

03Q3m3_casu_deliverables.xls

WP #	CASU WP name /sub task / 03Q3 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 provide fortnightly meeting minutes, monthly reports on progress + quarterly review reports and planning		MJI STH	31/07/03	continued maintainance of management spreadsheets and documents	50
			MJI, STH	31/08/03	ongoing	
			MJI, STH	30/09/03	produced end of quarter report	100
1.2	interface control document between CASU and JAC in conjunction with JAC produce and sign off hard copy		MJI	31/07/03	no progress	50
			MJI	31/08/03	still not finished	0
			MJI	30/09/03	milestones agreed. unable to sign off, JRL visiting JAC in attempt to close this	50
1.3	interface control document between CASU and WFAU sign off Q2 ICD and finalise advanced processing product ICD		MJI	31/07/03	no progress	50
			MJI	31/08/03	still not finished	0
			MJI	30/09/03	unable to sign off	0
1.4	define data structures and FITS headers update example MEF headers in reponse to feedback from ATC, JAC, WFAU		JRL	31/07/03	comments on headers from NCH being incorporated in minor revision of MEF headers	50
			JRL	31/08/03	done. Further issues will appear close to commissioning so further tweaking will be needed then	100
1.5	define observing protocols		STH		placeholder	
1.6	liaise with UKIDSS & JAC on observing strategy monitor progress		DWE	31/07/03	ongoing	50
			DWE	31/08/03	ongoing	0
			DWE	30/09/03	ongoing	50
1.7	liaise with UKIDSS & JAC on survey planning monitor progress		DWE	31/07/03	ongoing	50
			DWE	31/08/03	ongoing	0
			DWE	30/09/03	ongoing	50
1.8	liaise with UKIDSS and JAC on survey progress DB get feedback from JAC for mirroring of current progress database		JRL	31/07/03	ongoing	50
			JRL	31/08/03	ongoing	0
			JRL	30/09/03	still no progress, visiting JAC to move this on	10
	investigate use of Sybase Replication Server to perform the task		JRL	31/07/03	ongoing	0
			JRL	31/08/03	ongoing	10
			JRL	30/09/03	still no progress, visiting JAC to move this on	10
	deliver a working mirror copy of the OMP database		JRL	31/07/03	ongoing	0
			JRL	31/08/03	ongoing	10
			JRL	30/09/03	still no progress, visiting JAC to move this on	10
1.9	system documentation update and maintain web pages of system docs		DWE	31/07/03	updated as necessary	50
			DWE	31/08/03	Updated as necessary	50
			DWE	30/09/03	Docs page revised to incorporate feedback	100
2 ESO VISTA software interface deliverables and documentation		4.0				
2.1	VDFS user requirements document inc. QC and JPE and other feedback produce first real draft		PSB	31/07/03	first draft produced. Needs internal reviewing	50
			PSB	31/08/03	ongoing	50
			PSB	30/09/03	internally reviewed and included comments from JPE	100

