Comenius project "In orbit with Europa"

Photometry with SalsaJ

Images of Kariba on January 26 2012 Telescope FTN

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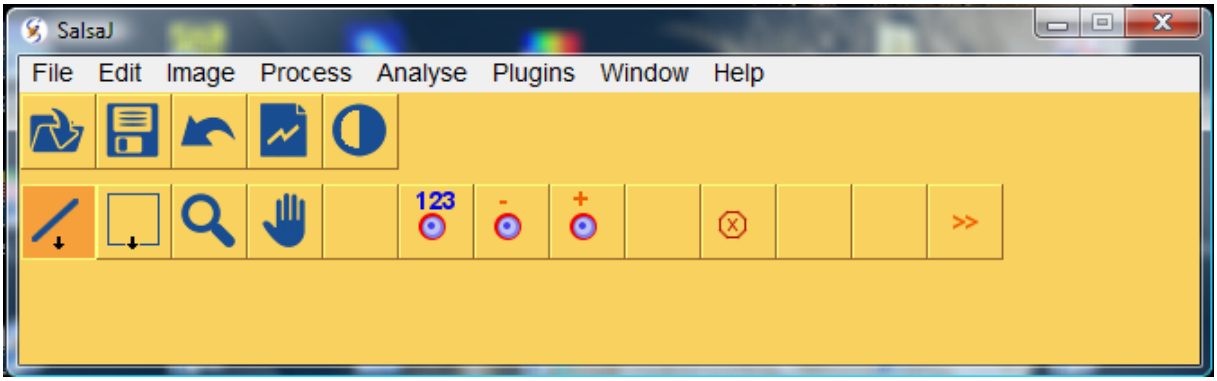
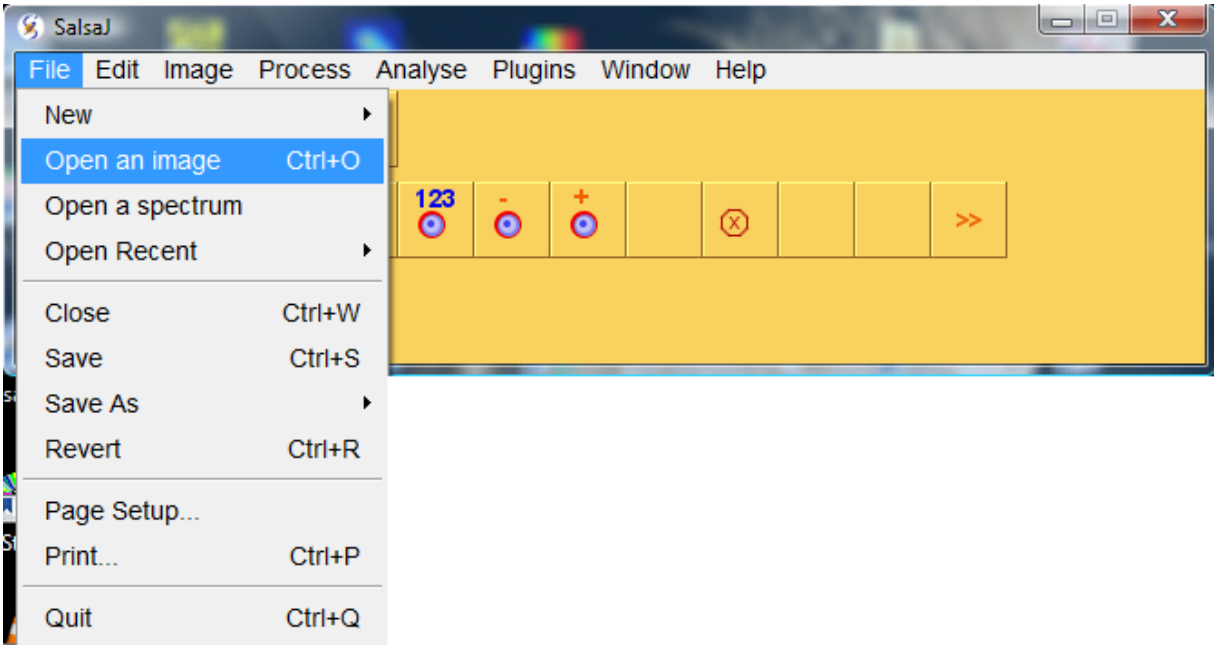
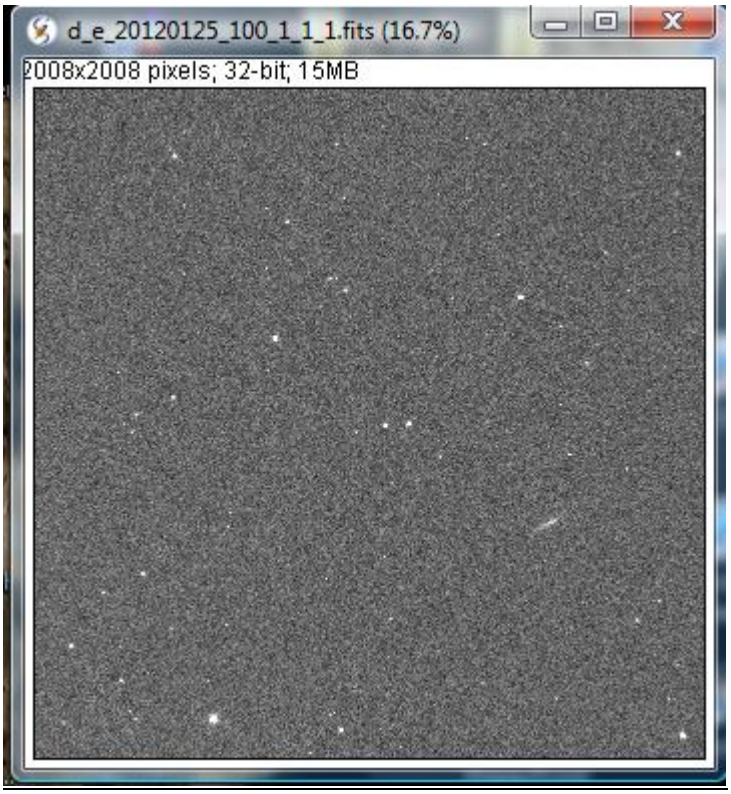
1) First launch SalsaJ

