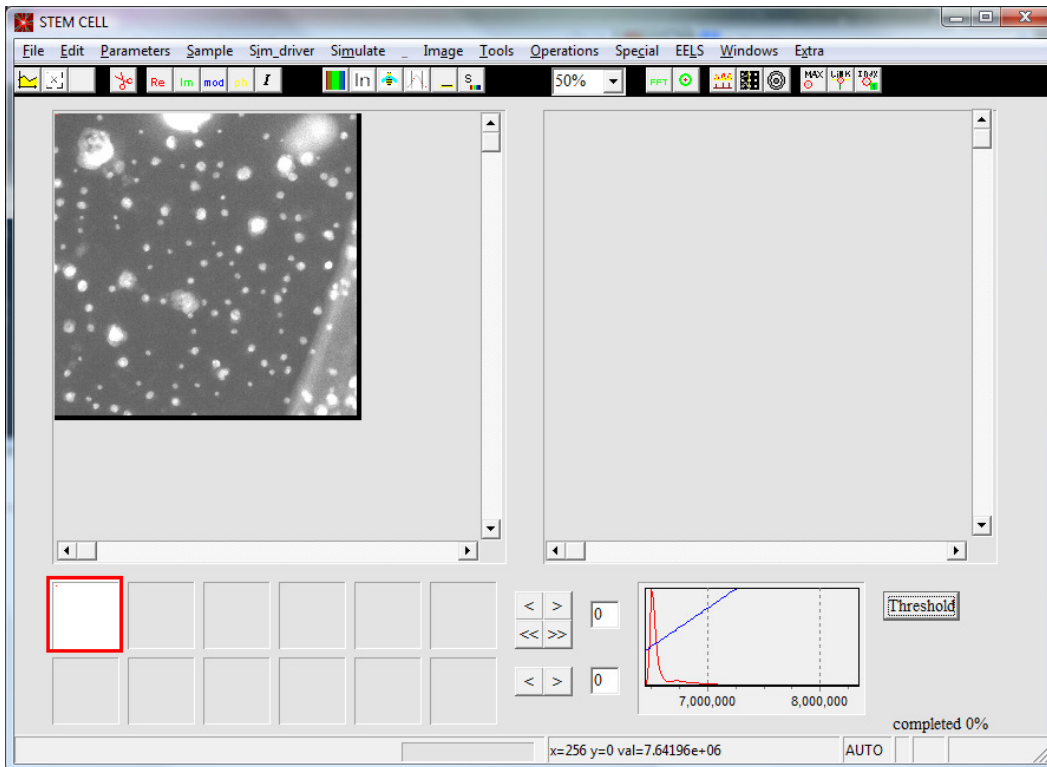


## PARTICLE ANALYSIS

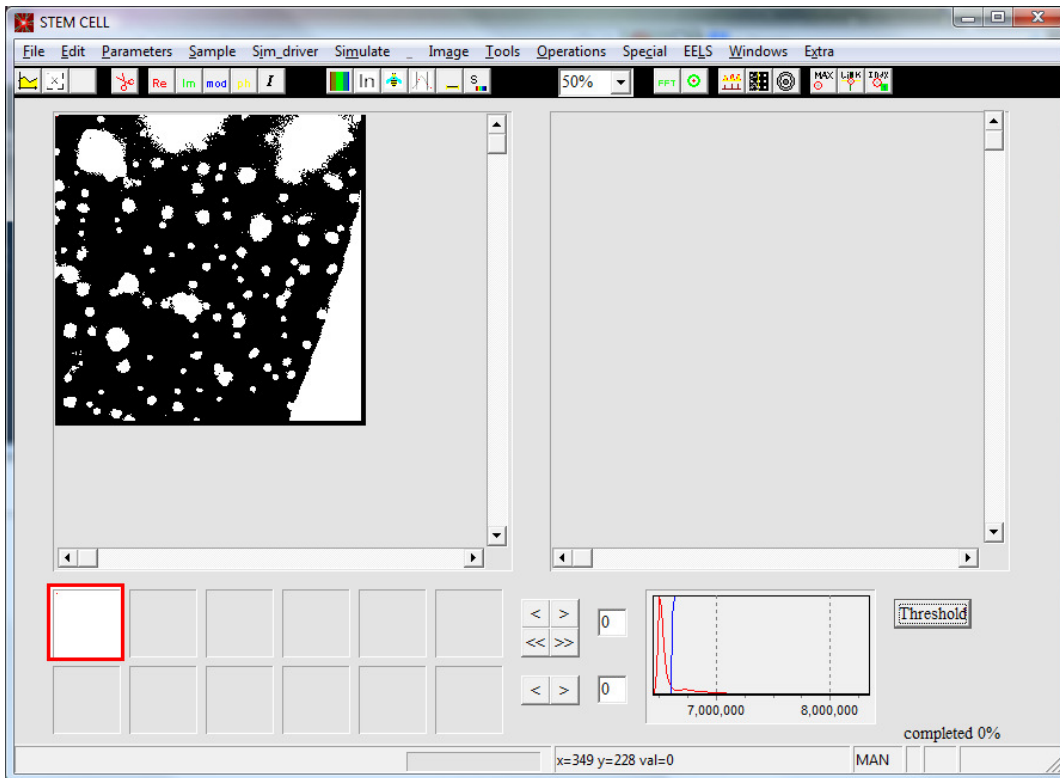
Available from version 2.4.1.0

Open the image

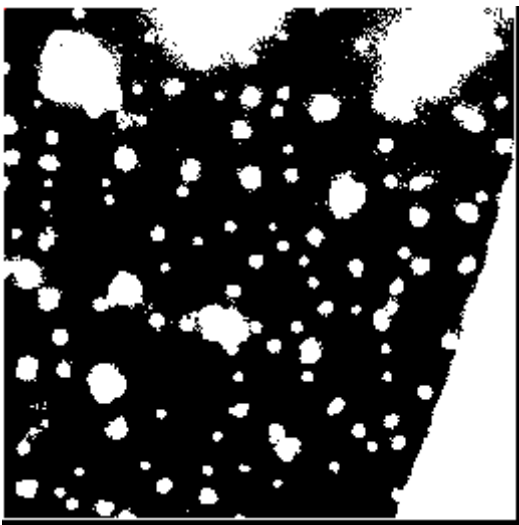
OpenExImage



Double click the equalisation histogram at the