

Course Name: Species Distribution Modelling (SDM).

Software: Digitize IT.

Module: Pixel Classification.

Software Tutorial



Processing steps of DigitizeIT software

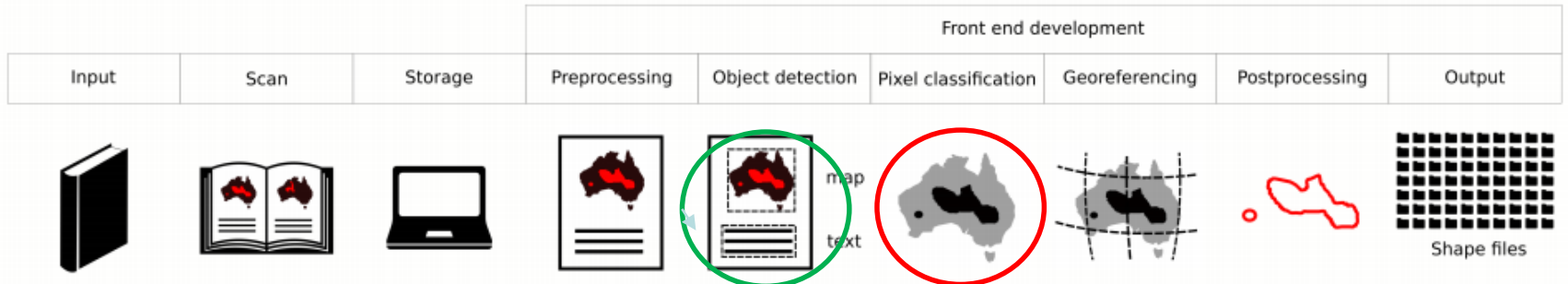


Figure 3: Processing Steps [3]

Processing steps of DigitizeIT software

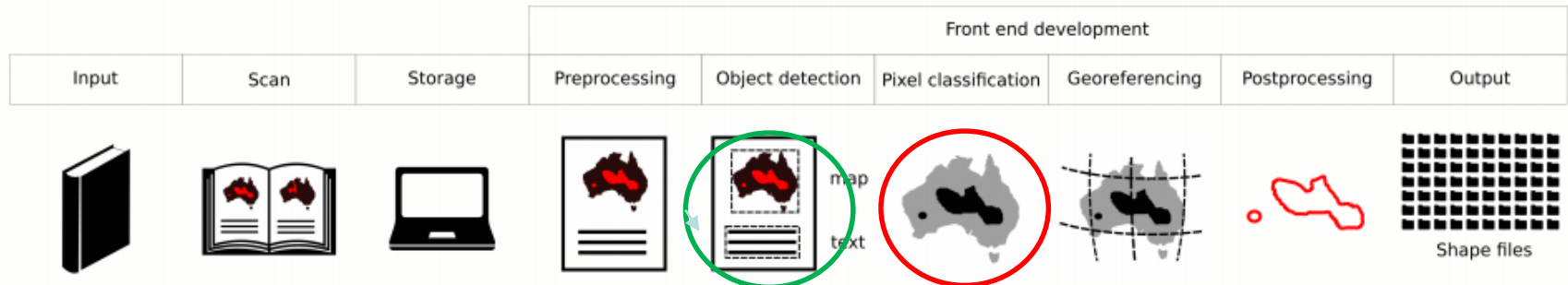


Figure 3: Processing Steps [3]

- Analysis of maps through detecting the legends based upon the contrast, shape and color in the maps is called pixel classification.

