

**PARTICLE PHYSICS AND ASTRONOMY RESEARCH COUNCIL**

**VISTA Project Board**

VISTA Data Flow System (Progress since 06 Jun VPB meeting) Report by VDFS PI

**Last report:** The June report was not discussed in detail at the last VPB. The report is attached (as VPB(03)09JunVDFS.pdf) to allow the Board to comment.

**Management**

- 1) **Grants:** The Cambridge grant announcement is out and the Edinburgh one is awaiting administrative approval at PPARC.
- 2) **VDFS Management Group:** Monthly telecons continued to be productive and the Q2 results were evaluated (see below).
- 3) **Release Milestones:** WFCAM hardware delivery has slipped 3 months. VDFSv1 release date will not have a corresponding slip. However there is now a concern that there will not be enough time to shake down v1 of the software with real data (with its real imperfections) before releasing VDFSv2.
- 4) **Funding:** The science round2 proposal “VEGA: UK Excellence in Data Processing and Archiving Providing VOProcessing for VISTA, Eddington and GAIA” was reviewed by the Projects Peer Review Panel (PPRP) who graded the proposal at alpha 4.5 at reduced level and recommended £2,300,000 (the amount sought for VDFS) subject to review. The Panel agreed that the first priority for this programme were the VISTA deliverables for ESO, and agreed that the sufficient funding should be made available to ensure that this was achieved. They did not support much effort on the non VDFS elements of the proposal. It is relevant that they also rejected the Astrogrid component of a Data Centre Alliance. Grid Steering Committee considered PPRP’s recommendations and, whilst details are TBD, will likely seek a coordinated proposal for data handling for VISTA, ALMA, SWIFT and a bit of GAIA and perhaps Solar Dynamics Explorer in what will effectively be a data centre alliance. This will be considered by Grid Steering Committee in January. Level of resultant VISTA funding is TBD but likely somewhat reduced from VEGA request.

**Survey Scheduling Tool**

- 5) Unfortunately the individual expected to initiate this work has indicated that ATC have assigned him to other duties and he cannot now do it. JPE plans to take this up with ATC Management as ESO also want to progress this and if accepted by them it would be a software contribution in kind.

### **Pipeline (including ESO deliverables) (CASU)**

- 6) CASU participated in a very useful observing and calibration strategy workshop held at ATC to clarify various issues.
- 7) The end of Q2 report was evaluated according to scoring system agreed at the start of the quarter. Tasks can be reported as 100% (complete), 50% (almost finished), 10% (started) and 0% (not started). For scoring purposes no allowance is made for any work that was done that was not planned at the beginning of the quarter, and no change to the originally declared deliverables is allowed. The result is summarised in the following table.

<b>Completeness Bin</b>	<b>100%</b>	<b>50%</b>	<b>10%</b>	<b>0%</b>	<b>Total Tasks</b>
# of CASU tasks in completeness bin	31	6	11	3	51
% of CASU tasks in completeness bin	61	12	22	6	

Taken at face value ~73% of the planned work was thus finished or almost finished. The statistic is however merely an indicator of progress, and after congratulating CASU on the rigorous way in which they had applied the agreed procedure, the Mgt Group then looked at the reasons for some of the work not being >10% completed. In general this was due to decisions taken by the CASU manager and discussed with the Mgt Group in the monthly meetings to not do work yet because of lack of some needed input (such as simulations), or due to a lack of necessary manpower because of other tasks that were not in the original plan but that were subsequently decided to be more timely. For example time for writing the VEGA application had not been set aside, and the overhead in starting up this reporting system was underestimated. Taking into account the other work done it was agreed that the work was proceeding at about the right rate, with the variations being mainly the result of management decisions rather than lack of control.

It was also agreed that the adopted system, whilst a blunt instrument, was a useful tool in helping assess progress, but that the bare figures had to be interpreted with care. It was further agreed that Jim Emerson would seek to informally discuss the measures with the chair of the Astrogrid Oversight Committee to get his view on the appropriateness of our implementation of the principles agreed with AGOC, and our interpretation of the performance.

Targets for the next quarter were agreed. Q3month#1 reports are due in a weeks time and early indications are that work is going to plan, with the simulated data bottleneck having been removed.

### **Archive (WFAU)**

- 8) WFAU also participated in the observing and calibration strategy workshop at ATC.

- 9) The WFAU end of Q2 report was evaluated in exactly the same way as the CASU one, with the same rigour applied by WFAU. The result is summarised in the following table.

Completeness Bin	100%	50%	10%	0%	Total Tasks
# of WFAU tasks in completeness bin	3	3	6	1	13
% of WFAU tasks in completeness bin	23	23	46	8	

Taken at face value ~46% of the planned work was finished or almost finished. Only 23% was 100% complete as opposed to CASU's 61%. Part of this discrepancy was due to a more coarse definition of tasks compared to CASU's tasks which made it harder to formally complete. It was agreed that for Q3 WFAU tasks should be broken down to a level more similar to that adopted by CASU as this was easier to follow and assess progress, and estimate effort needed. Guidelines for how to do this were agreed.

Turning to the fact that 54% of work was not >10% completed compared with CASU's 28% the WFAU performance at first looks worrying. There is some effect of omitting time to write VEGA proposal, but the non-starting rate is almost completely due to a conscious decision taken to follow the recommendations of the CDR panel, which involved more detailed design to gain more robustness in the future. This involved slipping some of the implementation work in favour of spending longer on design. It was agreed that the work was proceeding at about the right rate.

Targets for Q3 were agreed and Q3month#1 reports are due in a weeks time. Early indications are that work is going to plan, and that the extra design effort has been well spent.

The hardware for the catalogue and web servers has been part delivered in will be set up by the end of the month.