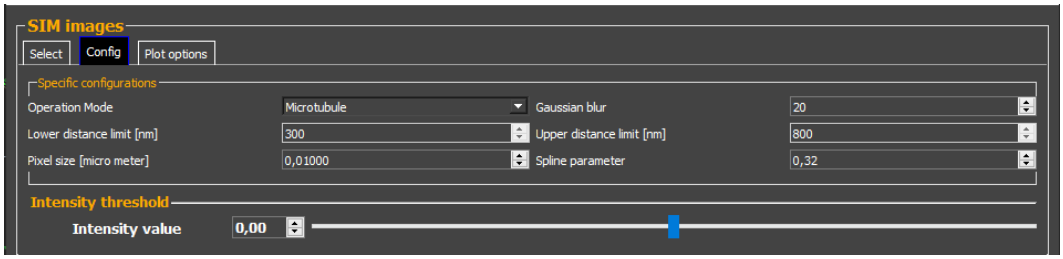

Figure 2: Switch operation mode between microtubule, SNC and SNC_canny. SNC evaluates SYCP3 data via the SYCP1N channel and generally yields better results than SNC_canny. However, SNC_canny only needs one channel for evaluation and can be used if SYCP1N wasn't measured or can't be evaluated. Structures that describe closed loops (despite the SYCP3 helix structure) within the image can't be evaluated and have to be preprocessed, by drawing a black line or cutting part of it out. Lower and Upper limit give the range between the two global line profile maximas to be considered valid data (disabled in microtubule mode). Pixel size should be the image pixelsize in µm. Gaussian blur and spline parameter are smoothing factors. The better your data, the smaller these values can be chosen. Intensity value is the intensity threshold for processing (has no influence on the line profiles) drag it around, until your structures are clearly visible.

Figure 3: Functions that the resulting line profile can be fitted with. Expansion factor (forget about it if you don't use expansion microscopy) has influence on the initial estimations of Cylinder projection and Multi cylinder projection.