

## 04Q3m1\_casu\_deliverables.xls

WP	CASU WP name /sub task / 04Q3 deliverable	V.I. F.	name	date	end of month report	%sub	% task
#							
<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>						<b>75</b>
	provide fortnightly meeting minutes, monthly reports on progress + quarterly review reports and planning		STH, MJI	31-Jul-04	minutes and report produced	10	
	prepare for and present paper at ADASS meeting		JRL	31-Jul-04	abstract written and submitted	10	
<b>1.2</b>	<b>interface control document between CASU and JAC</b>				completed		<b>100</b>
<b>1.3</b>	<b>interface control document between CASU and WFAU</b>				completed		<b>100</b>
<b>1.4</b>	<b>define WFCAM data structures and FITS headers</b>				completed		<b>100</b>
<b>1.5a</b>	<b>define WFCAM observing protocols</b>						<b>75</b>
	check OT generated MSBs and create diagrams		MJI + STH	31-Jul-04	no progress	0	
<b>1.5b</b>	<b>define VISTA observing protocols</b>						
	help define science and user requirements		MJI + PSB	31-Jul-04	example science goals collated from VDOC to be included in UKURD	10	
<b>1.6a</b>	<b>liaise with UKIDSS&amp;JAC on WFCAM obs strategy, surveys planning</b>						<b>75</b>
	monitor progress		DWE	31-Jul-04	nothing to report	10	
	investigate MKO sky brightness		STH	31-Jul-04	no progress	0	
<b>1.6b</b>	<b>liaise with Project Scientist on VISTA observing strategy &amp; survey planning</b>						
	monitor progress		PSB	31-Jul-04	PSB held discussions with WJS	10	
<b>1.7a</b>	<b>liaise with VDOC on VDFS products for WFCAM</b>						<b>75</b>
	monitor progress + attend meetings as necessary		STH + MJI	31-Jul-04	up to date	10	
<b>1.7b</b>	<b>liaise with VDOC on VDFS products for VISTA</b>						
	monitor progress + attend meetings as necessary		MJI + STH	31-Jul-04	up to date		
<b>1.8a</b>	<b>liaise with UKIDSS and JAC on survey progress DB</b>		JRL		paused until commissioning		<b>75</b>
<b>1.9</b>	<b>system documentation</b>						<b>75</b>
	update and maintain web pages of system docs		DWE	31-Jul-04	documentation updated as necessary	10	
<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>70</b>
	agree RIXs		PSB	31-Jul-04	comments fed back to JPE	50	
	update docs		PSB	31-Jul-04	clearcut alterations made, now awaiting agreement on RIXs	10	
<b>2.2</b>	<b>data reduction specification document</b>						<b>70</b>
	agree RIXs		PSB	31-Jul-04	comments fed back to JPE	50	
	update docs		PSB	31-Jul-04	clearcut alterations made, now awaiting agreement on RIXs	10	
<b>2.3</b>	<b>calibration plan document</b>						<b>70</b>
	agree RIXs		PSB	31-Jul-04	comments fed back to JPE	50	
	update docs		PSB	31-Jul-04	uncontroversial alterations made, now awaiting agreement on RIXs	10	
<b>2.5</b>	<b>ICD ESO/VPO</b>						<b>60</b>
	update DID and write first draft of DID doc for FDR		PSB	31-Jul-04	first draft DID almost complete barring input from JMS on TCS	10	
<b>2.7</b>	<b>Delivery software modules for exposure time calculator</b>						<b>0</b>
	develop mathematical description for ETC		PSB	31-Jul-04	no progress		

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	define scope of ETC	PSB	31-Jul-04	no progress		
	write report	PSB	31-Jul-04	no progress		
<b>2.8</b>	<b>liaise with VISTA IR camera development team</b>					<b>75</b>
	continue liaising	PSB	31-Jul-04	productive interaction with SB on DID	10	
<b>3 Pipeline infrastructure and pipeline progress monitoring tools 3.5</b>						
