

Initial Setup – The Settings tab and Masters tab

ISIS - V5.5.2

1. Image | 2. General | 3. Calibration | 4. Go | 5. Profile | 6. Gnuplot | Masters | Tools | Misc | Instruments | Settings

Spectrograph model
ALPY 600 (with calibration module)

Working directory
C:\Users\User\Documents\ISIS_Processing\night_alpy_worl

Spectral database directory
C:\isis_data\

GNUPLLOT software directory
c:\gnuplot\

Language
 French English

FITS extension
 .FIT .FITS

Interpolator type
 Bilinear Spline

Addition mode for individual profiles
 Standard Weighted

Spectral calibration image
 Standard Lateral

Assistant
 Check file names consistency

Spectral domain for profile scaling
Lambda 1 : 6650 A Lambda 2 : 6750 A

Erase automatically intermediate files
 Yes No

Name of output spectral files
 Add your observer name to file name

Observatory
Longitude : 356.123 deg. Latitude : 51.321 deg. Altitude : 15 m
(positive longitude at the east)

Display
 Rainbow Lambda 1 : 3500 A Lambda 2 : 8500 A

Coef. cosmic rays filter
Value : 100

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Update the location to match your observing location.

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1. Image | 2. General | 3. Calibration | 4. Go | 5. Profile | 6. Gnuplot | Masters | Tools | Misc | Instruments | Settings

Compute an offset image
Generic name : Offset_0s_20150819_222602-
Image number : 15
Result : offset Go

Compute a dark image
Generic name : Dark_180s_20150819_232807-
Offset image : offset
Dark coef. : 1
Image number : 11
Result : dark Go

Compute a cosmetic file
Dark image : dark
Threshold : 300
Cosmetic file : cosme Go

Compute a flat-field image
Generic name : Flat_10s_20150820_211212-
Dark image : dark
Offset image : offset
 Vertical gain correction
Coordinate Ymax of validity zone : 770
Coordinate Ymin of validity zone : 370
Image number : 7
Result : flat Go

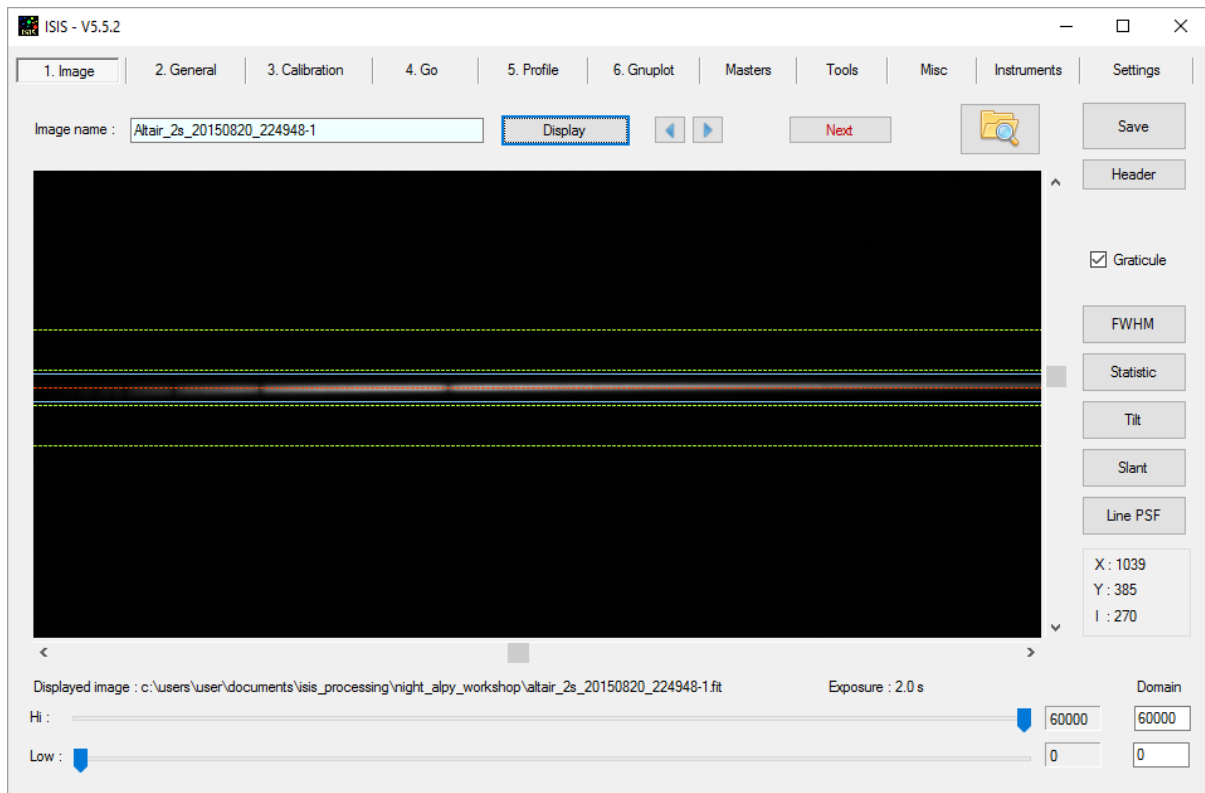
Compute a uniform image (synthetic flat-field)
Name :
Constant : Go