2) <u>Loading Images</u>



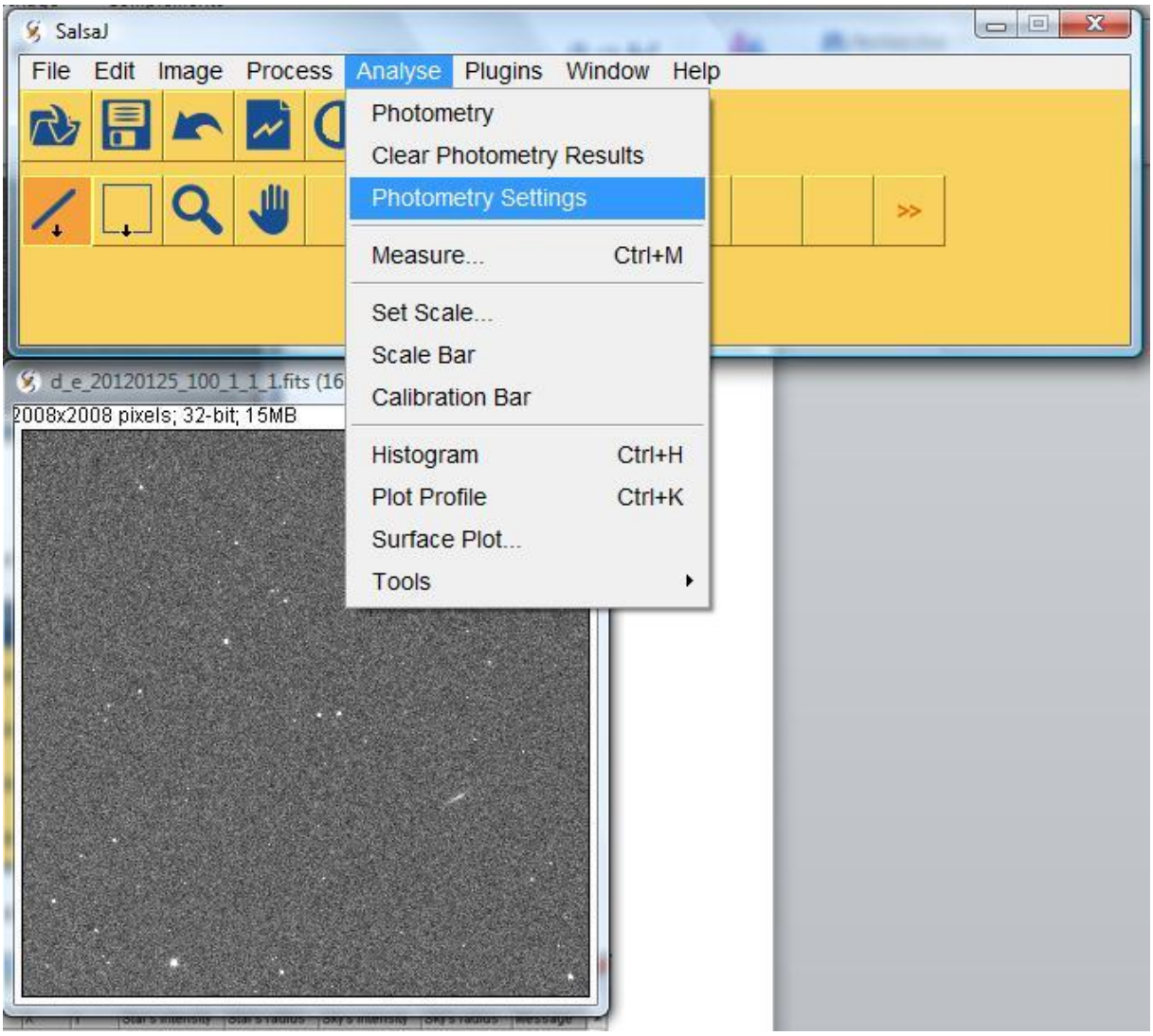
•Load your first image.

