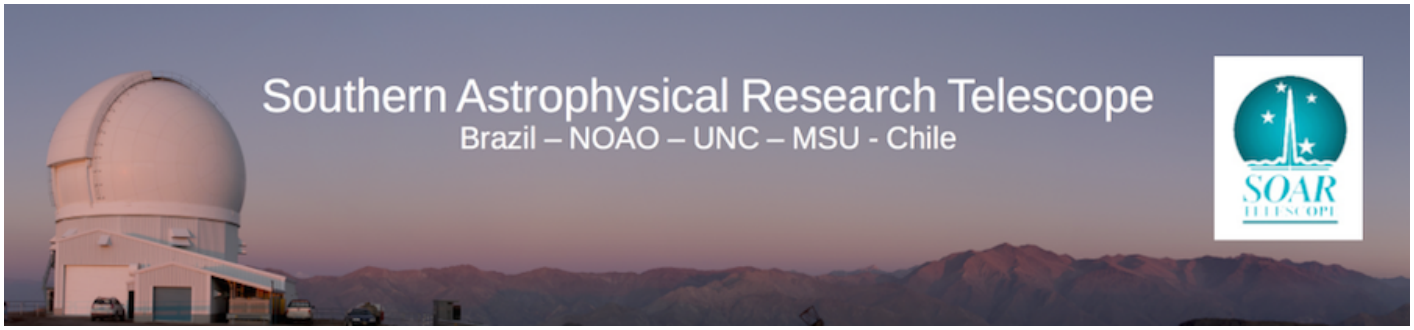

Published on *SOAR* (http://www.ctio.noirlab.edu/soar)

README for the SOAR Instrument Setup Form

The SOAR Instrument Setup Form [1] is used by all SOAR observers to indicate the required configuration of the instrument/s that is/are going to be used to achieve their science obectives. On the Instrument Setup Form [1], the observers are asked to submit copies of their Target List, Finding Charts, and Special Instructions. We request that the Finding Charts are either submitted as a zipped file or as a tar-ball. If the file size of your Finding Charts is greater than 2MB, we request that you place your finding charts on a webpage and provide us with the URL.

Target List

SOAR has the capability to guide sidereally or non-sidereally.

For sidereal guiding, these target files should be submitted in the following format:

[1]OBJECT_ID HH:MM:SS DD:MM:SS Epoch
[2]OBJECT_ID HH:MM:SS DD:MM:SS Epoch
[3]OBJECT_ID HH:MM:SS DD:MM:SS Epoch
etc.

There should be no spaces in the OBJECT_ID field. Use spaces to separate fields. You can insert extra information after the Epoch.

Here is a sample target list in the SOAR format:

[1]IC418 05:27:28.20 -12:41:50.3 2000.0 V=13
[2]IC2448 09:07:06.26 -69:56:30.6 2000.0 B=11.1
[3]NGC3918 11:50:17.73 -57:10:56.9 2000.0 V=8.5

For non-sidereal guiding, our software is set up to read in ephemerides generated using horizons (http://ssd.jpl.nasa.gov/?horizons [2]). An example of this is given below:

#Date__(UT)__HR:MN R.A.___(ICRF/J2000.0)___DEC dRA*cosD d(DEC)/dt a-mass

2008-Apr-07 05:00	16 44 46.1498 -01 44 13.359	-2.87	2.01	1.793
2008-Apr-07 05:30	16 44 46.0540 -01 44 12.353	-2.88	2.01	1.560
2008-Apr-07 06:00	16 44 45.9578 -01 44 11.346	-2.89	2.01	1.402
2008-Apr-07 06:30	16 44 45.8614 -01 44 10.340	-2.90	2.01	1.292
2008-Apr-07 07:00	16 44 45.7646 -01 44 09.334	-2.91	2.01	1.217
2008-Apr-07 07:30	16 44 45.6677 -01 44 08.328	-2.91	2.01	1.169

In order to obtain the proper imformation for the non-sidereal guiding ephemerides, you will want to change the Table Settings on the Horizons webpage so that only "Astrometric RA & DEC", "Rates; RA & DEC", and "Airmass". You will also want to change the Display/Output on the Horizons webpage to "download/save".

One can also determine which solar system objects are observable at SOAR for a given time using the JPL website (http://ssd.jpl.nasa.gov/sbwobs.cgi [3]). You only need to set the observation time, location (SOAR is I33), and a limiting magnitude. Press "search" and it will return a list of small bodies that are observable that night. Please note that all times are UT.

Finding Charts

Zipped files or tar-balls of Finding Charts can contain the Finding Charts of your targets as either Postscript (PS), Portable Document Format (PDF), Joint Photographic Experts Group (JPEG/JPG), or Graphics Interchange Format (GIF) images. If you want to upload a zipped or tar-balled file of size greater than 2MB, please place the Finiding Charts on a webpage instead and enter the URL of the webpage on the Instrument Setup Form [1] so that we can download the files in support of your run.

Special Instructions

This includes any further information that you think needs further explanation or special setup requests.

Filters

Most of the instruments that are available at SOAR have a specific set of filters installed. These instruments are the Goodman High Throughput Spectrograph (Goodman) [4], the Ohio State InfraRed Imaging/Spectrometer (OSIRIS) [5], and the Spartan InfraRed Camera [6]. The only instrument that allows for daily filter changes is the SOAR Optical Imager (SOI) [7]. SOI filters that are usually found at SOAR on Cerro Pachon are given here [8]. Other filters that can be used with SOI, but that are generally stored on Cerro Tololo can be found here [9]. If you have a question about filters that can be used with SOI, please contact the SOI Instrument Scientist. The only instrument that allows for daily grating changes is the Goodman High Throughput Spectrograph (Goodman) [4]. If you have a question about the gratings that can be used with Goodman, please contact the Goodman Instrument Scientist.

Contact information for the SOAR Instrument Scientists can be found here [10].

Links
[1] http://www.ctio.noao.edu/SOAR/Forms/INST/setup.php
[2] http://ssd.jpl.nasa.gov/?horizons
[3] http://ssd.jpl.nasa.gov/sbwobs.cgi

[4] http://www.ctio.noirlab.edu/soar/content/goodman-high-throughput-spectrograph
[5] http://www.ctio.noirlab.edu/soar/content/ohio-state-infrared-imagerspectrograph-osiris
[6] http://www.ctio.noirlab.edu/soar/content/spartan-near-ir-camera
[7] http://www.ctio.noirlab.edu/soar/content/soar-optical-imager-soi
[8] http://www.ctio.noirlab.edu/soar/content/filters-available-soar
[9] http://www.ctio.noao.edu/instruments/filters/filters_34.html
[10] http://www.ctio.noirlab.edu/soar/content/soar-staff