



August 2, 2020

AzmuthStar

User Manual

By Team:
AzmuthStar

1. SOFTWARE SYSTEM REQUIREMENTS:

- Windows 10, Linux, MAC(platform independent)
- 64-bits operating system
- 8 GB of RAM available
- An Internet connection

2. PREREQUISITES:

- 2.1 GDAL must be configured on your local system, you can install it from below link
https://drive.google.com/drive/folders/1DpwzJTsoUSpkvOVBPJw0tyI8PI8qKIa_e?usp=sharing
- 2.2 Python version 3.6
- 2.3 Required python packages mentioned in “requirements.txt” on Github repository
- 2.4 Yolov3.weights, yolov3.cfg, you can download this files from below link
- 2.5 Shape file of ocean, you can download this file using below link

3. How to use *AzmuthStar* software:

Step 1: Run “main.py” using python IDE or command line.

kriss-kad / NM404_AzmuthStar Private

Unwatch 3 Star 3 Fork 0

Code Issues Pull requests Actions Projects Security Insights

master 1 branch 0 tags

Go to file Add file Code

File	Commit Message	Time
Object_detection	Update and rename a.txt to Readme.txt	15 hours ago
Processes	Create Readme.txt	14 hours ago
SAMPLE	Create Readme.txt	9 hours ago
doc	Add files via upload	9 hours ago
img	Add files via upload	15 hours ago
Main.py	Update Main.py	15 hours ago
Preprocessing.py	Update Preprocessing.py	15 hours ago
README.md	Update README.md	9 hours ago
map.py	Add files via upload	15 hours ago
mapbox_token	Add files via upload	15 hours ago
requirements.txt	Create requirements.txt	yesterday

README.md

About

Invariant Ship detection from SAR images

Readme

Releases

No releases published
[Create a new release](#)

