

CONCAM QUICK NOTES

CONCAM PROJECT LINKS:

<http://www.ing.iac.es/~cfg/private/concam/concam.html>

http://www.ing.iac.es/intranet/astronomy/report_concam.html

<http://www.allskycam.com/index.php>

CONCAM PC LOCATION:

Please see attached images regarding CONCAM PC location at the LN2 Plant South wall:



As you can see there are two PC's there, one is connected and the second one it is wrapped around in a black plastic bag (for protection), in case the working PC becoming unresponsive (not even reacting to the CTRL+ALT+SUP keys sequence) proceed as follow:

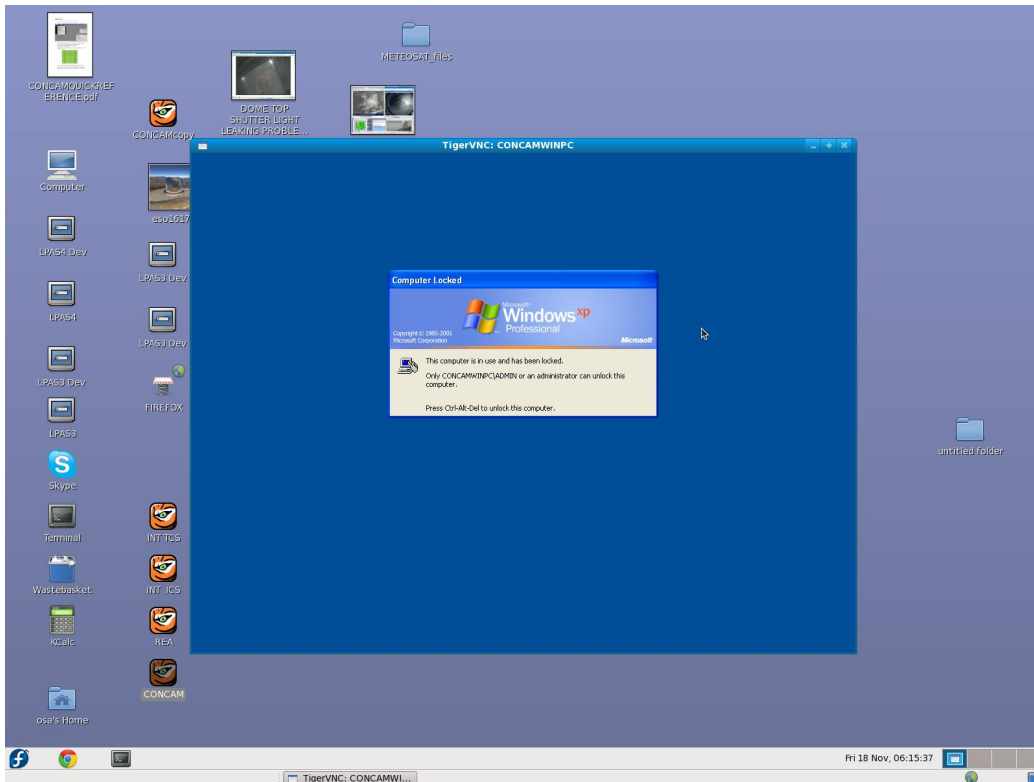
- Power cycle the unresponsive PC
- Check if the problem is solved, in case still experiencing problems follow next steps
- Switch off the PC in use
- Remove black plastic bag on the spare PC at the side
- Start to move all cables (ONE AT THE TIME) at the back of the PC in use to the spare PC, PLEASE TRY NOT TO FORCE ANY CONNECTOR (every connector has only one position, in case of doubt proceed checking phisically both PC and cable connectors to find out)
- Switch on the PC and check locally that the boot is completed (there is no need to LOGING locally.
- Now you should be able to LOGIN remotely and start the CONCAM (please see START CONCAM procedure)



