WP #	CASU WP name /sub task / 03Q4 deliverable	V.I.F.	name	date	end of month report	% done
1	**Management and definition of project responsibilities**	**3.0**				
1.1	**report to VISTA, UKIDSS, JAC, ATC, GSC**					40
	provide fornightly meeting minutes, monthly reports on progress + quarterly review reports and planning		MJI + STH	03/11/03	all done, plus modifications to GANTT chart following comments from AGOC	
			MJI + STH	30/11/03	submitted monthly report, held CASU meetings and reported minutes	
1.2	**interface control document between CASU and JAC**					**100**
	in conjunction with JAC produce and sign off hard copy		MJI	03/11/03	nearing completion	50
			MJI	30/11/03	this document has been signed off by all concerned parties	100
1.3	**interface control document between CASU and WFAU**					**100**
	sign off Q2 ICD and finalise advanced processing product ICD		MJI	03/11/03	a further iteration of the catalogue table format has been agreed together with the completion and agreement of the list driven photometry design and output format. These were the remaining items in the CASU-WFAU ICD. Version 3 has been issued and the document is ready to be signed off.	99
			MJI	30/11/03	document completed and signed off	100
1.4	**define data structures and FITS headers**		**JRL**	03/11/03	version 1.1 of WFCAM FITS header document agreed after a few more iterations and document signed off.	**100**
1.5	**define observing protocols**		STH		paused	50
			STH	30/11/03	some discussion at UKIDSS meting	50
1.6	**liaise with UKIDSS & JAC on observing strategy**					**60**
	monitor progress		DWE	03/11/03	CASU will attend UKIDSS November meeting and present talks.	10
			DWE	30/11/03	CASU attended UKIDSS meeting. Presentations by MJI (overview), JRL (2d processing) STH (photometric calibration). Agreement reached that SJW + CASU will produce HOWTO document for generating MSBs. This will be circulated to survey heads. MSBs will be vetted by CASU. Timeframe awaiting UKIDSS meeting minutes. On-sky characterisation plan has been iterated over once.	50
1.7	**liaise with UKIDSS & JAC on survey planning**					**50**
	monitor progress		DWE	03/11/03	CASU have sent comments to SJW concerning the proposed CSS and CSV roles. Discussion on pipeline acceptance has been initiated.	50
			DWE	30/11/03	WFCAM pipeline acceptance now likely to be overseen by VDUC (terms of reference document submitted to PPARC by JPE).	50
1.8	**liaise with UKIDSS and JAC on survey progress DB**					**40**
	get feedback from JAC for mirroring of current progress database		JRL	03/11/03	visited JAC to discuss mirroring of database and finalised methodology	100
	investigate use of Sybase Replication Server to perform the task		JRL	03/11/03	replication server is too expensive and complex for the job, will use similar tool to JAC archive replication	100
	deliver a working mirror copy of the OMP database		JRL	03/11/03	OMP database is now being duplicated using a homegrown DB sync tool	100
1.9	**system documentation**					**40**
	update and maintain web pages of system docs		DWE	03/11/03	document WWW pages revamped in response to internal and external suggestions. Document numbering ongoing	50
			DWE	30/11/03	STH has built document database and automatic WWW page generation script. This will go live by the end of the quarter after internal/external review. UKIDSS talks placed on WWW pages and summaries sent to SJW	50
2	**ESO VISTA software interface deliverables and documentation**	**4.0**				
2.1	**VDFS user requirements document**					**50**
	incorporate minor improvements prior to FDR		PSB	03/11/03	minor improvements added. Needs internal reviewing	50
			PSB	30/11/03	internal review completed, no serious additions requested	100
2.2	**data reduction specification document**					**20**

	produce first real draft of DRS document		PSB	03/11/03	collecting CIRDR documentation for sources	10
			PSB	30/11/03	orgranised ESO VDFS meeting (December). Need additional information on CPL, environment etc before further progress can be made	50
2.3	**calibration plan document**					**50**
	incorporate draft plan for calibration fields		PSB	03/11/03	added full data-format specification and calibration fields	50
			PSB	30/11/03	first pass photometric calibration fields incorporated	100
2.5	**ICD ESO/VPO**					**50**
	draft version of Data Interface dictionary - esp. FITS header specification		PSB	03/11/03	finalised draft DID, sent out to camera software engineer and deposited in FDR documentation store	50
			PSB	30/11/03	investigating ESO tcl tools to ensure exact compatibility	50
	work on templates/Obs		PSB	03/11/03	no progress	0
			PSB	30/11/03	have begun working on this	10
2.8	**liaise with VISTA IR camera development team**					**50**
	check camera documentation for conflicts/issues		PSB	03/11/03	much interaction with SMB on camera software design documents for FDR	50
			PSB	30/11/03	organised presence at camera FDR, currently reviewing relevant FDR docs	50
3	**Pipeline infrastructure and pipeline progress monitoring tools**	**3.5**	JRL			
3.1	**interactive tools for running pipeline**				paused	**75**
			STH, JMI			
3.2	**high level scripts to interrogate headers**				paused	**75**
			STH, JMI			
3.3	**automatic progression of results to web pages**				paused	**50**
3.6	**group documentation on pipeline infrastructure**					**40**
	modify current documentation according to recommendations from stress tests.		JRL	03/11/03	no progress this month	0
			JRL	30/11/03	made a few minor mods and updates	10
4	**Set up and manage raw science archive**	**0.0**				
5	**Set up and manage data processing system hardware**	**2.0**				
5.2	**buy hardware and install**					**50**
	install and test data ingest server hardware/software		MTB	03/11/03	data ingest server PC had to be returned for new model since it didn't meet our specification. Still awaiting delivery of replacement PC	10
			MTB	30/11/03	hardware for data ingest server PC now fully rack mounted, installed and tested. 24 port Gbit switch installed and tested and apm1, apm3 and apm6 on Gbit connections. Value Gbit PCI cards for sun servers, cass36 and cass38 identified and tested, these servers will be upgraded shortly to Gbit connectivity.	50
