# Operator Manual for BASS2000 compatibility

The professional BASS2000 solar database is planning to open to images of the whole sun made with a Sol'Ex. For this you have to respect some rules and add some information in the fits header and INTI has been modified to help you.

1- Process your scan normally

Make the result of the treatment disappear by pressing Enter while one of the images is selected

2- Make the Database compatibility area appear

The INTI window remains open and the name of the file is always visible in the upper area
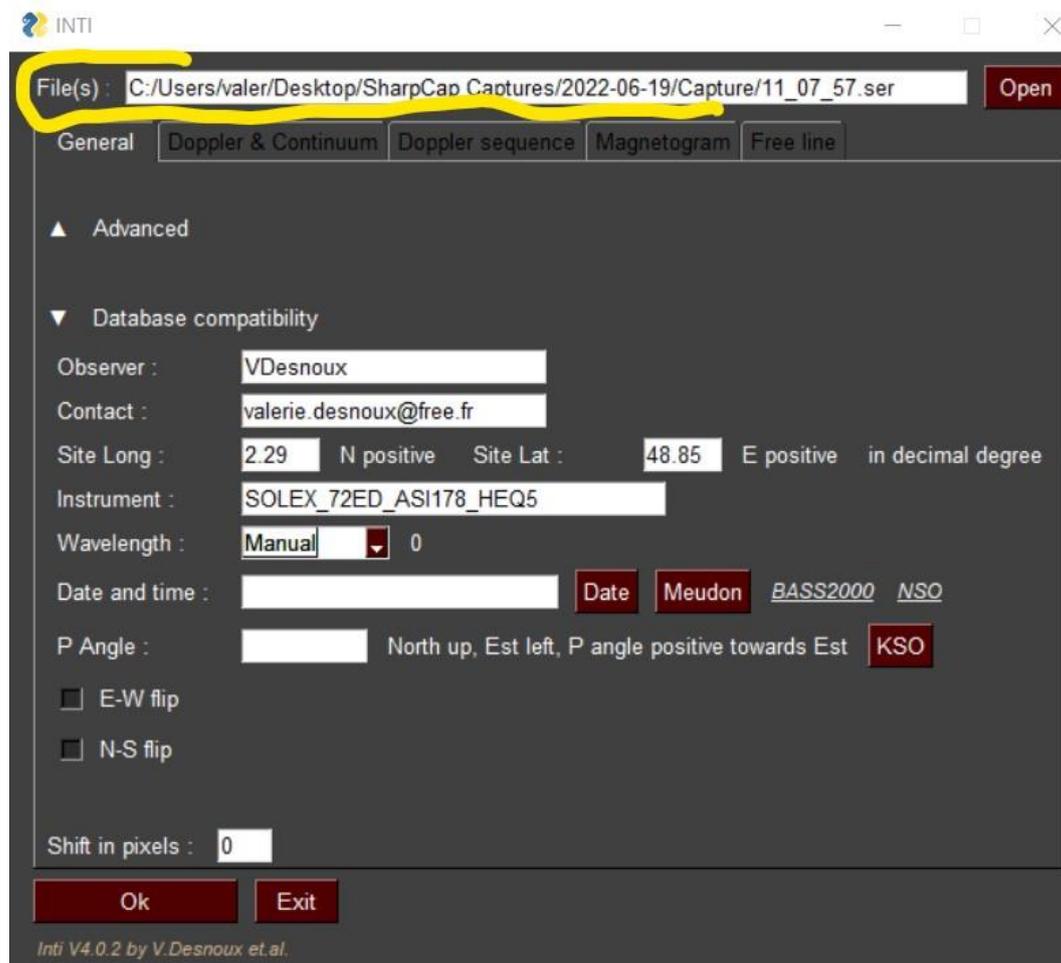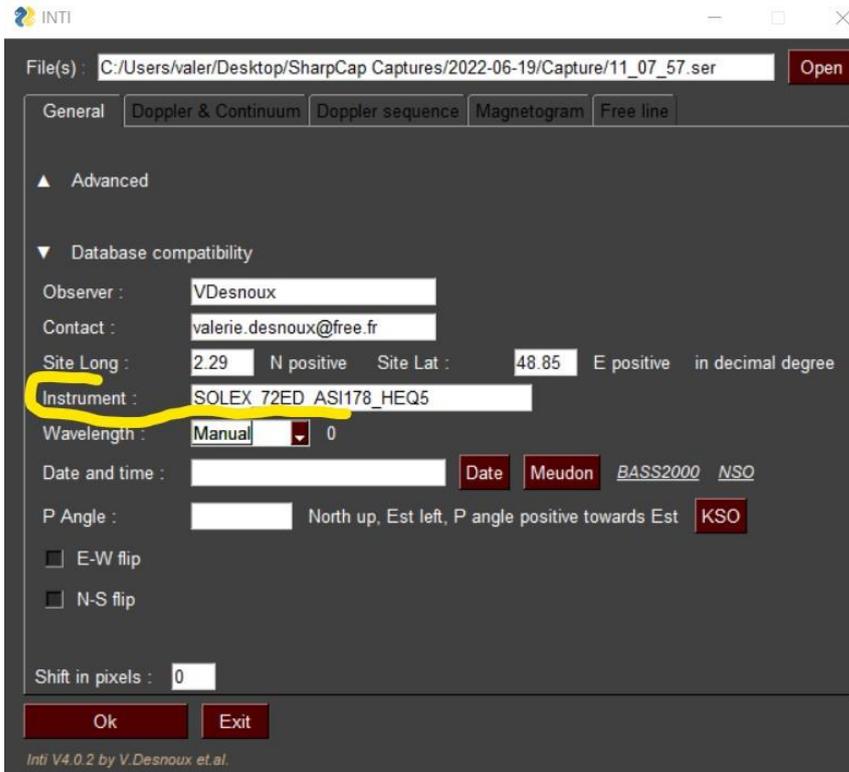

