



Input Image

Input Image is flattened

Image-Pro Plus - Picture2.jpg 100%

File Edit Acquire Advanced Sequence Enhance Process Measure Macro Window Help

Picture2.jpg 100%

Count / Size

File Edit View Measure Image

Intensity Range Selection: Flatten Background...  
Make Mask  
Make Sorted Objects Image...

Current Range (128...255)

Manual: Select Colors ... Clear

Automatic Bright Objects

Automatic Dark Objects Options...

Measure Objects Total Count: 0

Apply Filter Ranges In Range: 0

Accumulate Count Display Objects

Flatten Background

Background:  Dark  Bright

Max. Feature Size: 10 (Pix)

OK Cancel

RGB 24(610,764 bytes), Zoom:100%

656,106 85 W.H: 661,308 Gray Level | Image: <none> (Pixels) System: grain (microns)



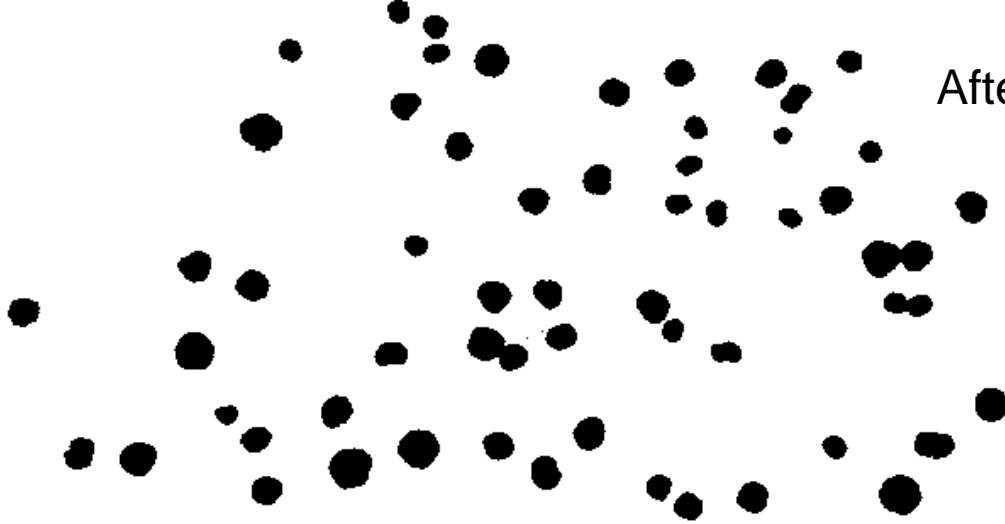
Input Image

Flatten Image

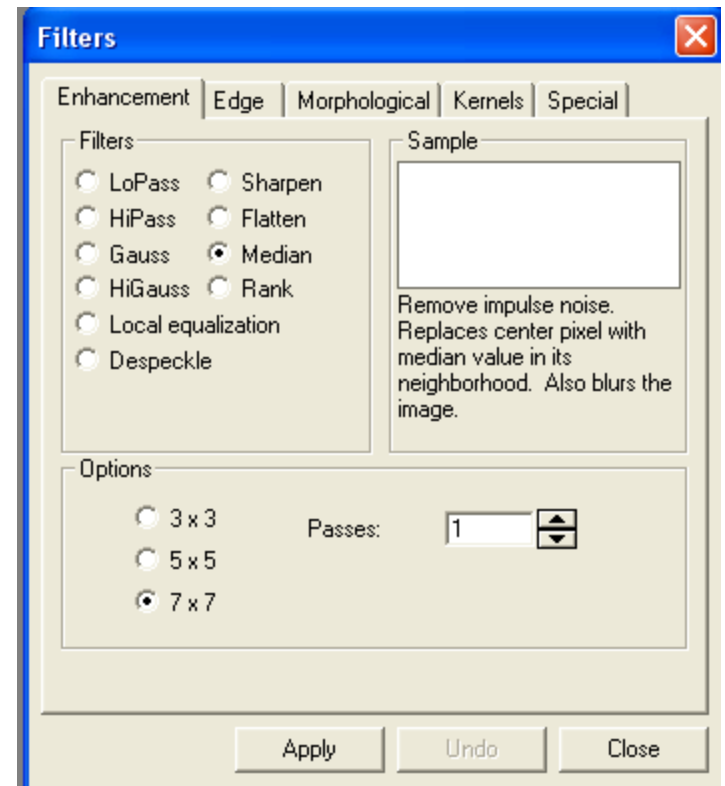
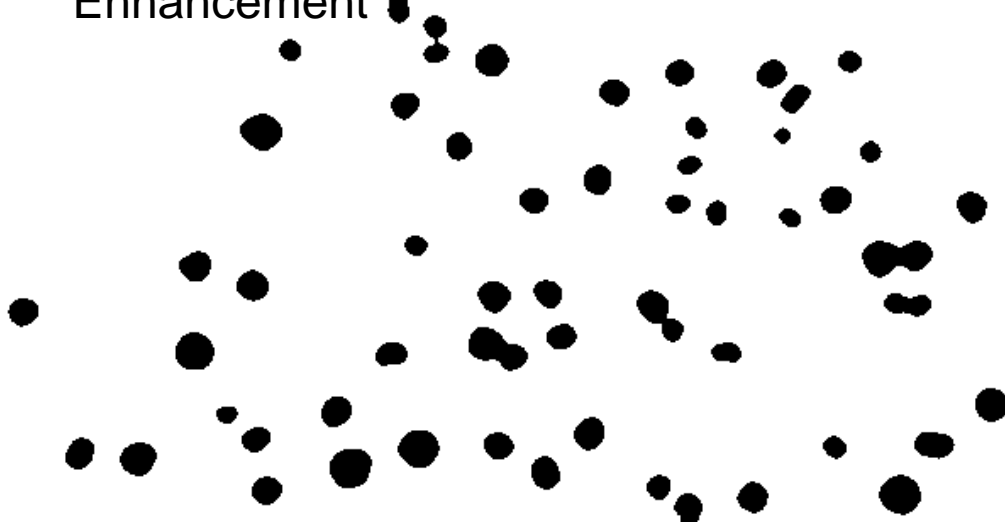




