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### An Interactive Graphical User Interface for Maritime Security

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**Keywords:** Graphical User Interface (GUI), NASA Worldwind, Geo-Mapping, Earth Observation (EO) Data Visualization

**Abstract.** In order to analyse optical satellite images for maritime security issues, a graphical user interface (GUI) based on NASA World Wind was developed and tested. In this paper, activities can be detected, measured and classified with this GUI.

The service uses optical satellite images, currently taken from 6 sensors: Quickbird, GeoEye-1 and EROS-B. The GUI can also handle SAR-images, air configurations are provided in a job-order file and thus all preparation tasks, fully automatically. The imagery can be overlaid with vessels derived by a potential vessel layers can be zoomed in by a single click and sorted with an as such as *vessel type* or *confidence level of identification*, can be added by the objects refined by dragging the vessel's head or switching it to 180° with a single objects can be added. The objects length, width, heading and position are ca top, bottom and an arbitrary point at one of the object's longer side. In ca objects can be grouped in area of interests (AOI) and classified, according information is finally written to an exchange file, after quality control and nece If required, image thumbnails can be cut around objects or around whole a geo-referenced images.

[Conference Paper](#) (PDF, 689 KB)

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