WP #	CASU WP name /sub task / 04Q4m1 deliverable	V.I. F.	name	date	end of month report	%sub	% task
1	**Management and definition of project responsibilities**	**3.0**					
1.1	**report to VISTA, UKIDSS, JAC, ATC, GSC**						**87**
	provide fornightly meeting minutes, monthly reports on progress + quarterly review reports and planning, attend VDUC meetings		STH, MJI	31-Oct-04	meetings held and minuted. monthly report written.	10	
	finish and deliver ADASS paper		JRL	31-Oct-04	finished poster and attended ADASS	100	
	prepare CASU grant bid (operations)		STH, MJI	31-Oct-04	preparation well underway. to be submitted mid november	50	
1.2	**interface control document between CASU and JAC**				completed		**100**
1.3	**interface control document between CASU and WFAU**				completed		**100**
1.4a	**define WFCAM data structures and FITS headers**				completed		**100**
1.4b	**update proposed VISTA FITS headers as necessary**						
1.5a	**define WFCAM observing protocols**						**87**
	monitor and help update MSB guidelines		MJI + STH	31-Oct-04	contact with Simon Dye and AA to discuss status of MSBs	10	
	check first pass survey MSBs		STH	31-Oct-04	checked GPS MSBs in UKIRT OT. Began construction of GCS MSBs in consultation with NCH. MJI sent textual summary of MSB designs to AA	10	
1.5b	**define VISTA observing protocols**						
	help finish defining science and user requirements		MJI + PSB	31-Oct-04	nothing further to add pending release of UKURD and feedback from UK community	0	
1.6a	**liaise with UKIDSS&JAC on WFCAM obs strategy, surveys planning**						**87**
	liaise and monitor progress		DWE	31-Oct-04	arranged meeting with Simon Dye. discussed sky brightness with JAC as well as commissioning plans.	10	
1.6b	**liaise with Project Scientist on VISTA observing strategy & survey planning**						
	liaise and monitor progress		PSB	31-Oct-04	comments on SDT document fed to JMS and WJS. Awaiting next version.	10	
1.7a	**liaise with VDUC on VDFS products for WFCAM**						**87**
	liaise and monitor progress		STH + MJI	31-Oct-04	nothing to report. meeting with simon dye will include discussion of science verification and pipeline strategy	10	
1.7b	**liaise with VDUC on VDFS products for VISTA**						
	liaise and monitor progress		MJI + STH	31-Oct-04	nothing to report	10	
1.8a	**liaise with UKIDSS and JAC on survey progress DB**						**87**
	create version 1 of OMP database mirror to be used with survey progress database, including user interface		JRL	31-Oct-04	no further development	0	
1.9	**system documentation**						**87**
	update and maintain web pages of system docs		DWE	31-Oct-04	documentation updated as necessary	10	
2	**ESO VISTA software interface deliverables and documentation**	**4.0**					
2.1	**VDFS user requirements document**						**70**
	prepare for FDR		PSB	31-Oct-04	discussions over schedule for FDR held. date of FDR now moved to January.	0	
	update document as appropriate		PSB	31-Oct-04	no further updates	0	
2.2	**data reduction specification document**						**70**
	prepare for FDR		PSB	31-Oct-04	FDR moved to January	0	

	create new DRS document as required		PSB	31-Oct-04	new document is DRLD. Significant progress on this in the last month resulting in two drafts. 2nd draft is complete in structure and includes most of the details. now awaiting detailed comments from group, plus addition of figures from STH	10	
	assess CPL+QFITS work requirements		PSB	31-Oct-04	held discussions with Michele Peron and Carlo Izzo at ADASS. Now awaiting official response	10	
2.3	**calibration plan document**						**70**
	prepare for and attend FDR		PSB	31-Oct-04	FDR moved to January	0	
	update doc as appropriate		PSB	31-Oct-04	no further progress	0	
2.5	**ICD ESO/VPO**						**60**
	update FITS header docs and DID/DIC and submit V0.5 for FDR		PSB	31-Oct-04	QC dictionary written and included in DRLD	50	
