
Mauna Loa Solar Observatory Observer's Log

Fri Jul 31 16:22:24 GMT 2015
Year: 15 Doy: 212
Observer: berkey
WEATHER COMMENT: berkey: Fri Jul 31 16:22:57 GMT 2015
Temp: 49.4f, Humidity: 22%, Pressure: 28.604in, Wind: 5mph from SE, Skies: Clear
___end___
Fri Jul 31 16:30:28 GMT 2015 COMP Start Patrol
Fri Jul 31 16:33:12 GMT 2015 COMP End Patrol
Fri Jul 31 16:33:12 GMT 2015 COMP Start Patrol
Fri Jul 31 16:35:47 GMT 2015 COMP End Patrol
Fri Jul 31 16:40:11 GMT 2015 COMP Start Patrol
Fri Jul 31 16:53:30 GMT 2015 COMP End Patrol
CoMP COMMENT BY berkey: Fri Jul 31 17:02:53 GMT 2015
The software changes made yesterday change the logic of how/when we decide to put in an ND filter.

Previously we hard coded if the observing wavelengths were 1074 or 1079 put in the clear filter and if we were in 1083 put in the ND1.0 filter.

In the new logic to change the ND filter one must issue an ND filter change recipe; and the logic form rotate calpol recipe was copied to make this work.

Recipe files have a header line which gives the cadiance of reads, for the move ND filter this can be anything since we wont be doing reads. Then 1 or more lines with 4 columns which we assign the names: beam [int], wavelength[float], polarization[int], datatype [int]. For science data (datatype=0) all four columns are meaningful. For move the ND filter (datatype=9), the wavelength column is used to pick the filter position and the beam/polarization values are meaningless.

This morning I ran test_nd.cbk which moves the ND Filter wheel through 3 positions and got the expected results with decreasing counts as we added more ND into the beam. See: 20150731.063130.fts->20150731.063249.fts.
___end___
PSPT PROBLEM COMMENT BY berkey : Fri Jul 31 17:03:26 GMT 2015
ND filter position does not appear to be captured in the fits headers.
___end___
Fri Jul 31 17:07:46 GMT 2015 KCOR Start Synoptic Patrol
Fri Jul 31 17:08:54 GMT 2015 COMP Start Patrol
Fri Jul 31 17:11:29 GMT 2015 COMP End Patrol
Fri Jul 31 17:19:57 GMT 2015 COMP Start Patrol
Fri Jul 31 17:22:07 GMT 2015 COMP End Patrol
Fri Jul 31 17:39:35 GMT 2015 COMP Start Patrol
Fri Jul 31 17:41:35 GMT 2015 COMP End Patrol
Fri Jul 31 17:44:02 GMT 2015 COMP Start Patrol
Fri Jul 31 17:46:02 GMT 2015 COMP End Patrol
Fri Jul 31 17:55:06 GMT 2015 COMP Start Patrol
Fri Jul 31 17:57:07 GMT 2015 COMP End Patrol
Fri Jul 31 17:58:59 GMT 2015 COMP Start Patrol
Fri Jul 31 18:00:59 GMT 2015 COMP End Patrol

