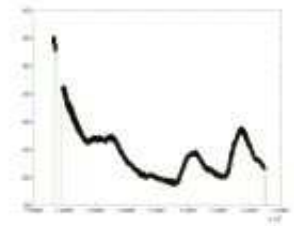
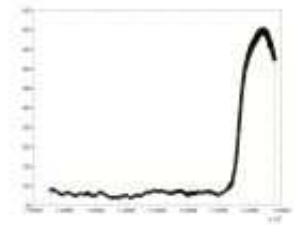
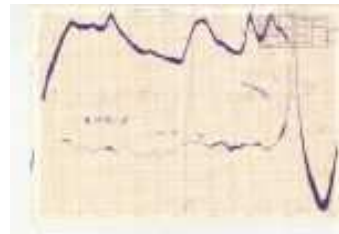
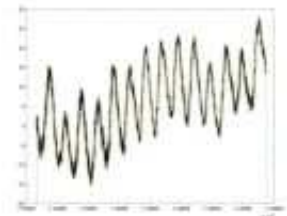
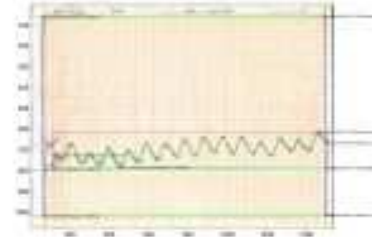


## Digitalisation Record of tide gauge or gauges

### Guide to Getting Started

November 17, 2005  
Translation August 19, 2008



# Digital recordings of tide gauge or gauges

## Guide to Getting Started Software

**Date :** Novembre 2005

**Author :** CETE Méditerranée

**Responsible for the study:** Frédéric Pons, DREC/SH

**Abstract of the study:**

Many gauges or roller gauges are or were used for measure the water level is continuously in the marine environment, in ponds or rivers. The transformation of this signal given a paper to digital has been the subject of development of a tool CETE Mediterranean

The tool developed by the CETE Mediterranean is based on the recognition of colors signal the tide and the timing of the board. An audit of setting is possible to end digitalized.

This report is the instruction manual software with the presentation of the tool on a maritime case (13 years in Port-Vendres) and two tests on data Service Forecasting of flood Aude (1 flood in 1981) and the DIREN Ile de France

**Geographic area:**

**number of pages:** 11

## Translation

**Date :** August 2008

**Author :** Survey of India

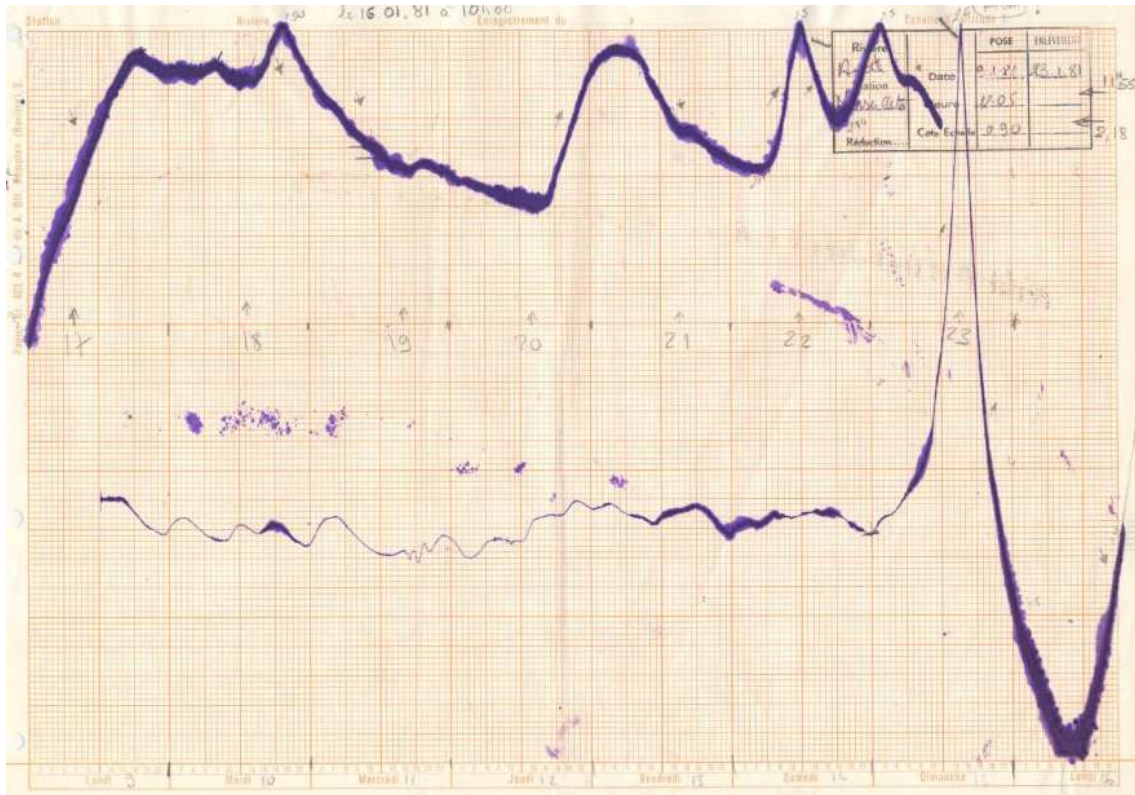
**Responsible:** Guddanti Varuna Kumar (Marine Wing)



