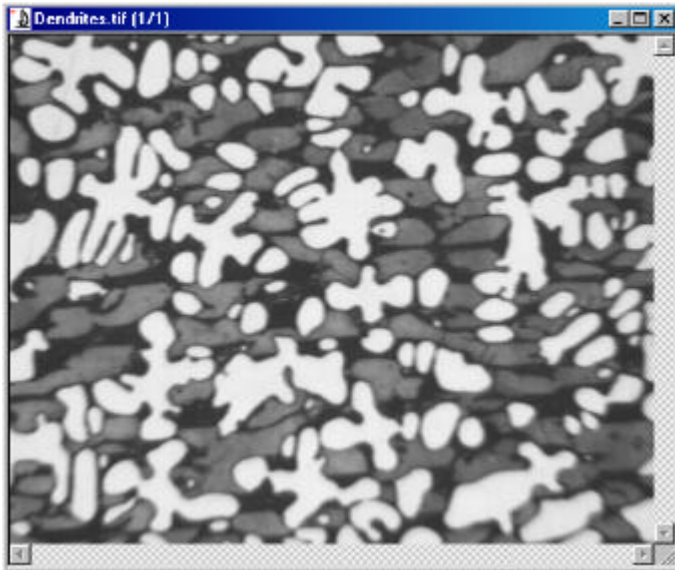
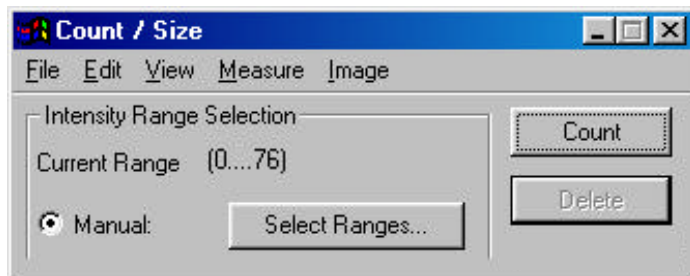


Multiple Threshold Ranges

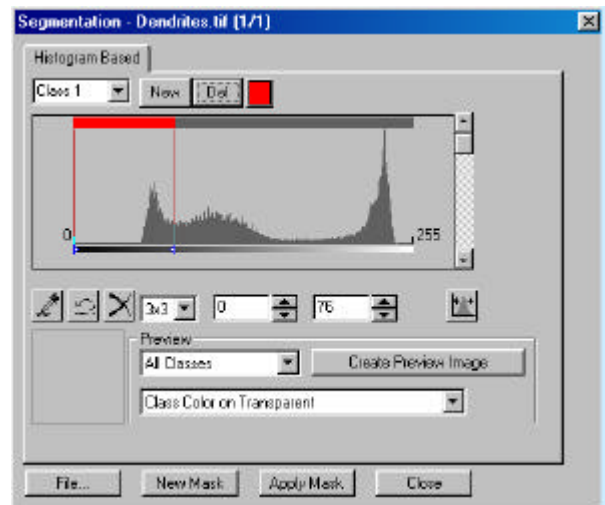
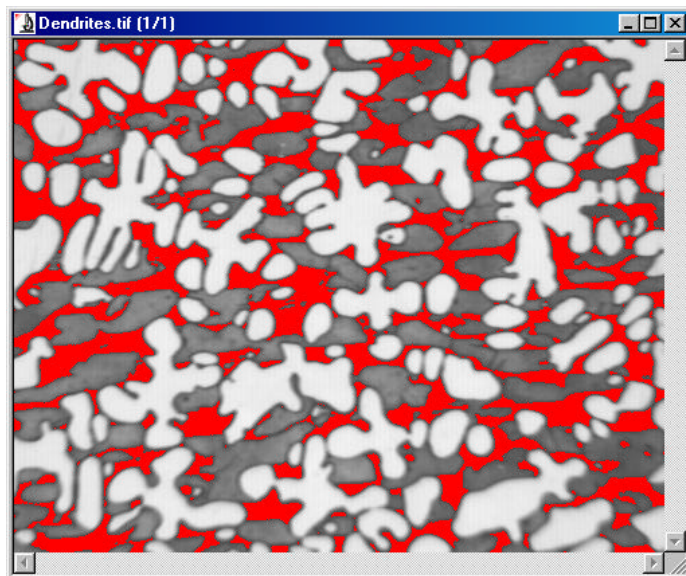


In this image there are three different types of regions; dark areas, light areas, and intermediate areas. Each type of region requires a different threshold setting for its segmentation. How can multiple threshold ranges be set and objects within each of the classes be measured?