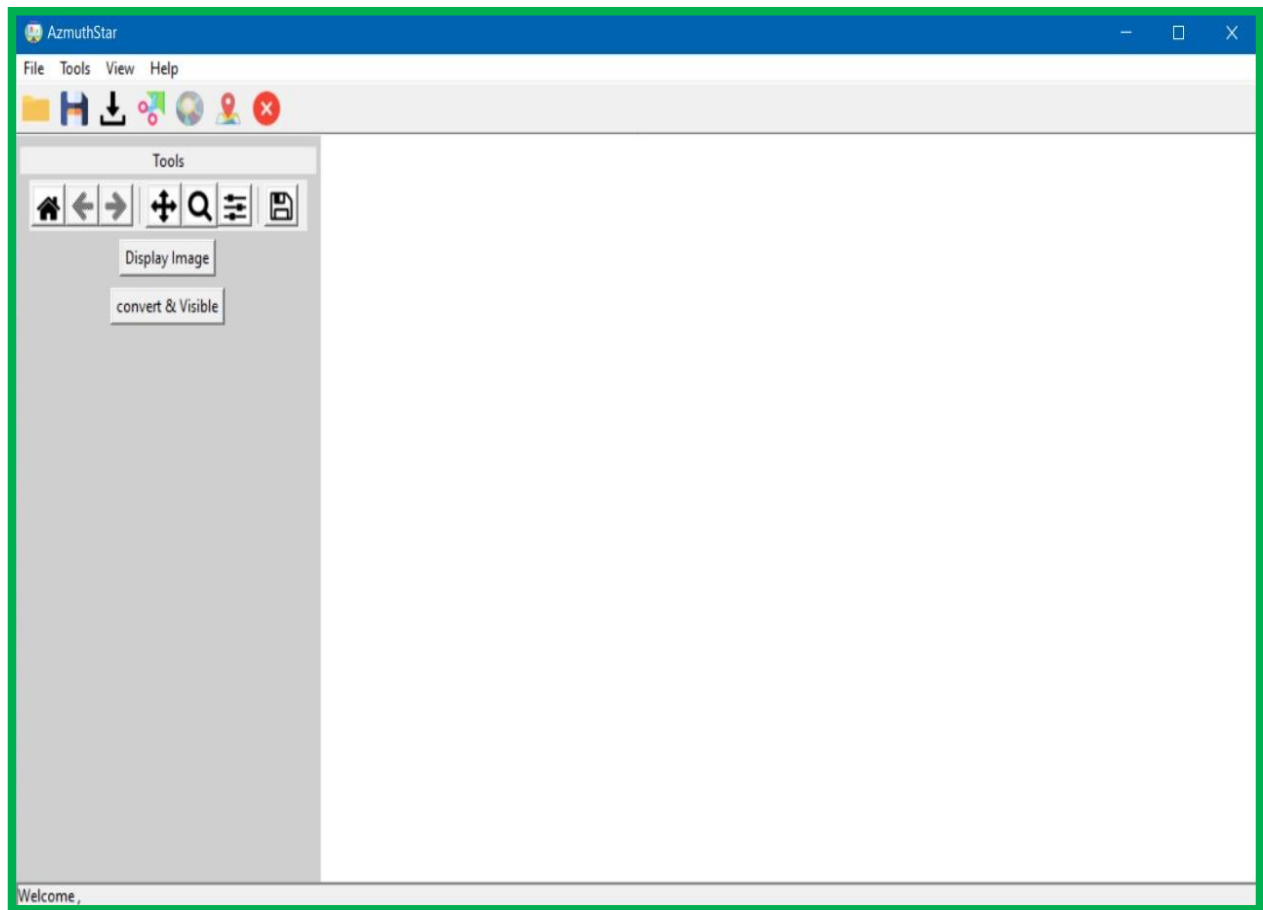
Packages

No packages published
[Publish your first package](#)

Contributors 6

Languages

Step 2: Now you can see the GUI of AzmuthStar as displayed below.



Step 3:

3.1 To initialize the AzmuthStar Ship Application first of all we need to Login in SAR API by passing Username, Password and Product id for this click on the download button

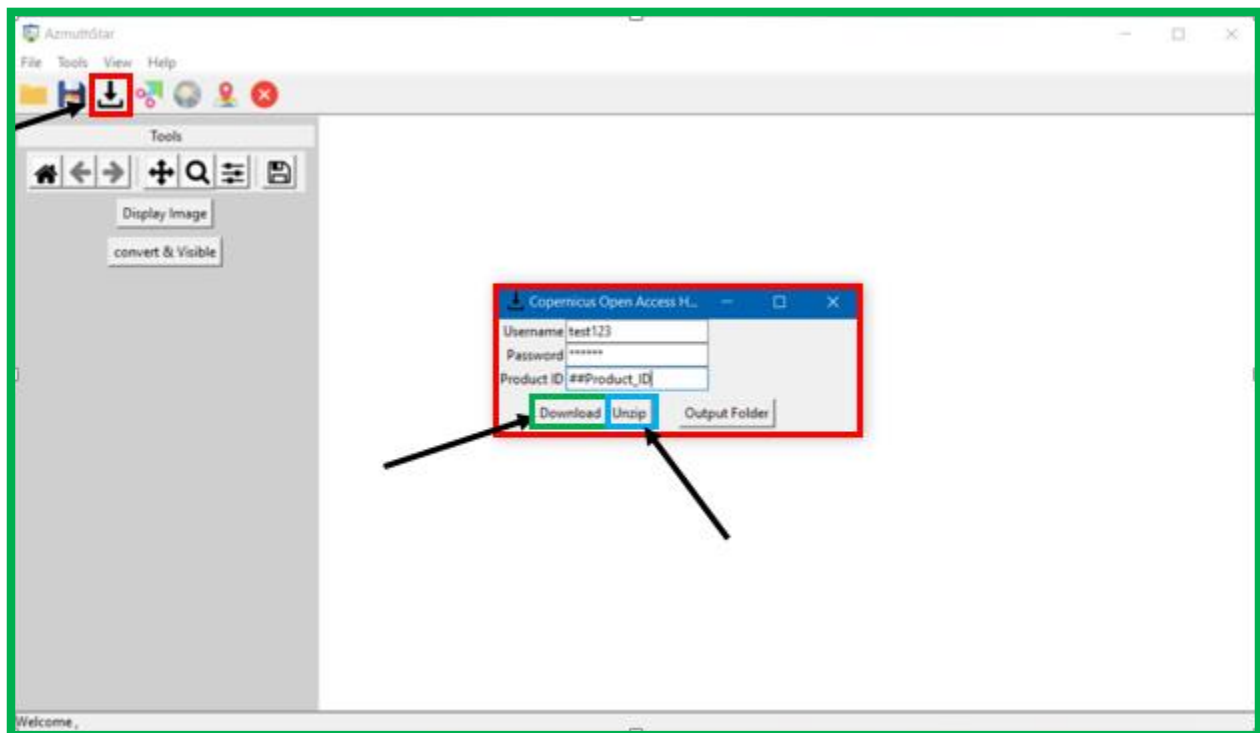


and the pop up will appear.