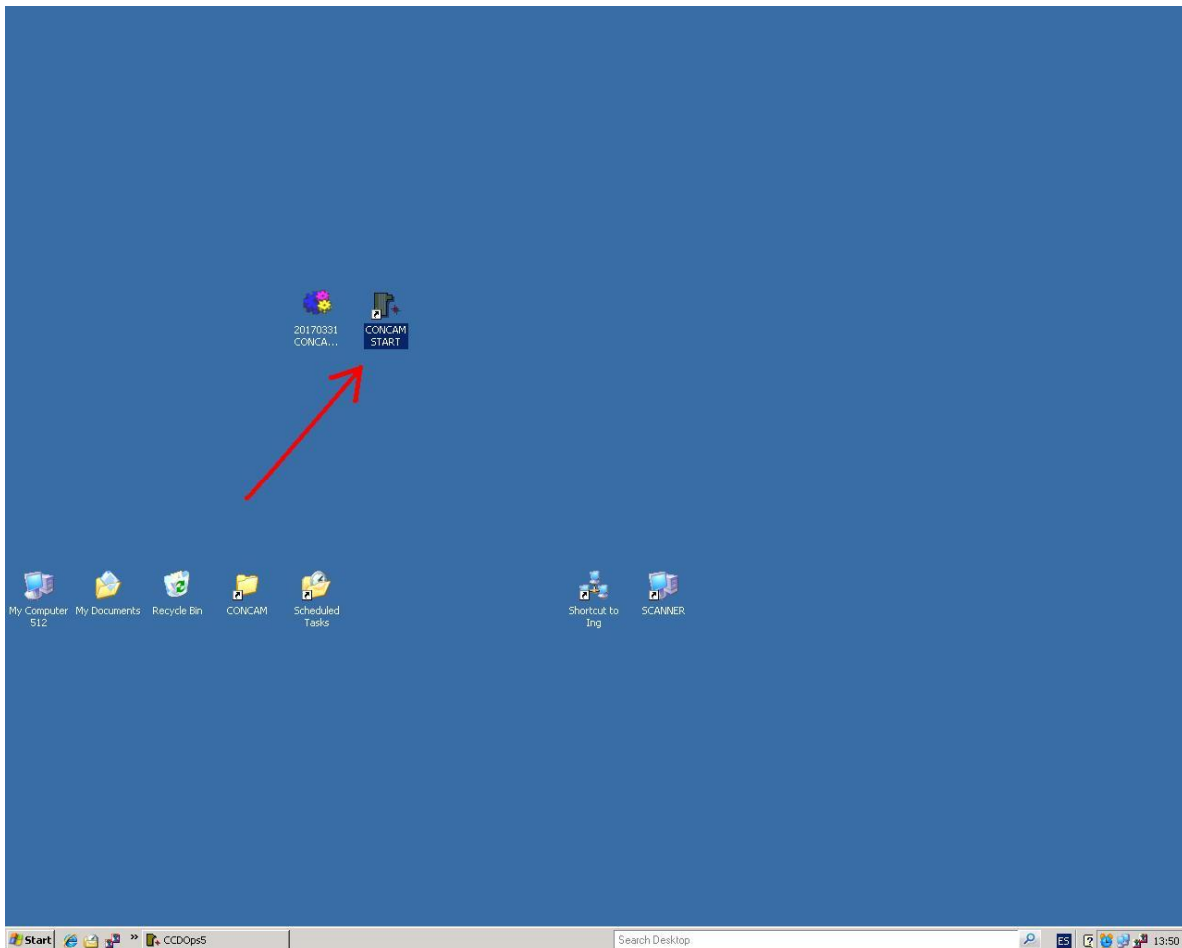
CONCAM PC's front view

CONCAM START PROCEDURE:

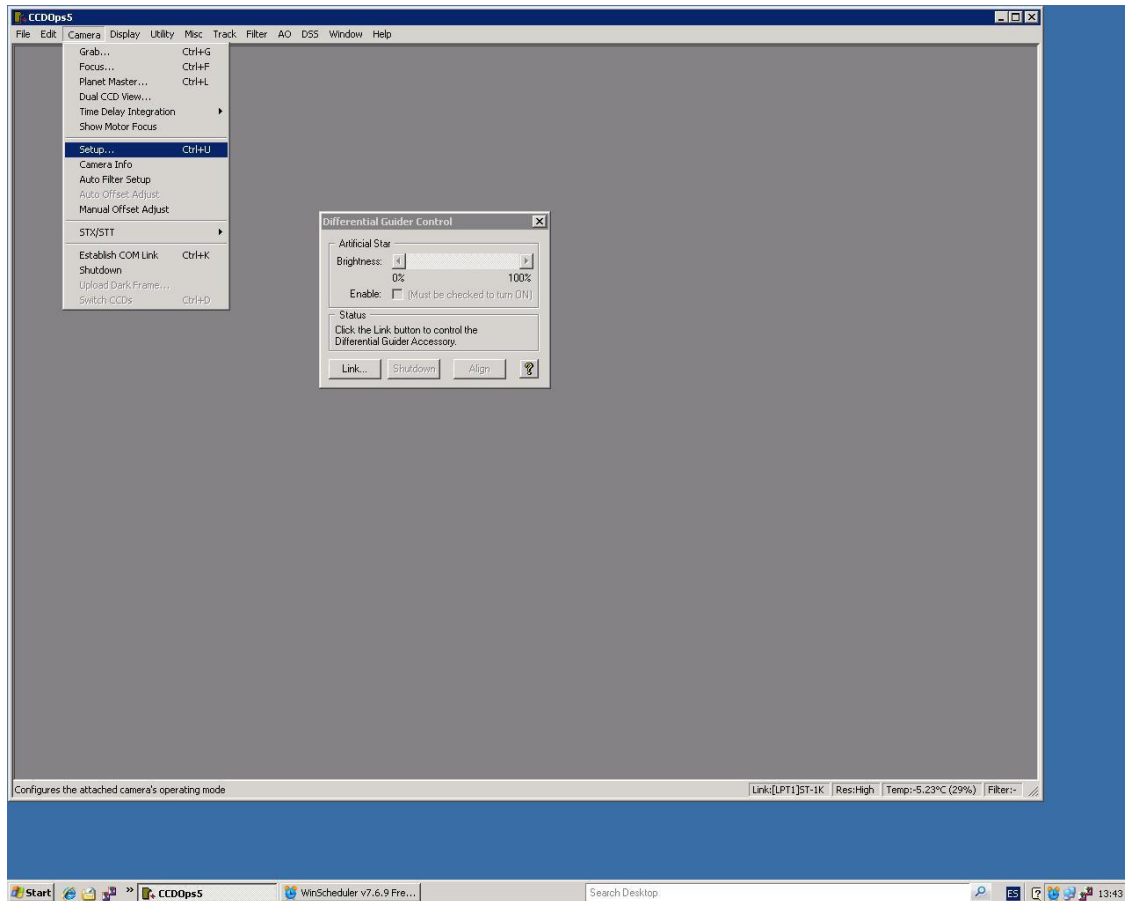
- Login at the CONCAM, user: **ADMIN** and pwd: (sent by mail)
- In case not requesting user & pwd instead you get this interface:



