MC920: Introdução ao Processamento de Imagem Digital

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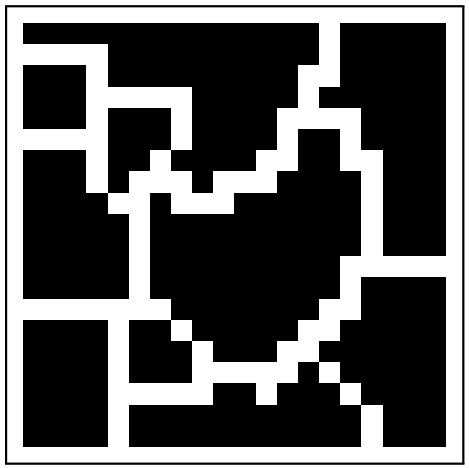
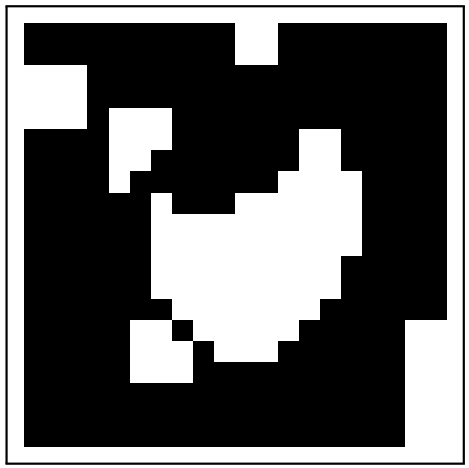
Dilatação geodésica

$$\delta_X^1(Y) = \delta_B(Y) \cap X$$

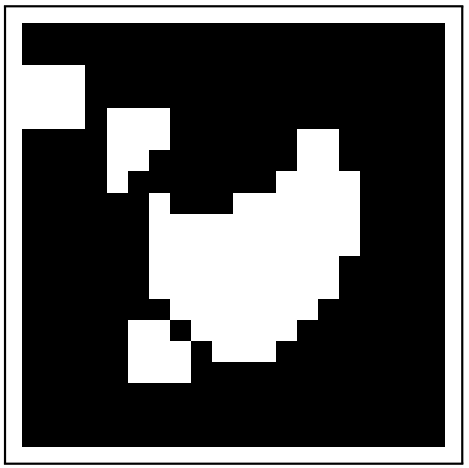
$$\delta_X^n(Y) = \delta_X^1(\delta_X^1(\cdots \delta_X^1(Y)))$$



(a) Original



(b) Máscara



(c) Dilatação geodésica

Reconstrução Geodésica

$$\delta_f^1(g) = min(\delta_1(g), f)$$

$$\delta_f^n(g) = \delta_f^1(\delta_f^1(\cdots \delta_f^1(g)))$$

$$\text{máscara} \rightarrow f = [\ 0\ 0\ 1\ 3\ 3\ 7\ 7\ 7\ 7\ 5\ 2\ 1\ 1\ ]$$

$$\text{marcador} \rightarrow g = [\ 0\ 0\ 1\ 2\ 2\ 2\ 5\ 2\ 2\ 2\ 2\ 1\ 1\ ]$$

$$\delta_f^1(g) = [\ 0\ 0\ 1\ 3\ 3\ 3\ 6\ 3\ 3\ 3\ 2\ 1\ 1]$$

$$\delta_f^2(g) = [\ 0\ 0\ 1\ 3\ 3\ 3\ 6\ 3\ 3\ 3\ 2\ 1\ 1]$$

Segmentação morfológica