2.2 data reduction specification document					10
produce first real draft of DRS document	PSB	31/07/03	skeleton of first draft completed		10
	PSB	31/08/03	no progress		10
	PSB	30/09/03	some progress		10
2.3 calibration plan document					50
produce first real draft of calibration document	PSB	31/07/03	merged input from JRL, sourced ESO reference documents		50
	PSB	31/08/03	incorporated a number of changes to layout and content as a result of detailed discussion with local group		50
	PSB	30/09/03	substantial additions and final draft completed		100
2.5 ICD ESO/VPO					50
draft version of Data Interface dictionary - esp. FITS header specification	PSB	31/07/03	researched formats required by ESO, collected source docs		10
	PSB	31/08/03	produced DID-format file based on camera software document, and draft DID for primary headers including WFCAM-style observation markers. Used these and standard ESO TCS, IRACE detector and primary DID to produce draft dummy FITS header, which is the far easier way to let others digest the suggested record set		50
	PSB	30/09/03	concentrating fits headers, good progress		50
2.8 liaise with VISTA IR camera development team					50
check camera documentation for conflicts/issues	PSB	31/07/03	reviewed camera-control doc		10
	PSB	31/08/03	some informal discussion		10
	PSB	30/09/03	further discussion, finished for now		100
attend camera software design review and present CASU pipeline plans	PSB	31/07/03	no progress		0
	PSB	31/08/03	no progress		0
	PSB	30/09/03	attended pre-FDR meeting. CASU pipeline presented		100
3 Pipeline infrastructure and pipeline progress monitoring tools	3.5				
3.1 interactive tools for running pipeline					50
write a set of executable scripts for individual reduction tasks	JRL	31/07/03	some instrument specific routines remain to be done		50
	JRL	31/08/03	added a few more, not quite finished		50
	JRL	30/09/03	completed		100
deliver a set of scripts that can be run to access individual tasks within CIRDR	JRL	31/07/03	generic routines finished and documented		100
3.2 high level scripts to interrogate headers					50
test and update using nights of CIRSI data	STH + JMI	31/07/03	no progress - awaiting the generation of a night's worth of data		0
	STH + JMI	31/08/03	entire night of CIRSI data now run through pipeline and scripts tested and modified accordingly		100
3.3 automatic progression of results to web pages					50
interrogate pipeline progress database and produce test web page summaries	STH + JMI	31/07/03	infrastructure in place and test WWW pages generated - need whole night of test data to progress and refine		50
	STH + JMI	31/08/03	web page summaries now updated to include results of complete night's worth of processing - see report http://www.ast.cam.ac.uk/~wfcam/documentation.html		100
3.6 group documentation on pipeline infrastructure					50
modify current documentation according to recommendations from stress tests.	JRL	31/07/03	incorporated feedback from JMI, more thorough revision will be put in place Aug/Sep		50
	JRL	31/08/03	no further progress		50
	JRL	30/09/03	revisions made, but will require further updates next quarter		100
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

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tender for purchase and install data ingest server hardware/software	MTB	31/07/03	investigated alternative suppliers for data ingest server but awaiting test results on LTO-1/2's before proceeding	10
	MTB	31/08/03	about to place order for data ingest server and LTO-2 system	50
	MTB	30/09/03	LTO-2 library unit purchased, installed and tested. PC server ordered, will be installed and tested next week. further rack mounting and preparatory re-organisation of computing equipment completed.	50
conduct tests on Ultrium tapes as transport medium	MTB	31/07/03	awaiting results	10
	MTB	31/08/03	preliminary test results from ROE encouraging., awaiting further test results	50
	MTB	30/09/03	Further compatibility tests on LTO-1 tapes were completed successfully	100
6 Run standard pipeline	2.5			
7 Development work for summit pipeline	1.0			
7.1 Interface test pipelines in ORAC-DR				50
update and trial updated test pipelines	JRL	31/07/03	no feedback from JAC on current implementation so no revisions have been made. the next stage of the pipeline development is well underway	50
	JRL	31/08/03	still awaiting feedback from JAC	50
	JRL	30/09/03	visiting JAC to progress this	50
7.2 implement WFCAM pipeline at summit				10
CVS deposit and trial test ORACDR pipeline at JAC	JRL	31/07/03	awaiting completion of 7.1	0
	JRL	31/08/03	awaiting completion of 7.1	0
	JRL	30/09/03	visiting JAC to progress this	0
7.3 documentation for ORAC-DR interface				50
continue to add to interface documentation as pipeline modules are written. These will appear in the CIRDR and ORACDR documentation sets	JRL	31/07/03	in progress	50
	JRL	31/08/03	awaiting completion of 7.1	50
	JRL	30/09/03	visiting JAC to progress this	50
8 Development and testing of standard 2d processing	4.0			
8.1 further development of standard pipeline				50
process night(s) of CIRSI data with pseudo trial WFCAM pipeline	JRL	31/07/03	part of a night processed. Now creating complete night(s) of data with WFCAM headers and CIRSI images	50
	JRL	31/08/03	completed	100
rewrite routine for extraction of astrometric and photometric standards using 2MASS catalogue	JRL	31/07/03	JMI has written an efficient extraction procedure for 2MASS will incorporate	50
	JRL	31/08/03	completed. Integrated into standard pipeline	100
deliver report on flatfielding and sky subtraction strategies	JRL	31/07/03	not started	0
	JRL	31/08/03	some simulations and tests done	10
	JRL	30/09/03	good progress, sky subtraction simulations nearing completion, held up by lack of engineering data	50
write updated wrapper for improved version of catalogue software	JRL	31/07/03	awaiting latest version of catalogue generation from MJI	0
	JRL	31/08/03	MJI's complete version of the catalogue software is under development. Tested and integrated intermediate version which generates catalogues in the correct format though with dummy values for the new parameters.	50
	JRL	30/09/03	no further progress	50
8.2 liaison with WFCAM development team				10
assess engineering test data for reset anomaly, dark stability, cross-talk, image retention and linearity	JRL	31/07/03	no feedback from ATC, awaiting new test data	0
	JRL	31/08/03	no test results available from ATC	0
	JRL	30/09/03	still no engineering data	0
8.3 partake in planning commissioning/characterisation observations				50