3- Enter observer and site information

- Your observer name in the database
- Your contact email
- Latitude and longitude of your observation site - Positive East Longitude, Positive North Latitude, in decimal degrees

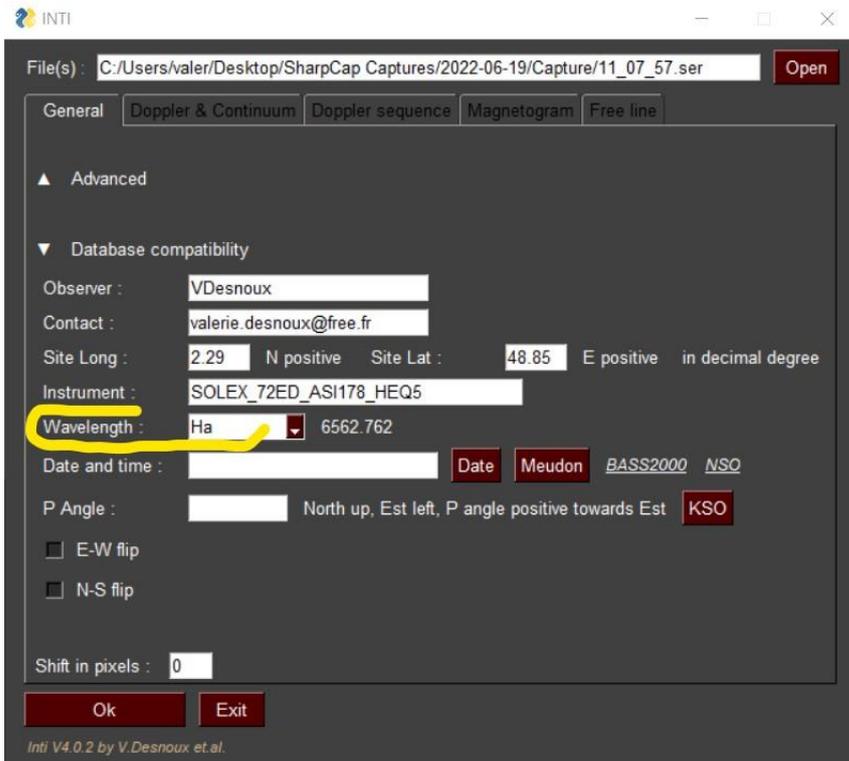## 4- Enter your instrument name

IMPORTANT : It has been agreed with the database administrators that Sol'EX instrument names should all begin with **SOLEX** - then you are free to complete the name, but avoid special characters such as ', ; * / \ '

