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Document Authors:	Mike Irwin, Simon Hodgkin	
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This document presents work package progress by CASU during September 2005. 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

UKIDSS and VDUC

VDUC met at the IoA on 6th September. MJI, STH and PSB attended. MJI presented a talk covering the status of WFCAM and the outlook for VISTA. Tim Naylor made a comparison between his own photometry/catalogue generation software and CASU's for an example WFCAM image. He found similar numbers of objects but went slightly deeper. He found that the pipeline error estimates were larger than his own at the faint end. We are looking at this, but will probably only resolve this issue when we generate our own profile magnitudes.

A third UKIDSS SciVer meeting was hosted by CASU on Sept 21st. STH and EGS presented talks, MR and JRL also in attendance. Useful feedback was received on object classification and deblending. Some of the issues raised at the previous meeting concerning differences between CASU magnitudes and manually derived magnitudes were clarified.

STH hosted the WFCAM calibration meeting (attended by Paul Hewett, Steve Warren & Nick Cross) and presented his analysis of 05A data (sent to the working group as a document in the week before). The meeting asked STH to (i) complete the analysis of spatial systematics using the mesostep data to confirm his finding that there are no systematics at the 2% level, and (ii) to investigate the 2MASS catalogue for global systematics using the WFCAM data. A new report will be circulated by October 24th with a plan to meet in early November. The current version will be circulated to a wider audience.

WFCAM processing status & Software Updates

The full catalogue standard parameter set has now been completed and tested. As a result, all 05A data have been reprocessed to include the full parameter set:
1. new magnitudes (Petrosian, Kron, Hall)
2. errors on the measured quantities
3. the larger apertures have been rescaled to be smaller (the largest has been shrunk from 64 to 24 arcsecs).

These data have been made available to WFAU and transferred. CASU are keen to encourage wider community access to this processed data.

Tests with the cross-talk removal algorithm have been promising. MJI presented some of the results at the VDUC meeting. The plan is to incorporate cross-talk removal from the start of 05B processing and a pipeline version has now been implemented.

MR and EGS have released V1.0 of the WFCAM DQC archive and ingested the FITS headers for the entirety of 05A. The archive provides links to the catalogues and thumbnails of images. This is already proving to be an invaluable tool for detailed investigations of the processed data and will form the resource for generating survey progress WWW pages.

Two new disc servers (8 TBytes each) have been installed

VISTA

JRL has made significant progress with coding and documentation towards DRL V0.1. Much of the low level software has been written, including routines to Manipulate the WCS and do robust statistics. The required low-level routines to parse headers are also being. One third of the 18 DRL functions (Chapter 6 of the DRLD) have been written. Four of the 14 CPL plugins (Chapter 7 of the DRLD) have been written. The catalogue generation and object classification software have also been completely ported.