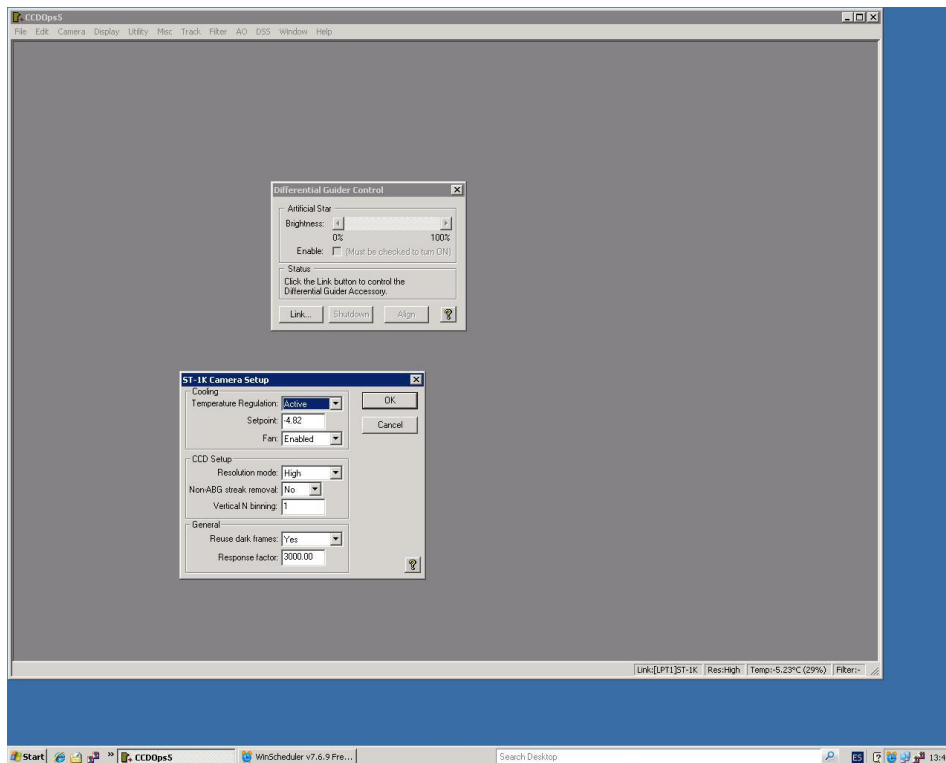
press F8 to get access to the normal login interface



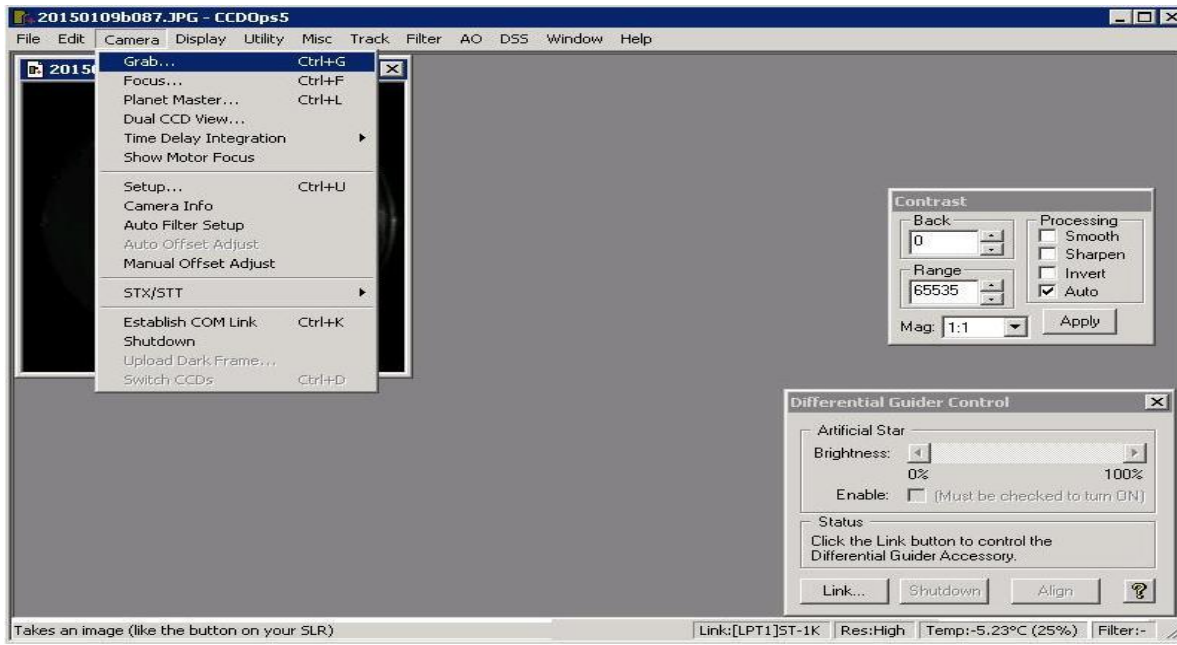
- Check camera SETUP:



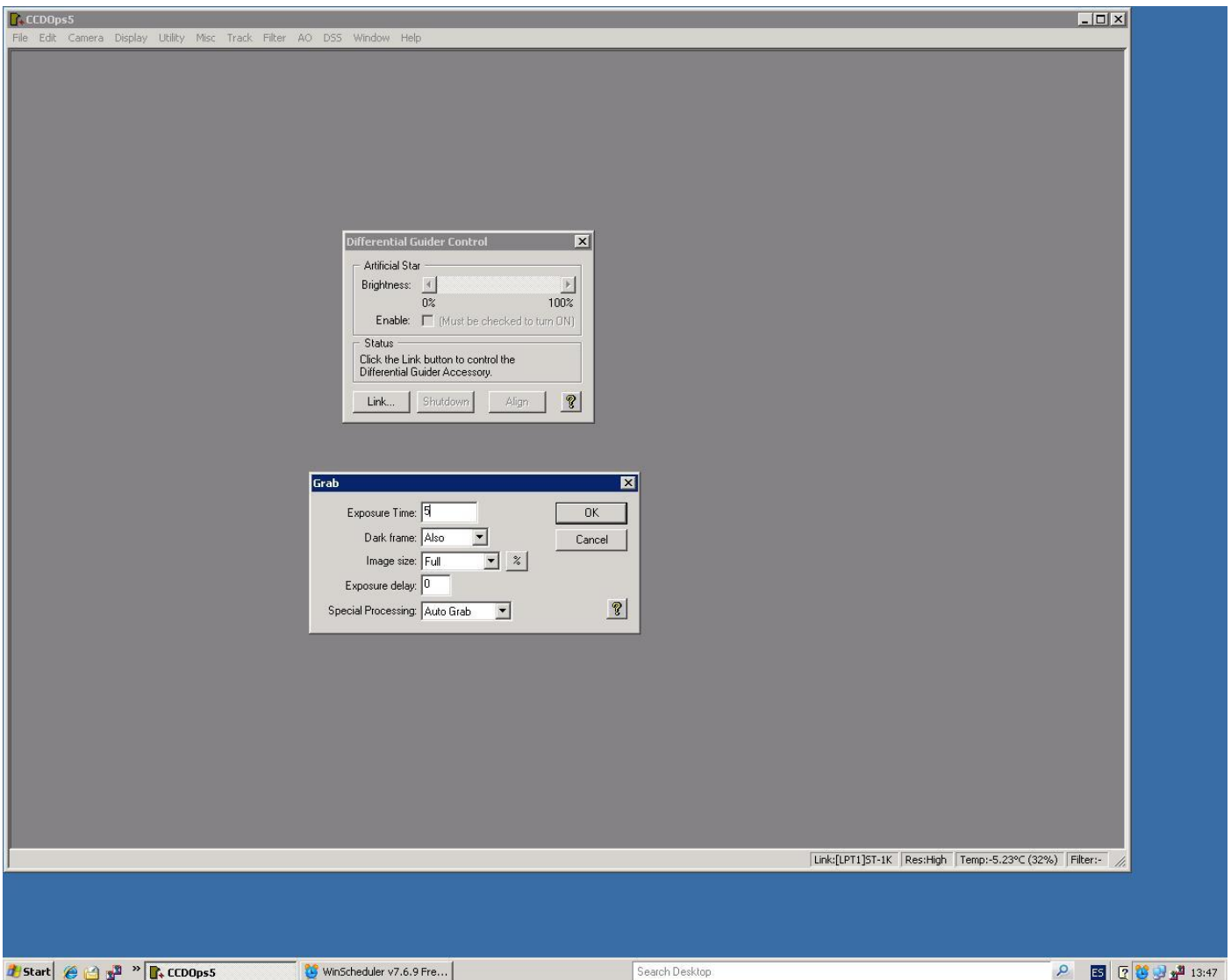
- This is the correct SETUP:



- Choose from the top menu "Camera" and then click in "Grab"



- Check camera GRAB options are as follow:



- To find out optimal exposure time you can either play with numbers until you get optimal image (not too saturated not too noisy) or use this formula:

Exp. Time in seconds = (moon phase-4)+(10-moon phase)x7

(no moon will be 1 and full moon 10)