# GUIDE TO MEET THE HAND FOR QUICK DIGITALISATION A BOARD OF SOFTWARE MAREGRAPHE NUNIEAU©

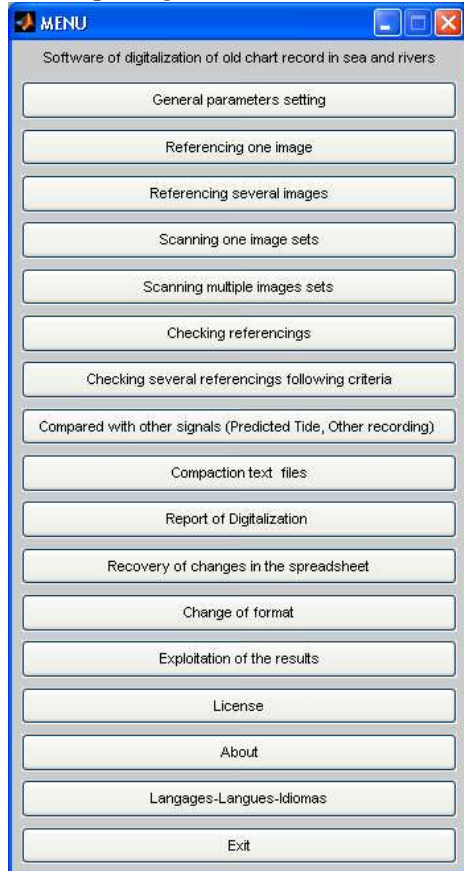
This guide provides a quick grip of the software without going into details of timing and signal continuity between the planks. It is a kind of small tutorial that summarizes all problems can be resolved with facilities.

We will first of all in this example digitize a board containing 2 signals with the presence of downtime and parasites.



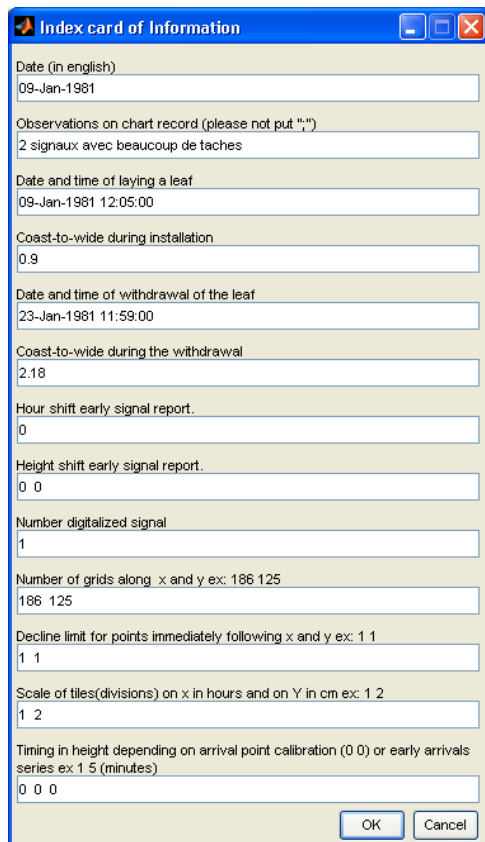
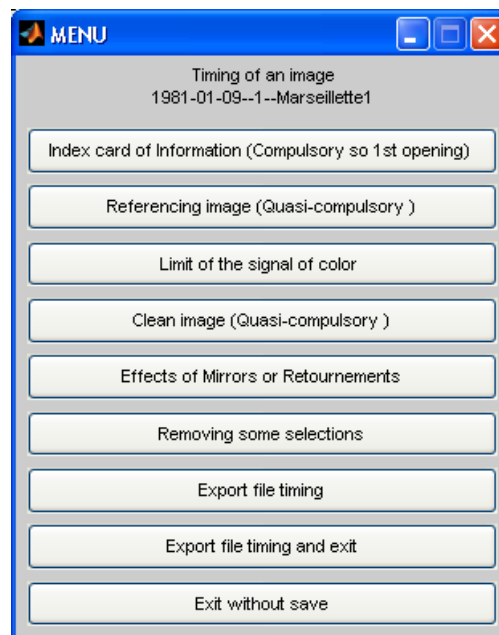


After opening the file `nunieau_1_12.exe` , the window :



The first tab allows you to define the parameters General setting. For example, if Diamonds 1 corresponds to 1 hour and a horizontal axis to 2cm orderly it will be necessary: 1 2 in box No. 5. In General defaults works well.