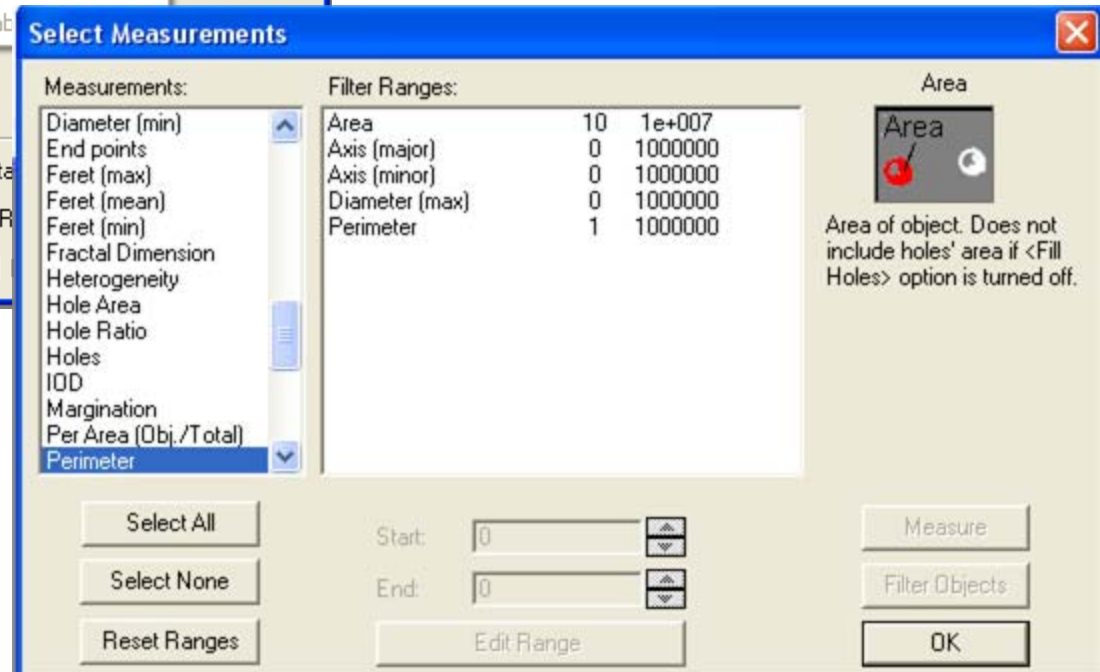
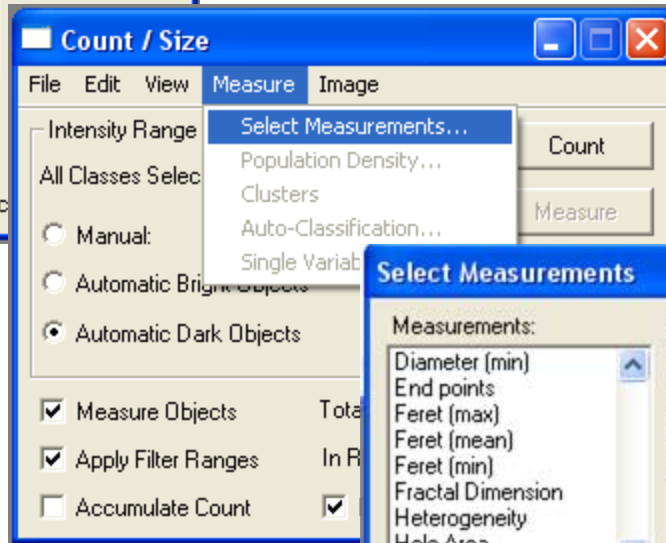
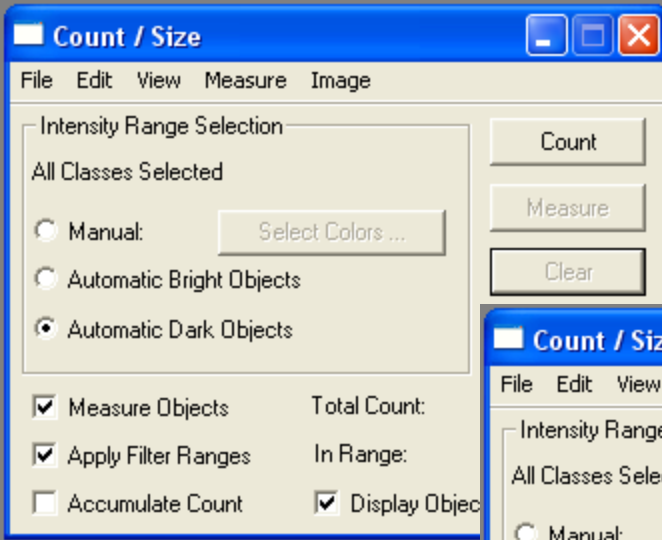
After New Mask Option