Compute a mean image
Generic name :
Image number : 1
Result : Go

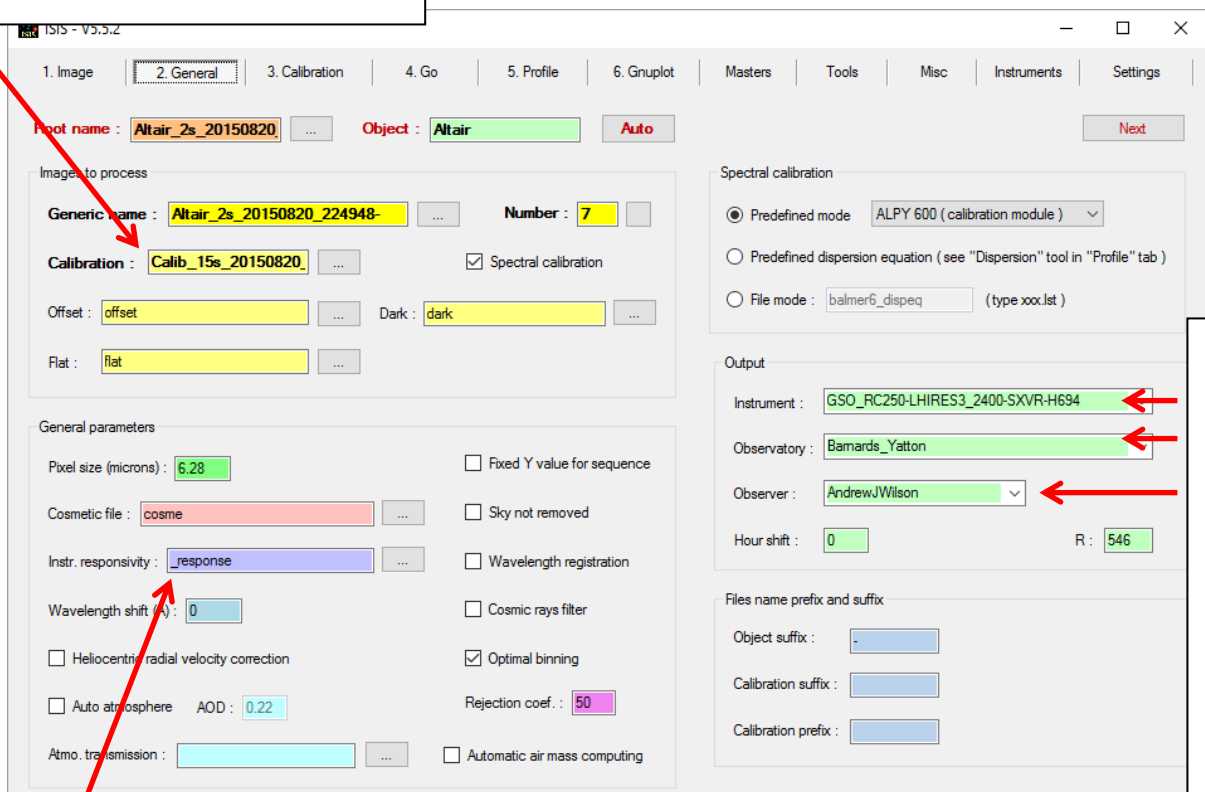
Compute a PRNU map
Generic name :
Dark image :
Offset image :
Image number : 1
Result : Go

