SFSU eShel Spectrograph at Leuschner (SeSaL) Operational Instructions – Quick Start

Revision 6-17-2023a

Beginning of Night Procedure:

LOG in to NoMachine

1. Connect to Leuschner Spectrograph Server
2. Log in to SFSU Exoplanets NUC, if needed
   User: [See Admin] Pswd: [See Admin]
3. Start TEMPPers – YES
4. Open CHROME web browser
   Go to 192.168.1.215 – DLL Controller
   Log in – User: Talon Pswd (see admin)
   Switch on 4 devices: CCD Camera, ThAr Power, Calibration Unit, USB Power
   Logout or minimize window
5. Open ASI Studio
   Select ASI Cap
   Set up ZWO guide camera for exposure time and gain

OPEN DEMETRA

a. Configure Acquisition Camera
   ASCOM -> Atik 460 EX
   Configure Atik 460 EX -> temp: -0.5 C. -> Horizontal -> Set/Activate
b. Select Calibration Unit -> activate
c. Open Manage Observations window
   1) Select new Folder
   2) Add New Observation
      a) Name the target – format no spaces
      b) Check/Edit COMMENTS
      c) Check Instruments

BEGIN OBSERVATIONS

DEMETRA:

1. Take Calibration images
   -5 bias x 0 s
   -5 flats x 30 s
   -5 Calibration (ThAr) x 90 s
   -5 Darks x 600s

ZWO Guide Camera:

Center star on fiber hole in FOV with xObservatory Paddle – Fine Scope
Clicks: N = left S = Right W = Up E = Down
Adjust exposure and Gain to minimize saturation and focus

DEMETRA:

2. Manage Observations: Images -> Acquire Object
3. Take Spectra: Check source and
   Enter exposure time x 5 -> START

ZWO Guide Camera: Monitor tracking of star during exposure

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End of Night Procedure:

Close ASI – ZWO Guide Camera

DEMETRA: Data Reduction – complete or trouble shoot

Open CHROME – Switch OFF 4 devices -> Logout
Close CHROME

Close TEMPpers – log last temperature reading

DEMETRA – Check output plots and results – export fits files, take screenshots of results, if time permits.
Close DEMETRA

Close NoMachine

Transfer DATA

NoMachine – Drag and Drop individual files from Spectrograph server onto local NoMachine desktop – [compress folders into a single .zip file to drag]

OR

TeamViewer (on local computer)
•Log in to SFSU Spectrograph with password -> Transfer Files – connect
•Select folders, Transfer files, then end TeamViewer session.