

REQUIREMENTS FOR GUI DISPLAYS UNDER MAXIMAL RE-USE OF ELECTRA SOFTWARE POLICY

wht-naomi-100

1. Categories

1.1 RTCS

1.1.1 Functions

1. Open/Close tilt loop command/status
2. Open/Close main loop command/status
3. Select WFS pre-proc method/readout-geom/parameters command/status
4. Select zonal/modal recons mode command/status
5. Automatic Optim On/Off command/status
6. Load zonal matrix (interlock to recons mode)
7. Load slopes-to-modes matrix
8. Load modes-to-DM matrix
9. load modal filter coefficients (if any)

1.2 OPT

1.2.1 Functions

1. Set Optim Method command/status
2. Load Optim parameters
3. Display Performance and Activity

1.3 VIS

1.3.1 Control functions

1. Data source selector: live/playback command/status
2. Live data averager/decimator
3. Recorded data VCR panel (forward, back, step, play, pause) with progress indicator
4. Data field display/associators
5. Vis display window manager (cf DEC Fuse)
6. Freeze trigger editor

1.3.2 Display functions

1. 1D oscilloscope trace
2. 2D image display
3. WFS surface plot
4. Slope hedgehog
5. DM surface plot

1.4 Analysis tools

1. Power Spectrum plotter
2. display/edit zonal matrix
3. display/edit modal matrices

4. link to proprietary general purpose analysis system, eg. PV-Wave

1.5 MECH

1. Optical bench metaphor

1.6 ALIG

1. WFS slope transfer function display (live)
2. set/display WFS gain map
3. fiducial for calibrated WFS pick-off/cal injector positions on acq/pre-corr displays
4. set WFS pick-off and cal-injector position calibrations
5. display slopes(vis) and zeros.
6. inject open loop Zernikes on DM (set/display).
7. load/save open loop pattern

1.7 CAL

1. set cal injection point (and conj height). Index stored calibrations (below) with this info.
2. set WFS offsets by adjusting closed loop zernike offsets set/display
3. set WFS offsets by loop-minimising 1st focal plane dark ring (Instrum link permitting) using either zernikes or segment positions
4. load/save offset pattern
5. measure DM-WFS gains
6. calibrate DM pistons from figure sensor
7. generate mode-DM matrix from DM-WFS and piston calibration
8. generate zonal response matrix; invert/customise
9. generate modal WFS response matrix; invert/customise

1.8 ACQ

1. Display acq or precor image with calibrated WFS pick-off fiducials (see ALIG)
2. WFS pixel display with centre fiducial (centre is such that acquisi
3. set/save/load WFS pixel display centre fiducial
- 4.