2.7	**Delivery software modules for exposure time calculator**						**0**
	prepare ETC doc for FDR		PSB	31-Oct-04	latest draft of ETC doc (0.3.3) circulated by STH for internal comment and input from JPE, JMS and WJS following initial comments from MJI, DWE, JMS	50	
2.8	**liaise with VISTA IR camera development team**						**75**
	continue liaising with VISTA IR camera development team		PSB	31-Oct-04	held discussions with JMS and SB	10	
2.9	Development of DQC measures						
	specify what DQC measures will be needed for FDR		PSB	31-Oct-04	listed required parameters and added to DRLD. now need more detailed formulation of how to compute	10	
3	**Pipeline infrastructure and pipeline progress monitoring tools**	**3.5**					
3.1	**interactive tools for running pipeline**						**60**
	develop tools and document		JRL	31-Oct-04	more commissioning recipes and scripts written. tests of recipes with WFCAM first light images go well.	10	
3.2	**high level scripts to interrogate headers**		STH, JMI		paused		**50**
3.3	**automatic progression of results to web pages**		STH, JMI		paused		**50**
3.4	**automatic checks to spot failure of pipeline**		JMI, STH		paused		**0**
3.5	Tools for fixing problem datasets		JRL, JMI		paused		
3.6	**group documentation on pipeline infrastructure**						**60**
	stress test documentation and update as necessary		JRL, JMI	31-Oct-04	no progress	0	
3.7	Oversee reprocessing WFCAM data after bug fixes/improvements				placeholder		
4	**Set up and manage raw science archive**	**0.0**					
4.1	**extend UKIRT archive to cope with WFCAM data**						**50**
	create version 1 of WFCAM raw data archive		JRL	31-Oct-04	table schema written. waiting to complete upgrade to sybase dtabase devices before creating the new database	10	
4.2	Ingest and verify WFCAM data				placeholder		
5	**Set up and manage data processing system hardware**	**2.0**					
5.1	**Investigate alternatives (benchmarking, reliability etc)**				completed		**100**
5.2	**buy hardware and install**						**80**
	purchase and install bulk storage devices		PSB, JMI		paused		
	purchase and install spare ultrium device		PSB, JMI		paused		

5.3	**integrating and testing**						**70**
	integrate and test bulk storage devices		PSB, JMI		paused		
	integrate and test spare ultrium device		PSB, JMI		paused		
5.4	**Manage day-to-day maintenance and upgrades**						**50**
	continue maintenance and upgrade programme		JMI, PSB	31-Oct-04	proceeding as needed	10	
6	**Run standard pipeline**	**2.5**					
6.1	**Update WFCAM master calibration frames**						
	ingest and verify WFCAM on-sky test data		JRL, MJI	31-Oct-04	awaiting receipt of WFCAM first light images		
6.2	**Monitor detector performance WFCAM**				placeholder		
6.3	**Oversee standard processing WFCAM**				placeholder		
6.4	**Astrometric calibration WFCAM**				placeholder		
6.5	**Photometric Calibration WFCAM**				placeholder		
6.6	**Verify Science products and monitor DQC measures WFCAM**				placeholder		
6.7	**Monitor data product transfer to WFAU**				placeholder		
6.8	**Reprocess WFCAM data**				placeholder		
7	**Development work for summit pipeline**	**1.0**					
7.1	**Interface test pipelines in ORAC-DR**		JRL		completed		**100**
7.2a	**implement WFCAM pipeline at summit**						**75**
	demonstrate catalogue and non-catalogue DQCs		JRL	31-Oct-04	no further progress	0	
	update & maintain + commissioning enhancements		JRL	31-Oct-04	pipeline recipes added for a variety of microstep and jitter schemes.	10	
	develop recipes for dealing with crosstalk, non-linearity, reset anomalies		JRL	31-Oct-04	no further progress	0	
7.3a	**documentation for ORAC-DR interface**						**60**
	update and deliver documentation as development proceeds		JRL	31-Oct-04	documentation added for primitives as they have been written	10	