5- Select the image wavelength

This is a drop-down list, at first only H alpha images will be requested.

6- Click on « Date » Button

This button displays the observation date that is in the header of your file Ser.
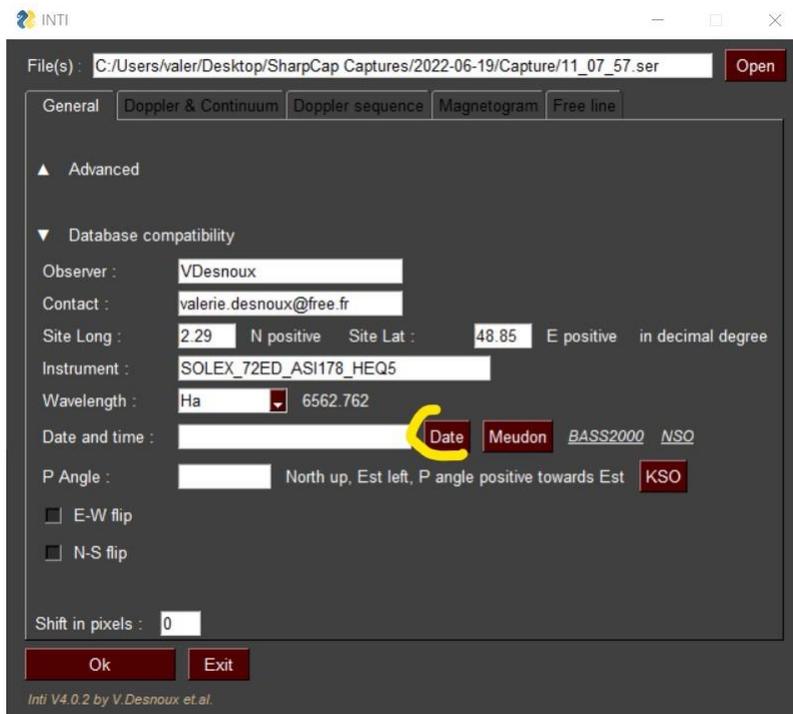
The date is supposed to be in UT, make the necessary settings with your PC and your scan acquisition software so that this field is in UT.
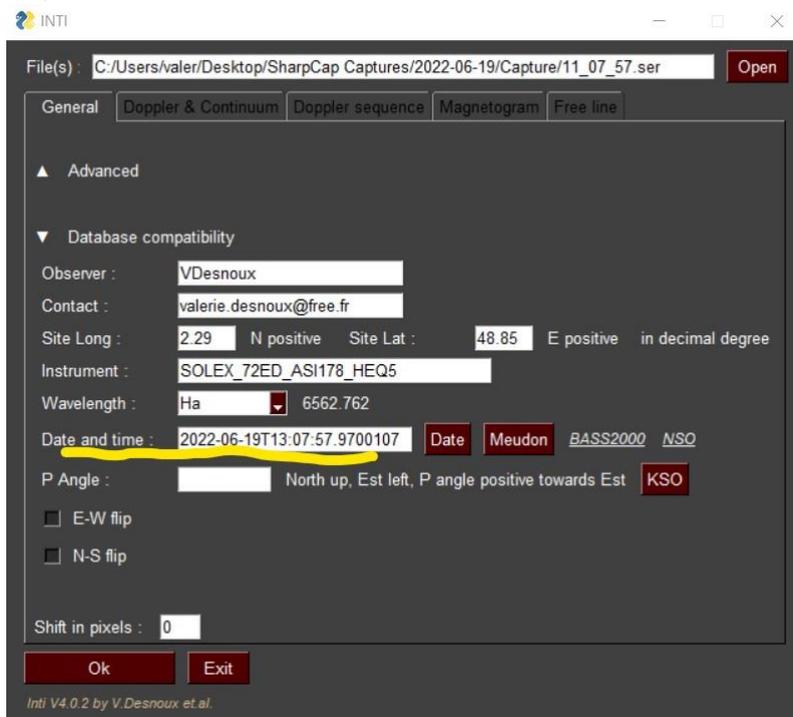
7- Help with image orientation