together with ATC/JAC finish calibration plan	STH	31/07/03	in discussion with Sandy Leggett (ATC) - she will shortly furnish me with several nights worth of calibration photometry to refine calibration plan and examine nightly behaviour	10
	STH	31/08/03	some data received from SKL, but have yet to begin analysis. characterisation plan document now in place, preliminary comments sent to ATC from CASU.	50
	STH	30/09/03	SKL data analysed. Calibration plan completed. http://www.jach.hawaii.edu/JACpublic/UKIRT/instruments/wfcam/commissioning	100
8.6 documentation for 2D processing software				50
drive test pipelines and update and deliver documentation as modules are written	JRL	31/07/03	revised documentation tree to fix inter-doc linking errors, added tree for standalone script documentation (3.1)	50
	JRL	31/08/03	no further work done this month	50
	JRL	30/09/03	continuing to write as necessary	100
8.7 Comparison between automated and manual data products				50
acquire suitable pre-WFCAM test datasets	STH	31/07/03	obtained FIRES (VLT ISAAC) raw data and calibration frames, contacted Steve Warren with proposals for data sets.	50
	STH	31/08/03	Steve Warren has proposed some UFTI data to test, discussions continuing	50
	STH	30/09/03	decided to begin tests with FIRES data	100
pipeline process datasets	STH	31/07/03	no progress yet	0
	STH	31/08/03	no progress yet	0
	STH	30/09/03	JRL has begun to process the FIRES data	50
9 Development and testing of standard catalogue products	4.0			
9.1 add in new measures requested				10
Produce first version of catalogue software with all extra measures	MJI	31/07/03	finished mods for FITS header changes	10
	MJI	31/08/03	stalled	10
	MJI	30/09/03	no more progress	10
9.2 refine astrometric calibration model				50
produce report on optical distortion simulations	MJI	31/07/03	updated plots using more recent distortion data	50
	MJI	31/08/03	no progress	50
	MJI	30/09/03	simulations and model fitting completed, report of results produced http://www.ast.cam.ac.uk/~wfcam/docs/reports/astrom/	100
9.3 generate model simulations of expected data				50
further development of simulations	STH + JMI	31/07/03	thorough investigations of Skymaker and ARTDATA completed. Skymaker used to generate detailed simulations of stellar fields, simulations include microstepping tests. galaxy generation still under investigation	50
	STH + JMI	31/08/03	command line driven procedures in place to run simulations with choice of ARTDATA and Skymaker, succesfully tested by other group members. Application supports all WFCAM broadband filters with appropriate skybackground.	100
9.4 assess catalogue parameter reliability				50
run prototype pipeline on simulations and compare derived parameters with model data. write report	JMI	31/07/03	preliminary report written, includes input-output comparison	50
	JMI	31/08/03	report completed http://www.ast.cam.ac.uk/~wfcam/docs/reports/simul/	100
9.5 intercomparison of catalogue products with other packages				50
agree detailed trials using INT WFC data and report on catalogue extraction and classification software comparisons	JMI	31/07/03	sextractor vs imcore comparisons made using simulations.	10
	JMI	31/08/03	results of comparison test incorporated in simulation report (9.4)	100
9.6 Completeness and error estimates				50
report on completeness and error estimates as a function of seeing and sky brightness	JMI	31/07/03	simulations modified to incorporate seeing variations, sky brightness changes, and source density. Results included in report (9.4)	50

