

# Processing Landsat and Sentinel-2 images with ACOLITE

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RBINS/DO Nature


For 2018 IOCCG Summer School



<http://odnature.naturalsciences.be/remsem/>  
<http://odnature.naturalsciences.be/remsem/acolite-forum/>




# Getting ACOLITE

- Go to (or Google ACOLITE):  
<https://odnature.naturalsciences.be/remsem/acolite-forum/>
- Download latest release for your system: Windows, Mac, or Linux











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It is currently Wed May 04, 2016 7:36 am

FORUM	TOPICS	POSTS	LAST POST
 <b>Support</b> Technical questions about ACOLITE	12	43	<b>Re: Problem launching ACOLITE...</b> by Jhanafin  Mon Apr 25, 2016 3:26 pm
 <b>Releases</b> Download ACOLITE and info about releases	6	6	<b>ACOLITE 20160120.0</b> by quinten  Thu Jan 21, 2016 8:59 am
 <b>FAQ</b> Frequently Asked Questions	5	10	<b>Re: How to run ACOLITE in bat...</b> by quinten  Fri Apr 22, 2016 6:11 am
 <b>Feature request</b> Post ideas for new features in ACOLITE	8	18	<b>Re: Rayleigh correction produ...</b> by Sampsakoponen  Wed Mar 09, 2016 7:00 am
 <b>Results</b> Post and discuss your results	1	1	<b>Var river plume, need better ...</b> by quinten  Thu Mar 05, 2015 2:34 pm

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# Launching ACOLITE

## Windows

double click the acolite shortcut in acolite\_py\_win

Name	Date modified	Type	Size
config	11/06/2018 10:28 ...	File folder	
data	27/03/2018 9:47 AM	File folder	
dist	11/06/2018 10:17 ...	File folder	
acolite	27/03/2018 11:57 ...	Shortcut	2 KB

or use a command line (cmd.exe):

```
cd acolite_py_win
.\dist\acolite\acolite.exe
```

Command Prompt

```
E:\ACOLITE_Python>cd acolite_py_win
E:\ACOLITE_Python\acolite_py_win>.\dist\acolite\acolite.exe_
```