The image of the disk should be oriented North at the top and East on the left.

If you do not know the orientation of your instrument you can display the image of the spectroheliograph of Meudon or other professional site to compare the orientations and find the inversions that it will be necessary to apply to your images.

These inversions are defined by your configuration and do not change from one scan to another. **Note here that it is important to scan the sun in Right Ascension.**

It is also preferable to always scan in the same direction if you do not want to change the E-W inversion each time at the risk of making a mistake.

INTI offers some support services.

- Button « Meudon »

If you click on the 'Meudon' button, INTI will download the image of the Meudon spectroheliograph at the nearest date.

It will then display this image in the image viewing software of your PC associated to the extension 'jpg', the name of the image is 'meudon.jpg'.

INTI will also reopen the last image that you have just processed, the image: " _xx_clahe.png " in the image viewing software associated with the extension " png ".

Be careful, the two windows can hide each other. If you shift the two images you will see this.
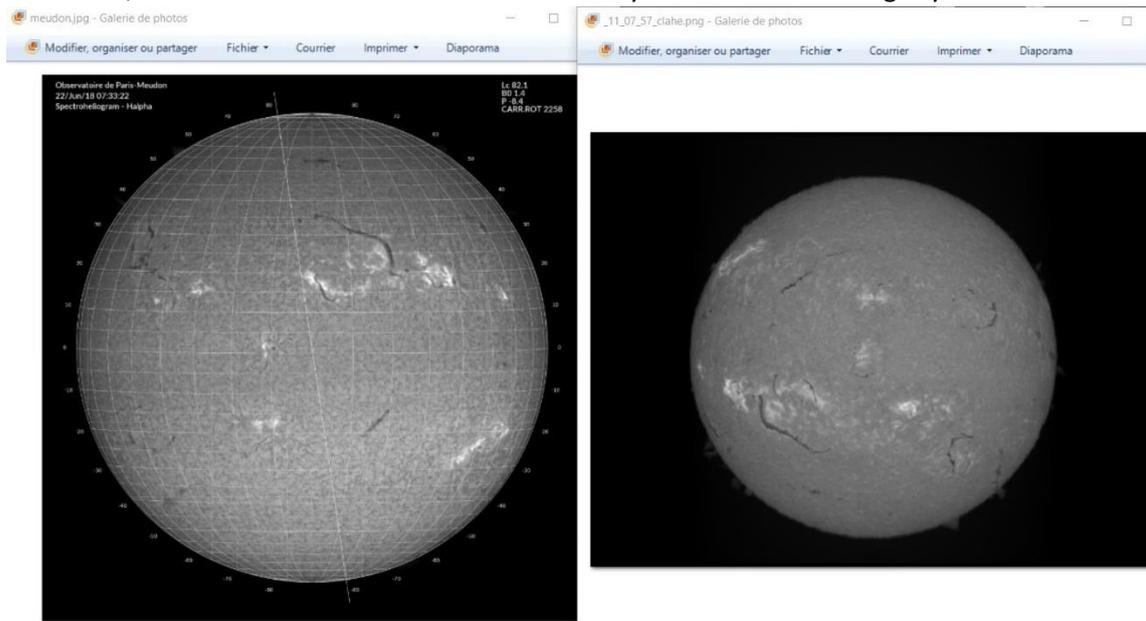
- Links BASS et NSO

It is possible that the spectroheliograph in Meudon is under maintenance.

