

WP #	CASU WP name /sub task / 03Q3 deliverable	V.I.F.	name	date	end of month report	% done
<b>1 Management and definition of project responsibilities</b>		<b>3.0</b>				
<b>1.1</b>	<b>report to VISTA, UKIDSS, JAC, ATC, GSC</b>					
	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	
			MJI, STH	31/08/03	ongoing	
<b>1.2</b>	<b>interface control document between CASU and JAC</b>					<b>50</b>
	in conjunction with JAC produce and sign off hard copy		MJI	31/07/03	no progress	0
			MJI	31/08/03	still not finished	0
<b>1.3</b>	<b>interface control document between CASU and WFAU</b>					<b>50</b>
	sign off Q2 ICD and finalise advanced processing product ICD		MJI	31/07/03	no progress	0
			MJI	31/08/03	still not finished	0
<b>1.4</b>	<b>define data structures and FITS headers</b>					<b>50</b>
	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
<b>1.5</b>	<b>define observing protocols</b>		STH		placeholder	
<b>1.6</b>	<b>liaise with UKIDSS &amp; JAC on observing strategy</b>					<b>50</b>
	monitor progress		DWE	31/07/03	ongoing	0
			DWE	31/08/03	ongoing	50
<b>1.7</b>	<b>liaise with UKIDSS &amp; JAC on survey planning</b>					<b>50</b>
	monitor progress		DWE	31/07/03	ongoing	0
			DWE	31/08/03	ongoing	50
<b>1.8</b>	<b>liaise with UKIDSS and JAC on survey progress DB</b>					<b>50</b>
	get feedback from JAC for mirroring of current progress database		JRL	31/07/03	ongoing	0
			JRL	31/08/03	ongoing	10
	investigate use of Sybase Replication Server to perform the task		JRL	31/07/03	ongoing	0
			JRL	31/08/03	ongoing	10
	deliver a working mirror copy of the OMP database		JRL	31/07/03	ongoing	0
			JRL	31/08/03	ongoing	10
<b>1.9</b>	<b>system documentation</b>					<b>50</b>
	update and maintain web pages of system docs		DWE	31/07/03	updated as necessary	50
			DWE	31/08/03	Updated as necessary	
<b>2 ESO VISTA software interface deliverables and documentation</b>		<b>4.0</b>				
<b>2.1</b>	<b>VDFS user requirements document</b>					<b>50</b>
	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
<b>2.2</b>	<b>data reduction specification document</b>					<b>10</b>
	produce first real draft of DRS document		PSB	31/07/03	skeleton of first draft completed	10
			PSB	31/08/03	no progress	10
<b>2.3</b>	<b>calibration plan document</b>					<b>10</b>
	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
<b>2.5</b>	<b>ICD ESO/VPO</b>					<b>10</b>

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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
<b>2.8 liaise with VISTA IR camera development team</b>					<b>10</b>
check camera documentation for conflicts/issues		PSB	31/07/03	reviewed camera-control doc	10
		PSB	31/08/03	some informal discussion	10
attend camera software design review and present CASU pipeline plans		PSB	31/07/03	no progress	0
		PSB	31/08/03	no progress	0
<b>3 Pipeline infrastructure and pipeline progress monitoring tools</b>	<b>3.5</b>				
<b>3.1 interactive tools for running pipeline</b>					<b>50</b>
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
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
<b>3.2 high level scripts to interrogate headers</b>					<b>50</b>
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
<b>3.3 automatic progression of results to web pages</b>					<b>50</b>
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 <a href="http://www.ast.cam.ac.uk/~wfcam/documentation.html">http://www.ast.cam.ac.uk/~wfcam/documentation.html</a>	100
<b>3.6 group documentation on pipeline infrastructure</b>					<b>50</b>
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
<b>4 Set up and manage raw science archive</b>	<b>0.0</b>				
<b>5 Set up and manage data processing system hardware</b>	<b>2.0</b>				
<b>5.2 buy hardware and install</b>					<b>50</b>
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-II system	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
<b>6 Run standard pipeline</b>	<b>2.5</b>				
<b>7 Development work for summit pipeline</b>	<b>1.0</b>				
<b>7.1 Interface test pipelines in ORAC-DR</b>					<b>50</b>
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
<b>7.2 implement WFCAM pipeline at summit</b>					<b>10</b>
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
<b>7.3 documentation for ORAC-DR interface</b>					<b>50</b>
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
<b>8 Development and testing of standard 2d processing</b>	<b>4.0</b>				
<b>8.1 further development of standard pipeline</b>					<b>50</b>
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
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
<b>8.2 liaison with WFCAM development team</b>					<b>10</b>
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
<b>8.3 partake in planning commissioning/characterisation observations</b>					<b>50</b>
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
				<a href="http://www.jach.hawaii.edu/JACpublic/UKIRT/instruments/wfcam/commissioning">http://www.jach.hawaii.edu/JACpublic/UKIRT/instruments/wfcam/commissioning</a>	
<b>8.6 documentation for 2D processing software</b>					<b>50</b>
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
<b>8.7 Comparison between automated and manual data products</b>					<b>10</b>
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
pipeline process datasets		STH	31/07/03	no progress yet	0
		STH	31/08/03	no progress yet	0
<b>9 Development and testing of standard catalogue products</b>	<b>4.0</b>				
<b>9.1 add in new measures requested</b>					<b>10</b>
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
<b>9.2 refine astrometric calibration model</b>					<b>10</b>
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