Processing steps of DigitizeIT software

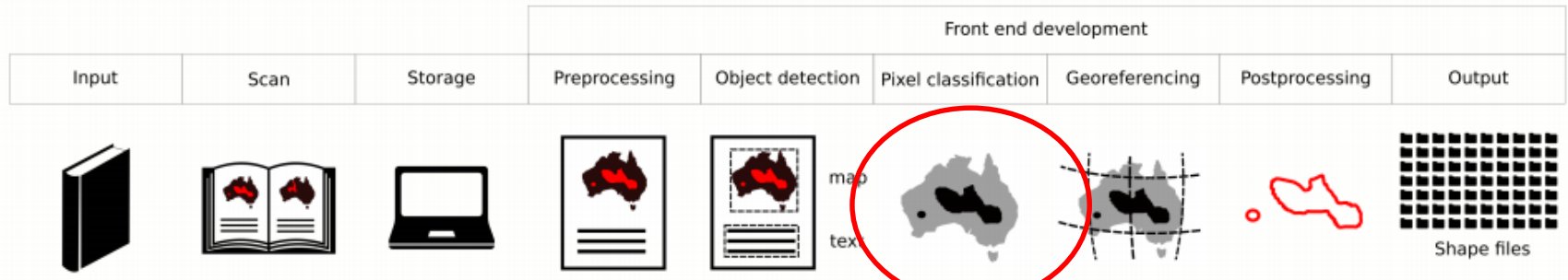


Figure 3: Processing Steps [3]

- 1) Pixel Matching Algorithm (Open CV).
- 2) Edge and Contour Detection.