level where particles appear white and well separated



Press Threshold. This will create a black and white image.



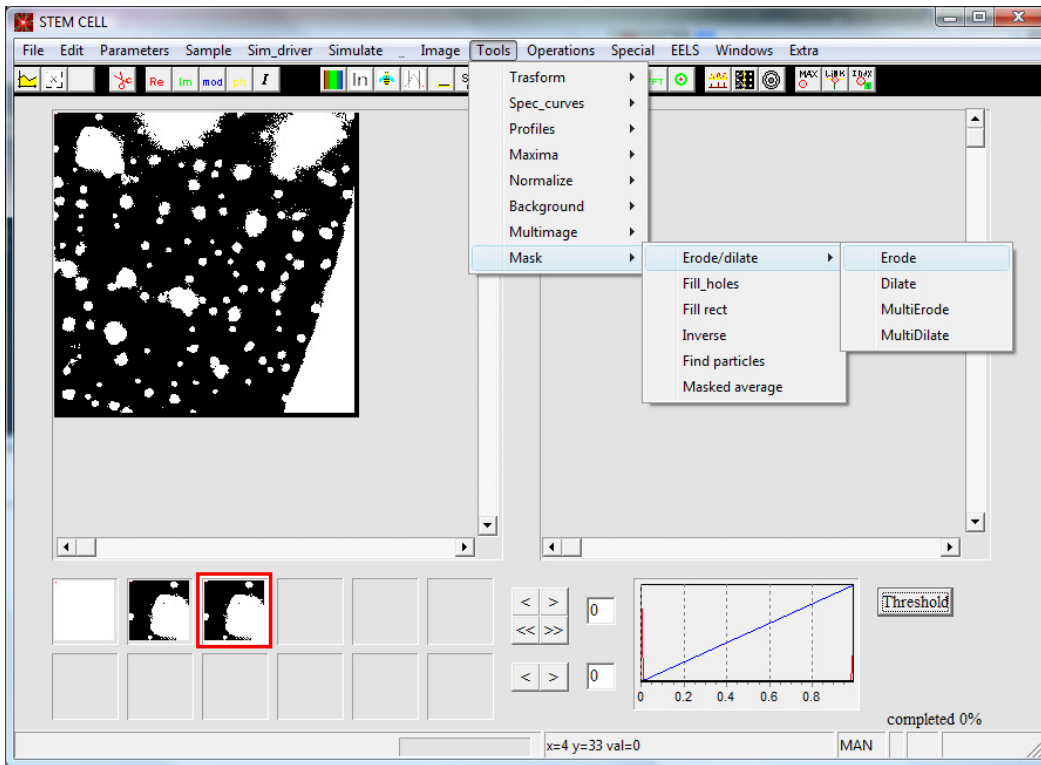
This is the mask to be used to find the particles . Notice that there are some spurious small points.