# Launching ACOLITE

## Linux/Mac

use a terminal:

```
cd acolite_py_linux
```

- or -

```
cd acolite_py_mac
```

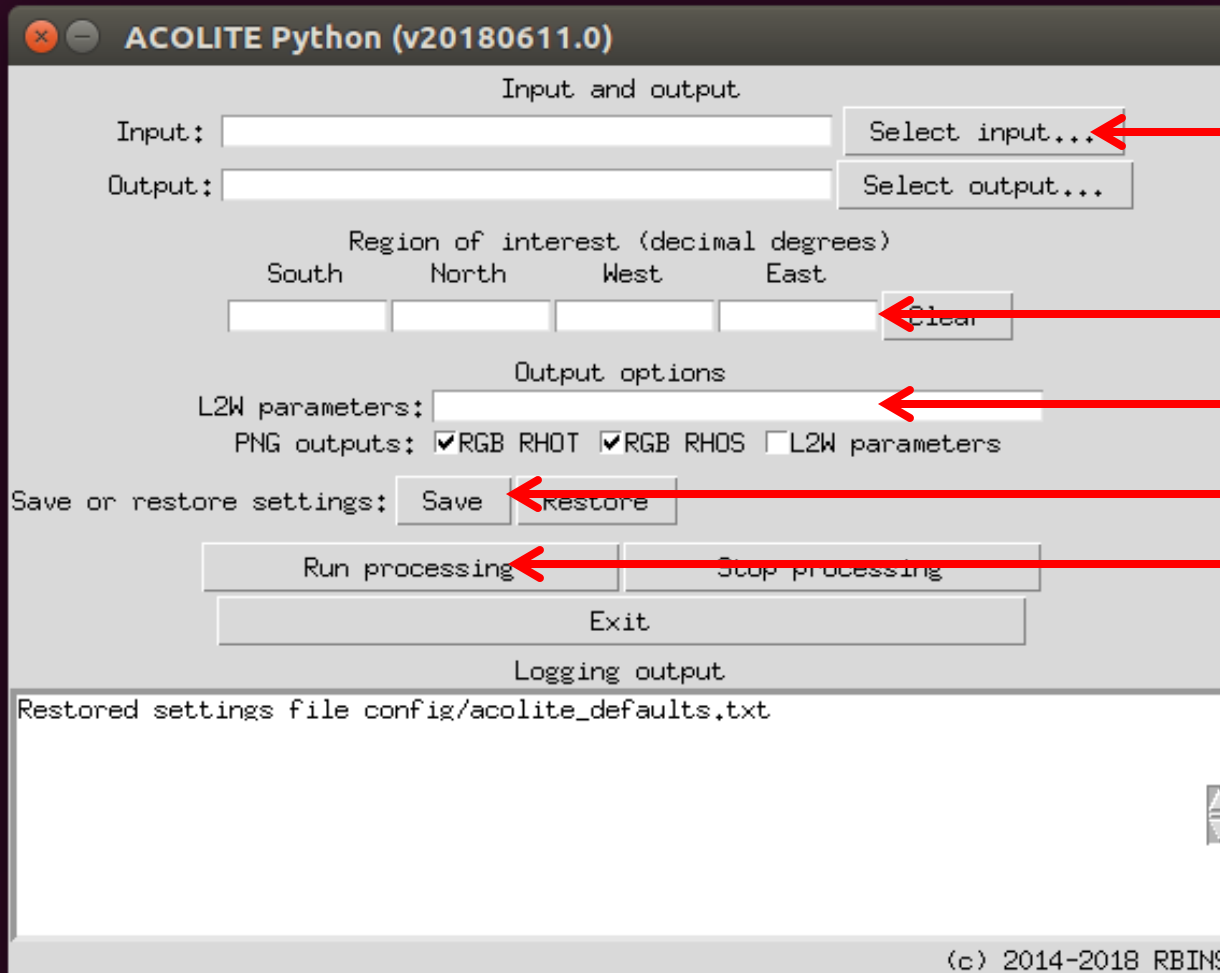
```
./acolite
```

- or -

```
./dist/acolite/acolite
```

```
quinten@odn-qv:/storage/ACOLITE_Python/Distribution$ cd acolite_py_linux/  
quinten@odn-qv:/storage/ACOLITE_Python/Distribution/acolite_py_linux$ ./dist/acolite/acolite
```