Pixel Matching

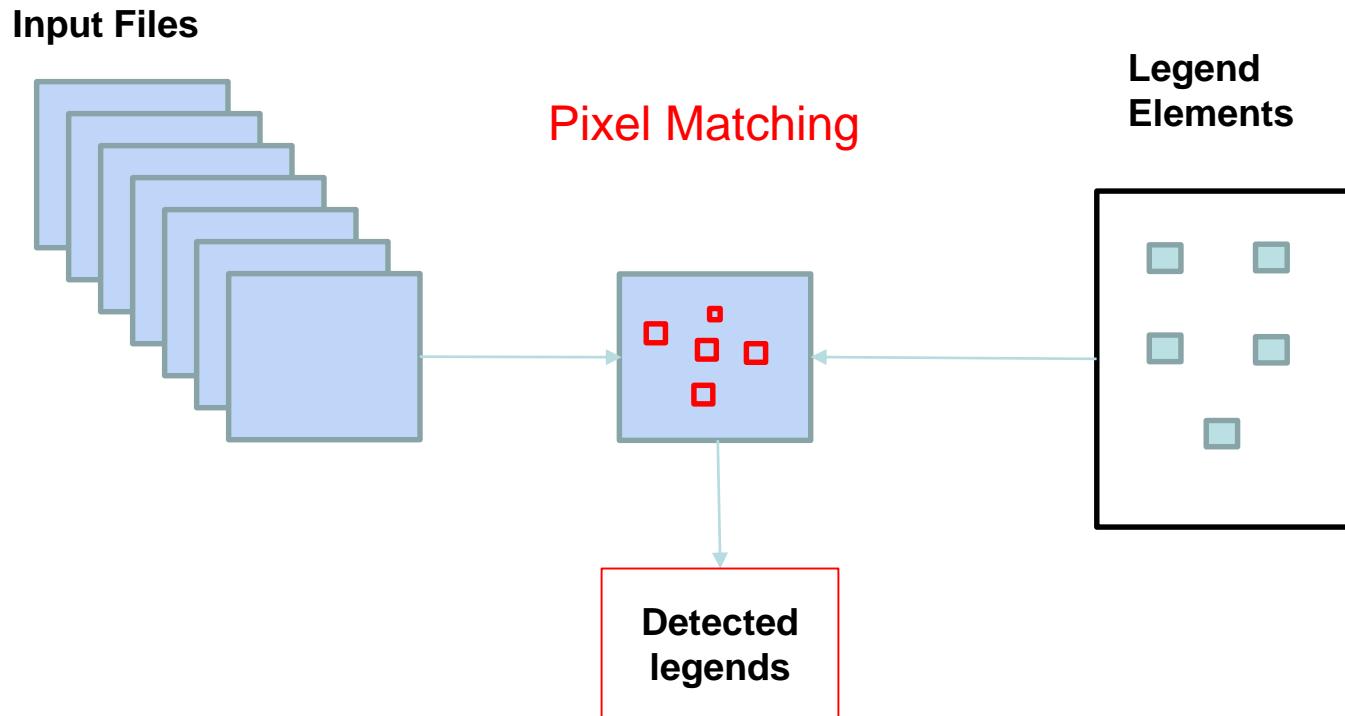


Figure 11: Batch Processing

Pixel Matching

- Template Image

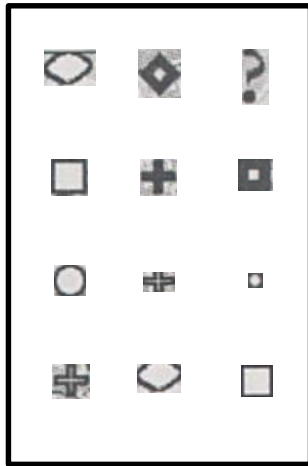


Figure 13: Pixel Templates

- Output Image

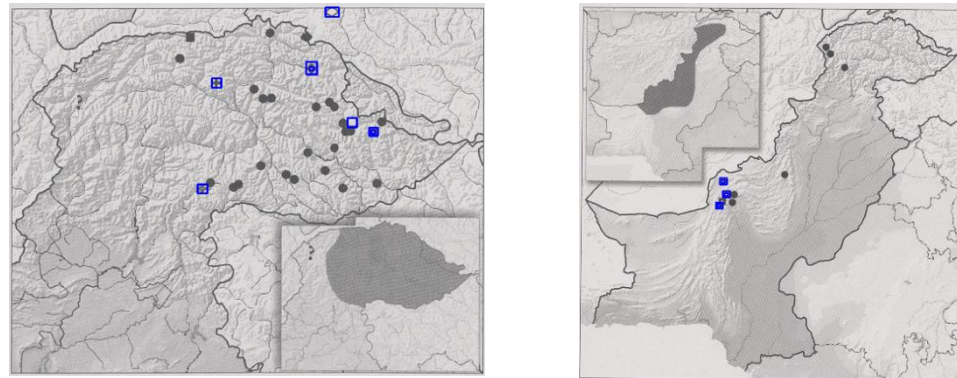


Figure 14: Output Images

Threshold value = 0.9

Processing steps of DigitizeIT software

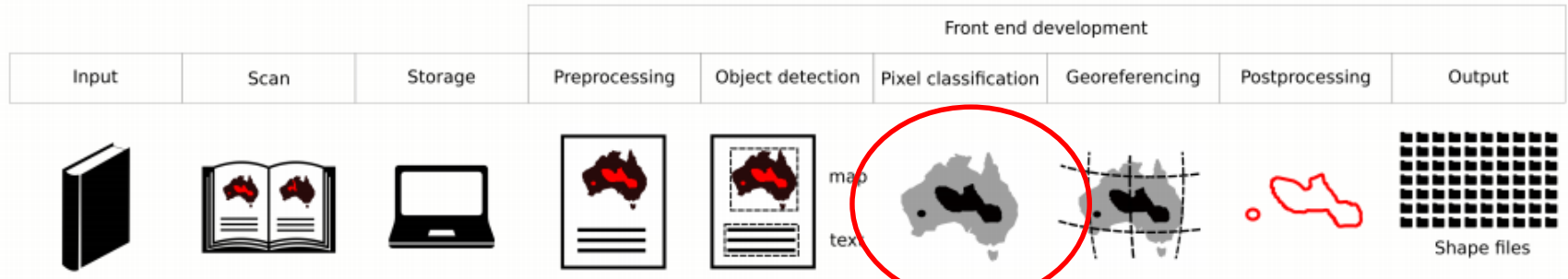


Figure 3: Processing Steps [3]

