

Instructions for running TOGS commensally with a2010

(January 2009)

These are instructions for running GALSPECT commensally with a2010. The procedure consists of:

1. Starting GALSPECT before a2010 starts (TO)
2. Running the calibration script at the start of a2010 (observer)
3. Running the calibration script at the end of a2010 (observer)
4. Stopping GALSPECT (TO).

For each TOGS run there is a contact person on duty. The contact person should have emailed the operator, but you can also find out who to call at <http://sites.google.com/site/galfahi/contact-folks>.

1. Starting GALSPECT

A few minutes before a2010 starts the TO should login to GALSPECT and start the datatak-ing script with the following.

- (a) Check that ALFA is uncovered and its amplifiers are ON.
- (b) Login to *dataview* as user ‘guest’ and open an xterm window.
- (c) In this window login to *galfa1* computer by typing:

```
[guest@dataview guest]$ ssh -i galfa_key galfa@galfa1
```

 The prompt `#` appears.
- (d) In the same window type:

```
# ps
```

 and verify that there are no ‘gdiag’ processes running. If there are such processes running kill them with ‘**kill process-ID**’, where process-ID is the first number on each line. This has to be repeated until all ‘gdiag’ processes are gone.
- (e) Now type:

```
# /var/diag
```

 Let it run for some time, like 30 sec, you will see lots of messages, GALSPECT is warming up.
- (f) Then, type:

```
# /var/levels_togs
```

 If this gives the message **LO2: Set failed, got back: ERROR setting freq**, open the “Utilities” menu in CIMA and click the “Restart GPIB program” button. Now type again `/var/levels_togs` in the *galfa1* window and if it still doesn’t work call the contact person.
- (g) In the same window type:

```
# /var/togs
```

 This will start taking data with GALSPECT. You will see a lot of numbers being printed every second or so. This will run the entire observing session.

2. Running the calibration script at the start

Once the primary (a2010) observer has logged in and started cima, she/he should run the galfa calibration script. The starting position for this calibration is listed in the a2010.cat file and is called 'galfasrc'. 'galfasrc' should be approximately the mean of the drift scan positions in a2010.cat and can be kept fixed over a period of 7-10 days. Of course, this position should be updated sooner if the positions of the a2010 observations change significantly (e.g., a completely different region is begun).

- (a) From the "CIMA main menu" window select "Command file observing".
- (b) A new window, "Command file observing window" will pop up. Click on "Load" to browse for the file you want to run. Click on the file "**command_galfasrc09.cmd**", then click on "Accept" and "Run".

This will load the IFLO setup file and perform the calibration pattern. It takes about 3 minutes to complete this step.

Please watch the "CIMA observation log display" for a few minutes. It should show updated messages every few seconds. If you notice that observing is hanging (you don't see updated messages every few seconds), call the TOGS contact person.

- (c) At any time during observing you can open "Quick Look Data Display" on *dataview* to make sure the spectra are being updated.
- (d) OPTIONAL STEP: You can also view data using GALSPECT's display.
 - i. Open a new xterm on dataview and type:
`[guest@dataview guest]$ vncviewer galfa1`
 - ii. This brings up a *plot window* entitled "TightVNC: Pixmap framebuffer". With the cursor on this window type "h", this will blow up the plot and make it easier to inspect spectra.
 - iii. G-ALFA folder in the control room explains how to change different display options

3. Running the calibration script at the end

At the end of an a2010 observing run the calibration script should be run at the position where the last drift scan was finished.

Same as at the start just with using the file "**command_galfacurpos09.cmd**".

4. Stopping GALSPECT at the end of the run

On *dataview's* galfa1 window (the one which prints numbers all the time) press Control-C, and exit from this window.

Thank you very much!

TOGS members