WP #	CASU WP name /sub task / 04Q2m3 deliverables	name	date	end of month report	tplan	p.w.	%sub	% task
1	**Management and definition of project responsibilities**				5.5	7.9		
1.1	report to VISTA, UKIDSS, JAC, ATC, GSC							75
	provide fornightly meeting minutes, monthly reports on progress + quarterly review reports and planning	STH, MJI	1/5/04	minutes and report produced			10	
		STH, MJI	1/6/04	minutes and report produced. STH in conjunction with JMS implemented earned value progress monitoring			50	
		STH, MJI	1/7/04	minutes and report produced, also gantt and EV figures		3.0	100	
	prepare for and present paper at SPIE meeting	MJI	1/5/04	registered			10	
		MJI	1/6/04	paper written and submitted			50	
		MJI	1/7/04	paper presented at SPIE		1.0	100	
1.2	interface control document between CASU and JAC			completed				100
1.3	interface control document between CASU and WFAU			completed				100
1.4	define WFCAM data structures and FITS headers							90
	check SDF example for completeness	JRL	1/5/04	received and checked example SDF file, finding a few minor typos in the header keywords.		0.1	100	
	use to generate test FITS header	JRL	1/5/04	test FITS file generated and report sent to JAC - awaiting response			50	
		JRL	1/6/04	awaiting response			50	
		JRL	1/7/04	still awaiting response		0.1	50	
1.5a	define WFCAM observing protocols							80
	monitor and help update MSB guidelines	MJI, STH	1/5/04	CASU to attend UKIDSS meeting next week.			0	
		MJI, STH	1/6/04	STH attended UKIDSS survey heads meeting.			50	
		MJI, STH	1/7/04	hosted UKIDSS implementation meeting		0.5	100	
	check first pass survey MSBs	MJI, STH	1/5/04	ditto			0	
		MJI, STH	1/6/04	Detailed discussions held with Hambly, Edge and Lucas on GCS, DXS and GPS MSBs			50	
		MJI, STH	1/7/04	first pass MSBs checked and much discussion with survey heads. general strategy agreed.		0.5	100	
1.5b	define VISTA observing protocols							
	help define science and user requirements	MJI, PSB	1/5/04	more detailed feedback on the UK URD passed on to WJS			10	
		MJI, PSB	1/6/04	more comments on UK URD forwarded to WJS			50	
		MJI, PSB	1/7/04	commenting on latest version in progress		0.2	50	
1.6a	liaise with UKIDSS&JAC on WFCAM obs strategy, surveys planning							75
	monitor progress	DWE	1/5/04	nothing to report			0	
		DWE	1/6/04	comments collated on JAC Survey Operational Model document. to be forwarded to JAC. STH attended UKIDSS meeting, trialed SDT and fedback to Folger. MJI attended UKIRT board meeting and presented report.			50	
		DWE	1/7/04	hosted UKIDSS implementation meeting		0.2	100	
1.6b	liaise with Project Scientist on VISTA observing strategy & survey planning							
	monitor progress	PSB	1/5/04	no progress			10	
		PSB	1/6/04	nothing to report			50	
		PSB	1/7/04	received and commented on updated version of survey tools definition document		0.0	100	

1.7a	**liaise with VDUC on VDFS products for WFCAM**							75
	monitor progress	STH, MJI	1/5/04	MJI preparing talk for VDUC meeting			10	
		STH, MJI	1/6/04	CASU attended and MJI gave to talk to VDUC.			50	
		STH, MJI	1/7/04	MJI held discussions with Tim Naylor		0.4	100	
1.7b	**liaise with VDUC on VDFS products for VISTA**							
	monitor progress	MJI, STH	1/5/04	MJI preparing talk for VDUC meeting			10	
		MJI, STH	1/6/04	MJI presented talk at VDUC 4/5/04			50	
		MJI, STH	1/7/04	MJI held discussions with Tim Naylor		0.4	100	
1.8a	**liaise with UKIDSS and JAC on survey progress DB**	JRL		paused				62
1.9	**system documentation**							75
	update and maintain web pages of system docs	DWE	1/5/04	CASU document numbering system clarified and report circulated to group for comments			10	
		DWE	1/6/04	document www pages updated along with document numbering explanation			50	
		DWE	1/7/04	web pages kept consistant and up to date		1.5	100	
2	**ESO VISTA software interface deliverables and documentation**				5.5	9.0		