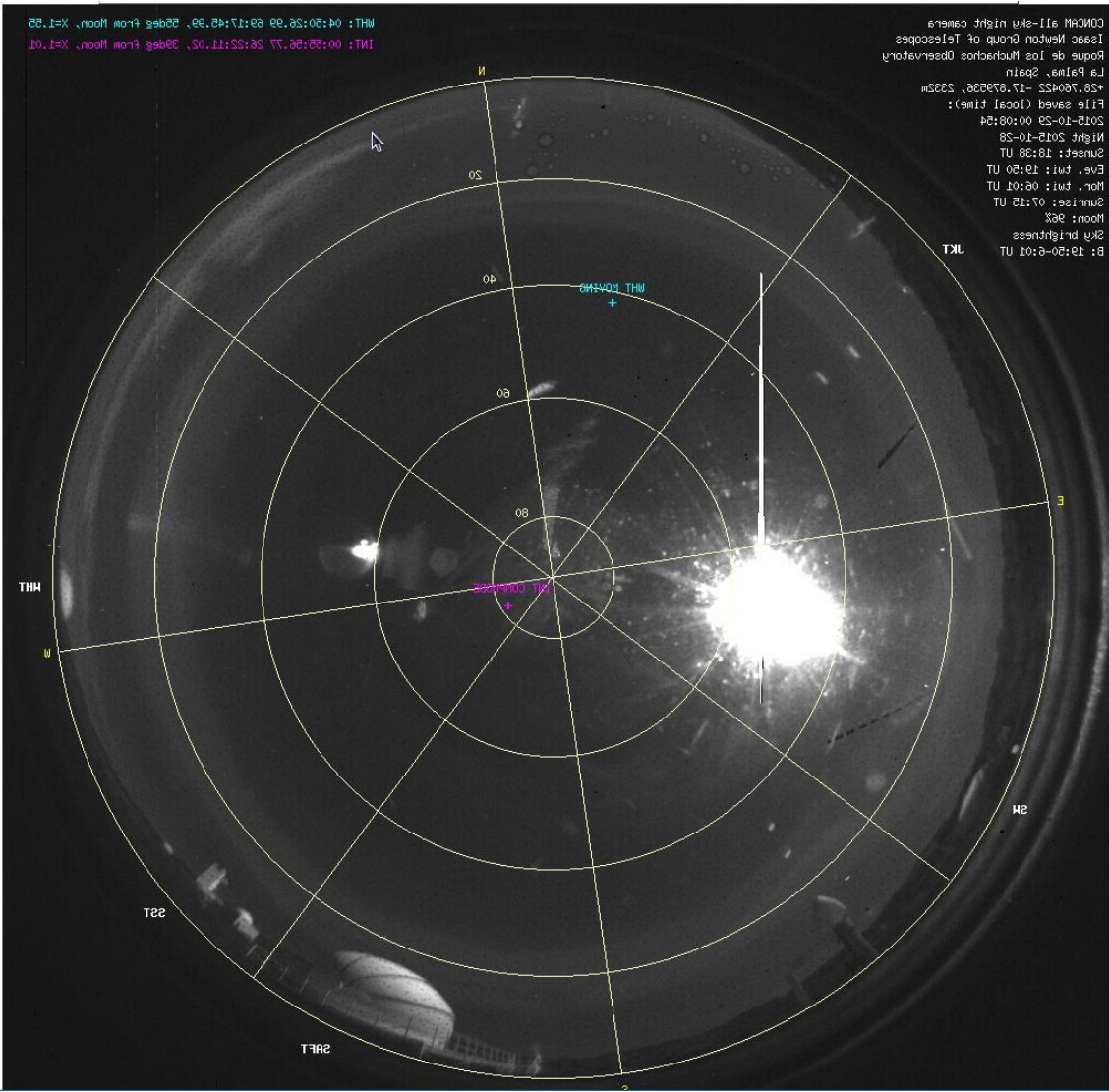
You can as well use the following table to determine how many exposures to set up for a certain period of time:

MOON %	EXP. TIME	SECS/IMAGE
0%	70	117,62
10%	60	104,00
20%	54	96,19
30%	48	92,84
40%	42	86,50
50%	36	78,26
60%	30	70,83
70%	24	65,25
80%	18	61,00
90%	12	55,00
100%	6	47,86
VERY CLOUDY, FOG, ICE	200	247,00

