VIRCAM DataFlow and Quality Control

- dataflow overview
- health check
- calibration plan
- pipeline processing
- quality control

VLT / VISTA dataflow

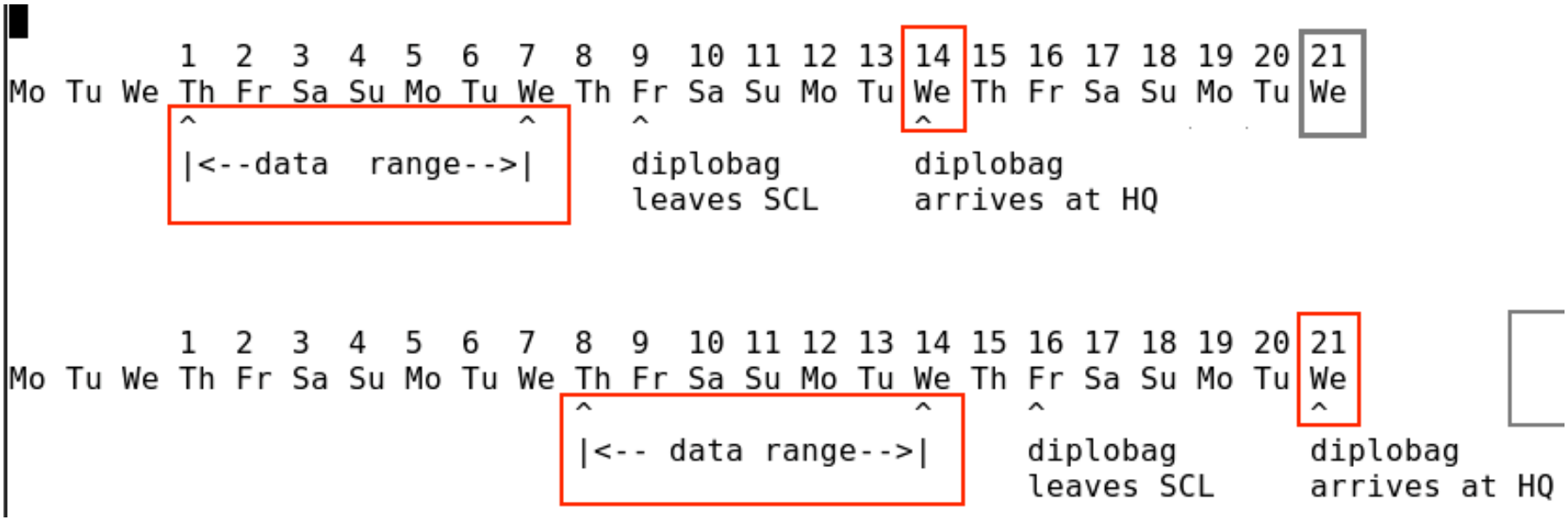
- constraint set check at PSO (QC0)

  (moon, seeing-IQ, ZP-sky transparency)

- on-line pipeline partial processing
  using static calibrations, QC1,
  health check (ftp-channel)