7.4a	**upgrade and maintain summit pipeline WFCAM**						
	upgrade and maintain		JRL	31-Oct-04	further upgrades waiting until end of first part of commissioning run	0	
8	**Development and testing of standard 2d processing**	**4.0**					
8.1a	**further development of standard pipeline for WFCAM**						**80**
	finish implementing new version of imcore to include full param set		JRL	31-Oct-04	no further progress	0	
8.2a	**liaison with WFCAM development team**						**75**
	continue discussion on reset anomaly, crosstalk and linearity		JRL	31-Oct-04	pre-commissioning science-array test data received and analysed.	10	
	assess science array test data for above problems and report		JRL	31-Oct-04	as above	10	
8.2b	**liaison with Project Scientist & VISTA development team**						
	assess detector engineering test data		MJI	31-Oct-04	awaiting further engineering test data	0	
8.3a	**partake in planning WFCAM commissioning observations**						**80**
	continue liaising with ATC/JAC		STH	31-Oct-04	discussions held with JAC via telecon	10	
8.3b	**partake in planning VISTA comissioning observations**						
	liaise and discuss with camera PS and VISTA PS		STH	31-Oct-04	nothing to report	0	
8.4a	Participate directly in commissioning WFCAM						

	help with first phase of WFCAM on-sky commissioning		JRL	31-Oct-04	bug fixes and upgrades being issued in real time	10	
8.5	**Tuning pipeline during commissioning and after**						
	use commissioning data to tune processing strategy		MJI	31-Oct-04	awaiting commissioning data	0	
	assess the quality and stability of the master calibration data		JRL	31-Oct-04	awaiting commissioning data		
8.6	**documentation for 2D processing software**						**50**
	updates docs as necessary		JRL	31-Oct-04	no progress	0	
8.7	**Comparison between automated and manual data products**						**75**
	compare FIRES with published results and write report		STH	31-Oct-04	MJI has compared imcore runs on FIRES reduced and CASU reduced datasets.	10	
	compare CSV reduced FIRES data with pipeline reduction		STH	31-Oct-04	meeting arranged with CSV	0	
9	**Development and testing of standard catalogue products**	**4.0**					
9.1	**add in new measures requested**						**60**
	finish testing and debugging new catalogue parameter measures		MJI	31-Oct-04	no progress		
9.2	**refine astrometric calibration model**		MJI		paused		**85**
9.3	**generate model simulations of expected data**		STH, JMI		paused		**80**
	refine simulations		DWE	31-Oct-04	more detailed simulations run due to improved accuracy of astrometric PSF fitting and updated interleaving report	100	
9.4	**assess catalogue parameter reliability**						**70**
	refine parameter error estimates and check for systematics in new params		MJI	31-Oct-04	no progress	0	
9.5	**intercomparison of catalogue products with other packages**		JMI		paused		**60**
9.6	**Completeness and error estimates**				stopped - subsumed into 9.4		
9.7	**documentation of catalogue software and products**						**55**
	update catalogue products documentation		MJI	31-Oct-04	no progress		
10	**Setup trial and run further processing pipeline**	**3.0**					
10.1	Manage and run further processing stages				placeholder		
10.2	**development and assessment of PSF options 1,2**						**50**
	produce robust version of code for PSF level 1		MJI	31-Oct-04	no progress	0	
	produce prototype for PSF level 2		MJI	31-Oct-04	no progress	0	
10.3	**develop 1D/2D PSF-deconvolved Sersic profile fits**				paused awaiting real WFCAM data		
10.4	**Develop LSBG/nebulosity detection/parameterisation**				placeholder		
10.5	**Full iterative profile fitting for stellar images**				placeholder		
10.6	**Develop and optimize Bayesian image classification**				placeholder		
10.7	**Modelling and simulations of further processing steps**				placeholder		