INTI then proposes two web links, one to the BASS2000 https://bass2000.obspm.fr/home.php and one to NSO https://nso.edu/ - The page will open in your browser.
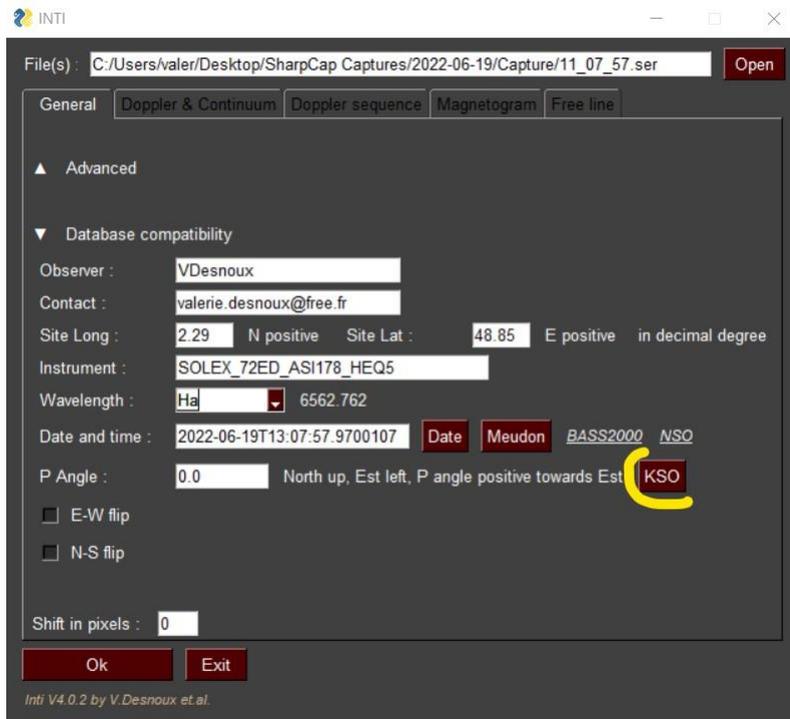
8- Indicate the angle P of the day

To correctly orient the image, it must be oriented also Solar Pole up. This angle is the angle P, it is defined for a sun oriented North above and is positive towards the East.

To help you find the angle P, INTI proposes to use a site that provides this information, the solar site of Kanzelhohe https://www.kso.ac.at/index_en.php. INTI also retrieves other solar parameters that will be placed in the header.

Click on Button « KSO »

The value of the angle P is displayed.
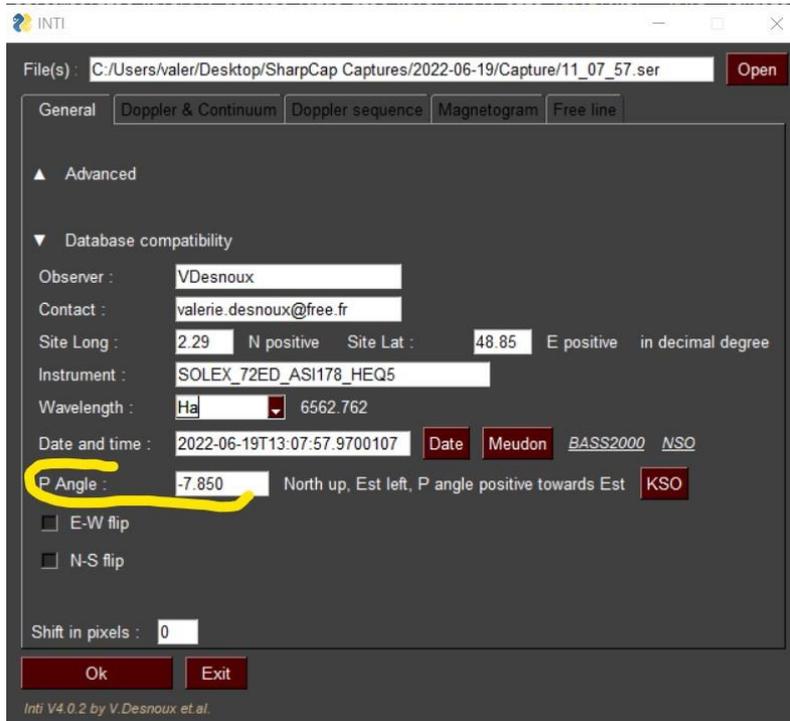
9- Enter the image inversions

