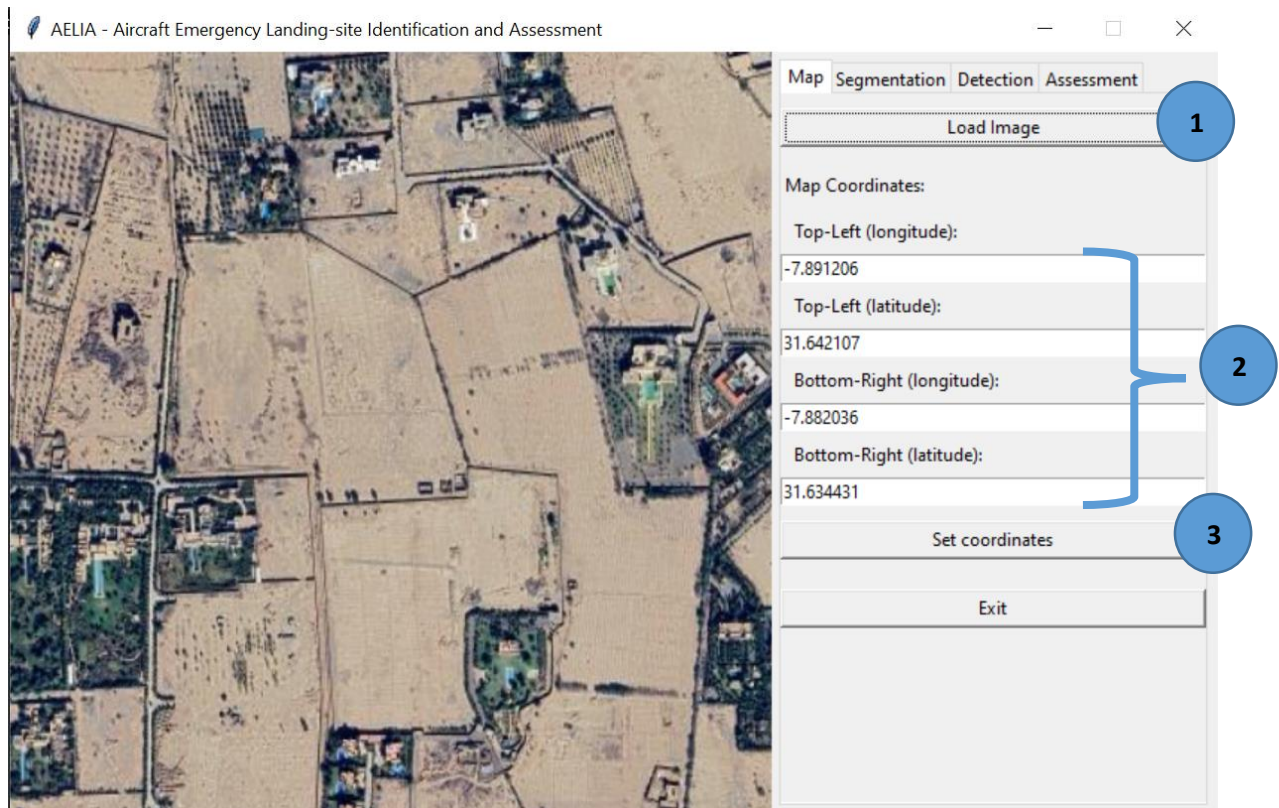


AELIA - Aircraft Emergency Landing-site Identification and Assessment

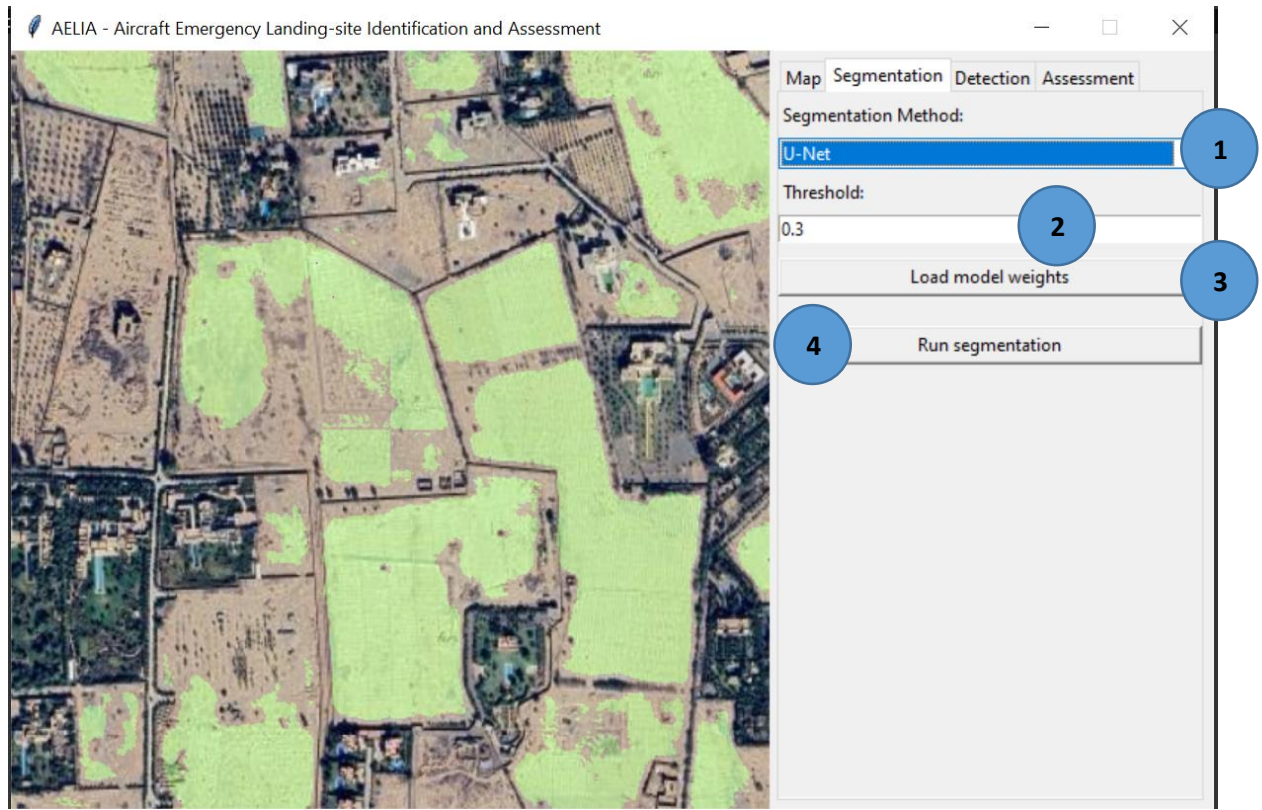
- Tool documentation -

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

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Map Segmentation Detection Assessment

Runway Min Length (m): 110

Mesh step size (px): 5

Max allowed slope (Degrees °): 10

Max allowed average slope (Degrees °): 5

Assess Sites

Site #	Max slope	Average slop	Length
1	12.02	0.78	212.50882334
2	7.45	1.66	148.66068747
3	7.45	0.51	115.94826432
4	7.45	1.13	107.20541031
5	7.45	1.01	104.23531071
6	7.45	0.88	100.84641788
7	13.33	1.4	96.509066931

- (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