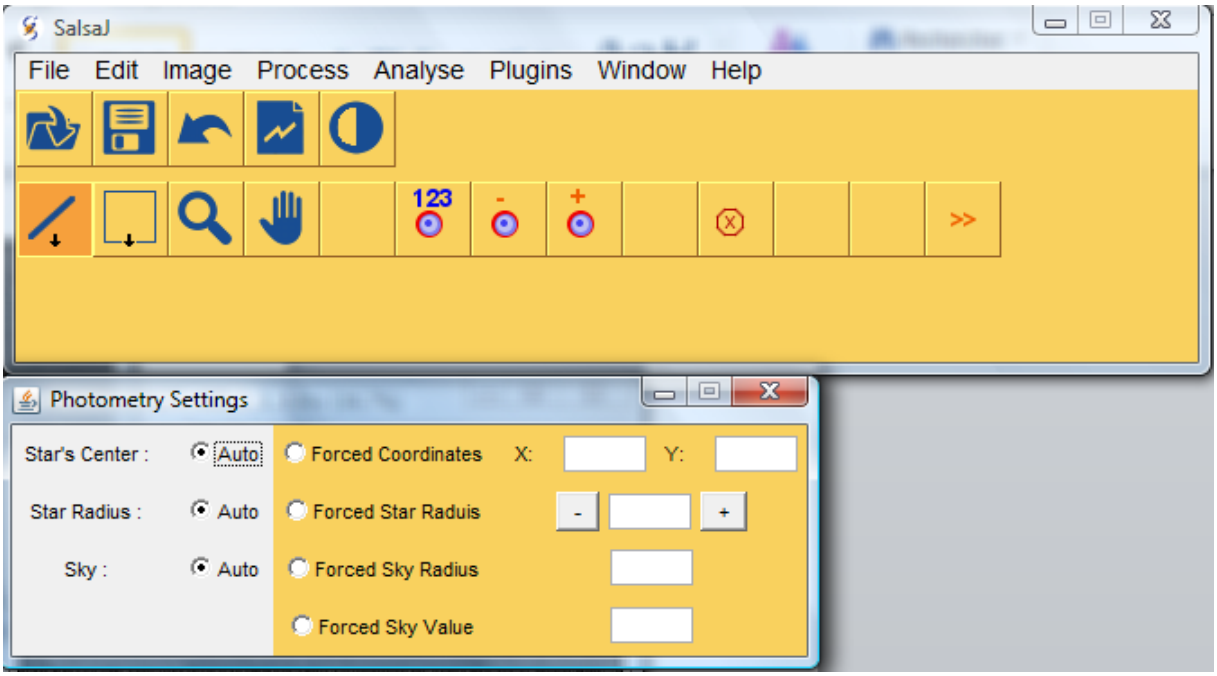




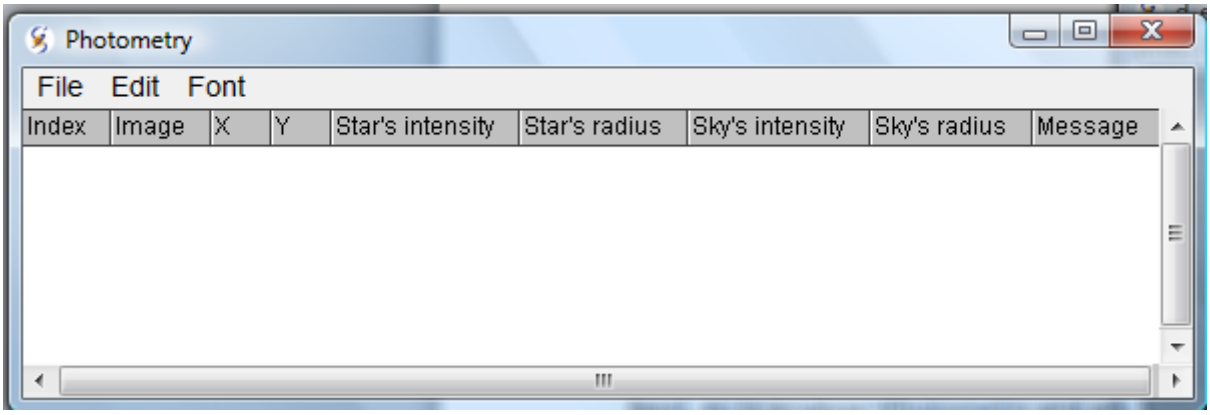
3) Photometry

Analyse>Photometry Settings.