You can use erode to remove small particle ... or dilate to smoothen points at surface.

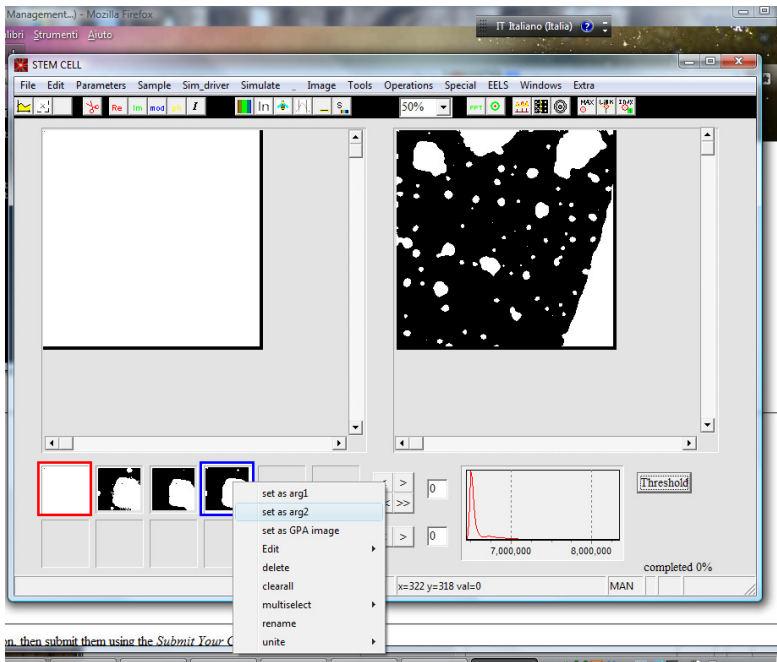
To do this select the whole mask (Edit ->select-> all ) and then press

Tools->Mask-Erode/dilate->Multiple-erode (typically select N=2)

And Multiple dilate (N=2)