For processing follow tabs 1 to 5 in order

Note you must do this once to get your response calculation using your reference star. Then you can repeat tabs 1 to 5 with each your target stars.



You need to repopulate the calibration (argon neon image) each time as ISIS blanks it out.



These fields must be set to be you and your equipment!

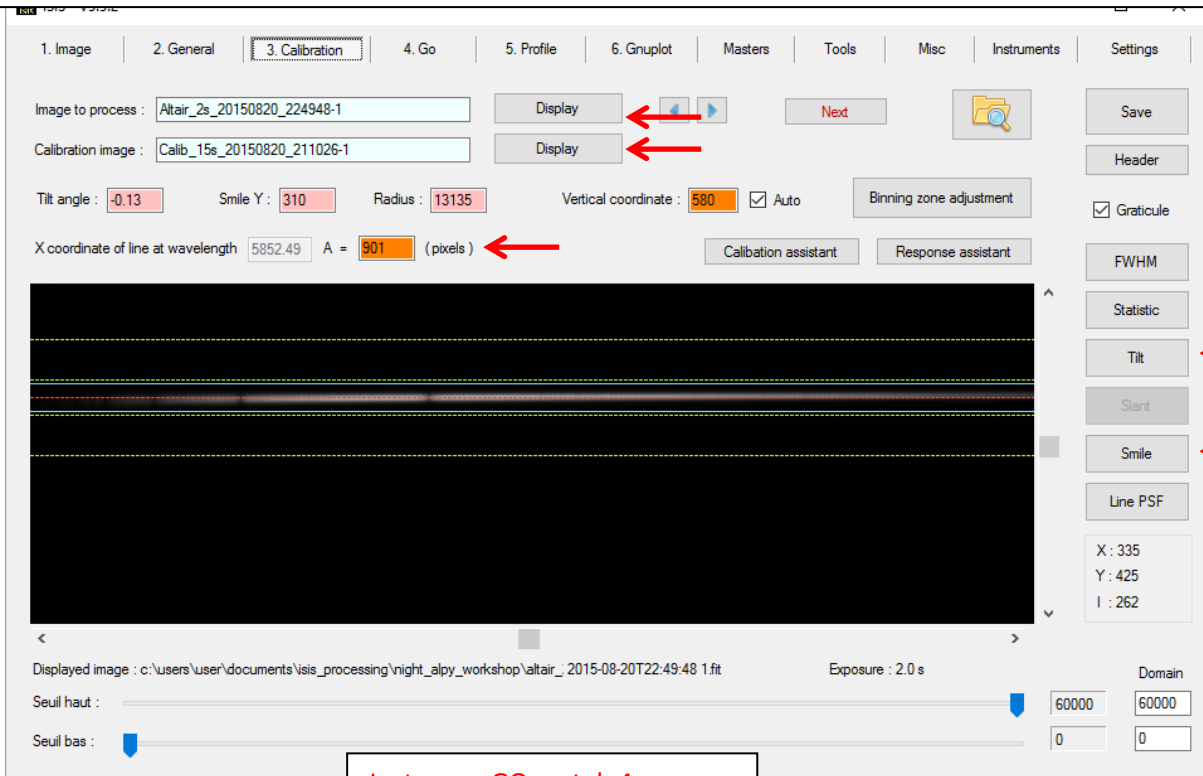
They are added to the fits header.

