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This document presents work package progress by CASU during May 2007. For further details of group activities over the past month and quarter see <http://www.ast.cam.ac.uk/vdfs/diary.html>. For the minutes of all group meetings see <http://www.ast.cam.ac.uk/vdfs/docs/minutes>

WFCAM Processing status

WFCAM finished observing on May 21st and is scheduled to go back on at the beginning of August. Data tapes up until May 21st have been received in Cambridge, and ingested and verified up until May 7th. Processing is ongoing, and to date we have processed all 06B (and 07A) data up until April 13th, with the exceptions of NDR data taken pre-Dec 20th and a few previously incomplete nights in January. The NDR data for the rest of 06B are expected to arrive later this month.

All previous WFCAM science data products (05A, 05B, 06A) have now been astrometrically recalibrated using the waveband-specific distortion coefficients.

MR published an article on the properties of NIR sky brightness in the UKIRT newsletter.

MJI has analysed the WFCAM illumination correction variation for semesters 05A, 05B and 06A and concluded that a factor of two improvement of the systematics in the photometry can be achieved by the simple expedient of using 2MASS residual-derived corrections to update the individual detector zero-points.

VISTA pipeline

Version 0.6 of the Data Reduction Library was issued to address all of the outstanding points raised by ESO from the milestone v0.5 release. Nearly all of these issues were to do with SOF (source of files) tag names and output filenames, which were urgently required to allow the library to be incorporated into a runnable pipeline (noting that the requirements for such tag and file name are still not actually documented and therefore not predictable!). As usual a set of simulated data and test scripts were included; some of the old data was reused but had "ARCFIELD" inserted as requested, and some new data was generated to test, in particular, microstepping and jittering with more realistic offsets than the default patterns.

PSB has written a web page explaining how to put WCS information within FITS table headers, as opposed to FITS image headers, see:

<http://casu.ast.cam.ac.uk/documents/vista/astrometry/tables-wcs/view>

It was noted that from 07B, WFCAM catalogues will adhere to this (now ITS standard) format within their headers. We expect WCSLIB to soon adhere to this form and when it does we will adopt it for WCS info i/o.

Meetings

A UKIDSS survey heads meeting was held in Oxford on May 9th and was attended by STH (wearing both CASU and transit survey PI hats). Discussion was wide-ranging and included: reactions to the UKIRT campaign results, scheduling observing over the next couple of years, the world release of UKIDSS data, and the release schedule for DR3.

The VDOC meeting was held at ROE on May 10th. CASU was represented by MJI and PSB.

STH attended a useful calibration meeting with PH and SW, also in Oxford, held on May 10th. A detailed list of work still required for the paper was drawn up. The plan is to complete these items by the end of June and discuss the results at the next calibration WG meeting, and present to the next UKIDSS survey heads meeting.

MJI reported to the UKIRT board meeting held in Durham on May 17th.

CASU Rolling grant

The CASU rolling grant application is about to be submitted. The grant covers activities for the period 2008--2013, and includes:

- WFCAM pipeline operation and maintenance
- enhancements to and operation of the UK VISTA pipeline
- maintenance and upgrades for the VDFS ESO pipeline deliverables
- operational support and pipeline processing for the UK-led VST public surveys and northern hemisphere equivalents
- continued operation and development of the UK ground-based telescope archives
- a 30% research allocation for 5 members of the group