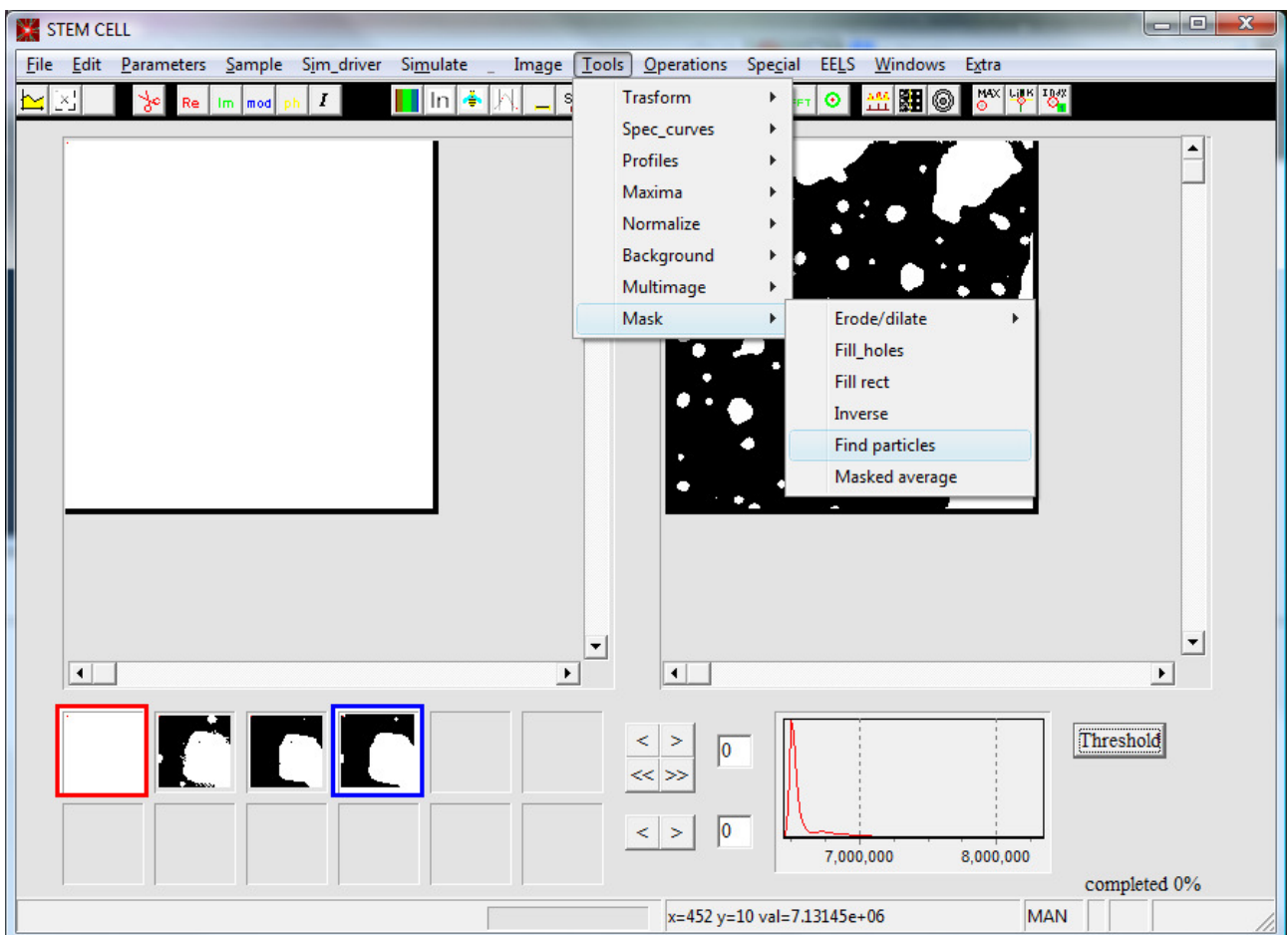
This is a possible result



Right click on the final mask image and press “Set as arg2”