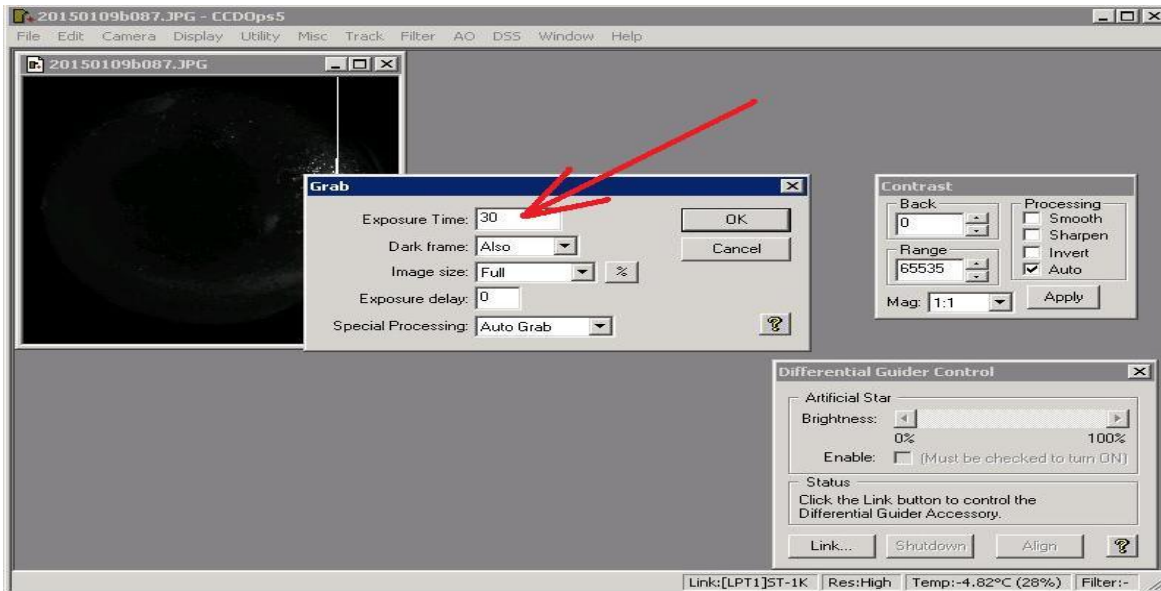
Please remember that the fact that you select a particular exposure time doesn't necessary mean that the total time to complete an image is the time you've selected, the reason for this is because concam application perform a number of flat fields to be use for cleaning the image (you can see some examples in the table on top).

Please feel free to play with the exposure times in order to:

- Avoid pixelated images
- **Minimize the amount of files with no relevant information on disk, for instance in case on fog ice or snow conditions you can use up to 200s exposure time.**
- In cloudy conditions it is not recommended to use exposure times greater than 30s otherwise due to clouds movement you will not get much details about the type of clouds etc.
- Try to get a good level of luminosity all throughout the picture, in case of bad saturated moon the rest of the picture became very black, if that is the case proceed reducing the exposure time until a good luminosity level is achieved; please see below en example of good luminosity picture on 94% moon 3 sec . exposure.
- Javier implemented the "online movie", for this movie to look nice it is very important there is not big jumps in terms of brightness in the pictures; for this to occur the exposure times should not change a lot from one set of exposures to the other.

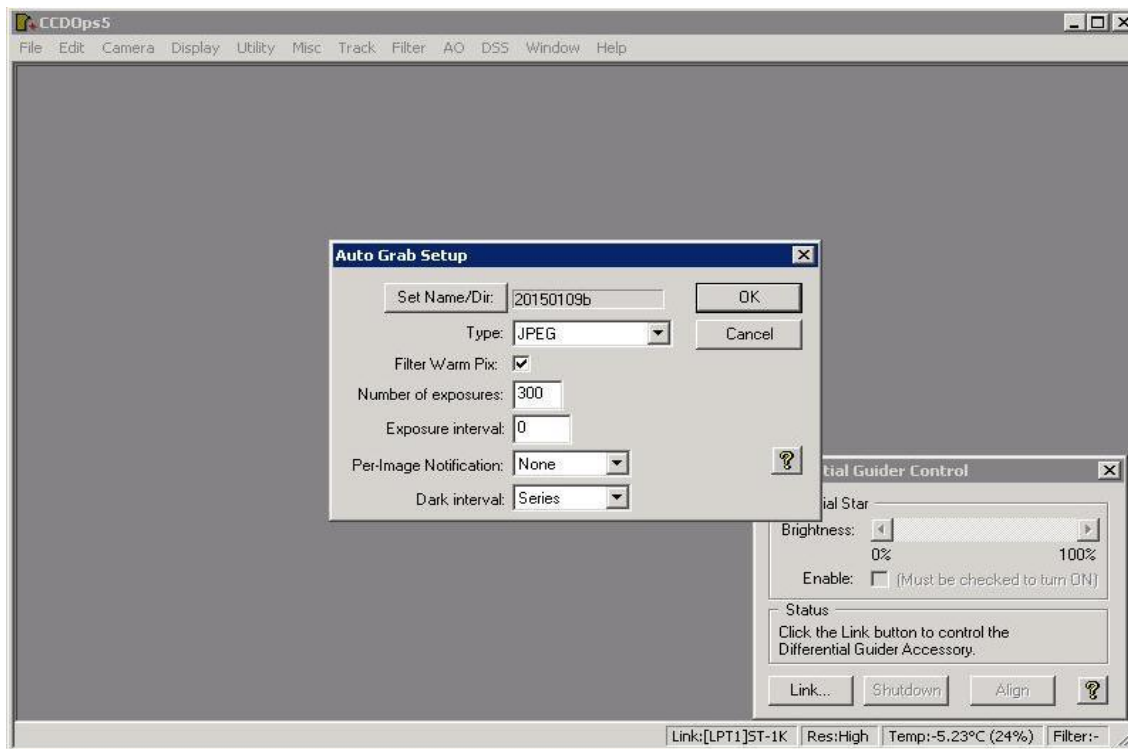


In twilight start the camera 15 minutes after sunset and stop the camera again 15 minutes before sunrise (minimum exposure time is 1second).

