

Palomar Adaptive Optics Test Plan

Title	Acquisition Camera Calibration
Version	1.1
Date released	4/2/2007
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Time requested	20 min. NGS, 20 min. LGS
Required conditions	Partly cloudy OK.

Purpose

Calibrate the Acquisition camera NGS and LGS plate scale and orientation.

Test procedure

NGS:

1. Acquire a binary star with separation 10"-20", magnitudes <10 from the WDS Calibration Candidate catalogue: <http://ad.usno.navy.mil/wds/orb6/orb6c.html>.
2. Install HOWFS reflective spot, Acq fold mirror.
3. Center binary in PHARO 25mas field of view.
4. Record 2 unsaturated images with the acquisition camera.
5. Record 2 unsaturated (open loop) images with PHARO.
6. Acquire a second binary star and repeat steps 2-4.

LGS:

1. Install HOWFS reflective spot, Acq fold mirror.
2. Center TTM mirror (ttm_a=0, ttm_b=0).
3. Center bright (V=10) NGS on PHARO.
4. Project laser.
5. Center laser in Acq (*not* on reflective spot).
6. Record Acq image of LGS and an open-loop PHARO image of the NGS (integrate long enough to get ~10k peak counts)
7. Offset telescope offset ttm 2.0" in each direction (4 positions). At each position, record an Acq image and a PHARO image.

Results and conclusions