DM flattening procedure, summary note, JR 18/12/2005

ON Taurus:
- configure observing system, OASIS, INGRID, AG7 & AG3 (if on sky at night)
In GRACE:
- all covers off, dichroic in place (default 50:50, BarrIR for INGRID observing), pinhole 2um in place (may have to swap to 5um if insufficient light), restart FISBA PC recommended, make sure lights are off
On air conditioning control:
  check temperature in optics room is stable and as set, reduce fan speed to 20%, oil pumps must be off
On NAVIS:
- start Instrument Control GUI (telnet taurus, startoasisserver, startoasisgui – if not already running)
- if problems type naomi@navis> NaomiRestart; 'TopGui &' if the top GUI is missing
- float bench, move ADC out, switch simplex lamp on, set iris to -150 and put NCUslide in simplex position
- set exposure time to 50ms on SDSU page
- select C40 page, start WFS framing, close SG loop, click on 'continuous', set max to 2000 and load last flat (name is date and hour) on mirror control page
- select light path page, check pick off probe, X=0, Y=3 followed by 'apply' and open WFS shutter; if spot are low increase Y pickoff position to say 4…, consider running 'autocentre', check WFS is in mode 1 8x8 (good seeing lenslet)
- set strain gauge (SG) gain: naomi@navis>SG GetGain -> check it's 0.8000 otherwise type SG SetGain 0.8 and
Laser flat:
- check all segments are present with not more than 4 fringes
- click on FISBA icon – select 'iterate' – wait for message to set the fan speed back
- save file on mirror control page (please record in the log book)
White light flat:
- naomi@navis type AutoWhite followed by '0'
- check measurements are >130, and gradients <200 otherwise use AddZernike tip|tilt and repeat laser flat
Simplexing:
-on naomi@navis>mirroralign --camera AG7&, you see 2 windows pop up, click on 'continuous display'
- make sure both OASIS and SIMPLEX flat are in
- unclip image if you can't see it, exposure time is usually set to 0.05s, adjust max to max counts on image, zoom 6, close iris going neg. e.g. -250 to get 15000-20000 max on display, try to optimise filter focus value (range 0..6mm, found 4.05mm on 18/12/05)
- run AG7 0.1 and assess image quality
- click on 'Simplex', this starts simplexing, once you get a sharp beam press 'Stop adjust'
- save file e.g. on light path page (please record in the log book, name & MF)
- usually you need multiple simplexes, try to achieve MF<-0.02 (AG7), FWHM ~2 pixels
- open SG loop and switch simplex lamp off!