# Running ACOLITE



Select L1  
scene directory

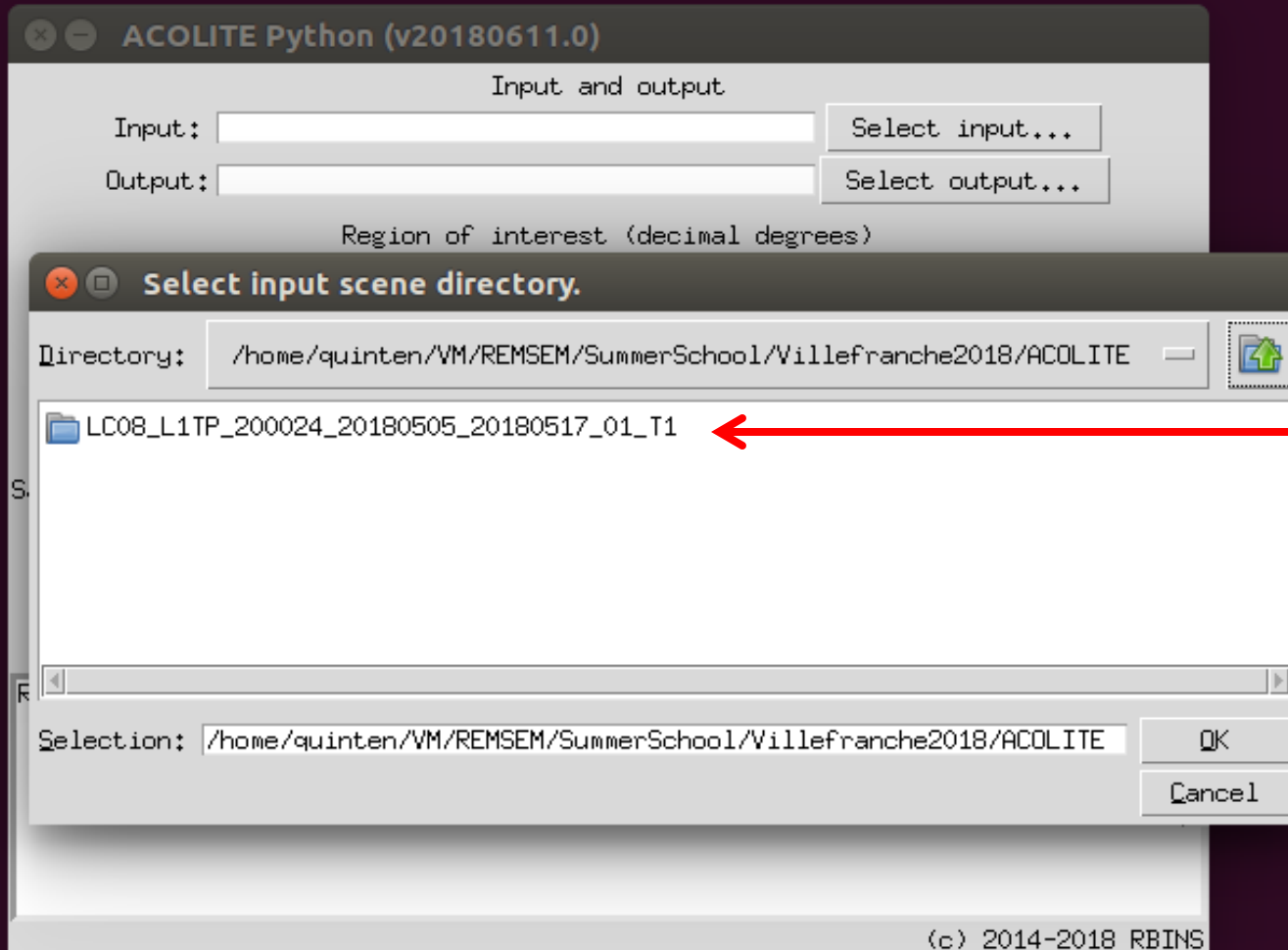
Enter ROI

Parameters

Save settings

Run!