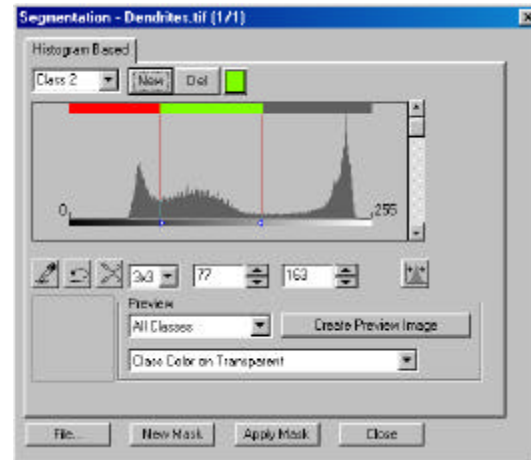
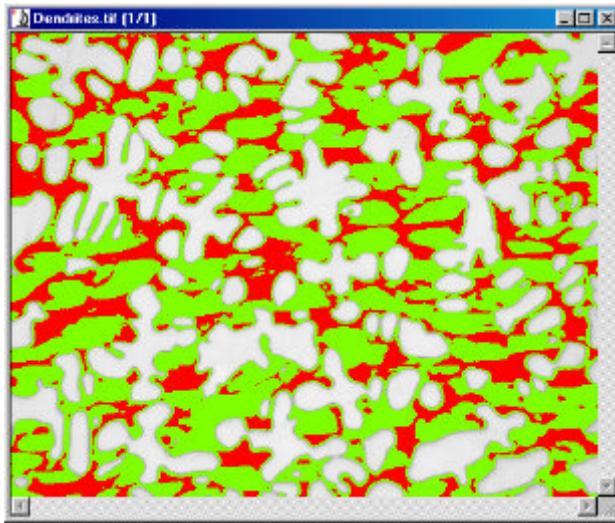
You can manually set threshold values for different classes of objects. As you create each new class, Image-Pro will set one of the threshold values so that there is no overlap among the classes.



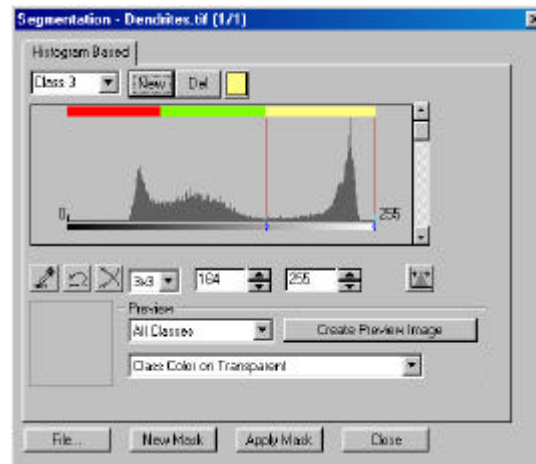
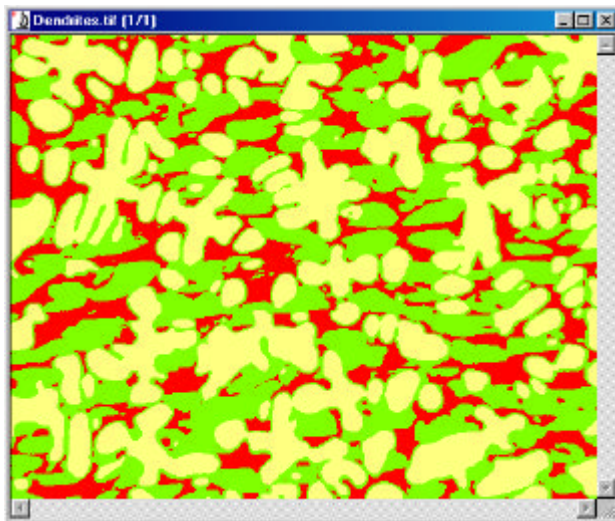
First, the upper threshold value for the darkest regions is selected. The selected range of values for Class 1 is from 0 (black) to a gray value of 76. The areas of the image having gray values within this range are shown in red.



New is clicked to create the next class. An upper threshold value is then set for the intermediate regions. Class 2 now contains areas having gray values from 77 to 163 and is shown in green. As new classes are created, Image-Pro preserves the previously selected ranges and does not allow the class ranges to overlap.



The third Class is created and the upper threshold value for the brightest regions is set to include the remaining gray values, 164 to 255 (white). This Class is shown in yellow.



Measurement Data

File: No Sort, Sort Up, Sort Down, Drc: Area

Locate the object. Scroll to the object.

Obj # (Flag)	Area	PerArea
1 (1)	121	.00065445
2 (1)	587	.00317489
3 (1)	46	.0024879
4 (1)	886	.00479209
5 (1)	28	.00015144
6 (1)	436	.00236818
7 (1)	30	.00016226
8 (1)	49	.00026502
9 (1)	9	.00004867

Range Statistics

File View

Range	Objects	% Objects	% Area
1	217	58.021399	20.277691
2	39	10.427909	41.493229
3	118	31.550902	38.229092

Data are viewed in the Measurement Data and Range Statistics windows. Objects and Classes are flagged with the chosen Class color.