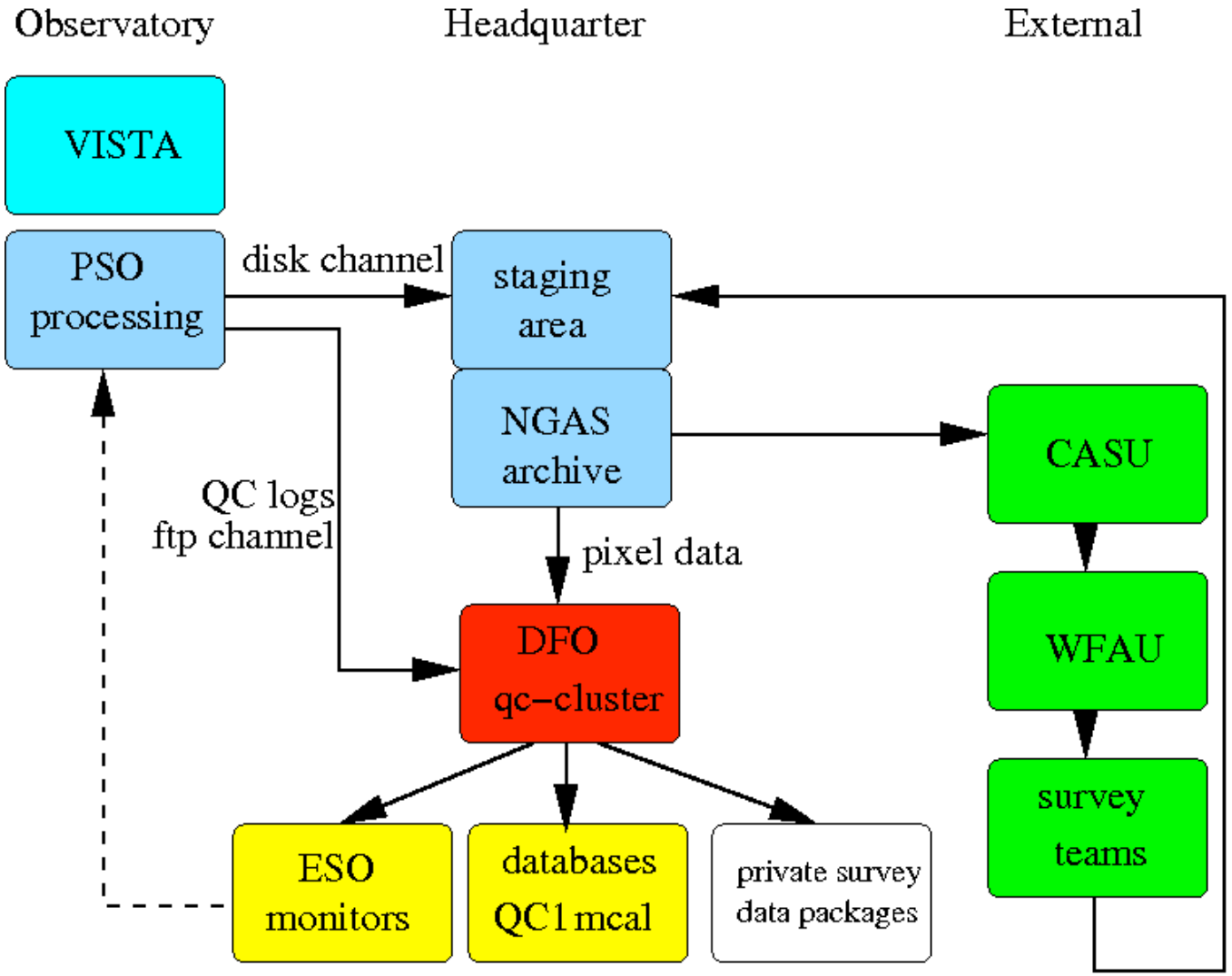
- ESO internal dataflow:
  10+-4 days later: pixel data in ESO HQ
  (USB-disk channel):
  archiving,
  pipeline processing,
  QC1, feed-back

VIRCAM delivery pattern



- ESO external dataflow
  -> Cambridge VDFS/CASU
  -> Edinburgh WFAU
  -> Vista public survey teams
  -> ESO-DMO-DFO-EDP (phase 3)

dataflow

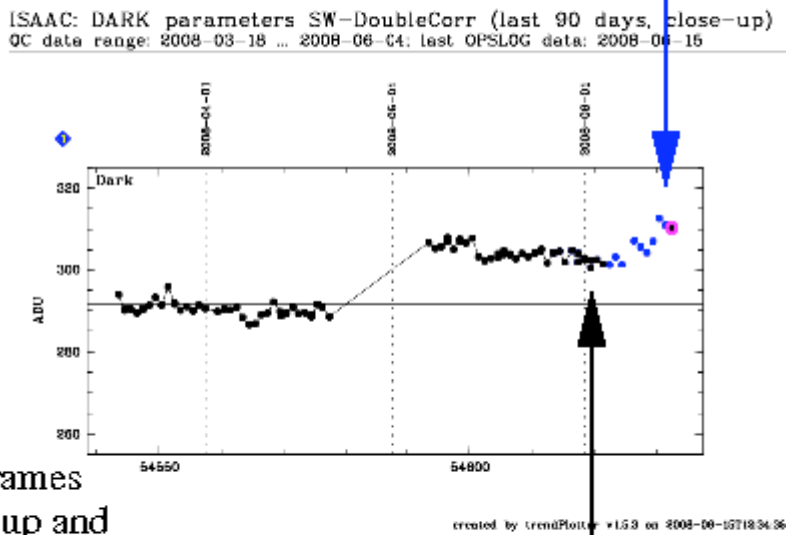

Observatory
Headquarter
External
VISTA
PSO processing
disk channel
staging area
NGAS archive
CASU
QC logs ftp channel
pixel data
WFAU
DFO qc-cluster
survey teams
ESO monitors
databases QC1 mcal
private survey data packages