Double click on the original image

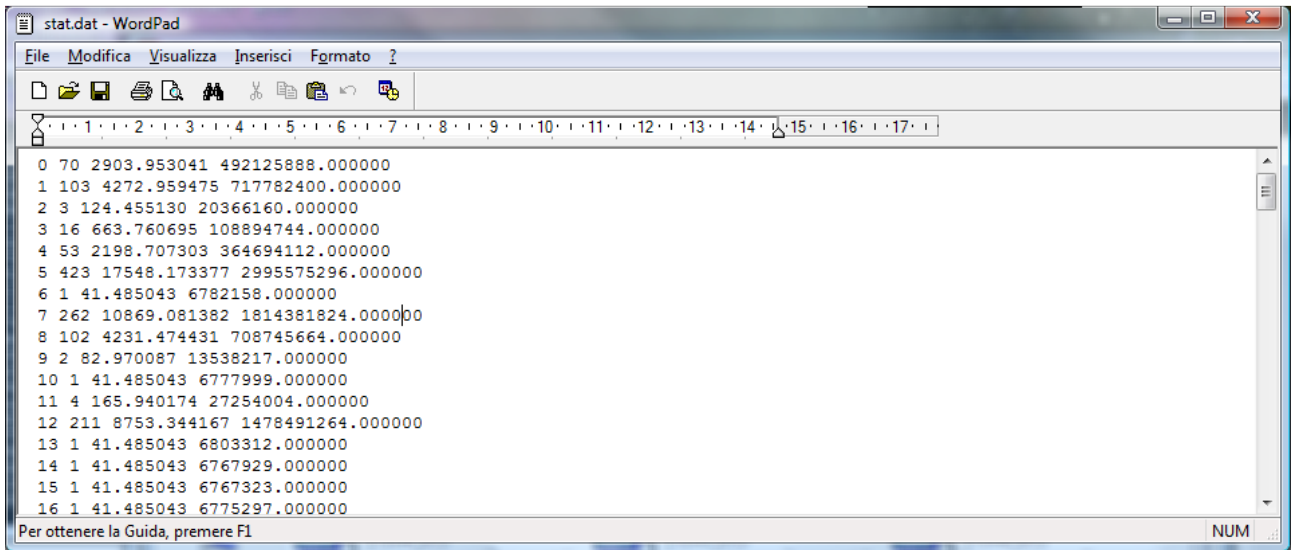
( eventually click at the Gaussian button  as explained in the main instruction if the image appears white , this equalizes the image)



Press find particles as in figure

As a result you 'll have a statistic field in you r working directory called "stat.dat".

If you open it with word pad you'll see 4 columns : the number of the particle, the area in pixel , the area in A^2 and the volume (area x intensity).