- 1) Pixel Matching Algorithm (Open CV).
- 2) **Edge and Contour Detection.**

Contour and Edge Detection Workflow

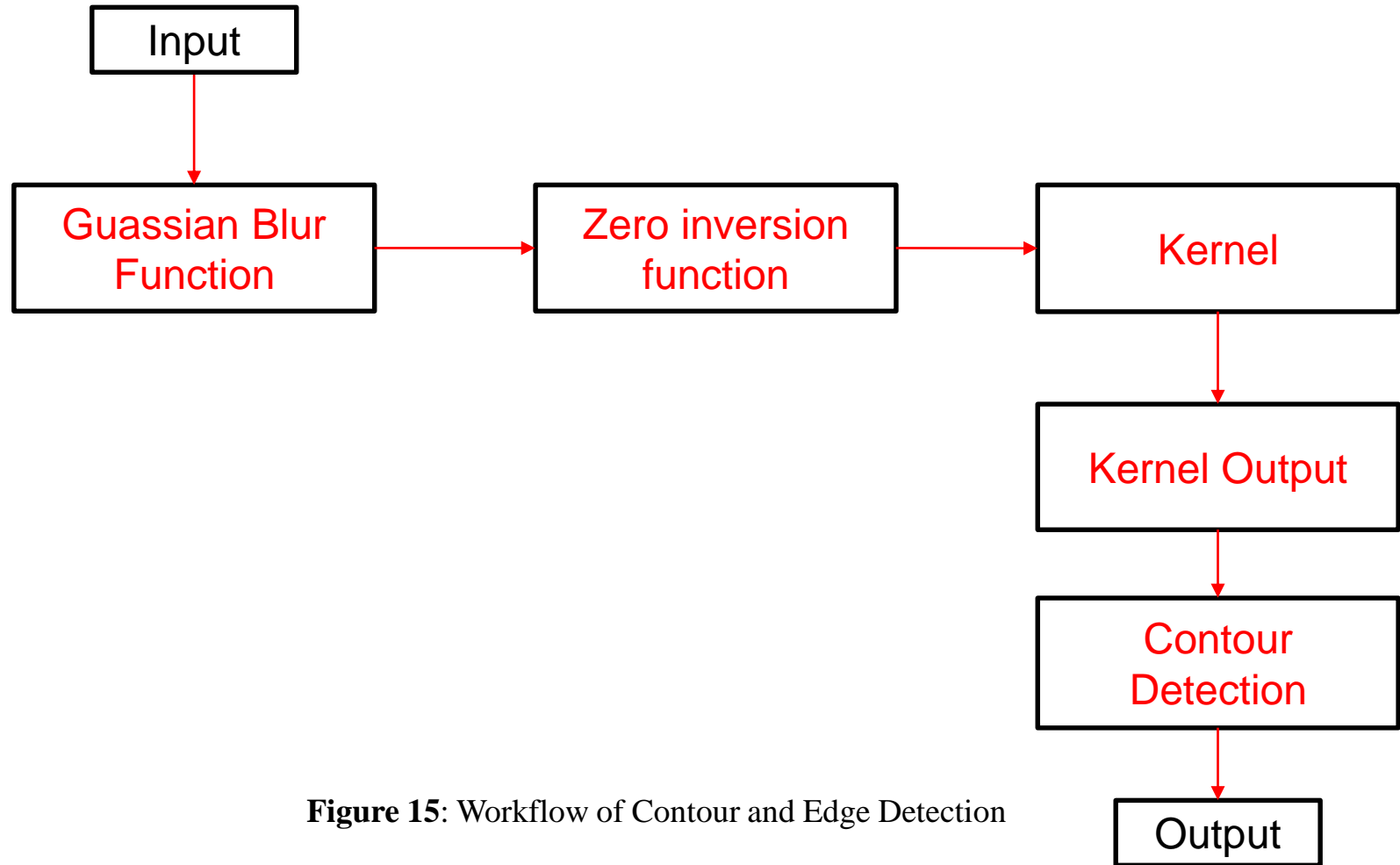


Figure 15: Workflow of Contour and Edge Detection