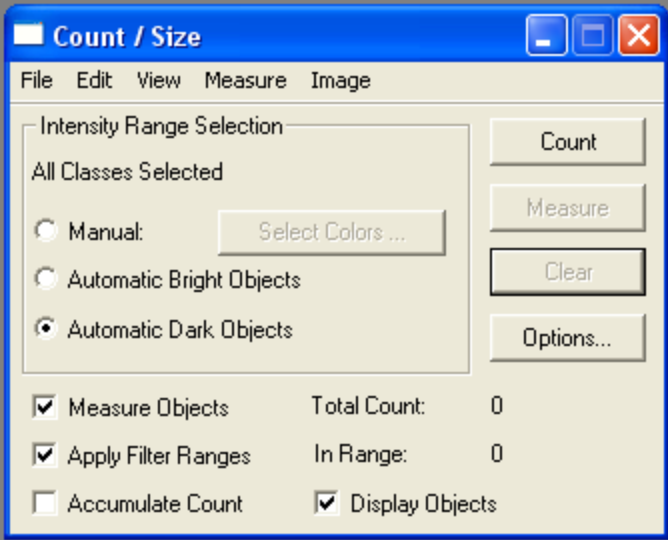


Median filter is applied for Image Enhancement

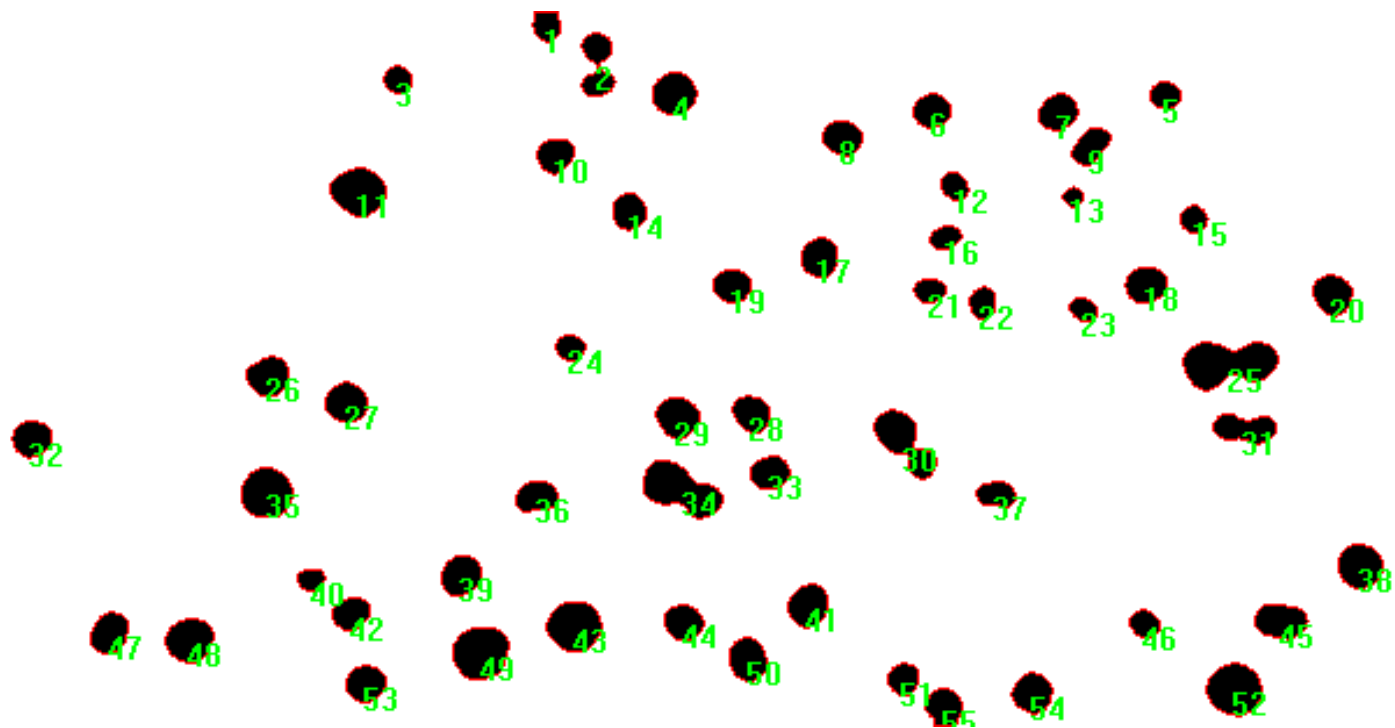


To fix the measurement parameters that we are interested for:





Counting the dark particles and each dark particle is considered as an object



## Desired Output Measurement



## Measurement Data

File

 No Sort
  Sort Up
  Sort Down
 On: Area
 Locate the object.
     
  Scroll to the object.

