SCHEDULING INSTRUCTIONS

Welcome CHIRON User

The CHIRON Queue is managed through our Scheduling Site: chiron.astro.yale.edu. If you have purchased or been allocated time for the 2019A semester, you will be able to upload your target requests and download your data from this site.
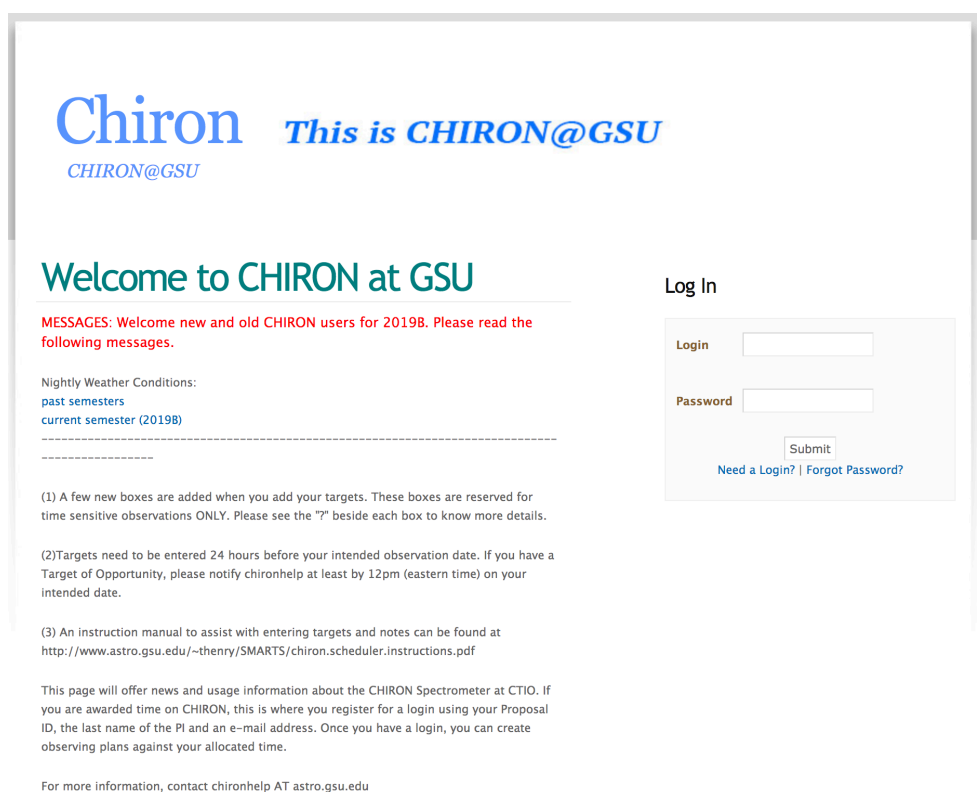

Figure 1.

Logging in

If you have used CHIRON in a previous semester, you may use the same login and password as you've used before. If you have forgotten your password, you may update it using the "Forgot Password?" link in the credentials field of the site's homepage (See Figure 1).

If this is your first time using CHIRON, you will need to request a password using the "Need a Login?" link in the credentials field (See also Figure 1). Three pieces of information are needed to request credentials: PI Last Name, Email Address, and Proposal ID. We sent Proposal IDs (or "Project IDs") by email to every user.

Uploading your target requests

After logging into your account for the first time, you will be sent directly to your "Edit Plan" page (See Figure 2). If you would like to create additional plans, click the "Schedule" link in the top navigation bar. On the "Schedule" page, you will be able to click the "(+)add plan" link to create and name new plans.

Chiron
CHIRON@GSU
This is CHIRON@GSU

logout

Edit Plan

Name:

Tutorial

Plan ID: 496

Prop ID: RECO-17B-0001

Semester: Active

Email: Todd Henry, Leonardo Paredes

Allocation: 1140 Hours between 2017-10-1 and 2020-9-30

Time Remaining[?]: 204 h 44 m 43 s

Legend:

       Time constraints for this target have passed. PLEASE UPDATE.