The first stage begins in the digitalization clicking on "timing of an image." A window Window allows searching then file (in our case it is called marseillette1). Once opened a new window appears.



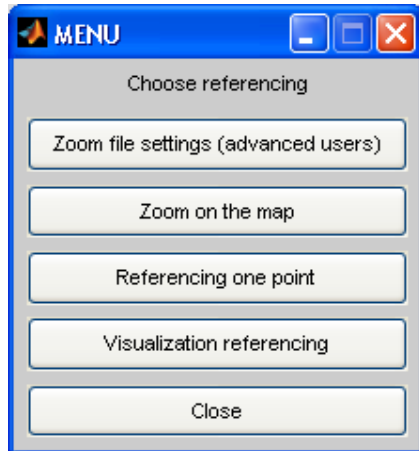
On this window then click on the first tab that allows set back the various data needed to digitization of image:

- date and time of laying a leaf
- coast-to-wide during installation
- date and time of withdrawal of the leaf
- coast-to-wide during the withdrawal
- hour shift early signal report.

When two or more signals are present on the leaf it must enter the number digitalized signal corresponding to its print order: here the first signal to number 1.

Make then OK when everything is completed.

The next step is to adjust the image for that click on the "timing image" and the window Next appears.



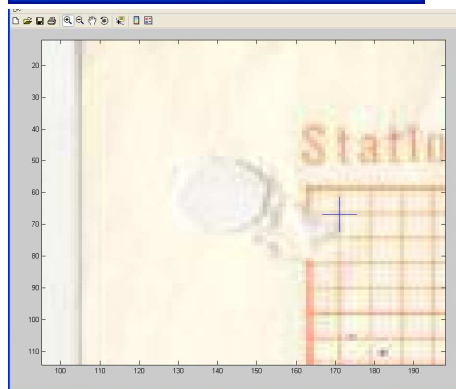
Then click on "zoom on the map." It is now zooming in 5 strategic locations of the sheet to position the cross bracing located Diamonds 1 the edges.

Using the zoom window and position itself in the upper left beginning.

Then we need to position itself at the zero reference of airlin after bottom left, then right and finally to the top right

This order must be absolutely respected.

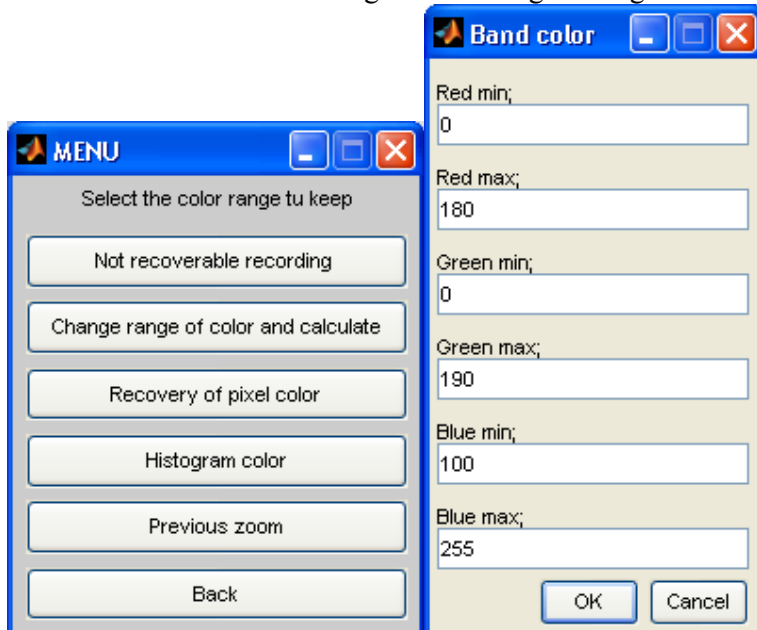
In the final 5 crosses were put on the map.