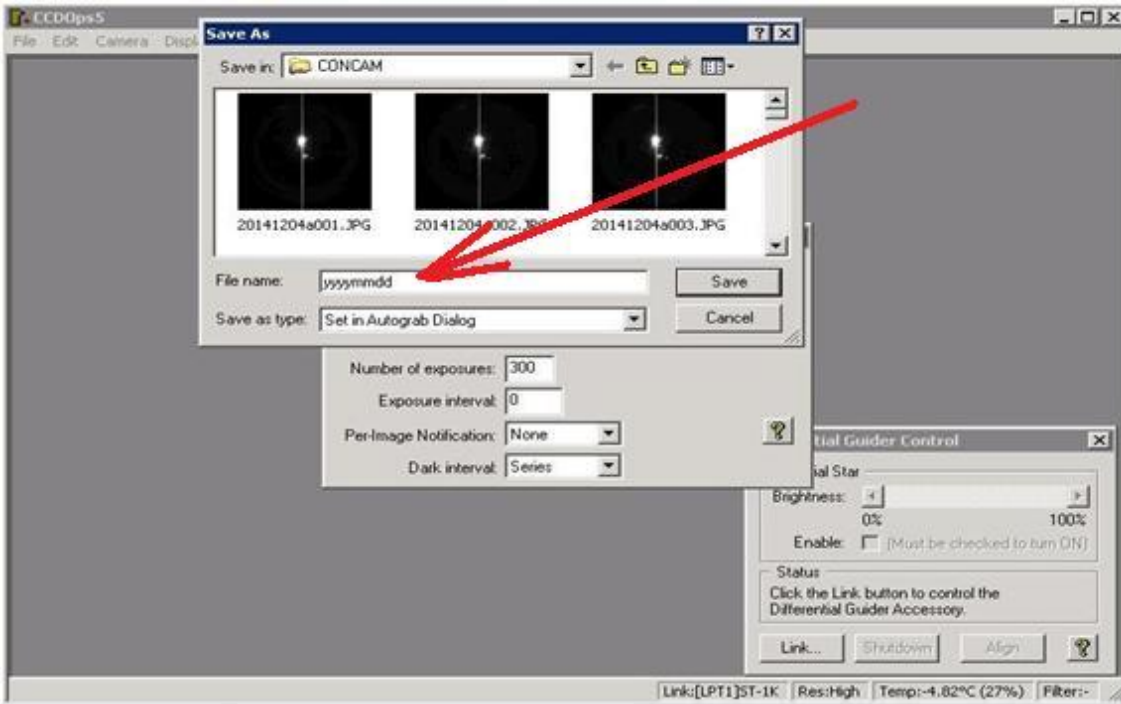


In twilight the previous formula doesn't fit, it is recommended to start the concam 15 minutes after sunset with 1second exposure; then after 30 minutes after sunset use 5seconds exposure 45 minutes after sunset use 30 seconds exposure until twilight is finish. Do exactly the opposite in morning twilight.

Once the exposure time accepted it will came up with this new interface:

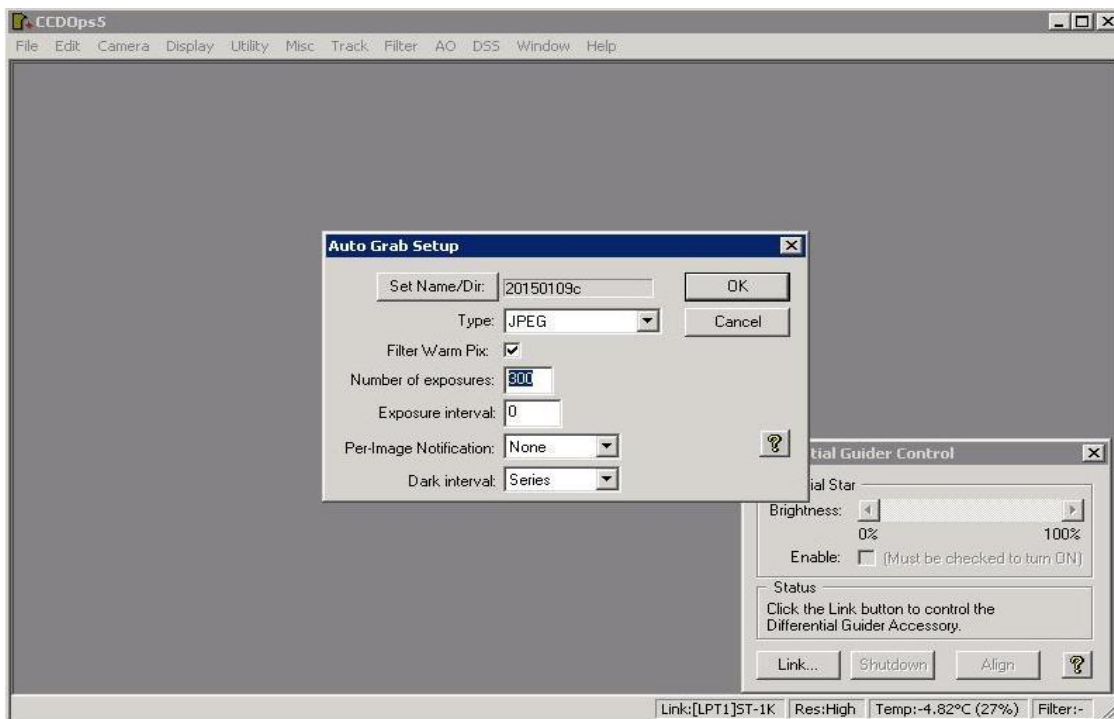


Click at "Set Name/Directoy" and you will be prompted to enter the date in the following format and accept.