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		JMI	31/08/03	report scrutinised by group and updated	50
		JMI	30/09/03	document released www.ast.cam.ac.uk/~wfcam/documentation.html	100
9.7	documentation of catalogue software and products				50
	update, fold in more detail and stress test	MJI	31/07/03	no progress	0
			31/08/03	ongoing	50
			30/09/03	documents updated as software was developed	100
10	Setup trial and run further processing pipeline	3.0			
11	Photometric standards and calibration	3.0			
11.1	agree on primary standards				50
	investigate and report on narrow-band filter calibration options	STH	31/07/03	no progress.	0
		STH	31/08/03	no progress.	0
		STH	30/09/03	no progress.	0
11.2	choose secondary standard fields				50
	incorporate feedback from working group on choice of secondary fields and update document	STH	31/07/03	updated document following ROE meeting, used 2MASS dataset to refine choice of standard fields, now awaiting results of discussion with Sandy Leggett and analysis of UFTI data.	50
		STH	31/08/03	no progress	50
		STH	30/09/03	secondary standard fields chosen - need to iterate further with calibration working group, but finished for now.	100
12	Further development of DQC measures at summit and Cambr	2.0			
12.3	implement 2mass for throughput measurement				50
	extend tests to night(s) of pseudo WFCAM pipeline processed CIRSI data	JMI	31/07/03	awaiting data (8.1)	0
		JMI	31/08/03	available data set now extended to one complete night. processed using latest version of pipeline.	100
12.4	master calibration frames for detector monitoring				10
	assess and report if current methods work on engineering WFCAM data	JRL	31/07/03	awaiting engineering data from ATC	0
		JRL	31/08/03	no test results available from ATC	0
		JRL	30/09/03	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	31/07/03	using INT WFC data to assess practical implementation methods	10
		MJI	31/08/03	developed this further on real data and have schema for practical implementation	50
		MJI	30/09/03	development ongoing	50
14	Stacking and mosaicing	4.0			
14.1	develop benchmark simple stacking/mosaicing framework				100
	bug fix and update as necessary	MJI	31/07/03	updated and fixed the odd bugs	50
		MJI	31/08/03	in conjunction with JMI fixing bugs and improving with results of extensive use and feedback. JMI has now produced prototype mosaicer that can produce arbitrarily large mosaics limited only by disk space.	50
		MJI	30/09/03	fully update and bug fixed	100
14.2	NN algorithm with simple rejection				100
	bug fix and update as necessary	MJI	31/07/03	updated and fixed the odd bugs	50
		MJI	31/08/03	extensively tested and bug fixed with input from JMI.	50
		MJI	30/09/03	bug fixing completed	100
15	Continuum subtraction and basic difference imaging	4.0			
15.1	write WCS-based difference imaging driver software				50
	bug fix and update as necessary	MJI	31/07/03	updated and being used in package intercomparisons	50

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		MJI	31/08/03	produced first CASU adaptive kernel version of fitsio_subtract for difference imaging using confidence maps correctly. Compared with Sne (Toads) and IAB version. Further improvements planned but initial results are promising	50
				finished first version	100
15.2	investigate and apply different interpolation methods				50
	compare different software packages for difference imaging and produce report	DWE + JMI	31/07/03	JMI has made progress on the report. Initial tests have been carried out on the three software packages under consideration using two datasets	50
		DWE + JMI	31/08/03	JMI has completed the report incorporating four software packages using 2 pairs of datasets	
		DWE + JMI	30/09/03	Report has been updated to incorporate group feedback	100
				www.ast.cam.ac.uk/~wfcam/documentation.html	
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	31/07/03	evaluating Swarp for use in interpolation tests	10
		DWE	31/08/03	Swarp and artdata now set up to carry out simulations	10
		DWE	30/09/03	Simulations complete - analysis underway	50
16.3	implications for deriving catalogues and parameters				50
	assess and write report on errors in catalogue parameters arising from using different interpolation schemes	DWE	31/07/03	no progress	0
		DWE	31/08/03	no progress	0
		DWE	30/09/03	report on effects of interleaving on astrometric and photometric accuracy written http://www.ast.cam.ac.uk/~wfcam/docs/reports/interleaving/	50
16.4	oversampled PSF generation per detector				10
	write first pass PSF generator using optical test data	DWE	31/07/03	no progress	0
		DWE	31/08/03	no progress	0
		DWE	30/09/03	no progress	0