

## **VDFS-WSA Monthly Report: 2005 Quarter 3, Month 3 (September): Narrative**

### **1. General and Project management**

The VDUC meeting was held in Cambridge on September 6th, and was attended by AL, NCH and PMW. NCH gave a presentation on the status of the Archive and PMW presented papers on the future plans for work on the Archive [VDUC(05)09] and documents to be prepared for the design review next year [VDUC(05)10]. The topic that sparked most discussion was the scope of the study of DBMS scalability for VISTA data volumes, and whether there was a need for a detailed comparison of the performance of SQL Server with e.g. DB2. There was some discussion of the timing and scope of release of Science Verification data and the VDUC requested that all 2005A UKIDSS data be released to the community by Christmas.

Johann Bryant started as Archive Curator on the 13th.

NJC attended the calibration meeting in Cambridge on the 20th, where he presented his work on a global photometric solution, which would provide an independent check on 2MASS photometry and could supersede it if 2MASS was found to be inadequate. The meeting notes are on the WFAU Twiki. NJC and NCH attended the second SV meeting in Cambridge on the 21st. As from the first SV meeting, there were requests for data access facilities and, echoing the VDUC, the priority is to get the SV1 and SV2 data released promptly to close out the Science Verification phase before the ESO community release by the end of the year.

### **2. Hardware**

The third image data server (Khufu, 8 TB) has been installed. We met with NeSC staff to discuss the possible use (through the ESLEA project) of the UKLight switched circuit optical network for transferring data from Cambridge to Edinburgh and have passed details of CeSC contacts to PSB at CASU. If we are to use this facility e.g. when VISTA data start flowing and asking for 500 Mb/s to start with, it makes sense to start planning now as it will take about six months to set up – but SuperJANET5 should be available not much later.

### **3. Software**

We have worked on providing facilities requested by science verifiers at the SV1 meeting, e.g. more on-line documentation including a full glossary of WSA attributes and allowing batch upload of users' coordinated lists to get image thumbnails (done) and Catalogue data (underway). Also, the merged source catalogue schemas have been revised to give more photometric information. RSC has continued working on source matching code, getting much faster matching speed that looks scalable to  $10^{10} - 10^{11}$  row tables. Work has begun refactoring CU13 for creating library stacked and/or mosaiced image frames. The re-processed SV1 data were made available for transfer from CASU on the 23rd and (with the exception of two nights' data which appear to be missing) and, together with some SV2 data, have been transferred ready for ingest.

### **4. Quarter 4 work plan**

We will present our detailed Quarter 4 work plan at the next VDMT. As envisaged in our VDUC paper, part of our effort will move to design studies for Version 4, especially scalability of hardware (e.g. investigation of NAS) and the SQL Server DBMS. We will press on with SV1 and SV2 ingestion and release and implementation of data delivery requests from Science Verifiers at the SV meetings and re-factoring code in the light of experience with real data and real users.

PMW  
2005 October 3