<b>9.3 generate model simulations of expected data</b>					<b>50</b>
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
<b>9.4 assess catalogue parameter reliability</b>					<b>50</b>
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 <a href="http://www.ast.cam.ac.uk/~wfcam/internal/reports/simul/">www.ast.cam.ac.uk/~wfcam/internal/reports/simul/</a>	100
<b>9.5 intercomparison of catalogue products with other packages</b>					<b>10</b>
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
<b>9.6 Completeness and error estimates</b>					<b>50</b>
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
		JMI	31/08/03	report scrutinised by group and updated <a href="http://www.ast.cam.ac.uk/~wfcam/documentation.html">www.ast.cam.ac.uk/~wfcam/documentation.html</a>	50
<b>9.7 documentation of catalogue software and products</b>					<b>50</b>
update, fold in more detail and stress test		MJI	31/07/03	no progress	0
			31/08/03	ongoing	50
<b>10 Setup trial and run further processing pipeline</b>		<b>3.0</b>			
<b>11 Photometric standards and calibration</b>		<b>3.0</b>			
<b>11.1 agree on primary standards</b>					<b>50</b>
investigate and report on narrow-band filter calibration options		STH	31/07/03	no progress.	0
		STH	31/08/03	no progress.	0
<b>11.2 choose secondary standard fields</b>					<b>50</b>
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
			31/08/03	no progress	50
<b>12 Further development of DQC measures at summit and Cambr</b>		<b>2.0</b>			
<b>12.3 implement 2mass for throughput measurement</b>					<b>50</b>
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
<b>12.4 master calibration frames for detector monitoring</b>					<b>10</b>
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
<b>13 Co-located list driven photometry</b>		<b>3.0</b>			
<b>13.2 develop basic WCS-based list driven photometer</b>					<b>50</b>
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
<b>14 Stacking and mosaicing</b>		<b>4.0</b>			

<b>14.1</b>	<b>develop benchmark simple stacking/mosaicing framework</b>					<b>100</b>
	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
<b>14.2</b>	<b>NN algorithm with simple rejection</b>					<b>100</b>
	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
<b>15</b>	<b>Continuum subtraction and basic difference imaging</b>		<b>4.0</b>			
<b>15.1</b>	<b>write WCS-based difference imaging driver software</b>					<b>50</b>
	bug fix and update as necessary		MJI	31/07/03	updated and being used in package intercomparisons	50
			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
<b>15.2</b>	<b>investigate and apply different interpolation methods</b>					<b>50</b>
	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 <a href="http://www.ast.cam.ac.uk/~wfcam/documentation.html">www.ast.cam.ac.uk/~wfcam/documentation.html</a>	50
<b>16</b>	<b>Interpolation techniques and PSF modeling</b>		<b>4.0</b>			
<b>16.1</b>	<b>investigate alternative interpolation/PSF schemes</b>					<b>10</b>
	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
<b>16.3</b>	<b>implications for deriving catalogues and parameters</b>					<b>10</b>
	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
<b>16.4</b>	<b>oversampled PSF generation per detector</b>					<b>10</b>
	write first pass PSF generator using optical test data		DWE	31/07/03	no progress	0
			DWE	31/08/03	no progress	0