

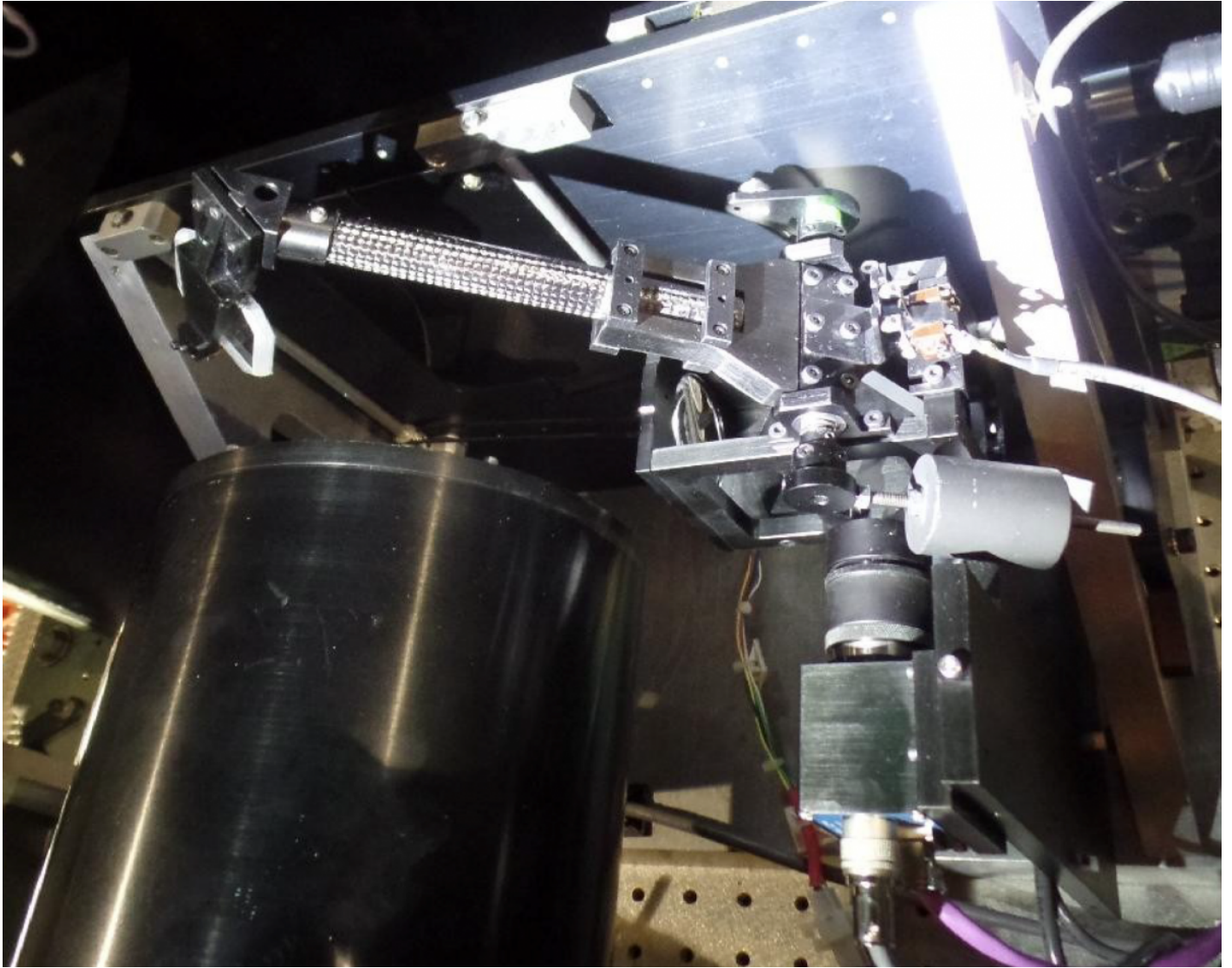


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The Goodman Acquisition Camera (GACAM)

The need for faster target acquisition for relatively bright targets ($V \leq 18$) in the Goodman High Throughput Spectrograph (HTS) led to the development at CTIO of a slit-viewing acquisition camera, hereafter GACAM ([Tokovinin 2015: Goodman Acquisition Camera Instructions, July 14, 2015](#) ^[1])



[21]. GACAM is located inside the spectrograph. Its deployable arm places a diagonal mirror between the slit and the collimator. The image is captured by a Prosilica GigE camera of 659x493 (Horizontal xVertical) pixel format, with a scale 0.165"/pixel and field of view of 1.82' x 1.36'. The software was developed by R. Cantarruti. GACAM was designed to be simple to use and unobtrusive to the spectrograph. An added advantage of the GACAM is that all settings in the Goodman GUI can now stay fixed. In particular, there is no need to switch from imaging to spectroscopic mode (i.e., grating and camera stay at fixed position), change the Region of Interest (ROI), readout mode, nor any other option in the spectrograph GUI

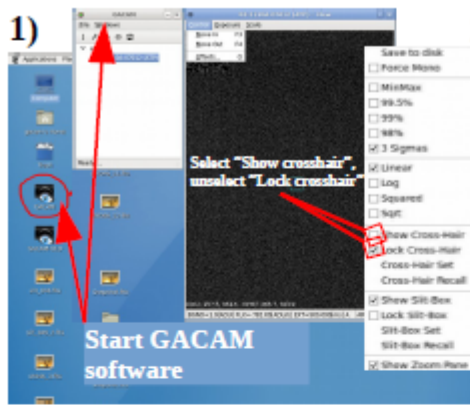
NEW - August 3, 2018 - GACam is now running on its own computer, and the IP address has changed to 139.229.15.168:1. All other aspects of operation are unchanged.