<b>3.1</b>	<b>interactive tools for running pipeline</b>					<b>60</b>
	develop tools and document	JRL	31-Jul-04	some more tools written and documented	10	
<b>3.2</b>	<b>high level scripts to interrogate headers</b>					<b>50</b>
	develop with WFC data	STH, JMI	31-Jul-04	programmes written to extract status from image and catalogue headers. needs work to speed up and optimize method. present version takes 30 mins to run on 3000 files.	10	
<b>3.3</b>	<b>automatic progression of results to web pages</b>					<b>50</b>
	develop with WFC data	STH, JMI	31-Jul-04	script reports results to www pages - by machine and by run number	50	
<b>3.4</b>	<b>automatic checks to spot failure of pipeline</b>					<b>0</b>
	use WFC data to develop a scheme	JMI, STH	31-Jul-04	existing scheme allows failures to be spotted and reason diagnosed. work to be done on DQC parameter checking - current version includes astrometry.	50	
<b>3.6</b>	<b>group documentation on pipeline infrastructure</b>					<b>60</b>
	stress test documentation and update as necessary	JRL	31-Jul-04	JMI used pipeline to process IPHAS data and reported problems back to JRL for incorporation	10	
<b>4 Set up and manage raw science archive 0.0</b>						
<b>4.1</b>	<b>extend UKIRT archive to cope with WFCAM data</b>					<b>50</b>
	implement interface for ESO compatibility	JRL	31-Jul-04	no progress	0	
<b>5 Set up and manage data processing system hardware 2.0</b>						
<b>5.2</b>	<b>buy hardware and install</b>					<b>80</b>
	purchase and install bulk storage devices	PSB, JMI	31-Jul-04	no progress	0	
	purchase and install spare ultrium device	PSB, JMI	31-Jul-04	no progress	0	
<b>5.3</b>	<b>integrating and testing</b>					<b>70</b>
	integrate and test bulk storage devices	PSB, JMI	31-Jul-04	no progress	0	
	integrate and test spare ultrium device	PSB, JMI	31-Jul-04	no progress	0	
<b>5.4</b>	<b>Manage day-to-day maintenance and upgrades</b>					<b>50</b>
	continue maintenance and upgrade programme	JMI, PSB	31-Jul-04	implemented virtual consoles for processing machines	10	
	plan for APM refurbishment and move equipment	MJI, PSB	31-Jul-04	rack mounted more CASU equipment	10	
<b>6 Run standard pipeline 2.5</b>						
<b>7 Development work for summit pipeline 1.0</b>						
<b>7.1</b>	<b>Interface test pipelines in ORAC-DR</b>	JRL		completed		<b>100</b>
<b>7.2a</b>	<b>implement WFCAM pipeline at summit</b>					<b>75</b>
	demonstrate catalogue and non-catalogue DQCs	JRL	31-Jul-04	continuing tests using CIRS data with faked WFCAM headers	10	
<b>7.3a</b>	<b>documentation for ORAC-DR interface</b>					<b>60</b>
	update and deliver documentation as development proceeds	JRL	31-Jul-04	documentation added for commissioning recipes written this month.	10	
<b>7.4a</b>	<b>upgrade and maintain summit pipeline WFCAM</b>					<b>20</b>
	upgrade and maintain	JRL	31-Jul-04	commissioning recipes and primitives being written to deal with readout characteristics (persistence, linearity etc).	10	

<b>8 Development and testing of standard 2d processing</b>						
<b>4.0</b>						
<b>8.1a</b>	<b>further development of standard pipeline for WFCAM</b>					<b>80</b>
	finish implementing new version of imcore to include full param set	JRL	31-Jul-04	no further progress	0	
<b>8.2a</b>	<b>liaison with WFCAM development team</b>					<b>75</b>
	continue discussion on reset anomaly, crosstalk and linearity	JRL	31-Jul-04	progress on readout problems is being made now due to discussions with ATC staff. Real test data is still vital.	10	