Contour and Edge Detection Workflow

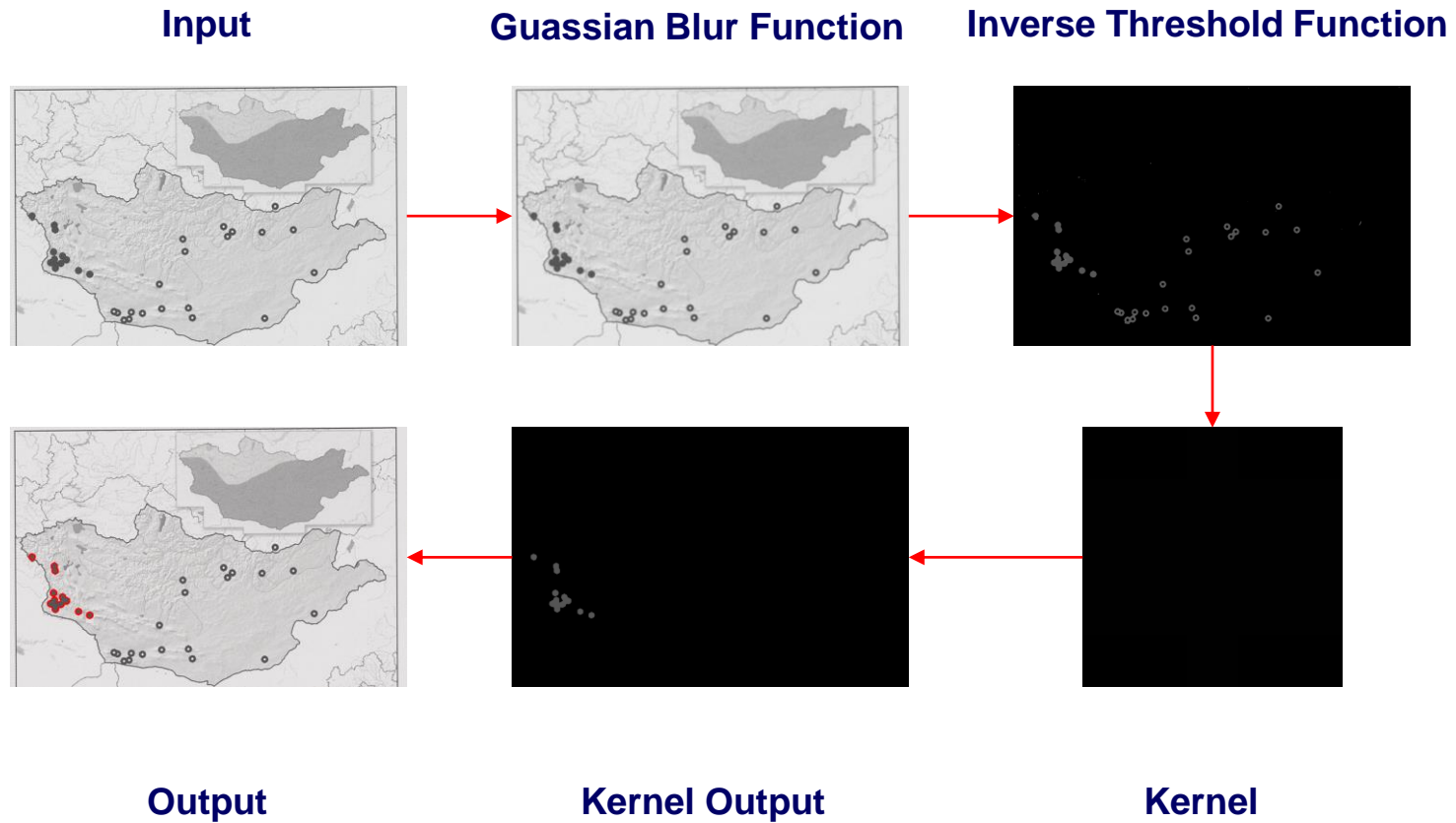
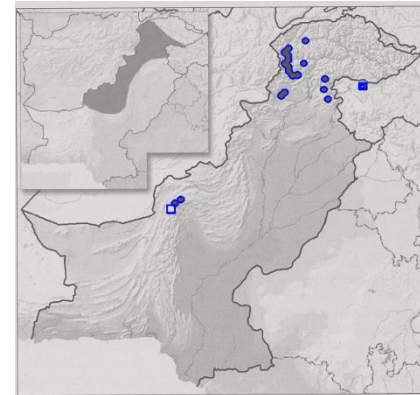
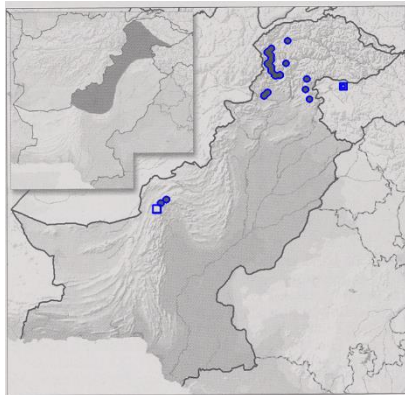
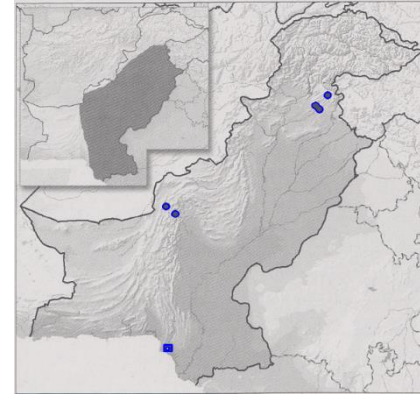
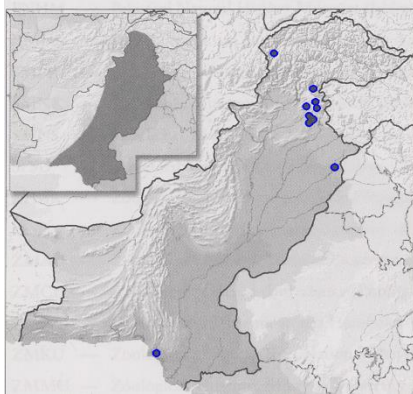