# Running ACOLITE



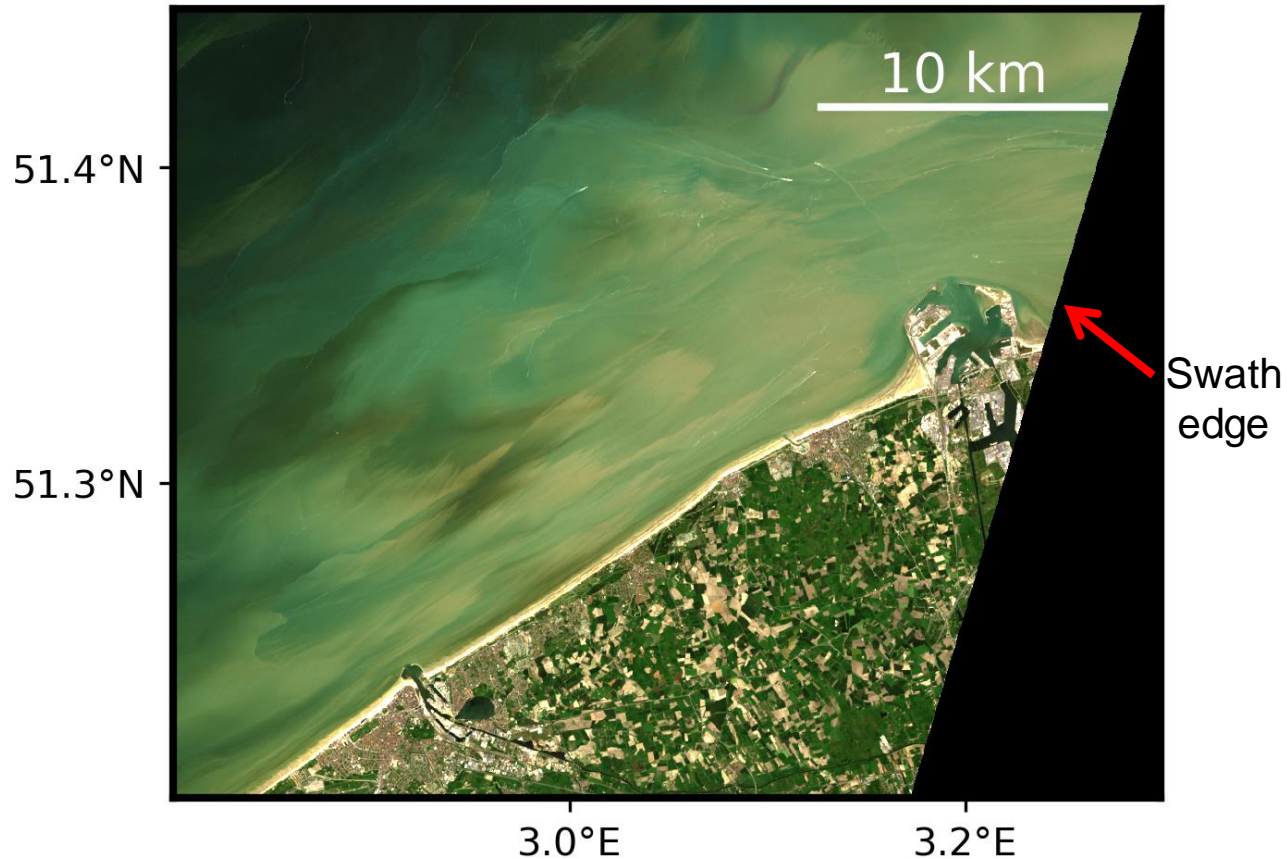
Go into L1  
scene directory  
to select

# ACOLITE processing

## Example ROI Zeebrugge

S = 51.20      N = 51.45  
E = 2.80      W = 3.30

$\rho_s$  RGB L8/OLI 2018-05-05 (10:45 UTC)

