Simulating regions of different diffusion for testing pCF

For this tutorial you will be using the t-zone simulation mode.

In the simulation screen, set the conditions as shown in the following screen captures

I choose a box size of 128

This is standard. You can put more particles if you wish
Note that the particles are confined in the xy plane since the t-zone are in the plane.

This is the most important screen.

I set the size of the TZ to be 8, which is the half size. So the TZ is actually 16 pixels wide and square. Remember that a pixel is 50 nm so that the total size is 800nm.

The next TZ is at 256, so that is out of the ROI. This is done so that there is only one TZ in the field of view.

I set the diffusion factor to be a factor of 10 slower in the TZ than in the rest of the field.

There is no barrier as such, but only a slowdown of the diffusion. So I set the probability of entering and exiting from TZ to 1

You should see something like the following screen. Note that the particles in the central regions move slower than in the rest (you can see this only when you run the simulation, of course)
Note that the first row to analyze is 800. This is done because at the starting of the simulation there is a transient due to the fact that the particle in the t-zone move slowly but they have to equilibrate with the other particles. I analyzed the pCF(20). You can see the typical semicircle (I believe) in this simulation.

Have fun