

Homework 9 (Due: 5/16)

(A) Implement the Lantuejoul's skeletonization

method using the structuring element B :

	-1	0	1
-1		•	
0	•	•	•
1		•	
	B		

Apply the method to the following input image

Input image



Experimental results



○ Lantuejoul's method

Erosions	Openings	Differences
A	$A \circ B$	$A - (A \circ B)$
$A \ominus B$	$(A \ominus B) \circ B$	$(A \ominus B) - ((A \ominus B) \circ B)$
$A \ominus 2B$	$(A \ominus 2B) \circ B$	$(A \ominus 2B) - ((A \ominus 2B) \circ B)$
$A \ominus 3B$	$(A \ominus 3B) \circ B$	$(A \ominus 3B) - ((A \ominus 3B) \circ B)$
M	M	M
$A \ominus kB$	$(A \ominus kB) \circ B$	$(A \ominus kB) - ((A \ominus kB) \circ B)$

Until $(A \ominus kB) \circ B = \phi$

Skeleton = \cup (Differences)

(B) 每人交一份 Presentation report

- (a) PDF file of the selected paper
- (b) Contents of the paper report, including
 - (i) Journal, Conference, Year
 - (ii) Brief review (techniques, applications)
 - (iii) Comments
- (c) Word format of the report:
 - (i) Number of pages ≤ 3 ;
 - (ii) Word size = 14, Line interval = 1.5;
 - (iii) Chinese (細明體);
English (Times New Roman).