Health check

Paranal Observatory

acquire frames
archive frames
process frames
extract QC1 parameters
send QC1 to Garching

ftp channel



Garching Headquarters

download frames
classify, group and
associate frames
process frames
certify products
ingest products
ingest QC1 parameters

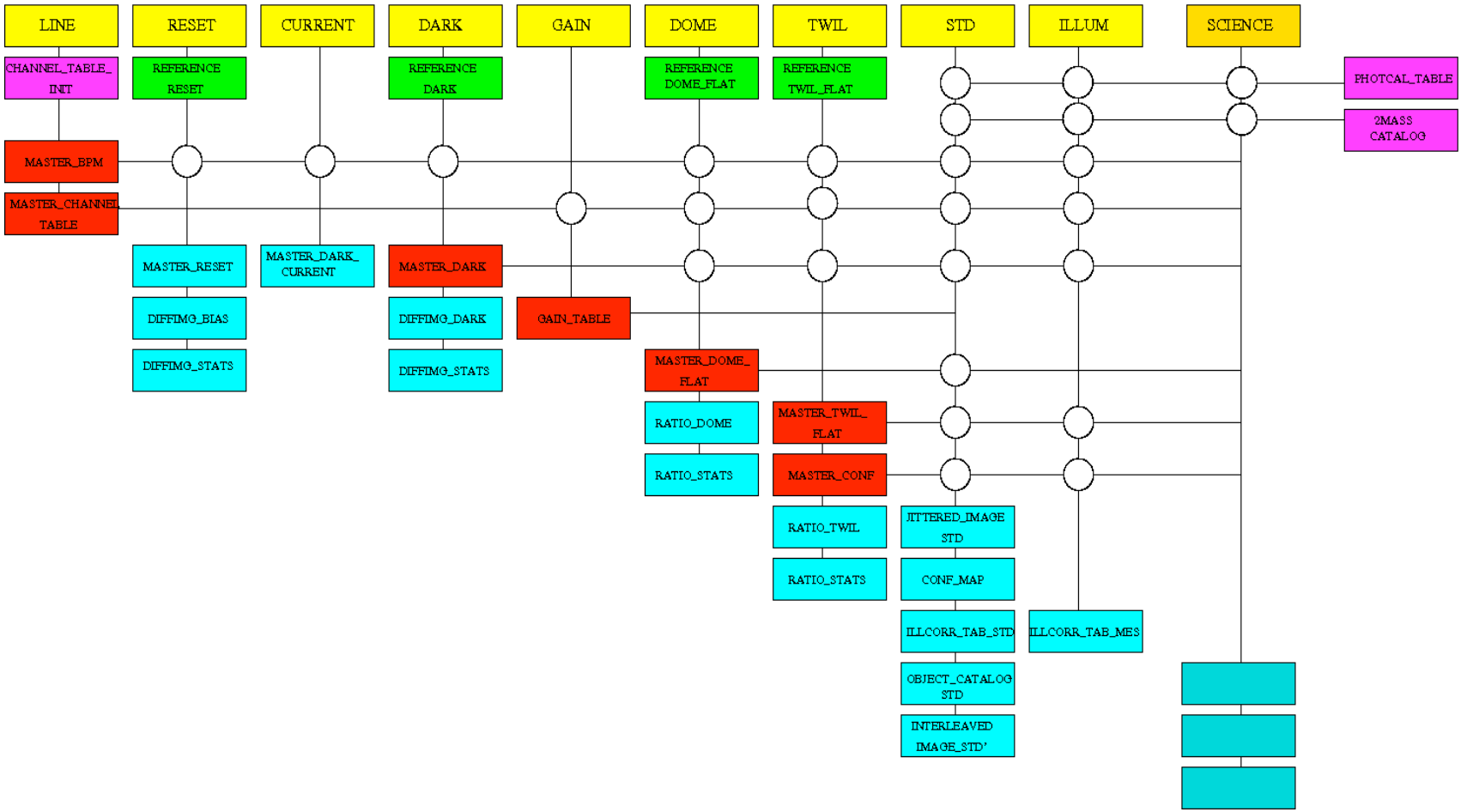
disk channel

At ESO HQ: processing and QC

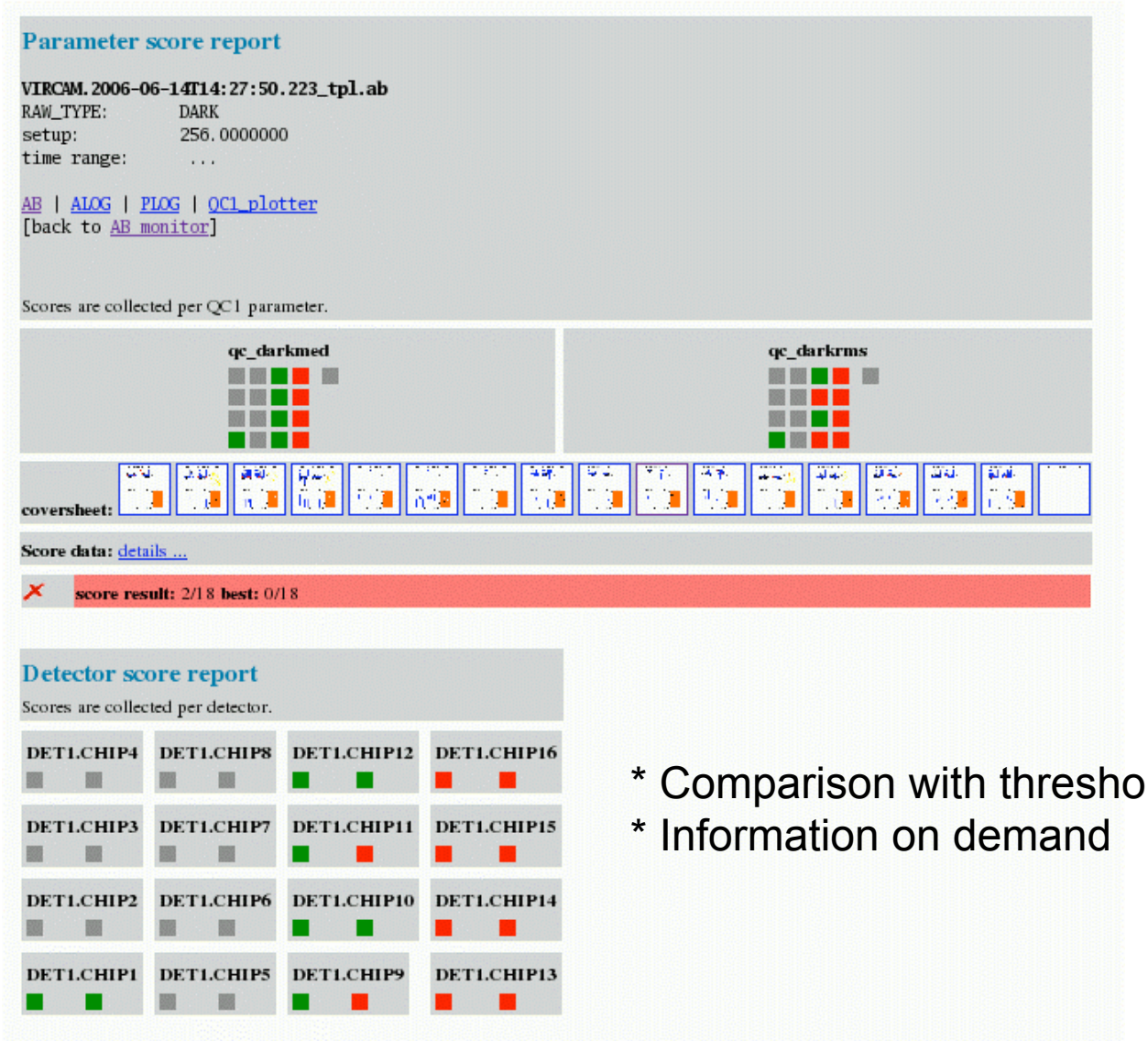
- process all calibrations (cascade)
- data reduction pipeline:
  - 10+1 recipes, 35 QC parameters
    Paranalization (= embed processes in PSO)
  - large data volume, low data complexity
  - parallel processing on 40 node cluster
- QC spot checks on science products (details at SV)
- outcome:
  - master calibrations -> cdb,
  - QC1 parameters -> QC1 db (public),
  - problem reports to PSO and IOT
  - [private surveys data packages]