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Fri Jul 31 18:02:35 GMT 2015 COMP Start Patrol
Fri Jul 31 18:04:10 GMT 2015 COMP End Patrol
Fri Jul 31 18:14:51 GMT 2015 COMP Start Patrol
Fri Jul 31 18:16:51 GMT 2015 COMP End Patrol
Fri Jul 31 18:20:43 GMT 2015 COMP Start Patrol
Fri Jul 31 18:21:33 GMT 2015 KCOR End Patrol
Fri Jul 31 18:21:35 GMT 2015 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20150323.ini
Fri Jul 31 18:23:18 GMT 2015 COMP End Patrol
Fri Jul 31 18:30:35 GMT 2015 COMP Start Patrol
Fri Jul 31 18:33:10 GMT 2015 COMP End Patrol
Fri Jul 31 18:35:22 GMT 2015 COMP Start Patrol
Fri Jul 31 18:37:32 GMT 2015 COMP End Patrol
Fri Jul 31 18:38:42 GMT 2015 KCOR End Calibration Script
Fri Jul 31 18:38:59 GMT 2015 KCOR Start Synoptic Patrol
Fri Jul 31 18:39:00 GMT 2015 KCOR Start Synoptic Patrol
Fri Jul 31 18:44:40 GMT 2015 COMP Start Patrol
Fri Jul 31 18:47:15 GMT 2015 COMP End Patrol
Fri Jul 31 18:47:15 GMT 2015 COMP Start Patrol
Fri Jul 31 18:49:50 GMT 2015 COMP End Patrol
Fri Jul 31 19:02:45 GMT 2015 COMP Start Patrol
Fri Jul 31 19:05:20 GMT 2015 COMP End Patrol
Fri Jul 31 19:11:43 GMT 2015 COMP Start Patrol
Fri Jul 31 19:14:19 GMT 2015 COMP End Patrol
Fri Jul 31 19:14:19 GMT 2015 COMP Start Patrol
Fri Jul 31 19:14:48 GMT 2015 COMP End Patrol
Fri Jul 31 19:29:29 GMT 2015 COMP Start Patrol
Fri Jul 31 19:32:04 GMT 2015 COMP End Patrol
Fri Jul 31 19:33:43 GMT 2015 COMP Start Patrol
Fri Jul 31 19:35:43 GMT 2015 COMP End Patrol
Fri Jul 31 19:44:22 GMT 2015 COMP Start Patrol
Fri Jul 31 19:46:57 GMT 2015 COMP End Patrol
Fri Jul 31 19:48:01 GMT 2015 COMP Start Patrol
Fri Jul 31 19:49:26 GMT 2015 COMP End Patrol
Fri Jul 31 19:51:38 GMT 2015 COMP Start Patrol
Fri Jul 31 19:54:13 GMT 2015 COMP End Patrol
Fri Jul 31 19:54:13 GMT 2015 COMP Start Patrol
Fri Jul 31 19:55:38 GMT 2015 COMP End Patrol
Fri Jul 31 20:00:43 GMT 2015 COMP Start Patrol
Fri Jul 31 20:03:18 GMT 2015 COMP End Patrol
Fri Jul 31 20:03:19 GMT 2015 COMP Start Patrol
Fri Jul 31 20:05:54 GMT 2015 COMP End Patrol
Fri Jul 31 20:05:54 GMT 2015 COMP Start Patrol
Fri Jul 31 20:08:29 GMT 2015 COMP End Patrol
Fri Jul 31 20:08:30 GMT 2015 COMP Start Patrol
Fri Jul 31 20:09:20 GMT 2015 COMP End Patrol
Fri Jul 31 20:12:10 GMT 2015 COMP Start Patrol
Fri Jul 31 20:14:42 GMT 2015 COMP Start Patrol
Fri Jul 31 20:15:06 GMT 2015 COMP End Patrol
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Fri Jul 31 20:15:13 GMT 2015 COMP Start Patrol
Fri Jul 31 20:17:48 GMT 2015 COMP End Patrol
Fri Jul 31 20:21:24 GMT 2015 KCOR End Patrol
Fri Jul 31 20:30:08 GMT 2015 COMP Start Patrol
GENERAL COMMENT BY berkey: Fri Jul 31 20:34:14 GMT 2015
Moved dome shutter and realigned the SGS
___end___
Fri Jul 31 20:42:50 GMT 2015 KCOR Start Synoptic Patrol
Sat Aug 01 00:23:40 GMT 2015 KCOR End Patrol
Sat Aug 01 00:23:58 GMT 2015 COMP End Patrol
Sat Aug 01 00:28:03 GMT 2015 COMP Start Patrol
CoMP PROBLEM COMMENT BY berkey : Sat Aug 01 00:28:06 GMT 2015
Tried to get the ND Filter position in to CoMP fits headers. After a lot of effort I got a header item into the fits head
er. But the value is stuck at "7", and after a few hours of playing with the code I cant figure out how to programmaticall
y set it.   I have decide to just get some data for a while before going
___end___
GENERAL COMMENT BY berkey: Sat Aug 01 00:28:20 GMT 2015
Re-aglined sgs to KCor and comp
___end___
Sat Aug 01 00:29:28 GMT 2015 KCOR Start Synoptic Patrol
CoMP COMMENT BY berkey: Sat Aug 01 00:36:49 GMT 2015
Data before 20:42:50UT (10:42HST) on comp was all engineering. The cookbook to run was test_nd.chk and it was not always
 run to completion or a few times run multiple times since all of the activity at that time was troubleshooting the ND fit
s header.
___end___
Sat Aug 01 01:55:19 GMT 2015 KCOR End Patrol
Sat Aug 01 01:55:48 GMT 2015 CoMP Paused for clouds
GENERAL COMMENT BY berkey: Sat Aug 01 02:01:54 GMT 2015
Adjusted dome shutter.
___end___
Sat Aug 01 02:02:05 GMT 2015 CoMP Restarted from pause
Sat Aug 01 02:03:02 GMT 2015 KCOR Start Synoptic Patrol
Sat Aug 01 03:10:58 GMT 2015 COMP End Patrol
CoMP COMMENT BY berkey: Sat Aug 01 03:11:10 GMT 2015
Looks like the comp occulter stage is slipping due to gravity due to the far west pointing of the spar.   Stopping comp ob
servations for the day to go back and look at the ND Filter issues.
___end___
Sat Aug 01 03:18:26 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
CoMP COMMENT BY berkey: Sat Aug 01 03:19:31 GMT 2015
Added a quick feature to write the cookbook being run into the log when starting Patrol. (See the above comment about tes
t_nd.cbk)
___end___
Sat Aug 01 03:20:02 GMT 2015 COMP End Patrol
Sat Aug 01 03:21:35 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
Sat Aug 01 03:26:09 GMT 2015 COMP End Patrol
Sat Aug 01 03:30:39 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
Sat Aug 01 03:35:34 GMT 2015 COMP Start Patrol on cookbook: comp.cbk
Sat Aug 01 03:35:57 GMT 2015 COMP End Patrol