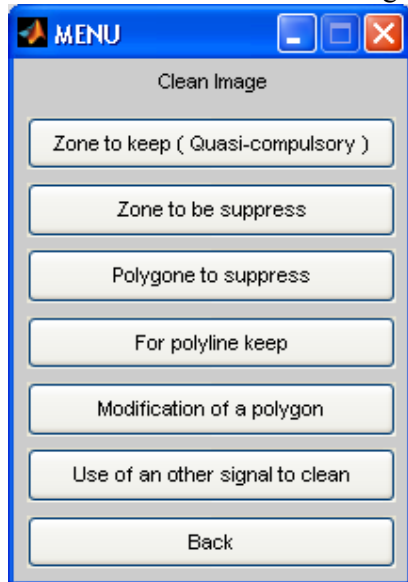
Click on the tab limit signal "of color to see if the color signal can be recovered.

For that one option to recover the color of a pixel is available. We must therefore adjust Band color based on values of a pixel signal. In general, a band by predefined

Failing can already recovered a large part of a color signal. More big band is more it recovers signal, sometimes at the risk of seeing rows of the grid integrated into the signal..

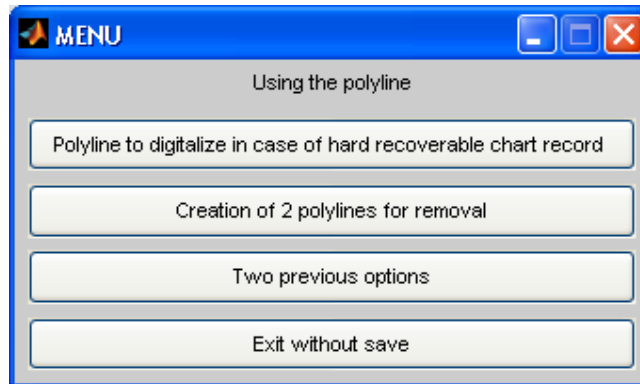


Now Click on the tab "cleansing the image" of the main menu. A new window appears:



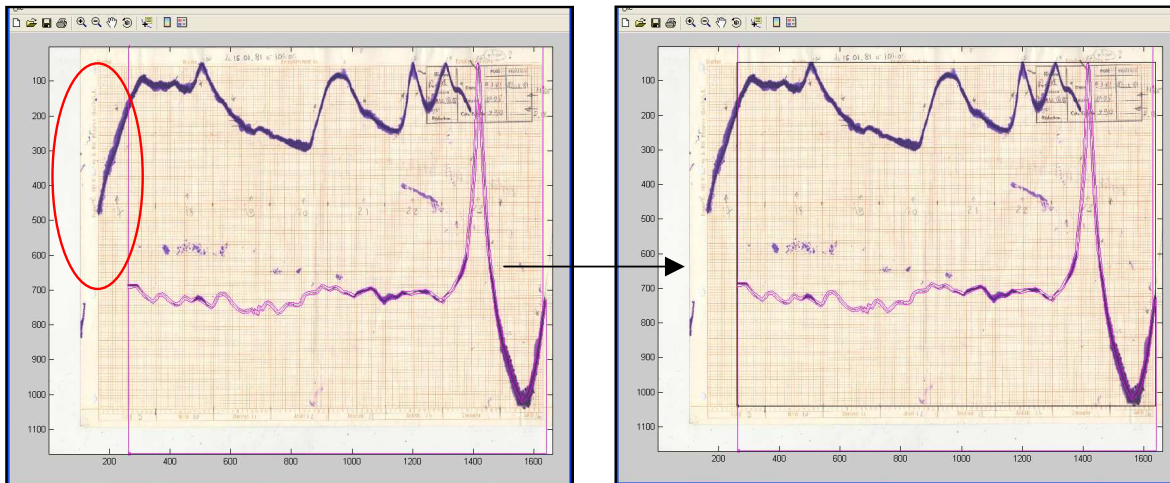
To use a simple signal tab "zone to keep" which allows select a rectangular area around the signal. In this case the area should stick to the maximum signal to avoid pixel parasit

For a multi signal e best is to use "for polyline keep. " Just follow the signal by drawing a polyline. On finalises polyline by right-clicking on the mouse. At this point a window pops up: :



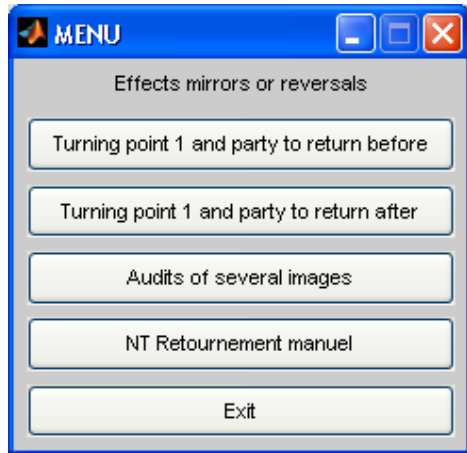
Click on the tab "creation of 2 polylines for removal" and choose the number of pixels for the vertical gap. In our case seen that the signal is fine and that the polyline is focused on signal on select a gap 5 vertical pixels..