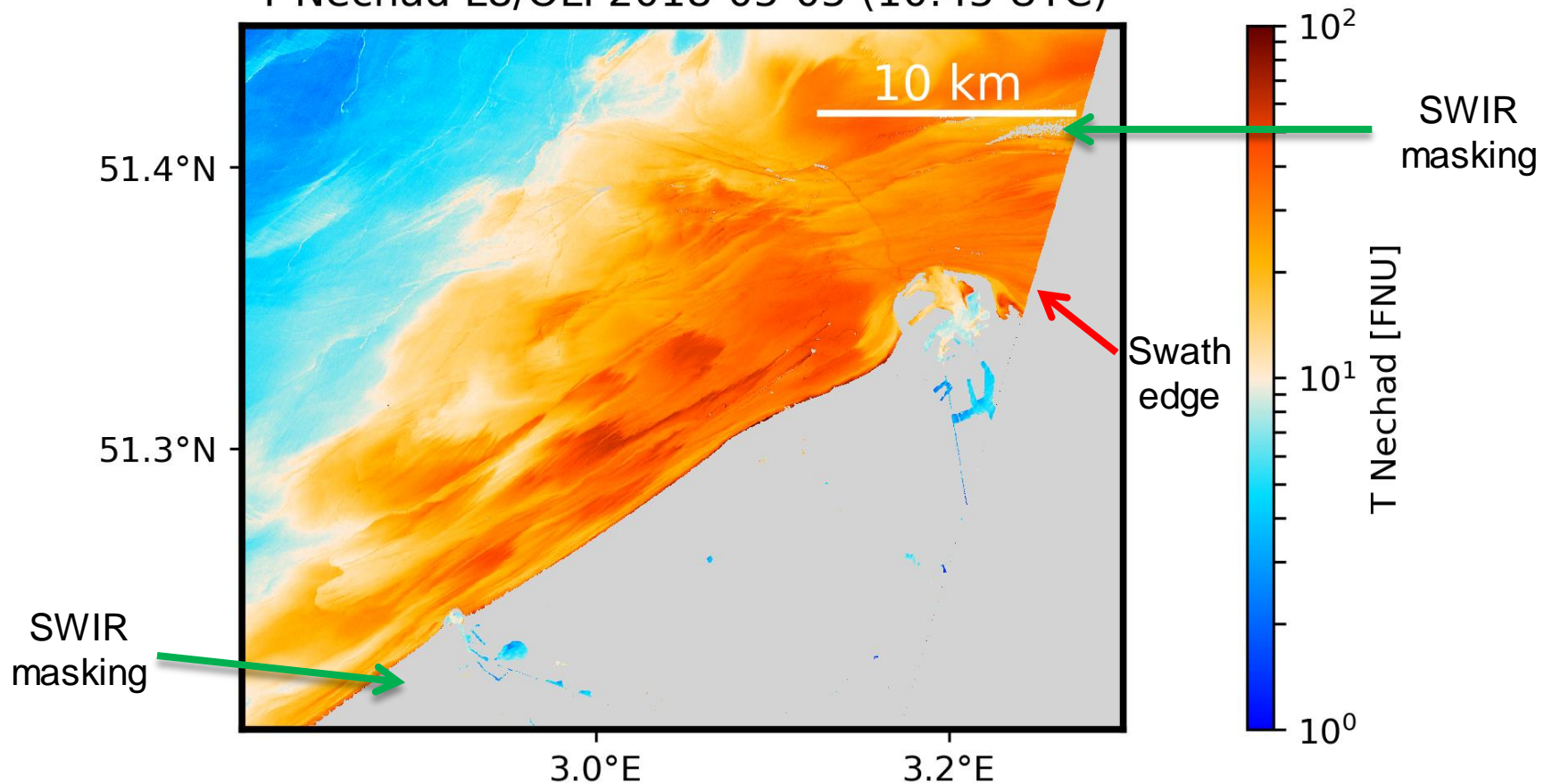


# ACOLITE processing

## Example ROI Zeebrugge

S = 51.20      N = 51.45  
E = 2.80      W = 3.30

T Nechad L8/OLI 2018-05-05 (10:45 UTC)







# Launching ACOLITE CLI

Use the command line for batch processing or scene merging, or for using more advanced options in the settings files. Launch ACOLITE from the command line using the --cli flag. The full path to a settings file needs to be specified using --settings=

**Windows** use a command line:

```
cd acolite_py_win  
.\dist\acolate\acolate.exe --cli --settings=\path\to\settings.txt
```

**Linux/Mac** use a terminal:

```
cd acolite_py_linux      - or -      cd acolite_py_mac  
./dist/acolate/acolate --cli --settings=/path/to/settings.txt
```

# Launching ACOLITE CLI

When you save a settings file from the GUI, all options are set to defaults. The settings files can be edited in a text editor.