vircam calibration cascade

management of processing dependencies

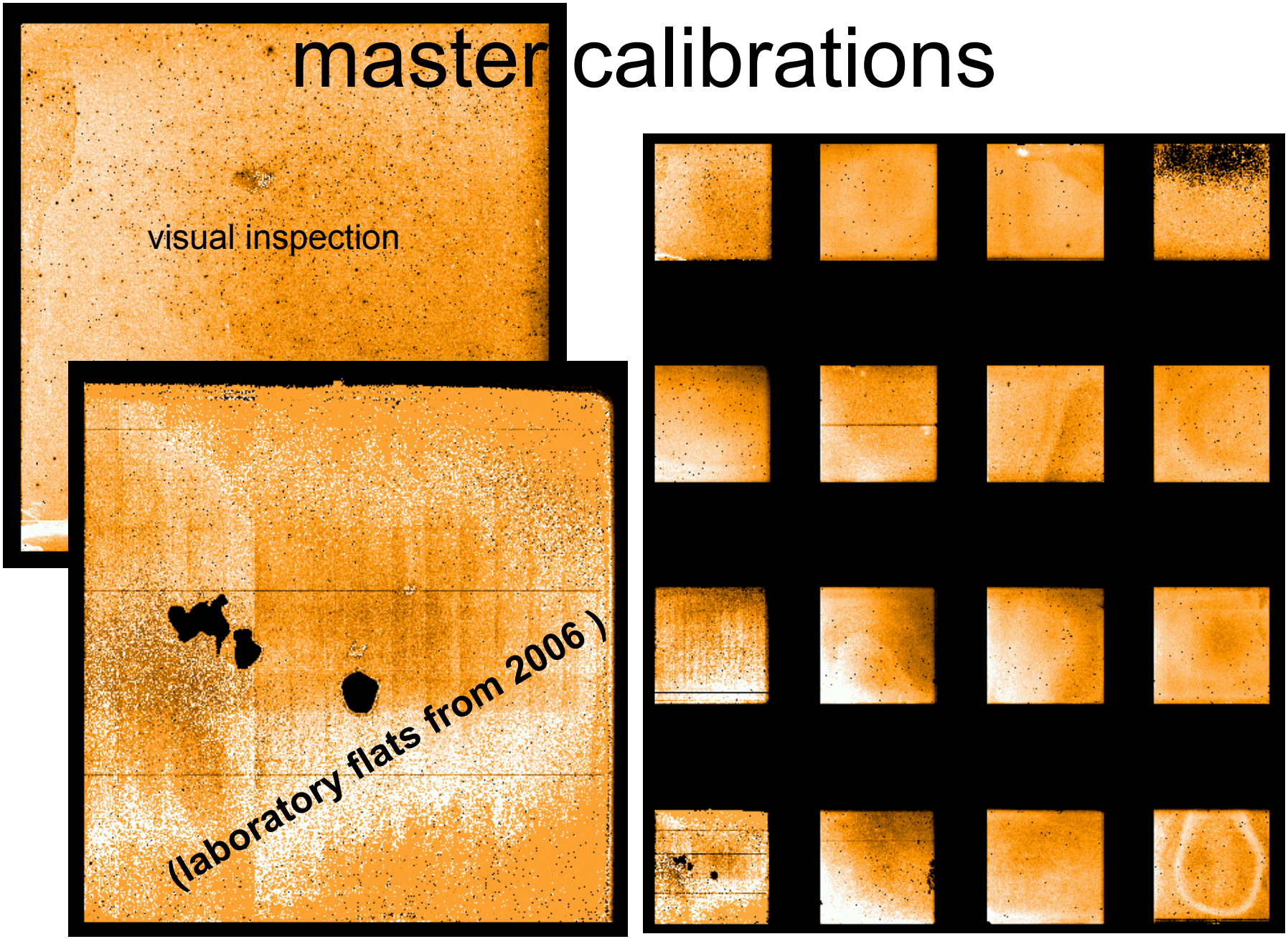


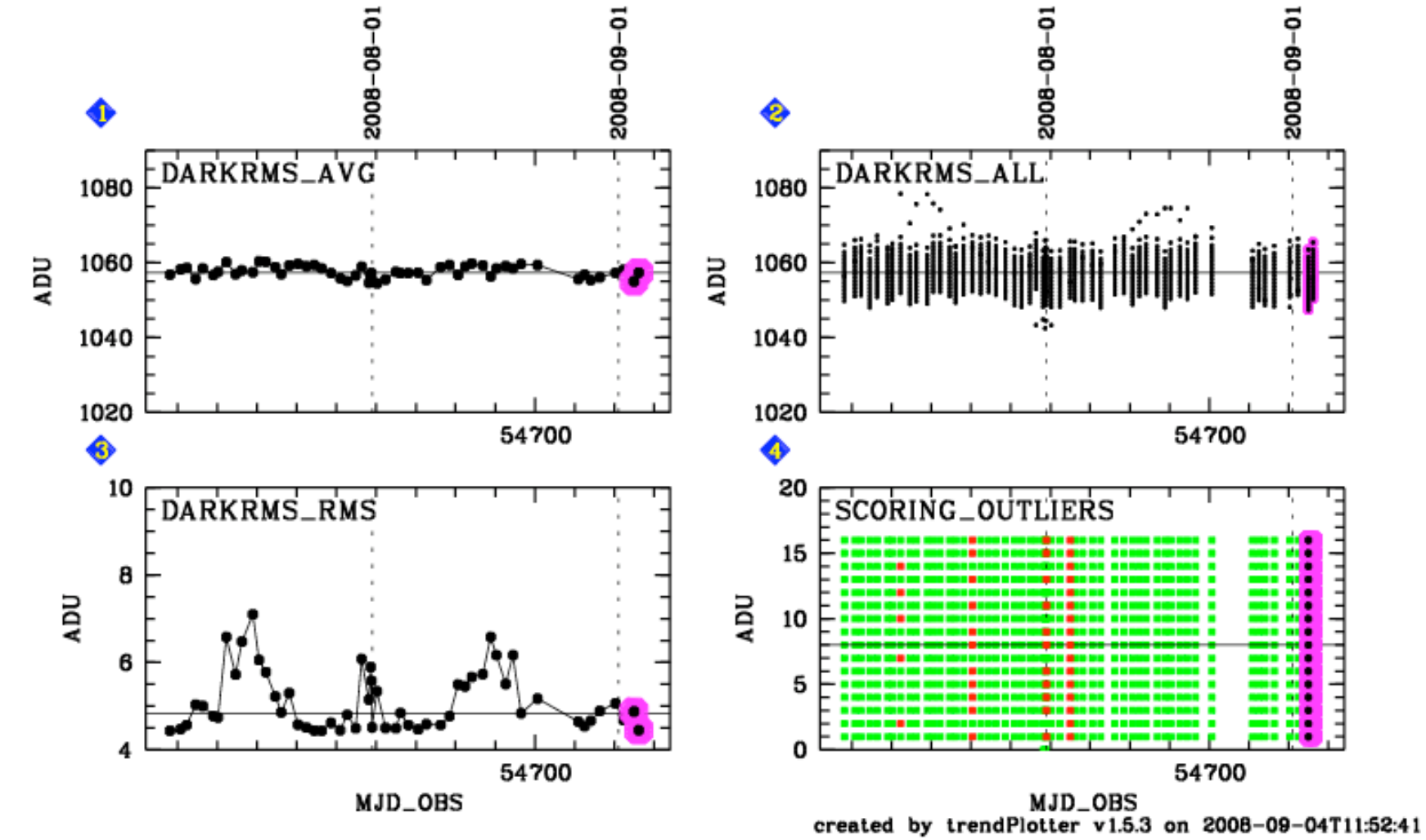
volume & complexity: scoring



* Comparison with thresholds
* Information on demand

master calibrations




VIRCAM: DARKRMS DIT=60 (last 60 days)
QC data range: 2008-07-07 ... 2008-09-04
2008-08-01
2008-09-01
DARKRMS_AVG
DARKRMS_ALL
DARKRMS_RMS
SCORING_OUTLIERS
ADU
MJD_OBS
54700
created by trendPlotter v1.5.3 on 2008-09-04T11:52:41