2.1	**VDFS user requirements document**							70
	compile RID response document	PSB	1/5/04	PSB,MJI,JRL busy helping compile RID responses			50	
		PSB	1/6/04	awaiting final version of RIXs			50	
		PSB	1/7/04	awaiting final version of RIXs		1.5	50	
	prepare for and attend PDR, update docs as appropriate	PSB	1/5/04	rephrasing relevant bits of PDR docs			10	
		PSB	1/6/04	attended PDR. some updates made. Awaiting final version of RIXs			50	
		PSB	1/7/04	awaiting final version of RIXs		1.5	50	
2.2	**data reduction specification document**							70
	compile RID response document	PSB	1/5/04	PSB,MJI,JRL busy helping compile RID responses			50	
		PSB	1/6/04	Awaiting final version of RIXs			50	
		PSB	1/7/04	awaiting final version of RIXs		1.5	50	
	prepare for and attend PDR, update docs as appropriate	PSB	1/5/04	rephrasing relevant bits of PDR docs			10	
		PSB	1/6/04	attended PDR. some updates made. Awaiting final version of RIXs			50	
		PSB	1/7/04	awaiting final version of RIXs		1.5	50	
2.3	**calibration plan document**							70
	compile RID response document	PSB	1/5/04	PSB,MJI,JRL busy helping compile RID responses			50	
		PSB	1/6/04	Awaiting final version of RIXs			50	
		PSB	1/7/04	Awaiting final version of RIXs		1.5	50	
	prepare for and attend PDR, update docs as appropriate	PSB	1/5/04	rephrasing relevant bits of PDR docs			10	
		PSB	1/6/04	attended PDR. some updates made. Awaiting final version of RIXs			50	
		PSB	1/7/04	awaiting final version of RIXs		1.5	50	
2.5	**ICD ESO/VPO**							60
	update DID and write first draft of DID doc for FDR	PSB	1/5/04	No progress			0	
		PSB	1/6/04	no progress			0	
		PSB	1/7/04	Checked out V2.0 QFITS/CPL. Drafting reqiorements doc for pipeline		0.0	10	
2.8	**liaise with VISTA IR camera development team**							75
	continue liaising	PSB	1/5/04	nothing to report			10	
		PSB	1/6/04	nothing to report			50	

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		PSB	1/7/04	nothng to report		0.0	100
3	Pipeline infrastructure and pipeline progress monitoring tools				3.3	2.2	
3.1	interactive tools for running pipeline						60
	develop tools and document	JRL	1/5/04	paused			
		JRL	1/6/04	some more tools written and documented			10
		JRL	1/7/04	some more tools written and documented		1.8	50
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
3.6	group documentation on pipeline infrastructure						60
	stress test documentation and update as necessary	JRL	1/5/04	no progress			0
			1/6/04	no progress			0
			1/7/04	JMI testing pipeline and docs on WFC data		0.4	50
4	Set up and manage raw science archive				1.1	0.0	
5	Set up and manage data processing system hardware				2.2	1.2	
5.2	buy hardware and install						80
	install server	MTB	1/7/04	brought forward - finished server side installation		0.4	100
5.3	integrating and testing						70
	integrate and test server	MTB	1/7/04	brought forward - carrying out integration tests		0.4	50
5.4	Manage day-to-day maintenance and upgrades						50
	begin programme	MTB	1/7/04	maintained and upgraded as required		0.4	100
6	Run standard pipeline				11.0	0.0	
7	Development work for summit pipeline				1.1	5.1	
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	1/5/04	some engineering data received, but none appropriate for these sorts of tests.			0
		JRL	1/6/04	no progress due to lack of suitable test data			0
		JRL	1/7/04	still no test data. DQC information has been generated from CIRSI data with faked WFCAM headers		1.8	10
7.3a	documentation for ORAC-DR interface						65
	update and deliver documentation as development proceeds	JRL	1/5/04	new recipes being written for WFCAM. documentation updated to reflect additions to the CVS repository			50
		JRL	1/6/04	more new documentation added as new software added to the CVS repository			50
		JRL	1/7/04	documentation written for commissioning recipes written this month		0.8	50
7.4a	upgrade and maintain summit pipeline WFCAM						20