3.2 Login in SAR API and press download button

3.3 Click on unzip button provided in SAR API pop up window and Unzip the downloaded dataset.

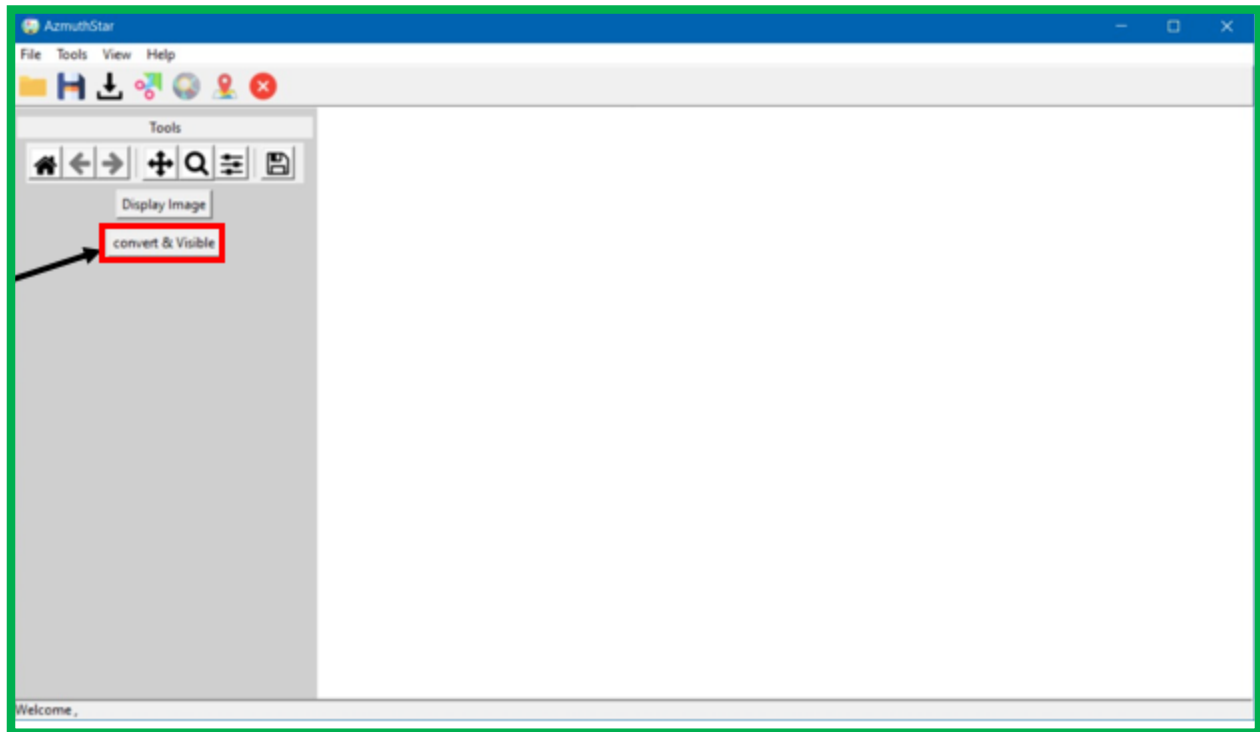
3.4 3.3 After pressing unzip button the data is going to store at 'Process/Download/Unzip'.



August 3, 2020

Step 4: To visualize the downloaded image from unzip folder click on “convert and visible button” on the GUI.