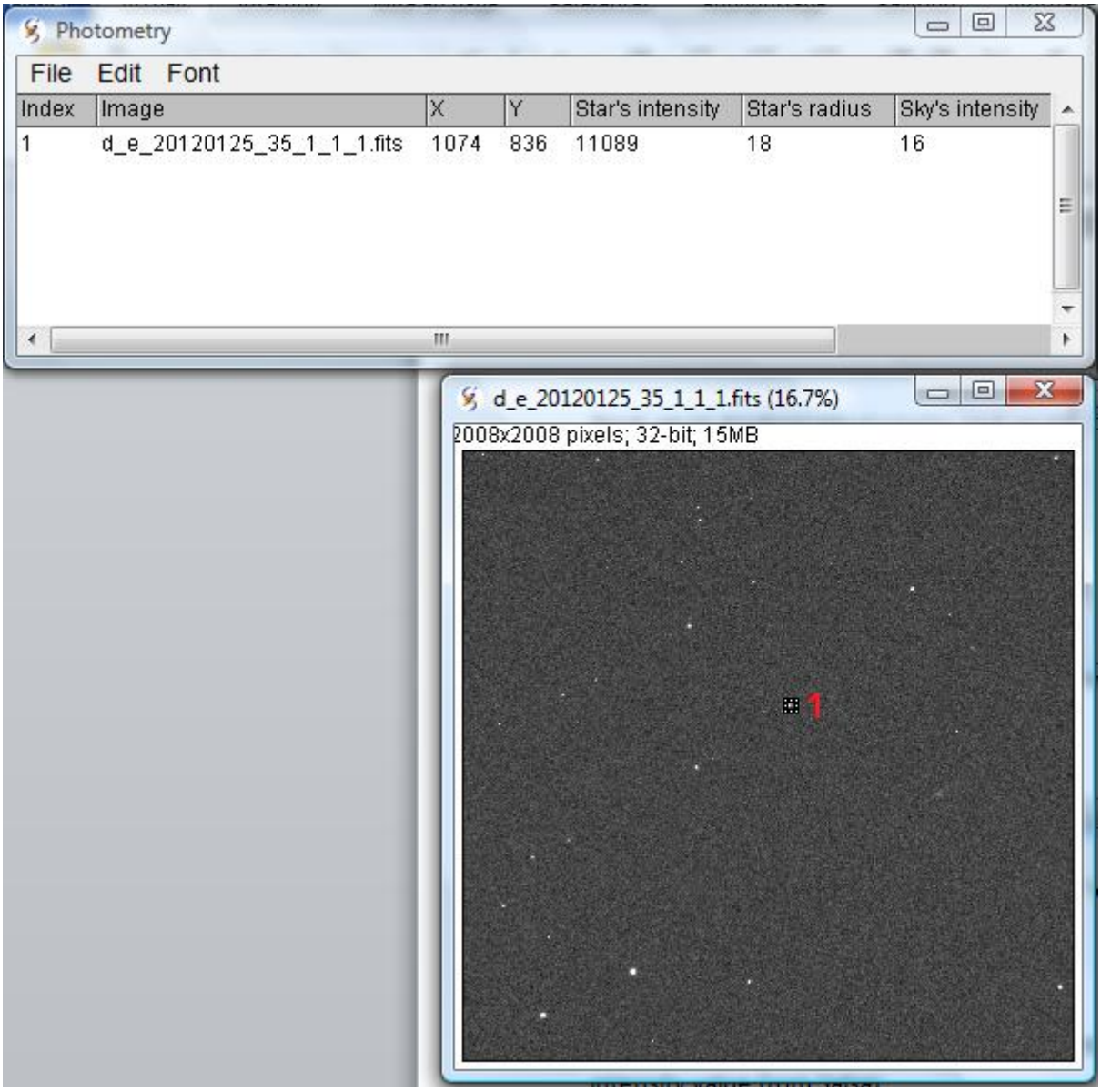

SalsaJ
File Edit Image Process Analyse Plugins Window Help
Photometry
Clear Photometry Results
Photometry Settings
Measure... Ctrl+M
Set Scale...
Scale Bar
Calibration Bar
Histogram Ctrl+H
Plot Profile Ctrl+K
Surface Plot...
Tools
d_e_20120125_100_1_1_1.fits (16
2008x2008 pixels; 32-bit; 15MB


SalsaJ
File Edit Image Process Analyse Plugins Window Help
Photometry Settings
Star's Center : Auto Forced Coordinates X: Y:
Star Radius : Auto Forced Star Raduis - +
Sky : Auto Forced Sky Radius
Forced Sky Value