Obj.#	Area	Axis (major)	Axis (minor)	Diameter (max)	Perimeter
1	144	14.359259	12.861741	13.601471	41.191399
2	283	31.142986	13.270084	27.166155	83.047783
3	128	13.178361	12.363508	12	37.978195
4	296	19.812933	19.027641	19.313208	59.466518
5	139	14.080878	12.568216	13.601471	38.993969
6	205	16.985531	15.374060	16.763054	49.117451
7	225	18.336430	15.637285	17.464249	51.549213
8	218	18.042496	15.391383	17.117243	50.399540
9	198	20.161411	12.571356	19.235384	49.590115
10	203	17.236244	15.054583	16.401220	48.964378
11	402	24.490969	20.954788	24.515301	70.240585
12	125	13.848092	11.497072	13	37.441113
13	66	9.400260	8.9895344	9.0553856	27.030815
14	198	16.557936	15.231929	16	48.480206
15	121	12.524940	12.314212	12.041595	37.460793
16	121	14.722171	10.466393	14.142136	37.879059
17	233	18.031830	16.462099	17.262676	52.104004
18	241	18.887941	16.245419	18.384777	53.560375
19	204	17.189476	15.109879	16.763054	48.985619
20	250	18.866051	16.918699	18.248287	54.488625
21	128	14.629373	11.143292	14	38.669563
22	140	14.749315	12.104197	14	40.614117
23	109	13.518640	10.263229	12.649111	35.484985
24	126	13.548699	11.844670	13.038404	37.631939
25	642	44.595913	19.198545	41.012192	106.69418
26	260	19.111012	17.390348	18.384777	56.796890
27	266	19.061430	17.780533	18.439089	55.651997
28	215	18.021170	15.223654	17.029387	51.146141
29	273	19.260427	18.115231	19.416489	56.984837
30	426	37.100216	15.556329	34.058773	91.038193

# All the above steps is automated by using this Macro

Sub test1()

```
ret = IpBlbShow(1)
ret = IpFltFlatten(1, 10)
ret = IpTemplateMode(1)
ret = IpBlbSetAttr(BLOB_AUTORANGE, 0)
ret = IpSegShow(2)
ret = IpSegSetAttr(SETCURSEL, 0)
ret = IpSegPreview(CURRENT_C_T)
ret = IpSegShow(2)
ret = IpSegSetAttr(SETCURSEL, 0)
ret = IpSegPreview(CURRENT_C_T)
ret = IpSegSetAttr(CHANNEL, 1)
ret = IpSegSetRange(1, 29, 168)
ret = IpSegPreview(CURRENT_C_T)
ret = IpSegSetRange(1, 29, 185)
ret = IpSegPreview(CURRENT_C_T)
ret = IpSegSetRange(1, 29, 199)
ret = IpSegPreview(CURRENT_C_T)
ret = IpSegSetRange(1, 29, 210)
ret = IpSegPreview(CURRENT_C_T)
ret = IpSegSetRange(1, 29, 234)
ret = IpSegPreview(CURRENT_C_T)
ret = IpTemplateMode(0)
ret = IpSegShow(2)
ret = IpSegSetAttr(SETCURSEL, 0)
ret = IpSegPreview(ALL_C_T)
ret = IpSegCreateMask(4, 0, 1)
ret = IpSegReset()
ret = IpSegPreview(ALL_C_T)
ret = IpSegShow(0)
ret = IpFltShow(1)
ret = IpFltMedian(7, 1)
ret = IpFltShow(0)
ret = IpBlbSetAttr(BLOB_AUTORANGE, 1)
ret = IpBlbSetAttr(BLOB_BRIGHTOBJ, 0)
ret = IpBlbEnableMeas(BLBM_AREA, 1)
ret = IpBlbEnableMeas(BLBM_GREEN, 0)
ret = IpBlbEnableMeas(BLBM_RED, 0)
ret = IpBlbEnableMeas(BLBM_MAXFERRET, 1)
ret = IpBlbEnableMeas(BLBM_MAJORAX, 1)
ret = IpBlbEnableMeas(BLBM_MINORAX, 1)
ret = IpBlbEnableMeas(BLBM_PERIMETER, 1)
ret = IpBlbCount()
ret = IpBlbUpdate(0)
ret = IpBlbShowData(1)
```

End Sub