4.1 The visualize image will be saved in Process/Visible/.

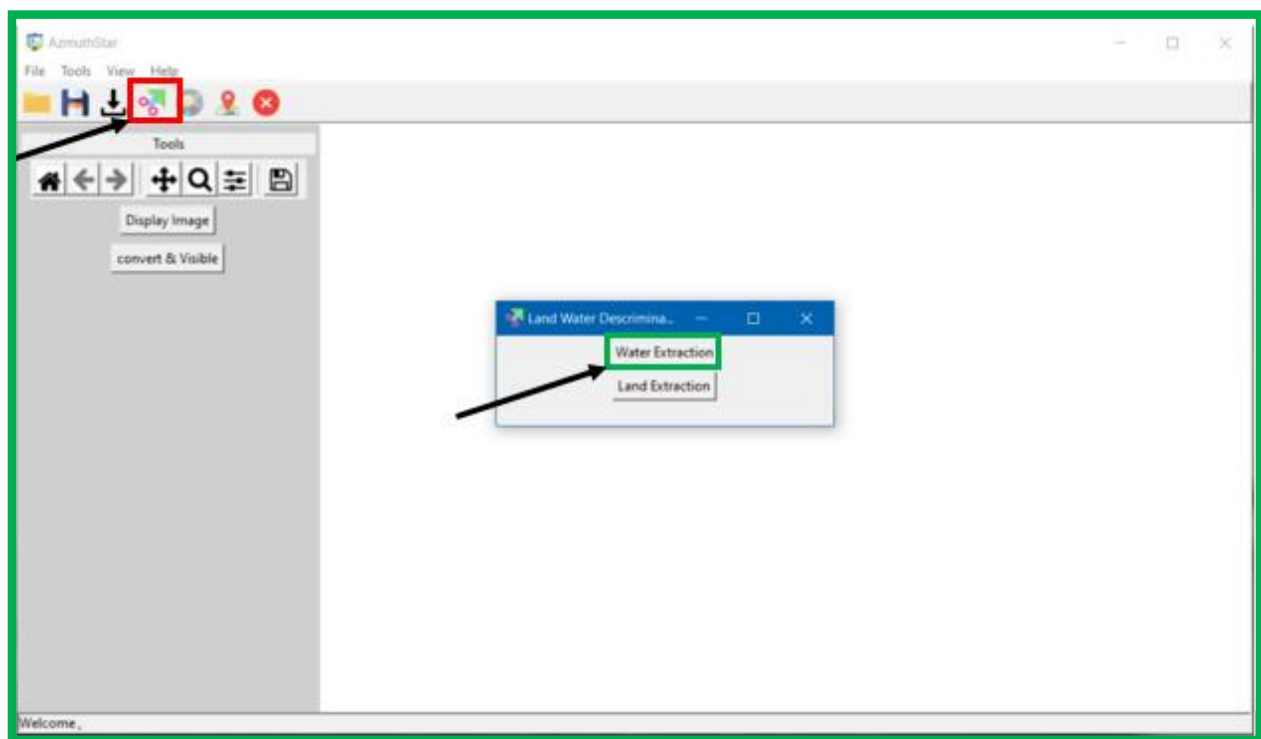


Step 5: To perform Land water discrimination click on .

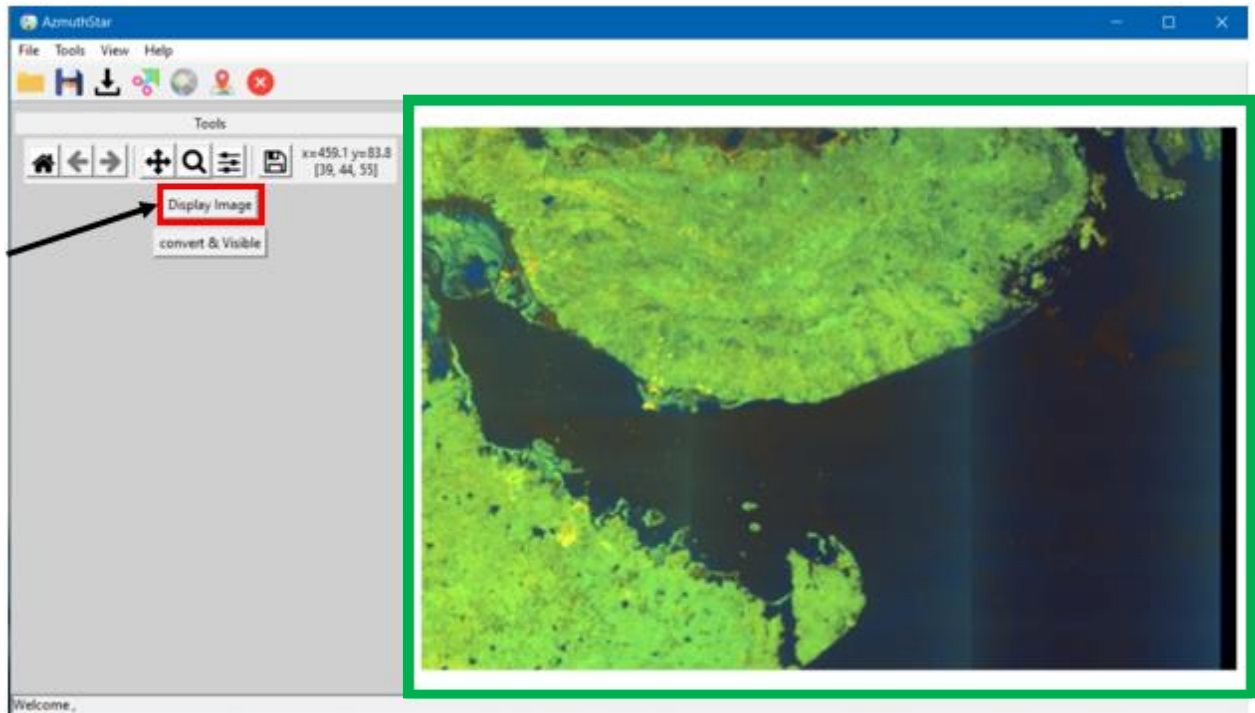
5.1 A pop up window will appear providing two buttons, one for Land Extraction and another for Water Extraction.