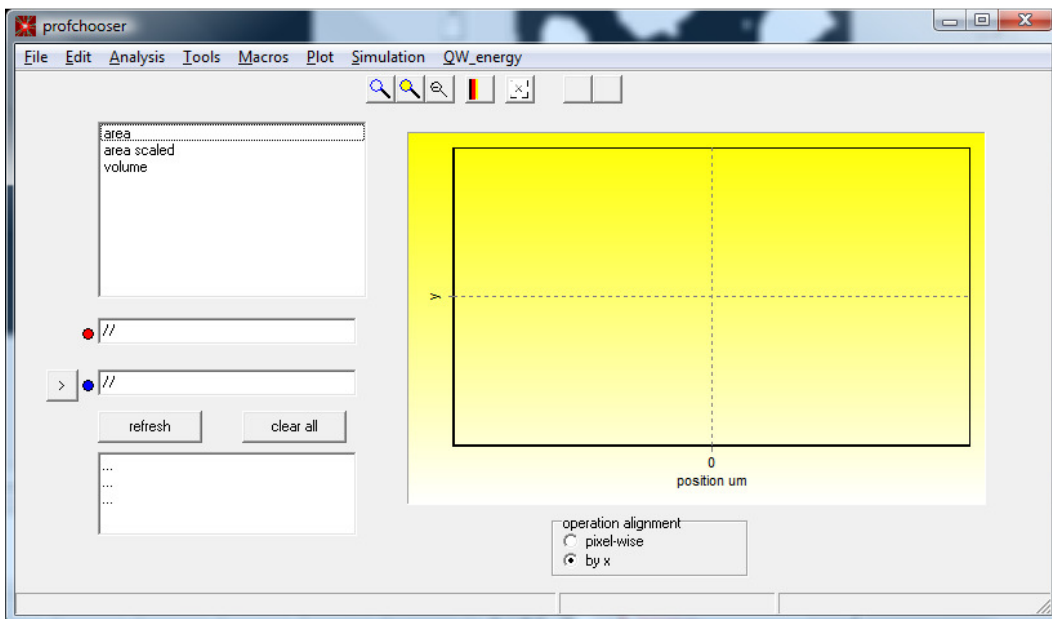
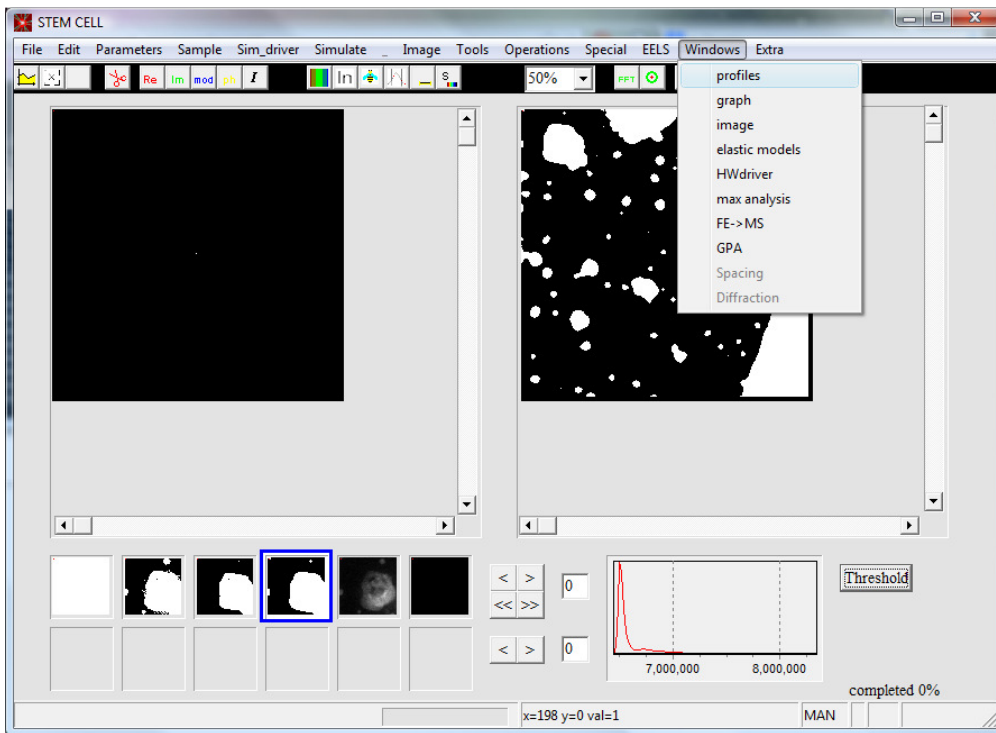


The screenshot shows a WordPad window titled "stat.dat - WordPad". The window contains a table with 17 rows of data. Each row has 4 columns: a particle number (0-16), an area in pixels, an area in A^2, and a volume (area x intensity). The data is as follows:

Particle Number	Area in Pixel	Area in A^2	Volume (area x intensity)
0	70	2903.953041	492125888.000000
1	103	4272.959475	717782400.000000
2	3	124.455130	20366160.000000
3	16	663.760695	108894744.000000
4	53	2198.707303	364694112.000000
5	423	17548.173377	2995575296.000000
6	1	41.485043	6782158.000000
7	262	10869.081382	1814381824.000000
8	102	4231.474431	708745664.000000
9	2	82.970087	13538217.000000
10	1	41.485043	6777999.000000
11	4	165.940174	27254004.000000
12	211	8753.344167	1478491264.000000
13	1	41.485043	6803312.000000
14	1	41.485043	6767929.000000
15	1	41.485043	6767323.000000
16	1	41.485043	6775297.000000

At the bottom of the window, there is a status bar that reads "Per ottenere la Guida, premere F1" and a "NUM" indicator.

If you press profile you'll see open the profile manager



Double click on the histogram you want to plot.