	assess engineering test data for above problems and report	JRL	31-Jul-04	no further work on linearity of existing engineering data	0	
<b>8.2b</b>	<b>liaison with Project Scientist &amp; VISTA development team</b>					
	assess detector engineering test data	MJI	31-Jul-04	nothing to report	10	
<b>8.3a</b>	<b>partake in planning WFCAM commissioning observations</b>					<b>80</b>
	continue liaising with ATC/JAC	STH	31-Jul-04	nothing to report	10	
<b>8.3b</b>	<b>partake in planning VISTA comissioning observations</b>					
	liaise and discuss with VISTA PS	STH	31-Jul-04	nothing to report	10	
<b>8.5</b>	<b>Tuning pipeline during commissioning and after</b>					
	optimize and stress-test pipeline using IPHAS data	JMI	31-Jul-04	good progress with IPHAS data shows that splitting by filter works well. have identified problems with using networked catalogues for crowded regions and planned to implement local versions.	50	
<b>8.6</b>	<b>documentation for 2D processing software</b>					<b>50</b>
	updates docs as necessary and as a result of feedback	JRL	31-Jul-04	no progress	0	
<b>8.7</b>	<b>Comparison between automated and manual data products</b>					<b>75</b>
	compare FIRES with published results and write report	STH	31-Jul-04	no progress	0	
	discuss results with CSV	STH	31-Jul-04	no progress	0	
<b>9 Development and testing of standard catalogue products</b>						
<b>4.0</b>						
<b>9.1</b>	<b>add in new measures requested</b>					<b>60</b>
	finish testing and debugging new catalogue parameter measures	MJI	31-Jul-04	no progress	0	
<b>9.2</b>	<b>refine astrometric calibration model</b>					<b>85</b>
		MJI		paused		
<b>9.3</b>	<b>generate model simulations of expected data</b>					<b>80</b>
		STH, JMI		paused		
<b>9.4</b>	<b>assess catalogue parameter reliability</b>					<b>70</b>
	refine parameter error estimates and check for systematics in new params	MJI	31-Jul-04	no progress	0	
<b>9.5</b>	<b>intercomparison of catalogue products with other packages</b>					<b>60</b>
		JMI		paused		
<b>9.6</b>	<b>Completeness and error estimates</b>					
				stopped - subsumed into 9.4		
<b>9.7</b>	<b>documentation of catalogue software and products</b>					<b>55</b>
	update catalogue products documentation	MJI	31-Jul-04	updated PODs	10	
<b>10 Setup trial and run further processing pipeline</b>						
<b>3.0</b>						
<b>10.2</b>	<b>development and assessment of PSF options 1,2</b>					<b>50</b>
	produce robust version of code for PSF level 1	MJI	31-Jul-04	awaiting results from 16	0	
	produce prototype for PSF level 2	MJI	31-Jul-04	awaiting results from 16	0	
<b>10.3</b>	<b>develop 1D/2D PSF-deconvolved Sersic profile fits</b>					
	produce prototype code for sersic profile fits	MJI	31-Jul-04	no progress	0	
<b>11 Photometric standards and calibration</b>						
<b>3.0</b>						
<b>11.1</b>	<b>agree on primary standards</b>					<b>90</b>

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	complete narrow band filter calibration plan and update document	STH	31-Jul-04	no progress	0	
<b>11.2</b>	<b>choose secondary standard fields</b>					<b>80</b>
	finish updates to photom doc and circulate	STH	31-Jul-04	no progress	0	
<b>11.7</b>	<b>assess extinction monitoring methods and develop measures</b>					<b>50</b>
	complete investigation of UKIRT archive and write report	STH	31-Jul-04	no progress	0	