For your first run through ISIS the response should be left blank. You create your response correction with your first run through tabs 1 to 5. Then go back and add it to tab 2.

You use this screen to calculate your tilt, smile and the reference pixel from the calibration lamp.

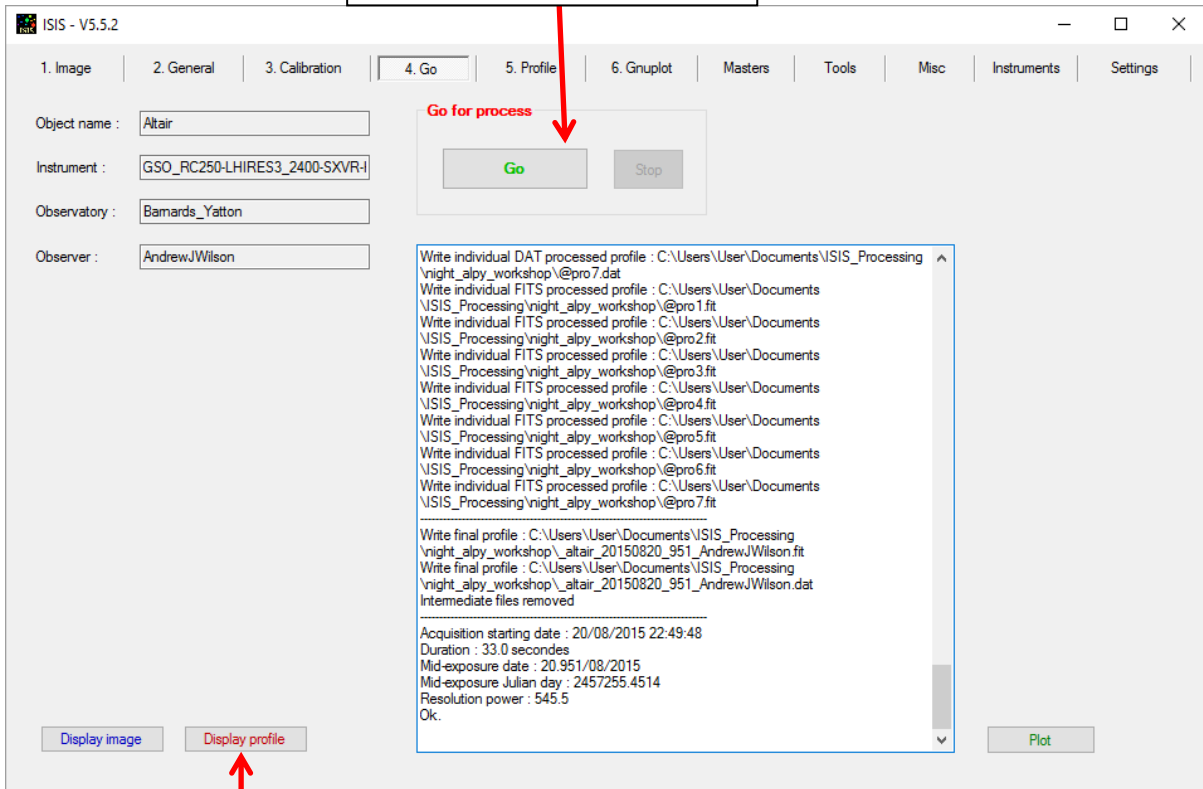
You use your star image for the tilt, and argon neon image (calibration image) for your smile.