Figure 16: Contour and Edge Detection in Butterflies of Siberian map

Outputs



Execution time!.

Workflow of Pixel Classification

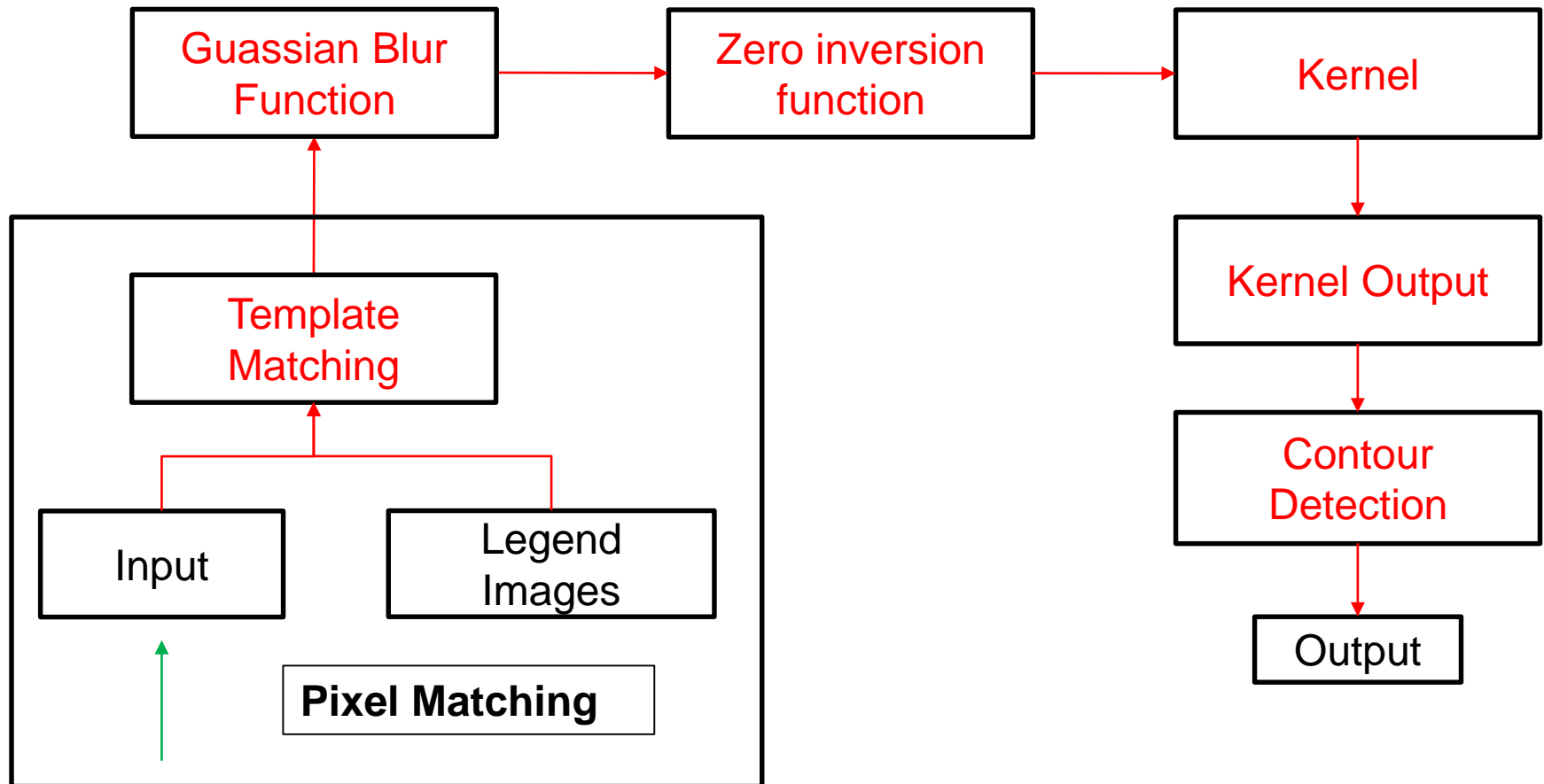


Figure 17: Workflow of Pixel Classification

Workflow of Pixel Classification

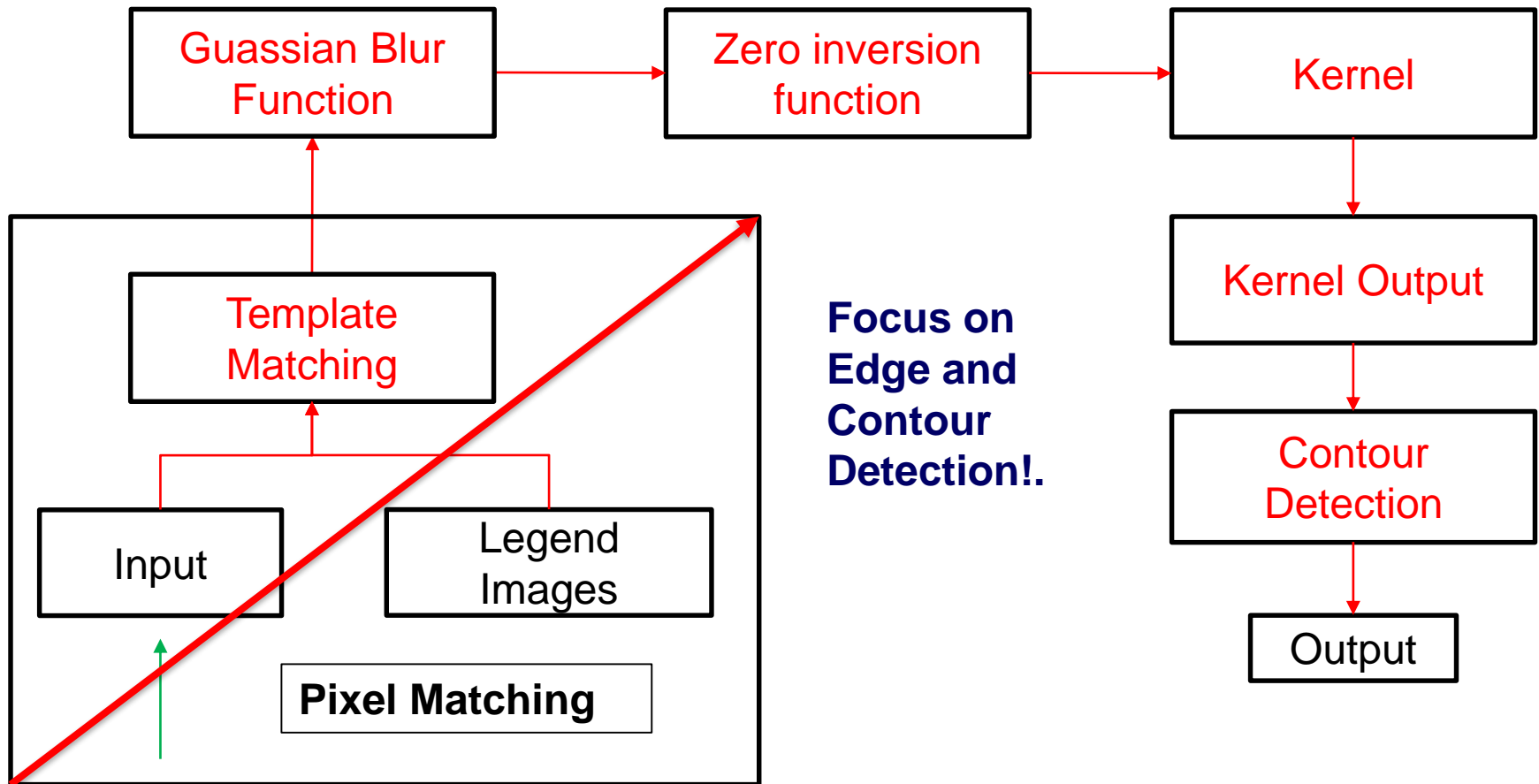