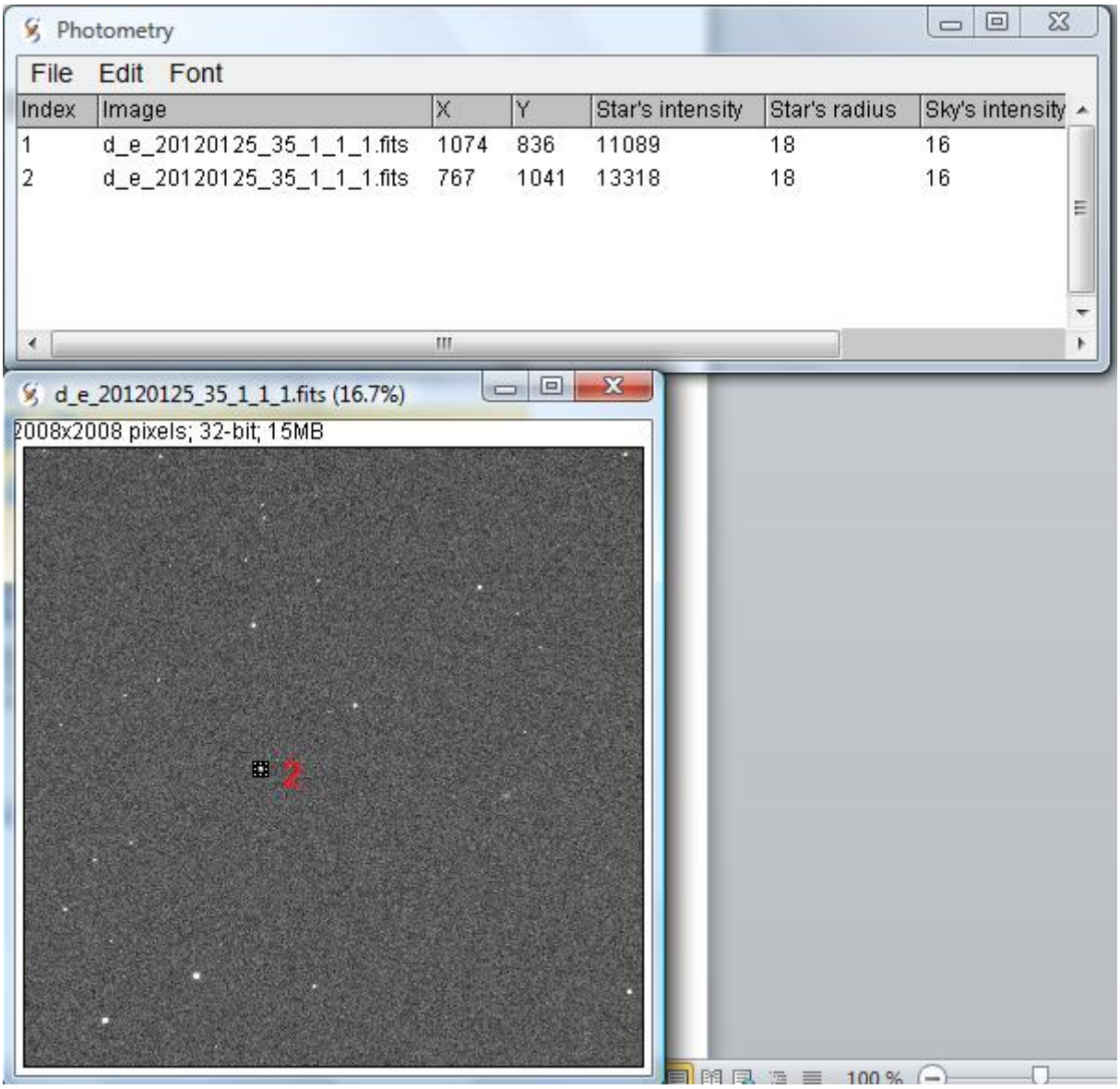
Next, go to Analyse>Photometry and another empty window will then appear.



Using the mouse, click on the comparison star (choose the star named 1125-01333964, mag R = 15.10, coordinates J2000 RA: 10h02m07.56s DE:+22°46'36.3") in your image. You will see a circle appear around the star (1) and in the window a data entry is added.