	upgrade and maintain	JRL	1/5/04	new pipeline recipes are being written in anticipation of commissioning			10
		JRL	1/6/04	further work on commissioning recipes			10
		JRL	1/7/04	commissioning recipes and and primitives being written to deal with readout characteristics (persistence, linearity etc)		2.5	10
8	Development and testing of standard 2d processing				2.2	3.3	

8.1a	**further development of standard pipeline for WFCAM**							**80**
	finish implementing new version of imcore to include full param set	JRL	1/5/04	some debugging done			10	
		JRL	1/6/04	MJI has completed more debugging of prototype version			10	
		JRL	1/7/04	no furher progress		0.0	10	
8.2a	**liaison with WFCAM development team**							**75**
	continue discussion on reset anomaly, crosstalk and linearity	JRL	1/5/04	no progress			0	
		JRL	1/6/04	much discussion though limited progress			10	
		JRL	1/7/04	progresss on readout problems is being made now following discussions with ATC staff. Real test data is still vital		0.8	10	
	assess engineering test data for above problems and report	JRL	1/5/04	received some WFCAM science device test data and carried out a series of checks to measure reset anomaly, readout noise, gain and non-linearity. Ongoing - initial report in CASU minutes			10	
		JRL	1/6/04	plausible linearity parameters have been calculated for some of the test data. Futher work needs to be done to quantify these better, but really need better data			50	
		JRL	1/7/04	No further work on linearity of existing engineering data		0.9	50	
8.2b	**liaison with Project Scientist & VISTA development team**							
	develop and test methodology for non-linearity correction, write report	MJI	1/5/04	devised method, wrote report, wrote test software, trialled it succesfully				
		MJI	1/6/04	updated report. tested for multivalued cases. devised saturation strategies.		0.2	100	
8.3a	**partake in planning WFCAM commissioning observations**							**80**
	continue liaising with ATC/JAC	STH	1/5/04	nothing to report			10	
		STH	1/6/04	JAC have produced observing strategy document. UKIDSS survey heads meeting discussed WFCAM commissioning - UKIDSS were asked to read proposed plan and comment. UKIDSS implementation group scheduled for 9th June at IoA.			50	
		STH	1/7/04	hosted UKIDSS implementation meeting, more iteration on MSB design and impact on comissioning plan		0.6	100	
8.3b	**partake in planning VISTA comissioning observations**							**0**
	liaise and discuss with VISTA PS	STH	1/5/04	nothing to report			10	
		STH	1/6/04	nothing to report			50	
		STH	1/7/04	nothing to report		0.0	100	
8.6	**documentation for 2D processing software**							**50**
	updates docs as necessary and as a result of feedback	JRL	1/5/04	no progress			0	
		JRL	1/6/04	no progress			0	
		JRL	1/7/04	no updates made		0.0	0	
8.7	**Comparison between automated and manual data products**							**75**
	finish pipeline processing of FIRES data	STH	1/5/04	final sample of FIRES data received - about to be processed			10	
		STH	1/6/04	no progress			10	
		STH	1/7/04	processing complete		0.4	100	
	compare FIRES with published results and write report	STH	1/5/04	no progress			0	
		STH	1/6/04	preliminary calibration applied and initial comparison looks promising			10	
		STH	1/7/04	no further progress		0.2	10	
	in collaboration with CSV & CS trial UFTI/CIRPASS data through the pipeline, compare with manually reduced data, write report	STH	1/5/04	no progress			0	
		STH	1/6/04	held discussions with CS and CSV and agreed to limit tests to FIRES data then UFTI data. FIRES data made available to Simon Dye who will begin independent processing in July			10	

#	Task	Who	Date	Notes			%
		STH	1/7/04	no news		0.2	10
9	**Development and testing of standard catalogue products**				2.2	2.5	
9.1	add in new measures requested						60
	finish testing and debugging new catalogue parameter measures	MJI	1/5/04	made some progress on generating better flux error estimates by adding in local sky error estimate			10