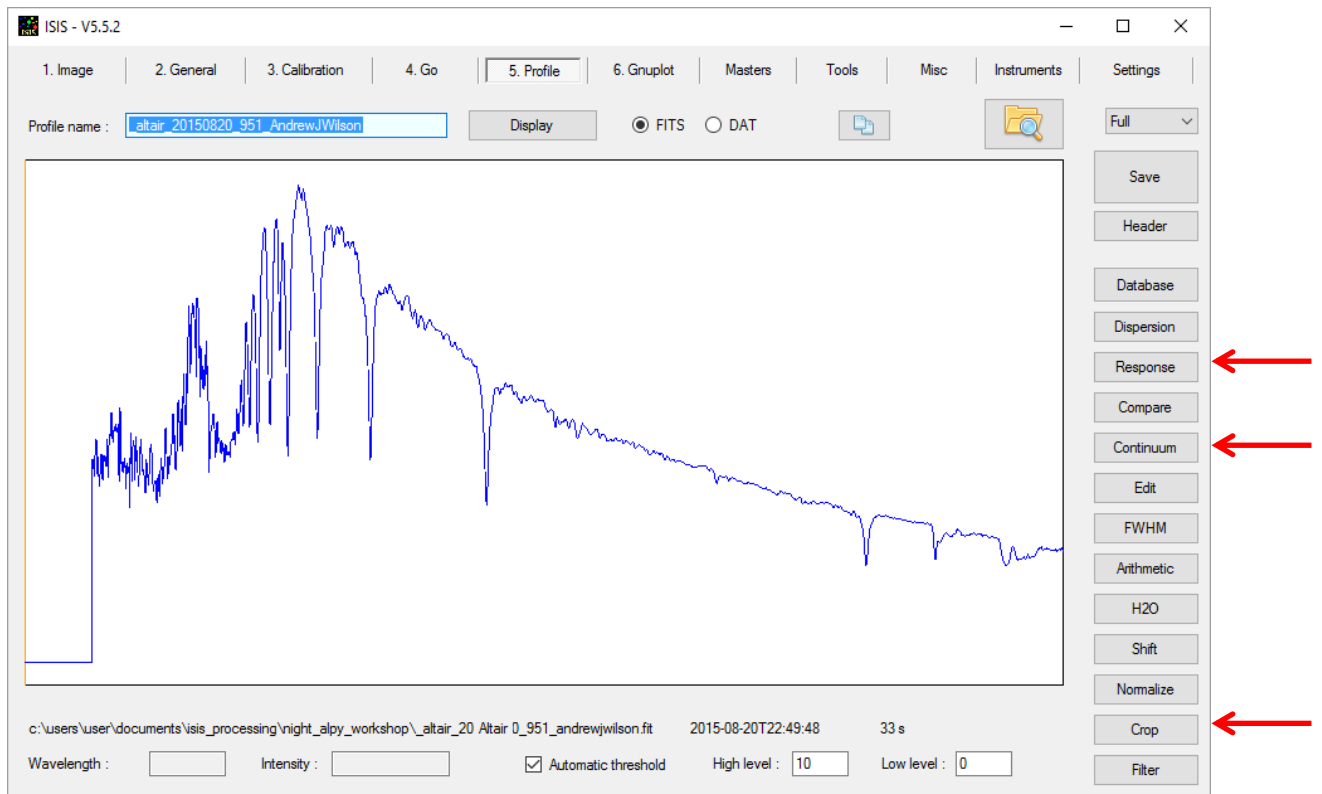
For a single observing session you often only need to set this once, i.e. if you don't touch the spectrograph.



Just press GO on tab 4.

Then click Display Profile.





On your first run you must calculate your instrument and atmospheric response correction.

For subsequent images you just need to check that your profile looks sensible, i.e. wavelength calibration looks good and continuum is roughly as expected.

I point out the key buttons for the response correction but I don't go into detail as Christian does this far better than me in his tutorials!