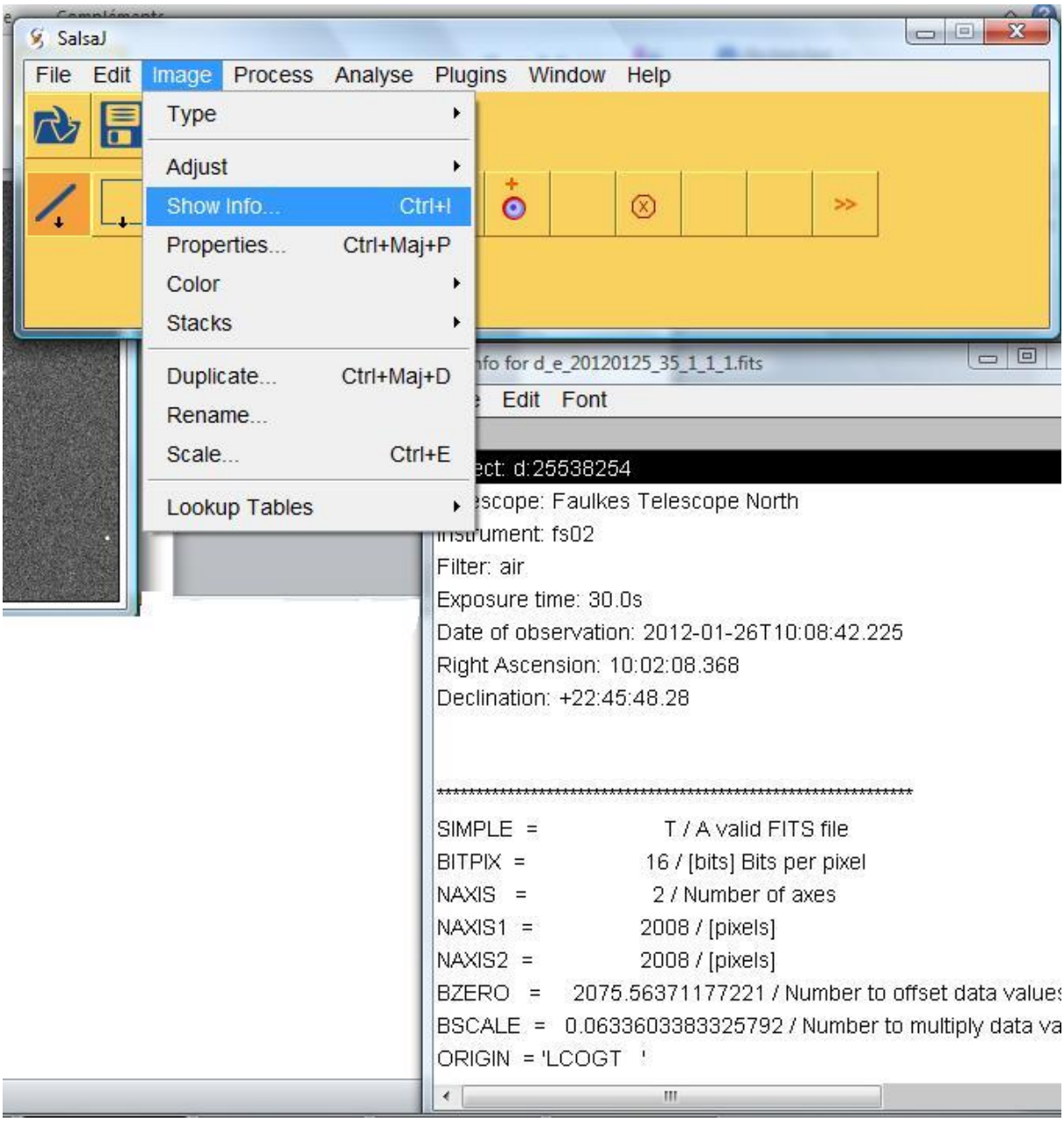


Click on the variable object (asteroid Kariba).



In the same window a new data entry is added.

Then go to Image>Show Info…



In this header you can get a lot of information about your image.

Note : Exposure time and MJD (Modified Julian Days)