Sat Aug 01 03:36:04 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
Sat Aug 01 03:44:08 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
Sat Aug 01 03:46:43 GMT 2015 COMP End Patrol
Sat Aug 01 03:46:44 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
Sat Aug 01 03:47:12 GMT 2015 COMP End Patrol
Sat Aug 01 03:48:27 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
Sat Aug 01 03:51:02 GMT 2015 COMP End Patrol
Sat Aug 01 03:53:59 GMT 2015 COMP Start Patrol on cookbook: test_nd2.cbk
Sat Aug 01 03:57:28 GMT 2015 COMP End Patrol
Sat Aug 01 03:57:28 GMT 2015 COMP Start Patrol on cookbook: test_nd2.cbk
Sat Aug 01 03:57:38 GMT 2015 COMP End Patrol
CoMP COMMENT BY berkey: Sat Aug 01 04:01:24 GMT 2015
WOOOT!!! I can update the ND Filter keyword in the fits files (sometimes). It looks like my problem this morning was ther
e was some sort of difference in the measurement cluster that gets writing to disk in the Update Run Recipe.vi and the mea
surement cluster we try read in Combine All Recipe Ingredients into a Single fits file. There may have been an issue with
ND FIlter being a float on one side and an enum on the other. The solution I came up with was to make a type def out of
the cluster and to initialize clusters in both sub vi’s to have the same format.

___end___
Sat Aug 01 04:02:57 GMT 2015 COMP Start Patrol on cookbook: test_nd2.cbk
Sat Aug 01 04:06:18 GMT 2015 COMP End Patrol
Sat Aug 01 04:16:43 GMT 2015 COMP Start Patrol on cookbook: test_nd2.cbk
Sat Aug 01 04:20:12 GMT 2015 COMP End Patrol
Sat Aug 01 04:24:15 GMT 2015 COMP Start Patrol on cookbook: test_nd.cbk
CoMP COMMENT BY berkey: Sat Aug 01 04:24:20 GMT 2015
Looks like it wasn’t the first write that was the problem, at position 8 was truncated down to 7 by a bad enum I made this
morning. Problem was solved by changing the Make 1 Fits Header.vi and Add 1 image to Fits.vi’s to use the cluster type
def.

I think the ND code is now cleaned up and working; so I am going to run the ND filter test one more time as a defnitive te
st:
___end___
Sat Aug 01 04:25:09 GMT 2015 KCOR End Patrol
CoMP COMMENT BY berkey: Sat Aug 01 04:26:40 GMT 2015
Well it may not be that definitive we are starting to loose the sun and the guider is getting a little bad.. But hopefull
y the headers will look good.
___end___
Sat Aug 01 04:26:50 GMT 2015 COMP End Patrol