The interior of the parties in pink zones will be deleted. It is out of even a portion of second signal will be taken into account when the digitalization. In this case, it is best to define an area to keep..





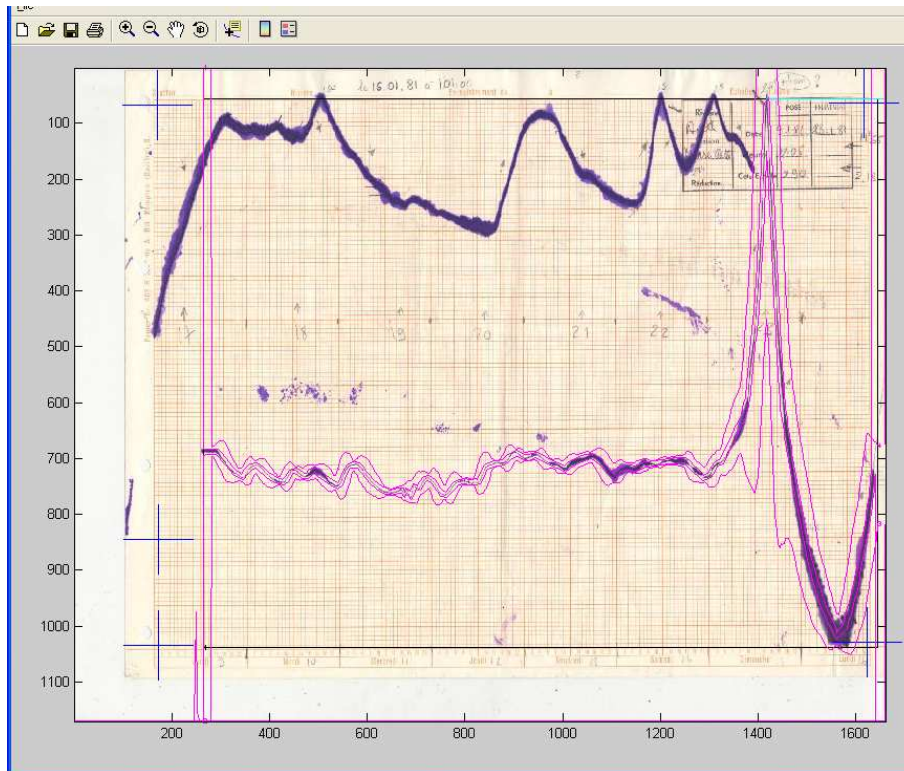
In this first signal, we find that there is a downturn. In this case, it "works well see which part of the curve on lies (rising waters or descent). Here is a rising waters 1 led to turning the curve (reverse slope then there is only due to Downhill water).



Please click on the tab "effects mirrors or reversals." A window appears:

Here, as there is rising waters the party to return is after the turning point. Click on therefore tab "turning point 1 and party to return after". Zoom on the turning point, position Point and click to validate yes. A blue turquoise appears on the party to return. Renew the operation at each turning point (good here there was that 1).

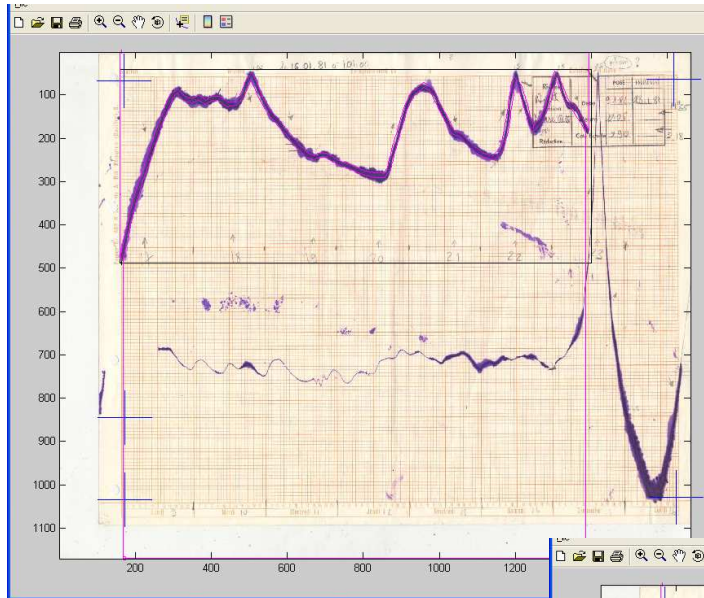
In the final figure set taking into account the first signal shall be as follows:



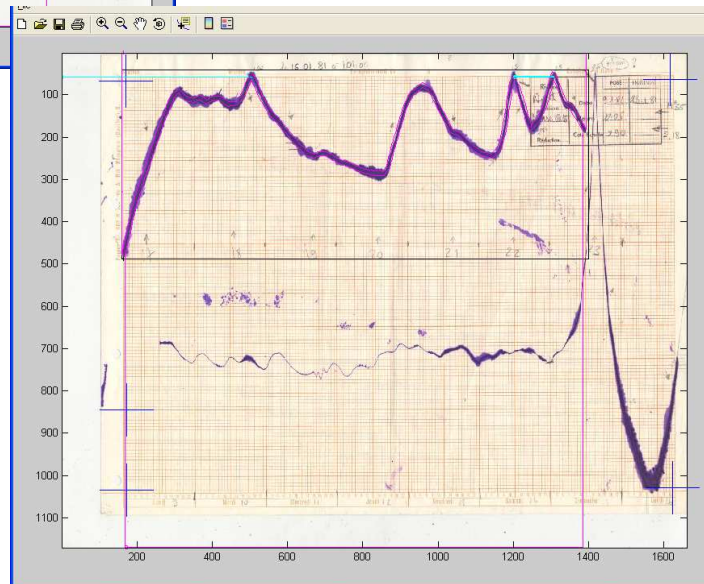
Click on the tab "export file timing"

The sheet presented in this example includes 2 signals must therefore repeat the operation for the second signal. For that go into details about intelligence and fill in the number of hours delay (here 186 hours corresponding to an entire sheet) and save 2 in the number of digitalized. The timing is not to change and the limits of color signal.

That is the level of cleaning up the image it must intervene. Doing so for a second polyline keep and select a second area to keep.

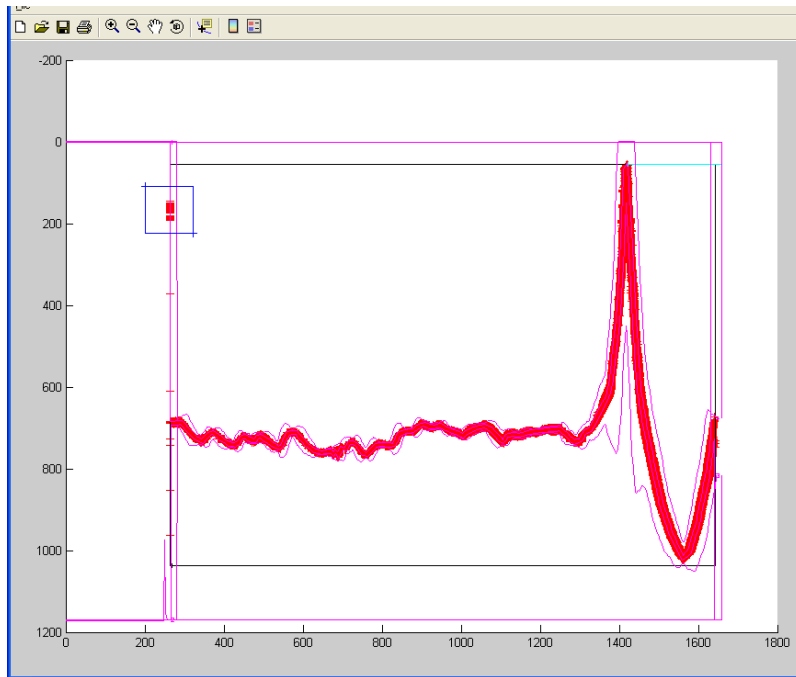


In this signal we have 3 points reversals. Here too we must use the Opti effects mirrors. The first point corresponds to a lowering of water we need So bring the party to go forward. Then it was 2 points rollover ones that correspond to a peak (climb - downhill water) so the party to return is in the midst of these 2 points. This leads to after selecting the appropriate options following figure::





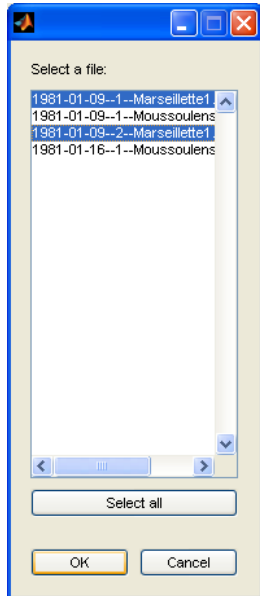
In the main menu then click on "scanning multiple images sets" and select 2 Marseillette images and validate. Depending on the computer power it could take more or less time. Check then images with the tab "audits of several images." Remove the last pixels undesirable due to different options for the new menu. In these images, signals were not treaty (rollover and timing).