PLEASE DO NOT OVERWRITE IMAGES, EVERY TIME YOU START A NEW SET OF EXPOSURES IT IS NECESSARY TO ADD A LETTER AT THE END OF THE DATE VALUE (20150110, 20150110a, 20150110b and so on)

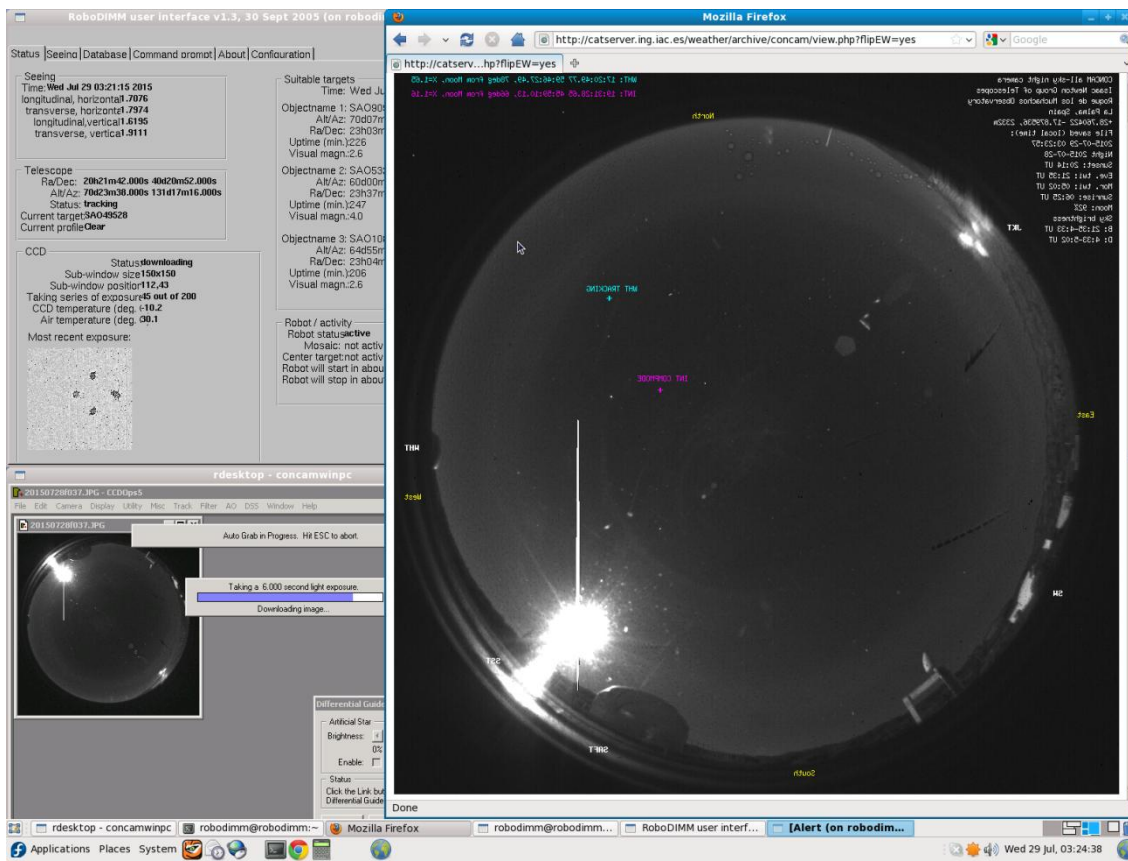
Now enter the number of exposures, this is very straight forward and you can find out yourself just by making note of the time when starting the exposures, leave it to run for a couple of hours and make a note of the number of exposures performed during that time; then make a rule of three taking in account the amount of time you plan to run the camera.



WARNING!!!

IT IS OF A PARAMOUNT IMPORTANCE NOT TO RUN THE CAMERA WHEN THE SUN IS UP, IF YOU CAN'T GARANTEE THAT YOU WILL STOP THE CAMERA RUNNING AT THE LATEST 15 MINUTES BEFORE SUNRISE PLEASE DO NOT OPERATE THE CAMERA!

Finally use an osadisplay1 screen arrangement like this:



By doing this way you never forget to put the camera to sleep at the end of the night.

An scheduled task had been implemented so in case that user failing to stop the camera taking images 20 min. before sunrise, the mentioned scheduled task will do the job

"PLEASE DO NOT PLAY WITH CAMERA CONFIGURATION WINDOWS OR SCHEDULE TASKS SIMPLY FOLLOW THE INSTRUCTIONS"

29-07-2015

29-10-2015 (revised)

29-05-2016 (revised)

19-12-2016 (revised)

04-05-2017 (revised)

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