		MJI	1/6/04	corrected a few bugs			10
		MJI	1/7/04	continued testing and debugging		0.4	10
9.2	refine astrometric calibration model						85
	study atmospheric differential refraction in IR and write report	DWE	1/5/04	no progress			0
		DWE	1/6/04	report completed		1.8	100
				http://www.ast.cam.ac.uk/vdfs/docs/reports/refractir.ps.gz			
9.3	generate model simulations of expected data	STH, JMI		paused			80
9.4	assess catalogue parameter reliability						70
	refine parameter error estimates and check for systematics in new parameters - finish in conjunction with 9.1	MJI	1/5/04	made some progress on generating better flux error estimates by adding in local sky error estimate			10
		MJI	1/6/04	no progress			10
		MJI	1/7/04	no progress		0.2	10
9.5	intercomparison of catalogue products with other packages	JMI		paused			60
9.6	Completeness and error estimates						50
	refine parameter error estimates and check for systematics - finish in conjunction with 9.1 and 9.4	JMI,MJI	1/5/04	no progress			0
		JMI, MJI	1/6/04	no progress			0
		JMI, MJI	1/7/04	no progress		0.0	0
9.7	documentation of catalogue software and products						55
	update catalogue products documentation	MJI	1/5/04	no progress			0
		MJI	1/6/04	updated documentation (PODS)			10
		MJI	1/7/04	made further updates		0.1	10
10	**Setup trial and run further processing pipeline**				4.4	1.4	
10.2	development and assessment of PSF options 1,2						50
	produce robust version of code for PSF level 1	MJI	1/5/04	no progress			0
		MJI	1/6/04	good progress on the PSF generation phase, awaiting final version			50
		MJI	1/7/04	still awaiting final version		0.2	50
	produce prototype for PSF level 2	MJI	1/5/04	no progress			0
		MJI	1/6/04	framework for code developed			10
		MJI	1/7/04	awaiting stable version of level one code		0.2	10
10.3	develop 1D/2D PSF-deconvolved Sersic profile fits						20
	assess GALFIT interactive package	MJI	1/5/04	no progress			0
		MJI	1/6/04	investigated: found will be useful for a benchmark but probably too slow to be directly applicable. may be possible to modify it since written in C.			50
		MJI, JMI	1/7/04	relevant bits extracted and trialled in pipeline. far too slow and unreliable to be of use, for several good reasons. see report:		1.0	100
				http://www.ast.cam.ac.uk/vdfs/internal/reports/galfit.html			
11	**Photometric standards and calibration**				3.3	0.4	
11.1	agree on primary standards						90
	complete narrow band filter calibration plan and update document	STH	1/5/04	no progess			0

		STH	1/6/04	no progress			0
		STH	1/7/04	no progress		0.0	0
11.2	**choose secondary standard fields**						80
	finish updates to photom doc and circulate	STH	1/5/04	no progress			0
		STH	1/6/04	no progress			0
		STH	1/7/04	no progress		0.0	0
11.7	**assess extinction monitoring methods and develop measures**						50
	complete investigation of UKIRT archive and write report	STH	1/5/04	no progress			0
		STH	1/6/04	no progress			0
		STH	1/7/04	investigated spatial systematics - need more useful data		0.4	10
	simulate from night(s) data and estimate expected accuracy	STH	1/5/04	no progress			0
		STH	1/6/04	no progress			0
		STH	1/7/04	no progress		0.0	0
12	**Further development of DQC measures at summit and Cambr**				2.2	0.4	
12.1	**develop extra systematic noise measures**						50
	linked with detector characterisation	MJI	1/5/04	devised a robust (non-Fourier) method to quantify non-random noise. needs testing on real data			10
		MJI	1/6/04	no progress			10
		MJI	1/7/04	prototype version , still need wider range of data with problems to test		0.2	10
12.2	**Refine current measures for WFCAM/VISTA data**						20
	linked with detector characterisation	JRL	1/5/04	small amount of progress with current engineering data - need much more and with a better illumination			10