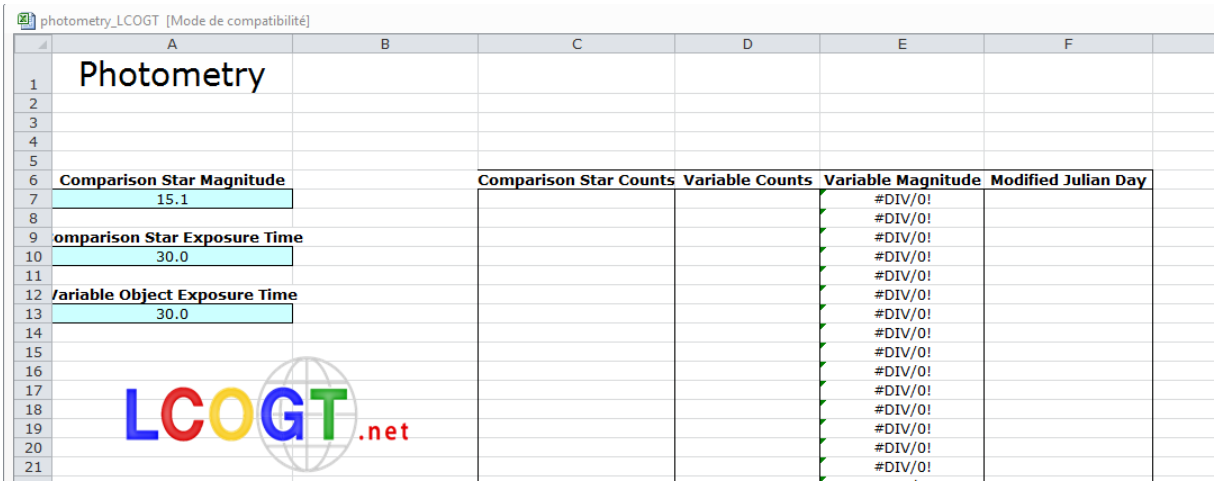
Exposure time: 30.0s

MJD = 55952.422711 / [days] Modified Julian Days.

Then open the spreadsheet : photometry_LCOGT

It's very simple to complete it !

First complete the field Comparison Star Magnitude 15.1 then the Comparison Star Exposure Time 30 and the same exposure time in the last field Variable Object Exposure Time.

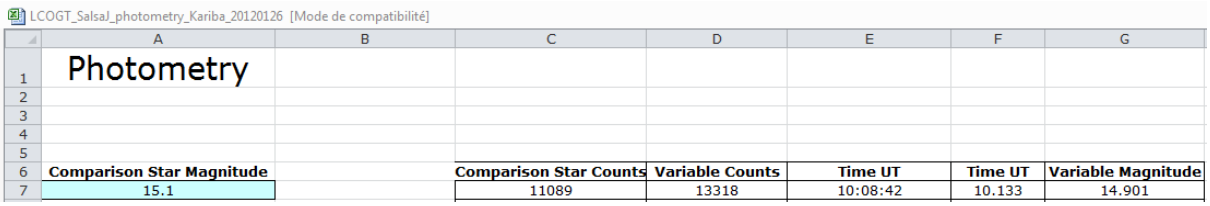


photometry_LCOGT [Mode de compatibilité]

	A	B	C	D	E	F
1	Photometry					
2						
3						
4						
5						
6	Comparison Star Magnitude		Comparison Star Counts	Variable Counts	Variable Magnitude	Modified Julian Day
7	15.1				#DIV/0!	
8					#DIV/0!	
9	omparison Star Exposure Time				#DIV/0!	
10	30.0				#DIV/0!	
11					#DIV/0!	
12	/ariable Object Exposure Time				#DIV/0!	
13	30.0				#DIV/0!	
14					#DIV/0!	
15					#DIV/0!	
16					#DIV/0!	
17					#DIV/0!	
18					#DIV/0!	
19					#DIV/0!	
20					#DIV/0!	
21					#DIV/0!	

In the next step you have to report the the two value of Star's intensity (window Photometry in SalsaJ) in the Coparison Star Counts and Variable Counts. Finally report MJD in the last column on the right.

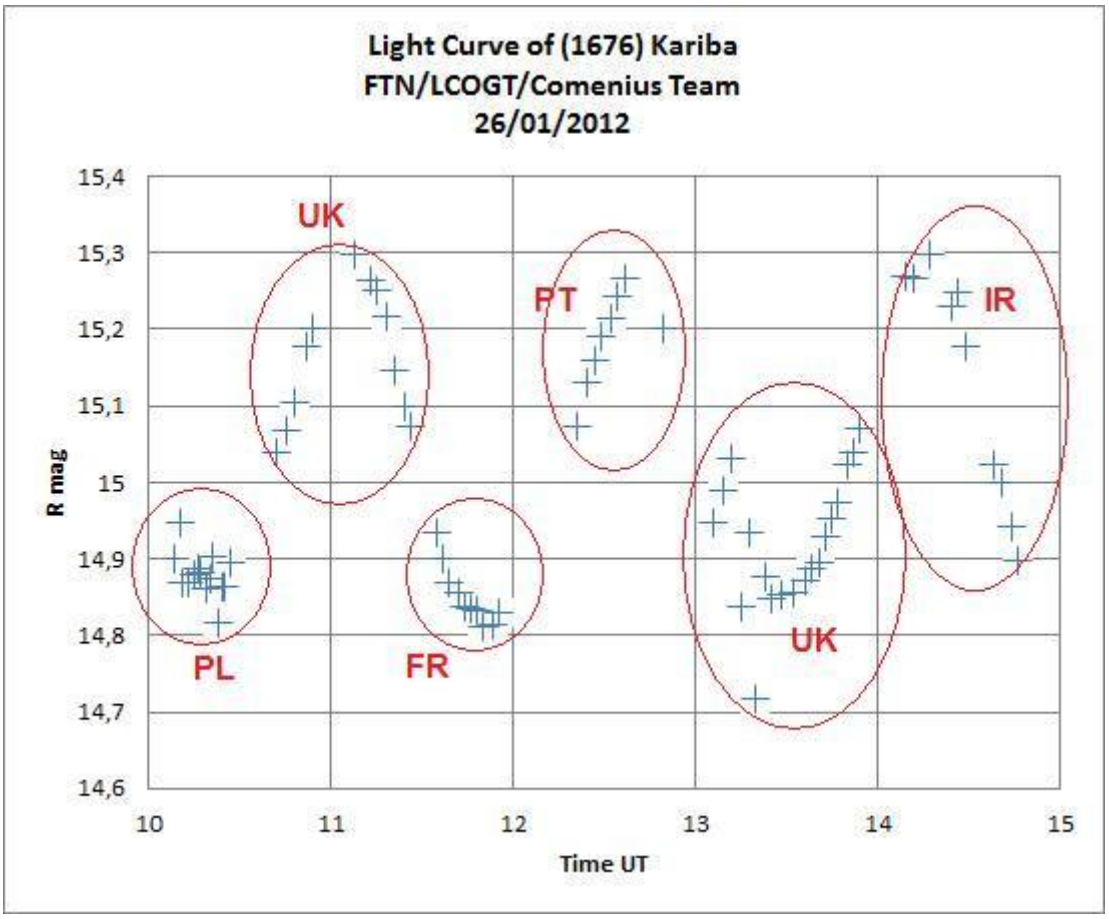
If you wish, you can use the time hh:mm:ss and convert it to decimal hours.

