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Summary

This document presents work package progress by CASU during May 2005. For further details of group activities over the past month and quarter see <u>http://www.ast.cam.ac.uk/vdfs/diary.html</u>. For the minutes of all group meetings see <u>http://www.ast.cam.ac.uk/vdfs/docs/minutes</u>

We have ingested and verified all SV data up to May 12th, complete to the last of the WFCAM tapes currently here. A few missing files have been identified and recovered via JAC. This raw data has all been converted to MEFs and is available for restricted access through the UKIRT archive. Several requests to access UKIDSS and PI data this route have already been made and fulfilled.

Various improvements to the checking procedure at JAC (and in Cambridge) are now being implemented to minimise the occurrence of missing files even further and to ensure no files go entirely missing.

About half a night of data (1/3 end 11th and first 2 hours of 12 April) was taken with 1 detector (#2) not functioning i.e. all zeros in the data file. This probably occurred after a reboot of the data system and was not noticed at the time by the observers but was picked up by the CASU QC checks.

Transfers of raw WFCAM data to ESO have been going smoothly, albeit somewhat slowly given the bottleneck into Garching. All raw UKIDSS and calibration data up to April 16th have been transferred to ESO. The rest is queued to go.

There have been some hardware problems with the summit LTO drives that are causing delays in shipping tapes to Cambridge. However, so far this has not caused any problems at our end.

The speed of the summit pipeline has been improved to the level where it now keeps up with the data flow from the observing system.

Tuning of the pipeline image processing strategy is essentially complete and the pipeline is now running 24/7 using all 8 processors on the 4 processing PCs. Several DQC check stages are run on each night of data followed by internal science verification on a sampled subset. A typical full night of data contains ~3000+ images (up to 250 Gbytes) and takes around 24-36 hours to process. We are currently focusing on SV1 data (8th-19th April) to finish fine-tuning the processing strategy.

A processing preview script has been added to help organise the data processing in a more efficient way.

Three nights of processed data (2 partial and pre-SV and 1 full SV night) have been

made available for transfer to WFAU.

MJI gave a talk to the UKIRT Board, reviewing progress with the pipelines since the last Board meeting 6 months ago and demonstating some of the features of the latest WFCAM data and the pipeline output. This seemed to be well received.

Bunclark, Lewis and Irwin visited ESO 10/11 May and had very productive meetings with DMD representatives. As far as we are aware all the substantive FDR issues have now been resolved and the RIX response document Board dispositions agreed. PSB and JRL also met with the DICB chairman (Adam Dobrzycki) to discuss data dictionary and FITS keyword issues. CASU also learned about super-recipes run daily at Garching, which helped to clarify the maintenance of calibration files. JRL and PSB were given a CPL tutorial which was extremely useful and JRL presented a test CPL recipe to iron out generic CASU misconceptions at the CPL interface level.

The public surveys for VST have been chosen. The 3 core surveys are ATLAS (Shanks et al), VPHAS (Drew et al) and KIDS (Kuijken et al). CASU are already signed up for the processing for the first two projects. Astrowise will presumably process the last. There are also 3 secondary surveys: UVEX (Groot et al.), z<2 census (Oliver et al.) and UKIDSS LAS/GCS (Warren et al.). MJI will be attending a meeting at ESO on 22/23 June to discuss these surveys and their data products. The stated goal of the meeting is "to coordinate the various teams and maximise the science products of the surveys", and from our point of view hopefully find out more about the data products required by ESO.