Here a new area to remove a been added to erase pixels undesirable.

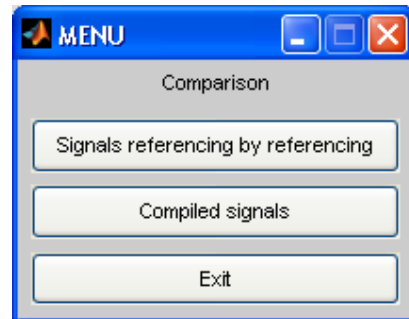
To see the image again cleaned click "Digitization of image".

Return to the main menu and select the tab "compaction text files." Validate 2 dialog which "open. Choose then the two file Marseillette: :



Here, there are several other files wedge, we must choose the good.

Then click on "Compared with other signals" and choose all signals on the same sheet



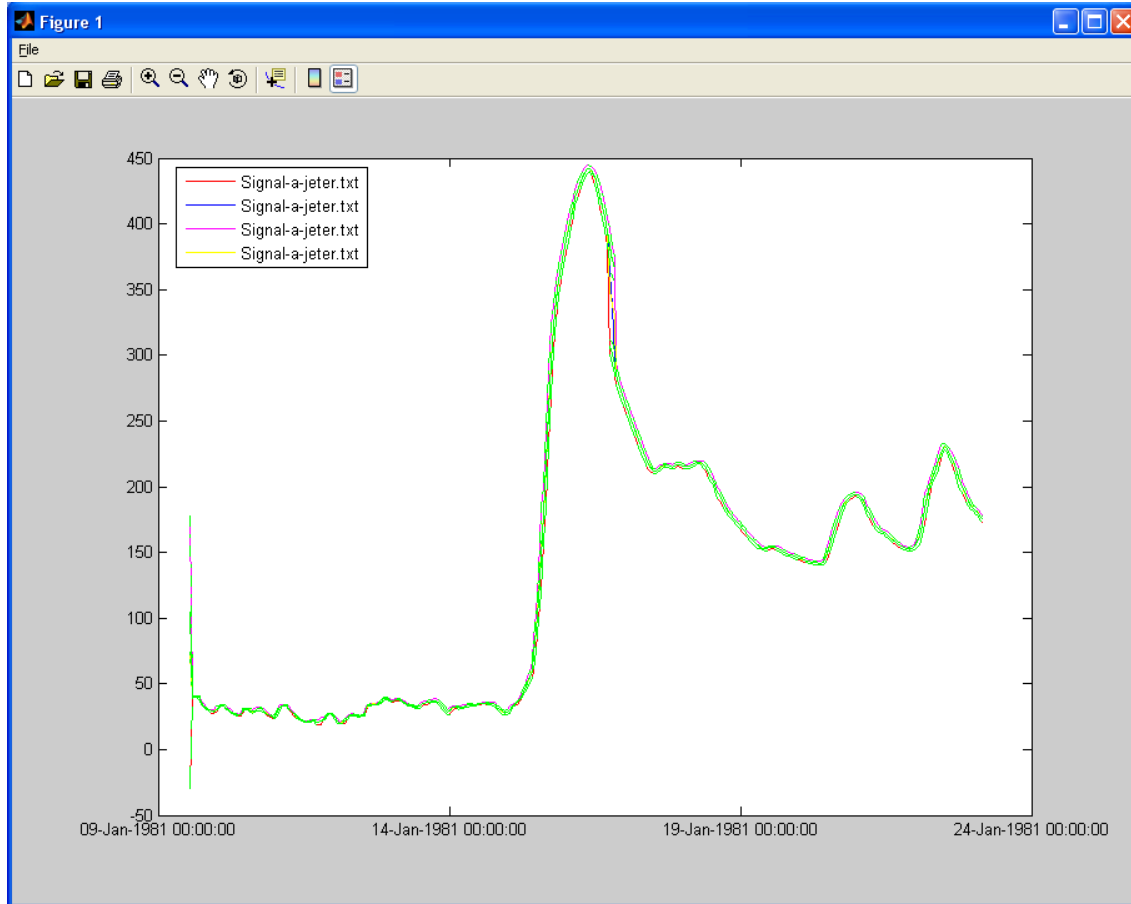
Given that there was no signal Compared to this signal this optimistic can only see if the Digitization has done well.

In the new window choose paramètes adequate (especially at the level of zoom).