11	**Photometric standards and calibration**	**3.0**					
11.1	**agree on primary standards**						**90**
	complete narrow band filter calibration plan and update document		STH	31-Oct-04	discussions with Paul Hirst and contacted Sandy Leggett	10	
11.2	**choose secondary standard fields**						**80**
	refine/shorten list		STH	31-Oct-04	list updated to include more northern stars. next need to reject fields with too bright objects in WFCAM footprint	10	

11.3	take part in commissioning observations WFCAM						
	phase I on-sky characterisation		JRL	31-Oct-04	planned trip to Hawaii for November	10	
11.7	**assess extinction monitoring methods and develop measures**						**50**
	simulate from night(s) data and estimate expected accuracy		STH	31-Oct-04	no progress	0	
12	**Further development of DQC measures at summit and Cambr**	**2.0**					
12.1	**develop extra systematic noise measures**						**50**
	trial when WFCAM data becomes available		MJI	31-Oct-04	awaiting WFCAM data	0	
12.2	**Refine current measures for WFCAM/VISTA data**						**20**
	trial when WFCAM data becomes available		JRL	31-Oct-04	will progress this when WFCAM commissioning data becomes available	0	
12.3	**implement 2mass for throughput measurement**						**75**
	implement local access version at summit		JMI	31-Oct-04	no progress	0	
12.4	**master calibration frames for detector monitoring**						**35**
	assess and report on science array test data		JRL	31-Oct-04	awaiting commissioning data	0	
13	**Co-located list driven photometry**	**3.0**					
13.1	**test methods for master catalogue generation**				completed		**100**
13.2	**develop basic WCS-based list driven photometer**						**90**
	extend to full 80 parameter set		MJI	31-Oct-04	no progress	0	
13.3	**externally driven WCS photometry and define parameter set**						**75**
	extend to full 80 parameter set		MJI	31-Oct-04	no progress	0	
14	**Stacking and mosaicing**	**4.0**					
14.1	**develop benchmark simple stacking/mosaicing framework**		MJI		completed		**100**
14.2	**NN algorithm with simple rejection**		MJI		completed		**100**
14.3	**More sophisticated rejection dealing with pixellation**		MJI		completed		**100**
14.4	**Stacking with optimum weighting and defect rejection**						**25**
	refine and test current seeing weighting method on FIRES data		MJI	31-Oct-04	seeing weighting apparently gives 0.2 mag improvement in depth. tests continuing	10	
15	**Continuum subtraction and basic difference imaging**	**4.0**					
15.1	**Simple WCS-based subtraction techniques**		MJI		completed		**100**
15.2	**investigate and apply different interpolation methods**		MJI		completed		**100**
15.3	**develop adaptive kernel matching option**						**80**
	continue debugging and enhancements to adaptive kernel package		MJI	31-Oct-04	upgraded as needed	10	
15.4	**transit event detection**						**0**
	assess difference imaging method (continuum subtraction)		STH	31-Oct-04	no progress	0	
16	**Interpolation techniques and PSF modeling**	**4.0**					
16.1	**investigate alternative interpolation/PSF schemes**				completed		**100**
16.2	**implications for different stacking methods**				paused awaiting real WFCAM data		**20**
16.3	**implications for deriving catalogues and parameters**						**70**

	finish development and testing of astrometric refinement code		DWE	31-Oct-04	alternative non-linear least squares module being debugged with astrometric PSF fitting. Slow algorithm 2-4 times more accurate than standard pipeline	10	
16.4	**oversampled PSF generation per detector**				finished		**100**
16.5	**develop oversampled spatially varying PSF model**						**0**
	finish initial development of spatially varying PSF model		DWE	31-Oct-04	no progress	0	
	final tuning on WFCAM on-sky data		DWE	31-Oct-04	no progress	0	