	simulate from night(s) data and estimate expected accuracy	STH	31-Jul-04	no progress	0	
<b>12 Further development of DQC measures at summit and Cambr 2.0</b>						
<b>12.1</b>	<b>develop extra systematic noise measures</b>					<b>50</b>
	trial software with real & simulated data	MJI	31-Jul-04	using INT WFC data to test measures	10	
<b>12.2</b>	<b>Refine current measures for WFCAM/VISTA data</b>	JRL	31-Jul-04	paused pending appropriate data		<b>20</b>
<b>12.3</b>	<b>implement 2mass for throughput measurement</b>	JMI	31-Jul-04	paused		<b>75</b>
<b>12.4</b>	<b>master calibration frames for detector monitoring</b>					<b>35</b>
	assess and report on lab testing of detectors	JRL	31-Jul-04	no data = no progress	0	
<b>13 Co-located list driven photometry 3.0</b>						
<b>13.2</b>	<b>develop basic WCS-based list driven photometer</b>					<b>90</b>
	investigate practicalities and implement agreed ICD for parameters	MJI	31-Jul-04	no progress	0	
<b>13.3</b>	<b>externally driven WCS photometry and define parameter set</b>					<b>75</b>
	refine, test and debug list-driven parameter estimator - finish	MJI	31-Jul-04	no progress	0	
<b>14 Stacking and mosaicing 4.0</b>						
<b>14.1</b>	<b>develop benchmark simple stacking/mosaicing framework</b>	MJI		complete		<b>100</b>
<b>14.2</b>	<b>NN algorithm with simple rejection</b>	MJI		complete		<b>100</b>
<b>14.3</b>	<b>More sophisticated rejection dealing with pixellation</b>	MJI		complete		<b>100</b>
<b>14.4</b>	<b>Stacking with optimum weighting and defect rejection</b>					<b>25</b>
	refine current weighting method, test and report on alternative schemes	MJI	31-Jul-04	no progress	0	
<b>15 Continuum subtraction and basic difference imaging 4.0</b>						
<b>15.1</b>	<b>Simple WCS-based subtraction techniques</b>	MJI		completed		<b>100</b>
<b>15.2</b>	<b>investigate and apply different interpolation methods</b>	MJI		completed		<b>100</b>
<b>15.3</b>	<b>develop adaptive kernel matching option</b>					<b>80</b>
	continue debugging and enhancements to adaptive kernel package	MJI	31-Jul-04	no more bugs this month	10	
<b>15.4</b>	<b>transit event detection</b>					<b>0</b>
	assess difference imaging method (continuum subtraction)	STH	31-Jul-04	no progress	0	
<b>16 Interpolation techniques and PSF modeling 4.0</b>						
<b>16.1</b>	<b>investigate alternative interpolation/PSF schemes</b>					<b>100</b>
	investigate PSF fitting algorithms and write report - finish	DWE	31-Jul-04	report released <a href="http://www.ast.cam.ac.uk/~wfcam/docs/reports/psf/">http://www.ast.cam.ac.uk/~wfcam/docs/reports/psf/</a>	100	
<b>16.2</b>	<b>implications for different stacking methods</b>					<b>20</b>
	quantify effects of interpolation on stacked image quality	MJI	31-Jul-04	doing tests in conjunction with 14.4	10	
<b>16.3</b>	<b>implications for deriving catalogues and parameters</b>					<b>70</b>
	test PSF photom and astrom using optical data and include in report (16.1)	DWE	31-Jul-04	no progress	0	

<b>16.4</b>	<b>oversampled PSF generation per detector</b>					<b>50</b>
	investigate modelling empirical PSF and add to report	DWE	31-Jul-04	elliptical moffat profile fitting as part of PSF generator tested	50	
<b>16.5</b>	<b>develop oversampled spatially varying PSF model</b>					<b>0</b>
	measure spatial variation in optical/IR datasets	DWE	31-Jul-04	no progress	0	
	design empirical model describing same	DWE	31-Jul-04	no progress	0	