Comments/Notes:

General comments about this plan, including observing constraints that are applicable to all requests.

Individual scheduling comments should appear in the comment section of each science object request.

Objects **(+) Add Individual Object**

Show Time Constraints **Show Comments**

Figure 2.

What's a plan?

A plan is meant to help you organize your observing requests, and may be useful to help you organize your data, as each unique plan ID will be written to the corresponding data headers. You are more than welcome to enter all requests into one single plan, but the option exists so that you may separate targets, strategies and/or observing constraints, if necessary.

Adding Target Requests

To add objects to your plan, start on the "Edit Plan" page and click the "Objects (+) Add" link to bring up the "ADD New Object" pop-up window (See Figure 3).

- **Target Name.** Using accurate star names or identifiers is encouraged, but not required. Avoid non-standard characters.
- **Type.** Science, Standard, Dark, ThAr, Quartz or Iodine
- **RA & DEC.** J2000 epoch coordinates. The acquisition camera has a 3'x3' field of view and the fiber size is 2.7". In doubt, providing finding charts for objects is appreciated and encouraged.
- **V magnitude.** serve as good reference for the observer to identify the star on the field.
- **Decker.** Fiber (R~28000), Slicer (R~80000), Slit (R~90000) or Narrow Slit (R~120000)
- **Iodine Cell.** In or Out (In if checked)
- **# Exposures.** Number of duplicate spectra acquired in immediate succession
- **Priority.** A metric based on other target requests within your plan. In a bind, we will choose targets from your plan based on the priority with respect to your other requests.
- **Max t_{exp}.** Maximum exposure time (required) is equal to total exposure time per spectra as long as a Max SNR has not been set
- **Max SNR (optional).** Maximum Signal to Noise Ratio (optional). If set, the exposure will stop integrating when the Maximum SNR is reached OR the Maximum exposure time is reached, whichever comes first.
- **Night start (optional).** The CHILE LOCAL DATE of the night that corresponds to the first night when the target needs to be observed. This is the local date of sunset. The target will not be scheduled prior this night.
- **Night end (optional).** The CHILE LOCAL DATE of the night that corresponds to the last night when the target needs to be observed. This is also the local date of sunset. The target will not be scheduled after this night.
- **UT start/end (optional).** the time window for the target to be observed. The target will not be observed outside this time window.
- **Comments (optional).** This is the only comment field that is visible to the Queue Scheduler during the daily scheduling process. General scheduling information for your entire plan should appear within the Plan Comments/Notes section. Don't use the special characters "&" or "<", they produce an error that will not allow you to edit that target.

Figure 3.

Once you have saved the request, the pop-up box remains active so that you may save multiple times for additional requests. You may also change the type and attach other items to your science requests (See Figure 4, See also **Standards & Calibrations** below). If you are finished, please press cancel to close the window.

Standards & Calibrations

Daytime calibrations are acquired twice each day: a set is taken for each decker mode (fiber, slicer, slit, narrow), each afternoon before observations begin and each morning after observations are through, consisting of:

1 ThAr exposure per decker for wavelength calibration
1 Iodine exposure per decker for radial velocity measurements
10 Quartz exposures per decker for flat fielding
9 Bias frames in the 4x4 binning mode with normal readout speed (fiber mode)
9 Bias frames in the 3x1 binning mode with normal readout speed (other 3 modes) Dark frames

If you need additional daytime calibrations, please let us know. Additional calibration frames during dark time (i.e., alongside your science requests), these will be charged to your account.

Once a science request object has been created, you may then link a standard star, ThAr, or other calibration to your science target; you will be able to choose whether this calibration is preformed before or after the science request. Only science observations are listed in the "Attach To" menu, so if you would like a ThAr to be taken before a standard star observation, you must first attach the standard star request to the science observation, then create a ThAr object and attach it to the science observation. Note: ThAr exposures are auto-set to the optimal exposure time base on each of the four decker modes.

