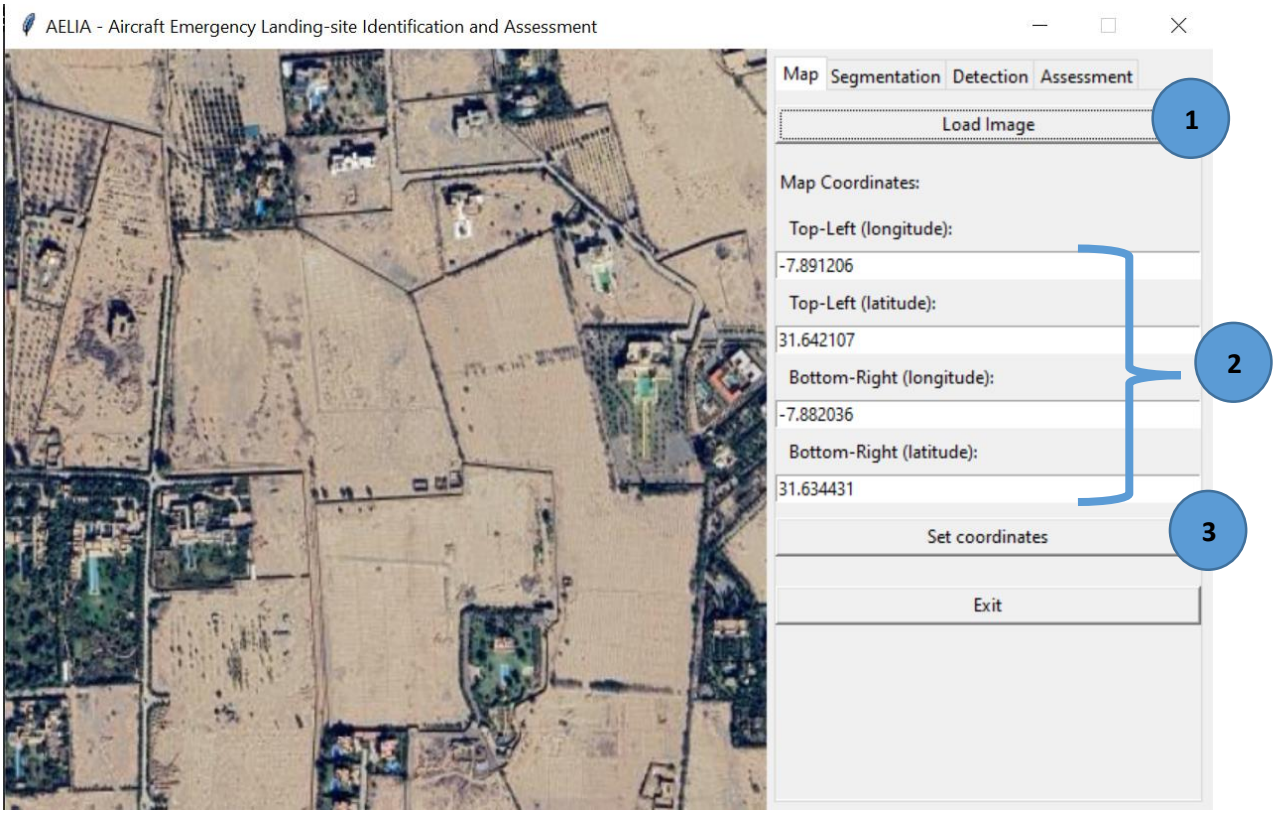
AELIA - Aircraft Emergency Landing-site Identification and Assessment