		JRL	1/6/04	no progress due to lack of appropriate engineering data			10
		JRL	1/7/04	no progress due to lack of appropriate engineering data		0.2	10
12.3	**implement 2mass for throughput measurement**	JMI		paused			75
12.4	**master calibration frames for detector monitoring**						35
	assess and report if current methods work on engineering WFCAM	JRL	1/5/04	engineering data received so far is not useful for most of these tests.			0
		JRL	1/6/04	no progress due to lack of appropriate engineering data			0
		JRL	1/7/04	no progress due to lack of appropriate engineering data		0.0	0
13	**Co-located list driven photometry**				1.1	0.2	
13.2	**develop basic WCS-based list driven photometer**						90
	investigate practicalities and implement agreed ICD for parameters - finish	MJI	1/5/04	no progress			0
		MJI	1/6/04	have a working version. needs more debugging			50
		MJI	1/7/04	no further progress		0.1	50
13.3	**externally driven WCS photometry and define parameter set**						75
	refine, test and debug list-driven parameter estimator - finish	MJI	1/5/04	no progress			0
		MJI	1/6/04	have a working version. needs more debugging			50
		MJI	1/7/04	no further progress		0.1	50
14	**Stacking and mosaicing**				3.3	0.6	
14.1	**develop benchmark simple stacking/mosaicing framework**	MJI		complete			100
14.2	**NN algorithm with simple rejection**	MJI		complete			100
14.3	**More sophisticated rejection dealing with pixellation**						80
	continue development of better spurion rejection allowing for pixellation - finish	MJI	1/5/04	no progress			0
		MJI	1/6/04	devised methodology			10

		MJI	1/7/04	finished and test on real data. works very well.		0.3	100
14.4	**Stacking with optimum weighting and defect rejection**						25
	refine current weighting method, test and report on alternative schemes	MJI	1/5/04	discovered some interesting simple weighting schemes, of which the most promising are being implemented			10
		MJI	1/6/04	being used in trial mode by IPHAS collaboration			10
		MJI	1/7/04	trial looks promising, but need wider variation in seeing to test some aspects		0.3	50
15	**Continuum subtraction and basic difference imaging**				1.1	0.3	
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	1/5/04	continuing. JMI has made a back-end trial user interface for this software to the INT WFS processed data database to progress this with on-demand on-the-fly tests.			10
		MJI	1/6/04	no progress			10
		MJI	1/7/04	more sophisticated on-demand option developed, being trialled and debugged		0.3	50
16	**Interpolation techniques and PSF modeling**				2.2	3.2	
16.1	**investigate alternative interpolation/PSF schemes**						70
	investigate PSF fitting algorithms and write report - finish	DWE	1/5/04	no progress			0
		DWE	1/6/04	no progress			0
		DWE	1/7/04	draft finished - awaiting feedback from group		1.0	50
				http://www.ast.cam.ac.uk/vdfs/internal/reports/psf			
16.2	**implications for different stacking methods**						30
	quantify effects of interpolation on stacked image quality	MJI	1/5/04	no progress			0
		MJI	1/6/04	compared bilinear and NN schemes - negligible effect for well sample data: undersampled next			10
		MJI	1/7/04	no progress		0.2	10
16.3	**implications for deriving catalogues and parameters**						80
	test PSF fitting using optical data and include results within above report from 16.1	DWE	1/5/04	no progress			0
		DWE	1/6/04	no progress			0
		DWE	1/7/04	tests of PSF fitting using optical data completed succesfully and incorporated in report (16.1)		1.0	100
16.4	**oversampled PSF generation per detector**						80
	develop more robust oversampled PSF generator	DWE	1/5/04	no progress			0
		DWE	1/6/04	PSF generator written and in testing phase			50
		DWE	1/7/04	PSF generator testing complete. Parametric and non-paramteric PSFs generated. Robustness tested on crowded simulations and real ING WFC data. Future bells and whistles identified.		1.0	100
	ALL				51.7	37.7	