Figure 17: Workflow of Pixel Classification

Workflow of Pixel Classification

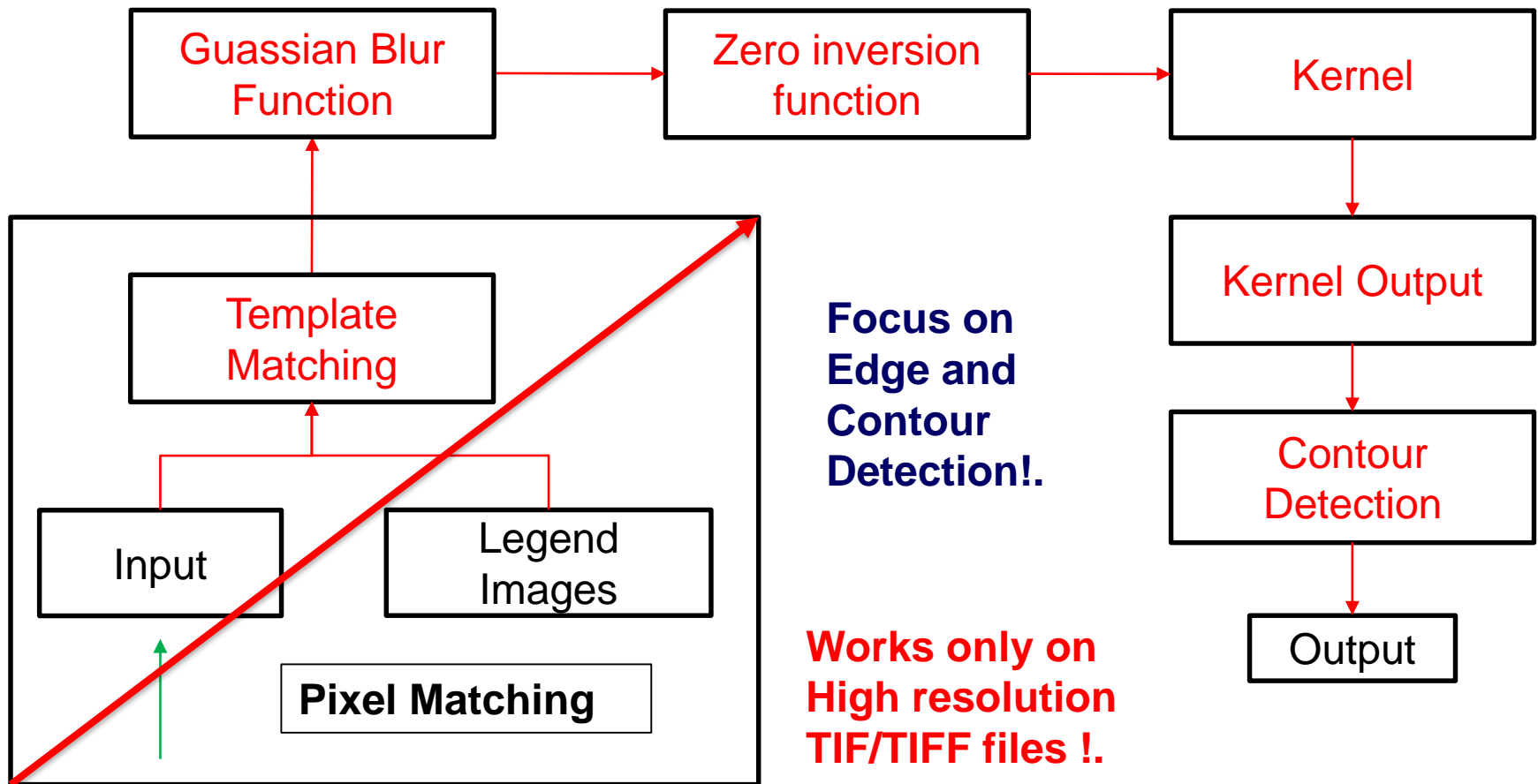


Figure 17: Workflow of Pixel Classification