- Tool documentation -

1) Map tab

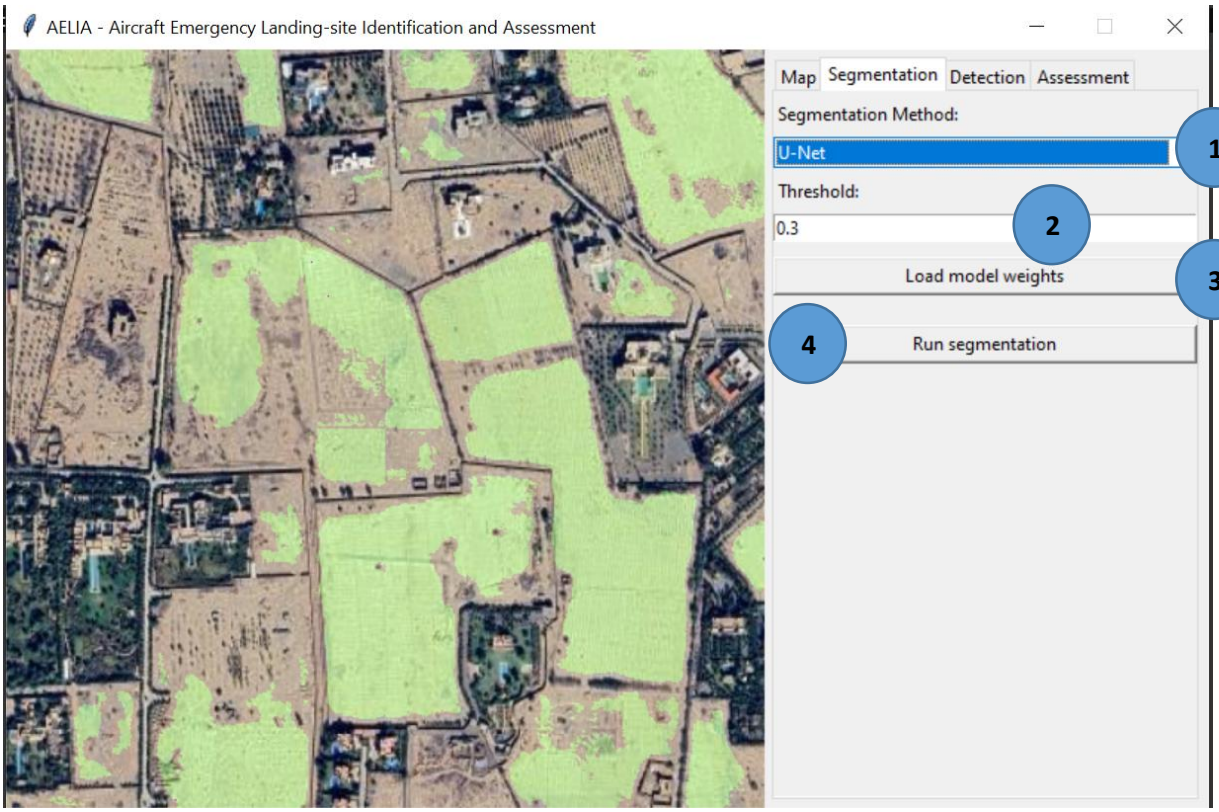


(1) Button to load the image, this image should preferably have a size of 512 x 512 pixels

(2) Entries to set the geographic coordinates of the top-left and bottom-right corners of the input image

(3) Button to validate the geographic coordinates of the reference corners.

2) Segmentation tab



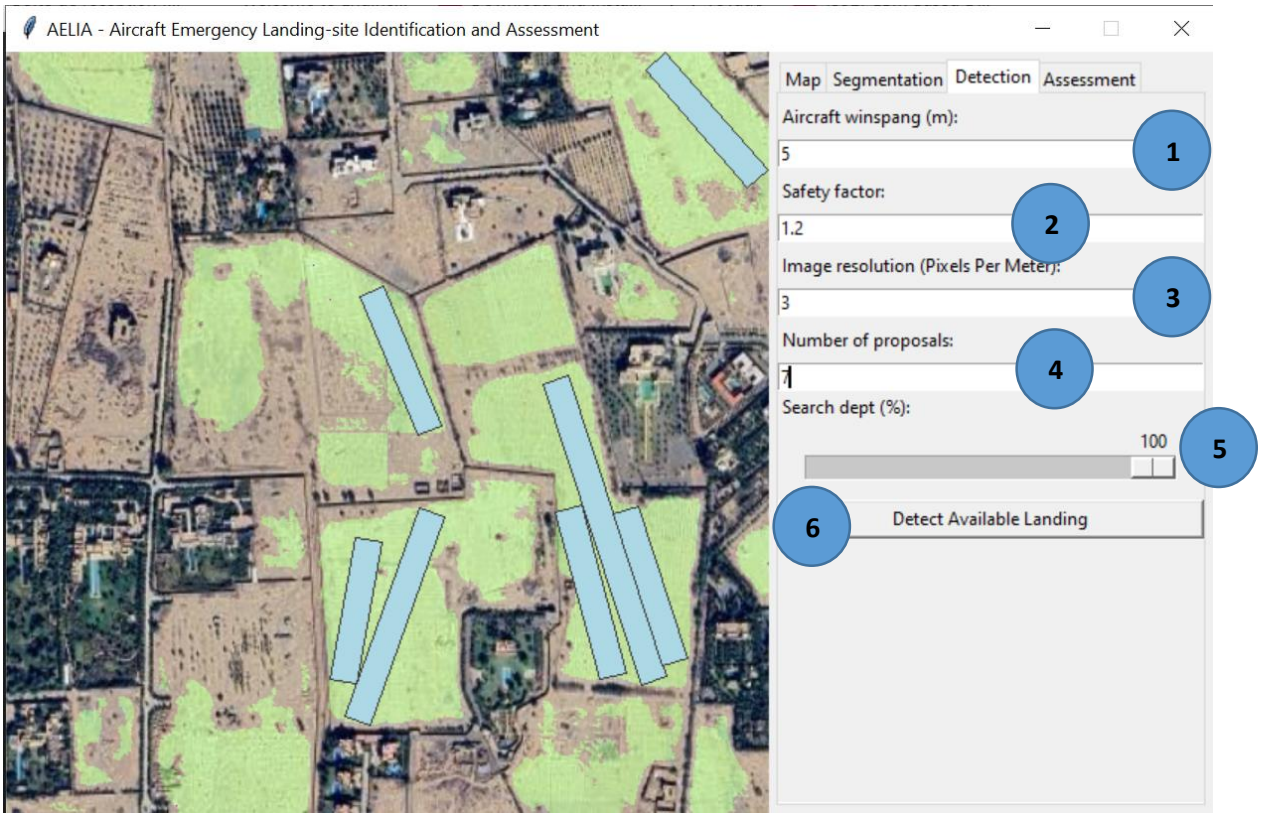
(1) Selector to choose the segmentation method

