
Mauna Loa Solar Observatory Observer's Log

Sat Apr 16 17:33:49 GMT 2022

Year: 22 Doy: 106

Observer: berkey

WEATHER COMMENT: berkey: Sat Apr 16 17:33:52 GMT 2022

Temp: 41.2f, Humidity: 48%, Pressure: 28.639in, Wind: 3mph from 292deg, Skies: heavy overcast.

____end____

UCoMP COMMENT BY berkey: Sat Apr 16 17:34:20 GMT 2022

Doing some ucomp engineering to see if we can speed the time between extensions in a fits file.

____end____

GENERAL COMMENT BY berkey: Sat Apr 16 17:34:22 GMT 2022

____end____

Sat Apr 16 17:42:02 GMT 2022 Running UCOMP Cookbook waves_1074_1hour.cbk line 0

Sat Apr 16 18:19:13 GMT 2022 Running UCOMP Cookbook waves_1074_1hour.cbk line 0

Sat Apr 16 20:29:06 GMT 2022 Running UCOMP Cookbook waves_1074_1hour.cbk line 0

GENERAL COMMENT BY berkey: Sat Apr 16 21:20:46 GMT 2022

PM Blew off UCoMP O1 with soap and water.

____end____

GENERAL COMMENT BY berkey: Sat Apr 16 21:21:20 GMT 2022

multiple power fluctuations over the past few minutes.

____end____

GENERAL COMMENT BY berkey: Sat Apr 16 22:05:06 GMT 2022

Starting to get fog.

____end____

UCoMP COMMENT BY berkey: Sat Apr 16 22:35:32 GMT 2022

We were able to shave about 1 second of overhead time off of the 1074 waves measurements.

It was taking an average of 34.3 seconds build a fits file that is now down to about 33.3 seconds. A zero overhead time would be about 32.9seconds (this time includes only camera integration time, camera read time and lyot filter relaxation time).

The changes made to do this were:

To optimize the way we get camera temps, the 4 measurements were done serially with 4 function calls (and need to be done while we aren't taking data. The calls are now done in parallel between the two cameras in one function that collects all 4 values.

The LCVR ini files are now read once when the UCoMP controller is started instead of once per recipe. (These ini files change every few months when Steve changes offsets.).

Moved a check of the CAL optics positions to be a little earlier in the recipe code, to get it out of the fast critical path to triggering camera reads. This was a very small change I don't think it actually improved performance.

____end____

UCoMP COMMENT BY Observer: Sat Apr 16 23:42:27 GMT 2022

Fixed a bug in the ucomp mech-controller that wouldn't let the O1 home.

Homing now seems to be working from the controller, and should be run from that location if/when it appears the O1 is not behaving well.

While we call it homing, it technically resets the controller and then finds the home switch so it is also like rebooting the mDrive motor.

____end____

ONSITE STAFF: berkey