Then select the files Marseillette.

To Cancel and then 2 times OK for new windows that appear.

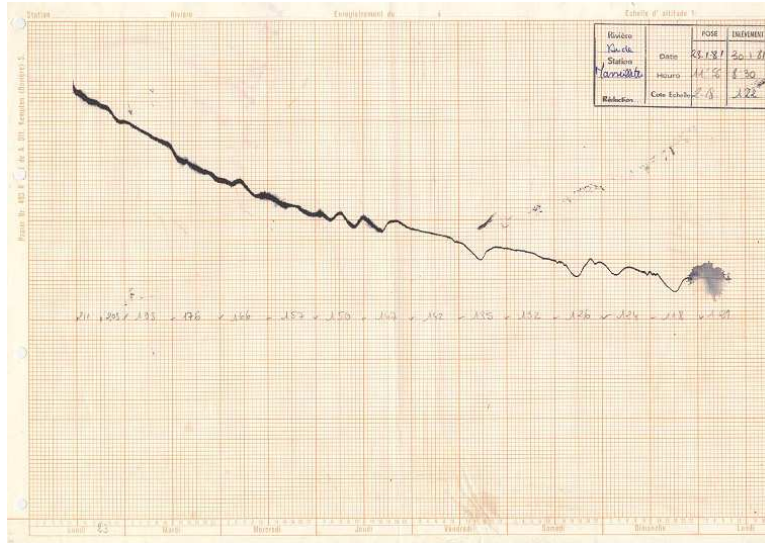
The final signal appears :



The signal has been successfully treated.

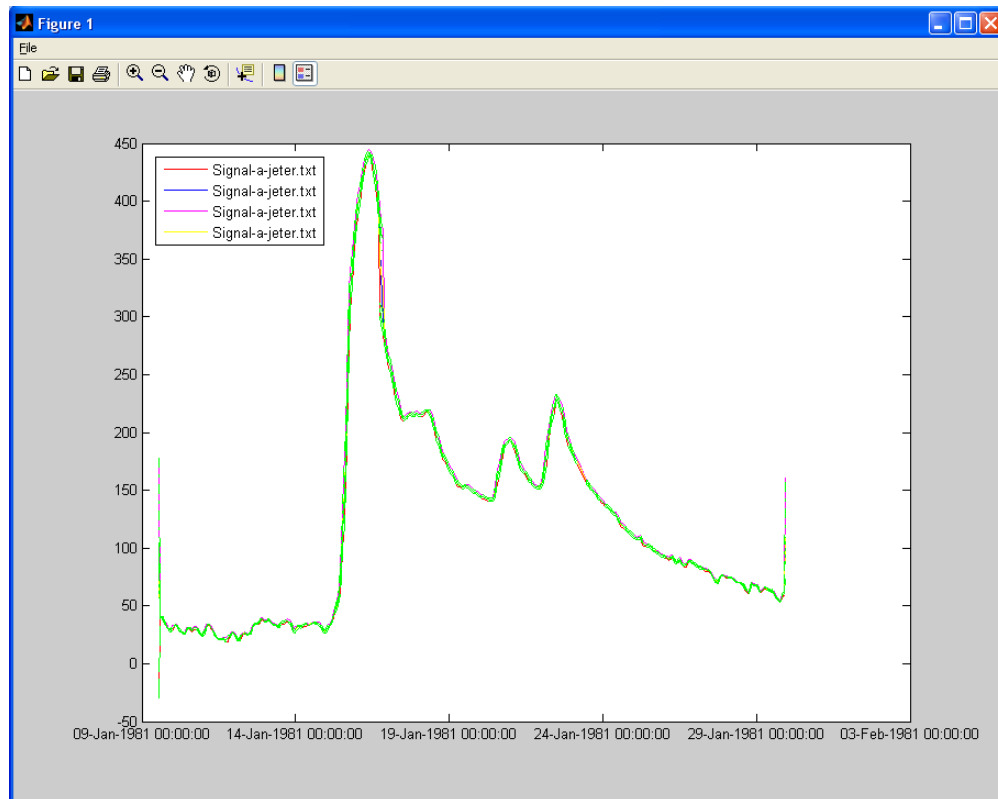
There are still a few pixels at the beginning parasites which are erasable with the verification option an image.

Scan then the image Marseillette2



It is much easier because there is a signal and no turning point.

In echoing previous steps the final image (including all files on Marseillette) gives after compaction of texts and file comparison to another signal:



Now, we must delve into the record to refine all that is bracing parameters etc...

NuNiEau is a little demanding and sometimes that plant without reason. Then take his courage to two hands and repeat operations digitalized.