Note on comment fields and multi-object requests: If you have a sophisticated request consisting of multiple calibrations or standard star line items, the dialog box will copy your science comment into each additional comment field by default. You may leave this as is or update it, but please keep in mind that only the comment section of the science request will be visible to the Queue Scheduler during the daily scheduling process. All of the comment fields within the request will be available to the Observer during the night, including comments on attached calibrations and standard stars.

Object Status and Data Retrieval

Once the semester has started, you will see flags appear in the right-most column of your plan page. If you mouse over these flags, additional information as it pertains to your request will be available.
- **S**: Your request has been scheduled; if you mouse over the S, the scheduled date will appear
- **T**: Your target has Time constraints; if you mouse over the T, the requested times will appear.

- **K**: Your request was scheduled and skipped; a reason for skipping may accompany this flag upon mouse-over
- **W**: Your request was scheduled and was not observed due to weather conditions; details may be available upon mouse-over
- **E**: Your request was scheduled and was not observed due to technical problems; details may be available upon mouse-over
- **O**: Your request was scheduled and observed; mouse over for date of observation
- **O (u)**: Your request was scheduled and observed; but part of the multi-item request was either not completed, or not completed on the first try and subsequently completed
- **Download Icon**: Feature currently not available. Once your data is reduced and ready to download, you will receive an email with further instructions.

QUEUE Management at GSU

For day-to-day communications regarding your allocation, observing strategies, and/or data, please contact the CHIRON Data & Queue Managers at chironhelp@astro.gsu.edu
Wei-Chun Jao
Hodari James
Leonardo Paredes

Appendix: Time constraints

As you are entering new observations into your CHIRON programs, we could use your help to make scheduling more efficient. If you have particular nights/times you need, please fill the fields under Time constraints section. We will use this information to make sure your targets are scheduled within the times you selected. At the same time, if your program have targets that haven't been observed and their requested time window has passed, they will be highlighted red indicating that they need for you to update their time constraints.

Night start/end
There are 3 levels of timing precision you can apply:

1. If your visit has no time constraints, you do NOT need to fill in the boxes. You might still want to fill in the Comments box.
2. If you have a PARTICULAR NIGHT OR SET OF NIGHTS when you need a visit to happen, fill in the Night start and Night end boxes with the LOCAL date. (NOT the UT date)
3. If you have a particular TIME OF NIGHT on a PARTICULAR NIGHT when you need a visit to happen, fill in all four boxes. Be sure to use the LOCAL date for Night start/end and UT date and times for UT start/end.

If the request is to observe this target within a single night, then Night start must be equal to Night end.

Example: 1 night -- Night start 08/01/2019 Night end 08/01/2019

Example: 2 nights -- Night start 08/01/2019 Night end 08/02/2019

Example: 5 nights -- Night start 08/01/2019 Night end 08/05/2019

UT start/end

You must fill Night start/end before specify the UT times.

Round UT start and UT end to the nearest minute if possible.

Make sure the requested UT time window is appropriate:

(a) target is at least 30 degrees above the horizon

(b) occurs between evening and morning twilight (during the night!)

Maximum window on winter (June) solstice = UT 21:50 to UT 11:40

Minimum window on summer (December) solstice = UT 23:50 to UT 09:40

Change log v2.0

- Added four new fields to "Add Individual Object" box. Night start, Night end, UT start and UT end.
- Added red highlight for targets which time constraints are outdated and observed yet.
- Added "Show Time constraints" and "Show comments" buttons. Toggle show/hide respective columns for easy search within the program.
- Added "Add Individual Object" at the end of the list of targets, for easy addition of targets when the list is too long.
- Added notification message of successful target addition after clicking save in targets or calibrations.
- Removed request for reduced data checkbox. All data is reduced and distributed for all Chiron users.
- Minor cosmetic changes.
- Major internal changes for admin users.