Some things to play around with:

## **Pan-sharpen L7/L8 data:**

```
rgb_pan_sharpen=True
```

## **Add scale bar and lat/lon annotation to output maps:**

```
map_projected=True
```

## **Merge multiple tiles before processing:**

```
inputfile=/path/to/file1, /path/to/file2,..., /path/to/fileN  
merge_tiles=True
```

## **Change masking threshold:**

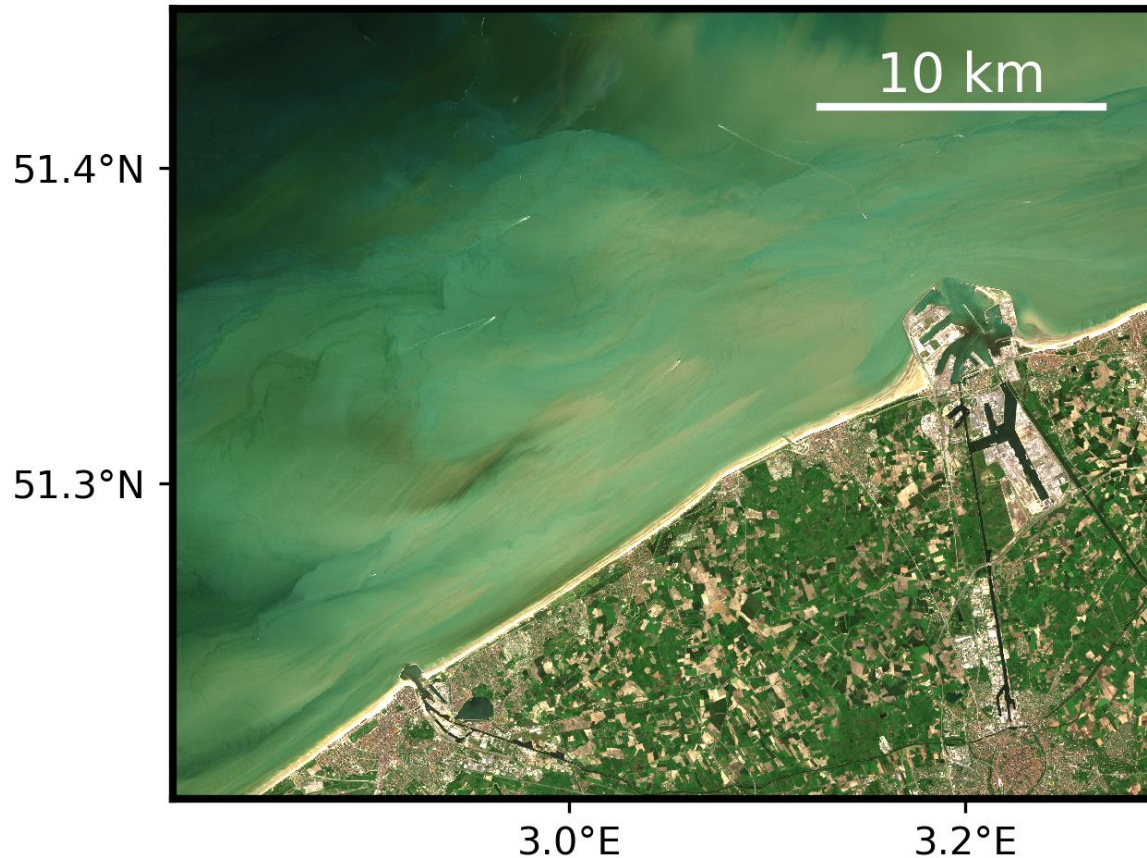
```
l2w_mask_threshold=0.035
```

# ACOLITE processing – merged tiles

## Example ROI Zeebrugge

S = 51.20            N = 51.45  
E = 2.80            W = 3.30

$\rho_s$  RGB S2A/MSI 2018-05-04 (11:02 UTC)



# ACOLITE processing – merged tiles

## Example ROI Zeebrugge

S = 51.20

N = 51.45

E = 2.80

W = 3.30

CHL Gons S2A/MSI 2018-05-04 (11:02 UTC)