5.3	integrating and testing					0
	install and test pipeline software		MTB	03/11/03	unable to start	0
			MTB	30/11/03	extra software infrastructure (perl, cfitsio, pgplot etc..) for pipeline installed. Pipeline and toolkit software will be installed and tested shortly.	50
6	**Run standard pipeline**	**2.5**				
7	**Development work for summit pipeline**	**1.0**				
7.1	**Interface test pipelines in ORAC-DR**					**100**
	update and trial updated test pipelines		JRL	03/11/03	visited JAC and set up test pipeliines in ORACDR for UFTI and dummy WFCAM. Now tested and running.	100
7.2	**implement WFCAM pipeline at summit**					**60**
	CVS deposit and trial test ORACDR pipeline at JAC		JRL	03/11/03	Latest version of test pipelines are deposited in CVS at CASU and JAC	50
			JRL	30/11/03	no further development this month	50

9.4	assess catalogue parameter reliability		JMI		paused	70
9.5	intercomparison of catalogue products with other packages		JMI		paused	60
9.6	Completeness and error estimates		JMI		paused	50
9.7	documentation of catalogue software and products					50
	update docs as necessary and as a result of feedback		MJI	03/11/03	no progress	0
			MJI	30/11/03	no progress	0
10	Setup trial and run further processing pipeline	3.0				
11	Photometric standards and calibration	3.0				
11.1	agree on primary standards					90
	investigate and report on narrow-band filter calibration options		STH	03/11/03	no progress	0
			STH	30/11/03	some preliminary investigation and consulting with experts.	10
	extend primary standards to VISTA		STH	03/11/03	primary standard fields chosen for vista. CM diagrams and star counts for fields produced. Fields overlap WFCAM selection at equator plus overhead fields. Summary passed on to PSB for inclusion in calibration document	100
11.2	choose secondary standard fields					80
	incorporate feedback from working group on choice of secondary fields and update document		STH	03/11/03	no progress	0
			STH	30/11/03	still awaiting feedback from WG. arranged meeting with chair next week. document yet to be updated	0
	choose secondary standard fields for VISTA		STH	03/11/03	secondary standards chosen as fields around primary standards	50
			STH	30/11/03	began more detailed analysis of secondary standard fields to reject those unsuitable. current sample is of order 90 (combined WFCAM + VISTA)	50
11.7	assess extinction monitoring methods and develop measures					10
	investigate UKIRT archive and write report		STH	03/11/03	initial results look promising but data sample too small. new data covering much larger timeframe has been obtained from Sandy Leggett.	10
			STH	30/11/03	acquired a dataset spanning several years. early results indicate that nightly monitoring of extincion is appropriate at MKO and agreement reached with JAC that hourly sampling of standards required.	50
12	Further development of DQC measures at summit and Cambr	2.0				
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 data		JRL	03/11/03	no progress - awaiting engineering data	0
			JRL	30/11/03	no progress - awaiting engineering data	0
13	Co-located list driven photometry	3.0				
13.2	develop basic WCS-based list driven photometer					50
	investigate practicalities and implement agreed ICD for parameters		MJI	03/11/03	major breakthrough in the design and implementation of the list-driven photometry WP was accomplished. Agreement of the list-driven design and output format reached with WFAU	50
			MJI	30/11/03	FITS header and table structure written	50
13.3	externally driven WCS photometry and define parameter set					50
	modify software to take external lists of positions and define parameter set		MJI	03/11/03	software has been generalised to cope with external lists, satisfies both V1 and V2 requirements	50
			MJI	30/11/03	no progress this month	50
14	Stacking and mosaicing	4.0				
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					50
	improve algorithms to deal with pixellation		MJI	03/11/03	no progress	0
			MJI	30/11/03	tried out some simple methods and incorporated the most promising	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 subject to minor bug fixes and software maintenance	75
15.3	develop adaptive kernel matching option					50
	improve CASU version and update difference imaging report		MJI	03/11/03	Further improvements to the image subtraction/difference imaging WP mean that the prototype CASU software outperforms the alternative adaptive kernel packages. This needs a final shakedown, code tidy and further tests before being released at the end of Q4	
			MJI	30/11/03	Updated version of difference imaging report released, more tests on method carried out	50
16	Interpolation techniques and PSF modeling	4.0				
16.1	investigate alternative interpolation/PSF schemes					50
	finish review and write short report on alternatives		DWE	03/11/03	close to completion on investigation of alternative interpolation schemes. Report started	50
			DWE	30/11/03	Report completed and internally reviewed	100
					http://www.ast.cam.ac.uk/~wfcam/docs/reports/interpol	
16.2	implications for different stacking methods					10
	quantify effects of interpolation on stacked image quality		MJI	03/11/03	no progress	0
			MJI	30/11/03	no progress	0
16.3	implications for deriving catalogues and parameters					50
	assess and write report on errors in catalogue parameters arising from using different interpolation and interleaving schemes		DWE	03/11/03	report on catalogue parameters underway	50
			DWE	30/11/03	analysis completed and findings written to interpolation report (as 16.1)	50
					http://www.ast.cam.ac.uk/~wfcam/docs/reports/interpol	
16.4	oversampled PSF generation per detector					10
	write first pass PSF generator using optical test data		DWE	03/11/03	meeting held to plan PSF fitting software. Identified DIVA project software as a basis	10
			DWE	30/11/03	started writing programme to measure PSF from simulated WFCAM data	10