[GACAM User's Manual \(PDF\)](#) [3]


[GACAM Cheat Sheet \(PDF\)](#) [4]

Goodman Acquisition Camera (GACAM) Cheat Sheet (Dec 2015)

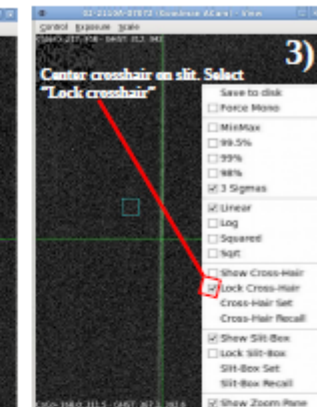
1) Start GACAM software. Select "Show crosshair", unselect "Lock crosshair".



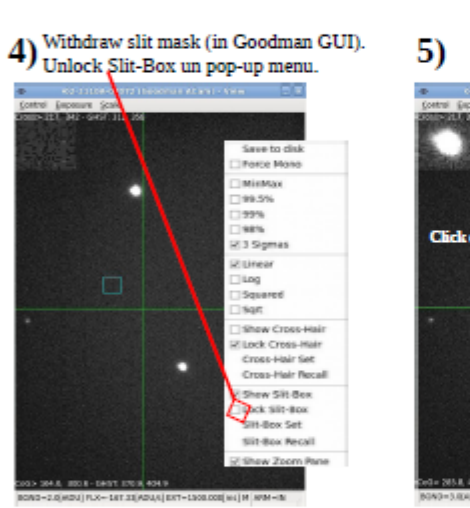
2) From Goodman GUI, place slit mask IN.




3) Center crosshair on slit. Select "Lock crosshair".




4) Withdraw slit mask (in Goodman GUI). Unlock Slit-Box on pop-up menu.



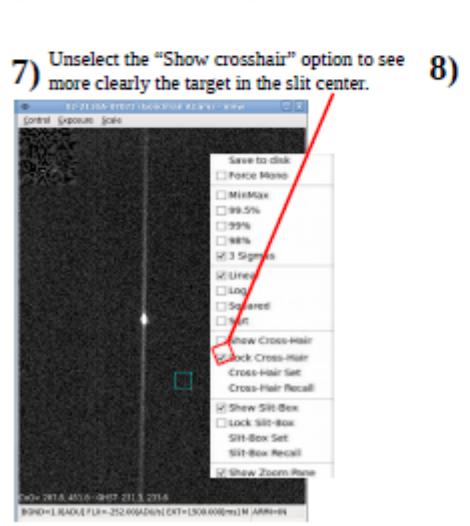
5) Click on target to center slit-box.



6) Open Offsets sub-window in the Control menu, and click on the Compute and then on the Apply buttons, to bring the target to the slit center defined with the crosshair.

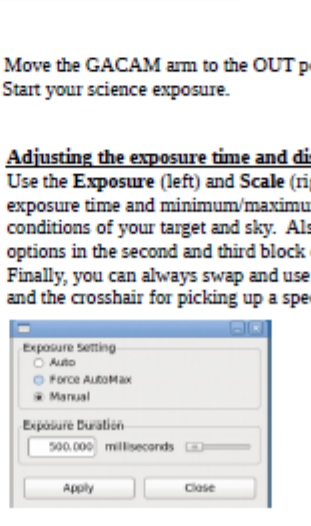
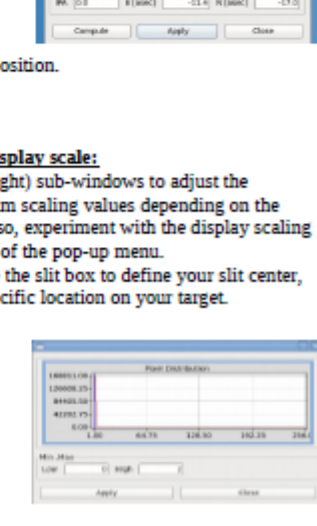


7) Unselect the "Show crosshair" option to see more clearly the target in the slit center.



8) Move the GACAM arm to the OUT position. Start your science exposure.

Adjusting the exposure time and display scale:
Use the Exposure (left) and Scale (right) sub-windows to adjust the exposure time and minimum/maximum scaling values depending on the conditions of your target and sky. Also, experiment with the display scaling options in the second and third block of the pop-up menu. Finally, you can always swap and use the slit box to define your slit center, and the crosshair for picking up a specific location on your target.

[4]

Source URL: <http://www.ctio.noirlab.edu/soar/content/goodman-acquisition-camera-gacam>

Links

[1] <http://www.ctio.noirlab.edu/soar/sites/default/files/GOODMAN/Instruction.pdf>

- [2] http://www.ctio.noirlab.edu/soar/sites/default/files/GOODMAN/AcqCam_User_Guide_Dec2015.pdf
- [3] http://www.ctio.noirlab.edu/soar/sites/default/files/GOODMAN/AcqCam_User_Guide_Sep2017.pdf
- [4] http://www.ctio.noirlab.edu/soar/sites/default/files/GOODMAN/AcqCam_Cheat_Sheet_Dec2015.pdf