5.2 For Ocean part click on Water Extraction.

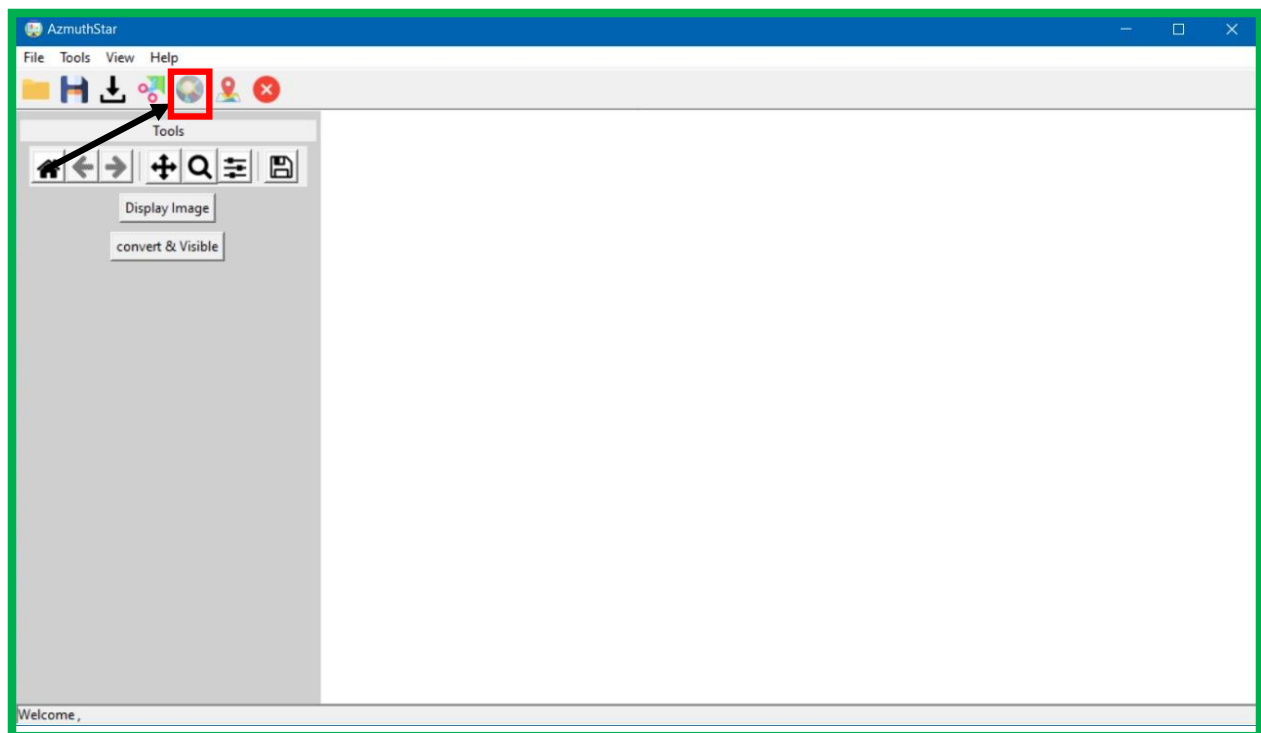
5.3 The extracted ocean part will be saved in the folder “/Process/Ocean/”.



Step 6: To display the click on “Display Image” button on the GUI.



Step 7: For detecting the ships on the extracted ocean part click on .
" After clicking on the button three operations start simultaneously, first is the ocean gridding, second is contouring and the then the object detection."



Step 7: To plot the All the detected ships click on .