In this section you indicate the necessary image inversions specific to your instrument. You will have found these inversions by comparing a reference solar image from a professional site with the previously processed image. You can do it by yourself or use the INTI services described in section 7
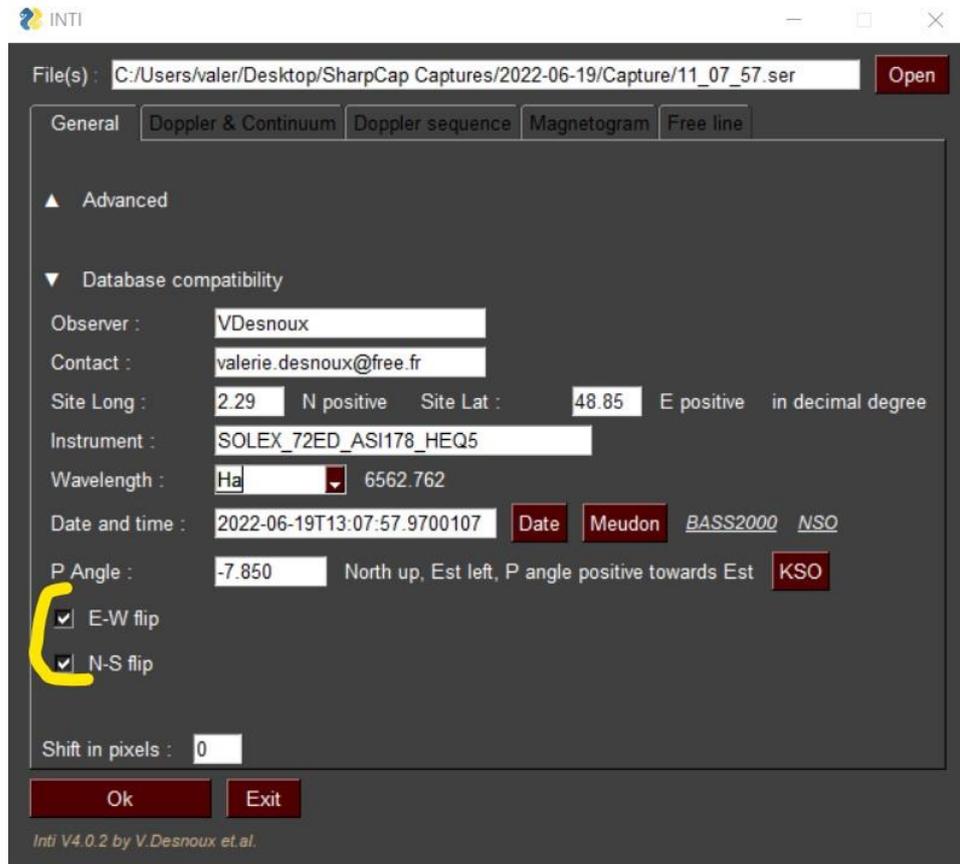
10- Do Ok

INTI will process taking into account the information and the orientation parameters.

You will find in your directory, in addition to the classic images, three new images: the fits file and two jpg images.

These are the three images that will be placed in the SOLEX image collection drive.