1	1	1	1	1
1	2	3	2	1
1	3	3	3	1
1	2	3	2	1
1	1	1	1	1

Threshold with iso-value

0	0	0	0	0
0	1	1	1	0
0	1	1	1	0
0	1	1	1	0
0	0	0	0	0

Binary image to cells

8   4

1   2
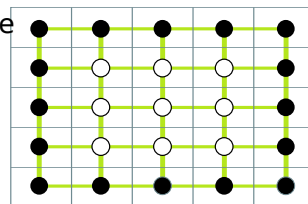
Give every cell a number based on which corners are true/false

13	12	12	14
9	0	0	6
9	0	0	6
11	3	3	7

Look-up table contour lines
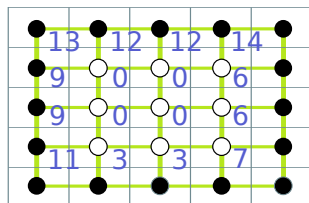
Look up the contour lines in the database and put them in the cells

Case 0   Case 1   Case 2   Case 3

Case 4   Case 5   Case 6   Case 7

Case 8   Case 9   Case 10   Case 11

Case 12   Case 13   Case 14   Case 15
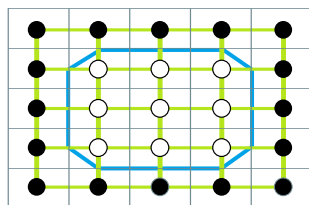
Look at the original values and use linear interpolation to determine a more accurate position of all the line end-points

1	1	1	1	1
1	2	3	2	1
1	3	3	3	1
1	2	3	2	1
1	1	1	1	1