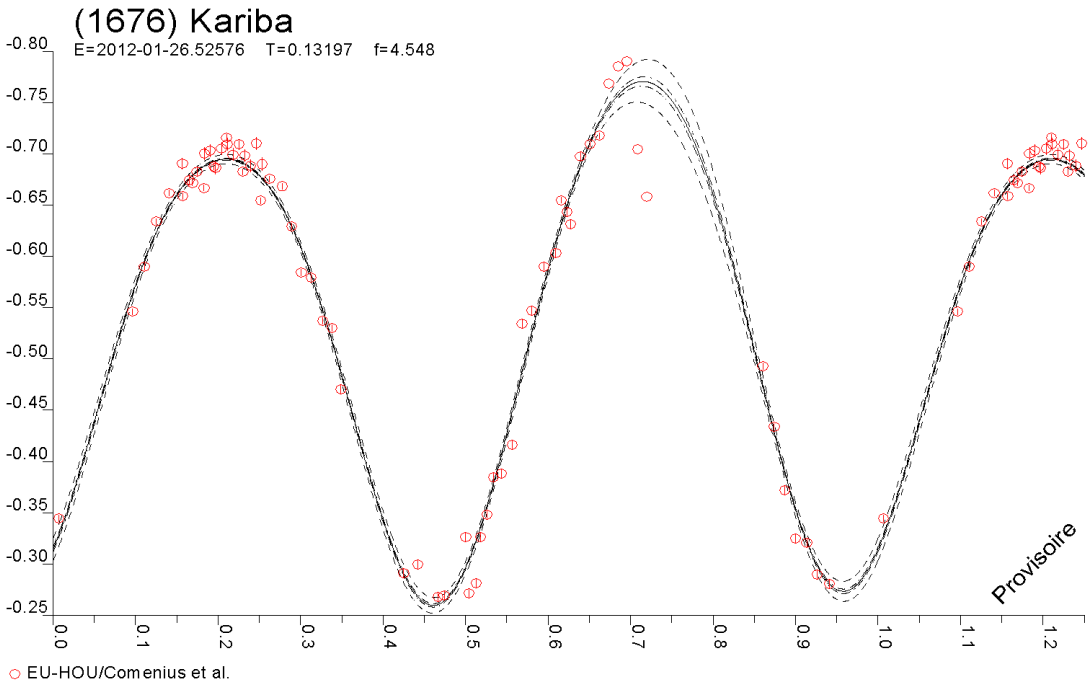


LCOGT_SalsaJ_photometry_Kariba_20120126 [Mode de compatibilité]

	A	B	C	D	E	F	G
1	Photometry						
2							
3							
4							
5							
6	Comparison Star Magnitude		Comparison Star Counts	Variable Counts	Time UT	Time UT	Variable Magnitude
7	15.1		11089	13318	10:08:42	10.133	14.901

With data (magnitudes and time) you can then build the graph Mag/ time call "light curve" of the asteroid.


Light Curve of (1676) Kariba
FTN/LCOGT/Comenius Team
26/01/2012
R mag
Time UT
15,4
15,3
15,2
15,1
15
14,9
14,8
14,7
14,6
10
11
12
13
14
15
UK
PT
IR
PL
FR
UK


(1676) Kariba
E=2012-01-26.52576 T=0.13197 f=4.548
Provisoire
EU-HOU/Comenius et al.