

Night 2022-10-08, Rainer-Jeremy, Denis- Pierre

E1W2W1S2S1E2 (351214)

**IN SPICAVIS\_RTD: (LR: >0 down, MR: >0 UP)**

For the LDC

- `ssh -Y observe@ople, cd /usr/local/bin`
- `spica_ople` and `spica_opletab`
- configure in `spica_opletab` (star, active scopes and POP).
- Then, send and start
- in server : `setldc` (select the mode), then `refldc` and `refvldc` (will automatically calculate the best thickness for the reference cart). It is possible to use `refldc xxx` or `refvldc xxx` to set a specific thickness
- `refldc` and `refvldc` should be done at each new star.
- To communicate with the SPICA DL, the server should be active before starting `spica_ople`. If not, “`openvldc`” permits to reconnect.
- Be careful, the commands will be sent only after “`autoldc on`”
- `autoldc on/autoldc off`
- After a stop or a crash of `spica_ople`: `tsockman rm spica_ople`
- When changing star or settings, use the sequence STOP, SEND, START
- `Autoldc off` when changing the star and on rapidly before fringe search. During the setting of cosmic debris it is important to be in the ‘`autoldc off`’ mode, as `spica_ople` receive messages from `cosmic_debris` that could be contradictory to the actual setting prepared in `spica_opletab`.
- Note that for the moment `spica_ople` send a lot of messages and that, when many scopes are actives, it could overload the system.

Init des LDC

Commands sent from OPLE will usually interfere with homing the LDCs. If you need to home the LDC glass during the night, then follow this procedure:

Type “`autoldc off`” into the ople server to stop ople from sending commands to the LDCs (or click [STOP] to stop astromod on the ople GUI).

Set the LDC velocity to a non-zero number (like 50) and click the [Vel] button.

Click [Home] on the LDC GUI and watch the position go to 0.0.

After the LDC glass homes, then type “`autoldc on`” into the ople server (or click [START] to start astromod on the ople GUI).

Click [Ref] on Cosmic Debris to send the LDCs back to the correct positions.

- UT2h00: start with E1E2 on HD177724. Huge difficulties for the start of the array.
- We do STS with SPICA. DL6 is not in place. All fringes are shifted by about 300-400 microns, but for DL6 which has a change of 2000 $\mu$ m which is not normal at all. New positions are 23938/18284/13578/10658/4124. Position of DL6 is very surprising. But it is the position even after two INIT of this delay line.
- UT3h15, scopes and carts are ok. Difficult to start the fringe search with MIRCx (FT button should be pressed on the cart that is supposed to move). Jeremy finds the fringe on MIRCX. Scan on SPICA from -1.5 to +4.5 with respect to the STS position but nothing shows up.
- UT4h45 we go to HD5394. Huge difficulties with images, carts. No fringes. UT6h15 we move to HD3360. But no fringes.
- UT6h40: check on STS IR and VIS. Position of DLs on SPICA have again changed. So we reinit twice the DLs. Fringes are centered but the offsets are different. Ok but finally we understand that these measurements and also the ones from yesterday were done without having set the VLDC at their STS position.
- After setting the VLDC, the fringes are finally at 23590/17948/13262/10342/6118 so exactly at the position obtained two days ago.
- So it is important, when playing with the STS to set the VLDC at their initial position (6.05/5.85/5.85/5.55/6.75/5.0)
- On gam CAS E1E2b, fringes E2 at 1.137 on MIRCX, then scan on SPICA from 6140 to 11000 and from 6140 to 2000, in MR with steps of 512 $\mu$ m
- Then scan in LR from 2000 to 10000 by steps of 64 $\mu$ m. No fringes found.
- We try on W1W2 but no chances. We arrive close to the limit of the VLDC so we slew to HD35468. Fringes found but for W2 ref and W1=23580, so 5.6mm of difference.
- Reinit of DL3. But same situation. Rehome of the two VLDC and same situation.
- Fringes STS are at their position 18000 on DL3. Fringes SKY again at 24060 with dispersion correction.
- So it looks like the measurements made yesterday was corrupted by bad apparent values of the DDL. This is coherent with the positions found on STS at the beginning of night.
- STS fringes on S1S2 at their exact position 13262/10342.
- Fringes at 6054 with dispersion. At the end 5734 with +1.7mm on the translation of VLDC5