(2) Threshold for the binary segmentation of the input image (between 0 and 1)

(3) Load the model weight for the chosen segmentation architecture

(4) Launch the segmentation of the input image using the chosen model

3) Detection tab



(1) Aircraft wingspan in meters, used in the calculation of the width of the landing site

(2) Safety factor for the calculation of the width of the landing site

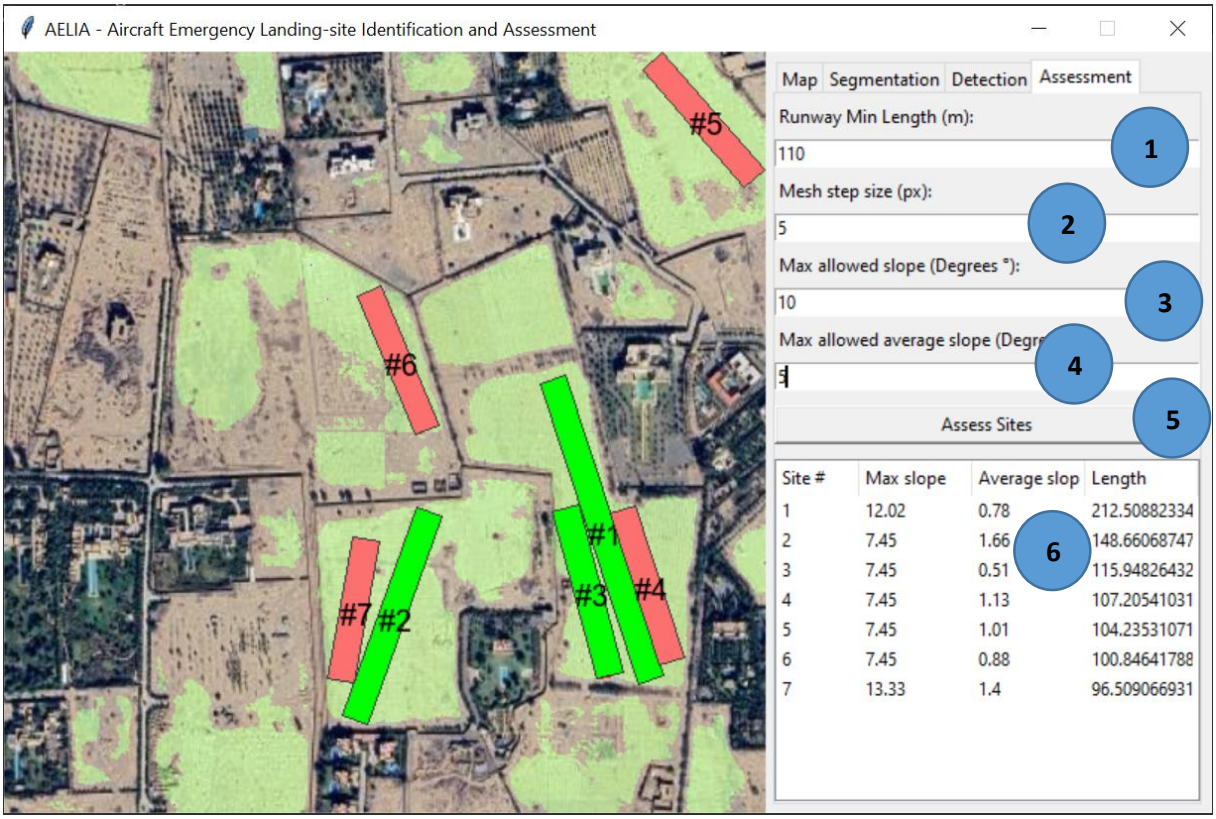
(3) Image resolution of the input image, in terms of pixels per meters

(4) Number of the proposals that the detection algorithm would input

(5) Search depth for the site identification algorithm (100% for a complete search of the search space)

(6) Launch the site identification algorithm using the configured parameters

4) Assessment tab



(1) Minimum allowable runway length in meters

(2) Mesh step size in pixels for verifying the elevation (a recommended variable is between 2 and 5)

(3) Maximum allowable value of terrain slope in degree

(4) Maximum allowable average terrain slope in degree

(5) Button to launch the site assessment procedure

(6) Grid view to show the assessment results