

04Q1m3_casu_deliverables.xls

WP	CASU WP name /sub task / 04Q1 deliverable	V.I. F.	name	date	end of month report	%sub	% task
#							
1 Management and definition of project responsibilities		3.0					
1.1	report to VISTA, UKIDSS, JAC, ATC, GSC						62
	provide fortnightly meeting minutes, monthly reports on progress + quarterly review reports and planning		MJI + STH	31/01/04	reported minutes from CASU meetings. prepared documents for VDMT monthly meeting	10	
			MJI + STH	29/02/04	reported minutes from CASU meetings. prepared documents for VDMT monthly meeting	50	
			MJI + STH	31/03/04	reported minutes from CASU meetings, prepared documents for VDMT quarterly report	100	
	prepare for and attend PPRP meeting in Feb		MJI + STH	31/01/04	prepared for PPRP meeting	50	
			MJI + STH	29/02/04	MJI gave presentation to PPRP	100	
	define CASU programme for e-skill bid		MJI + STH	31/01/04	CASU e-science II programme defined	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 data structures and FITS headers				completed		100
1.5	define observing protocols						75
	define sensible range of suggested MSBs in conjunction with UKIDSS and JAC		MJI + STH	31/01/04	MSB guidelines drawn up and sent to UKIDSS CSS for comment	50	
			MJI + STH	29/02/04	iterated on MSB guidelines with JAC and CSS	50	
			MJI + STH	31/03/04	CASU have signed off on MSB guidelines which are now in the hands of JAC. CSS will circulate these guidelines to survey heads for discussion and comment.	100	
1.6	liaise with UKIDSS & JAC on observing strategy & survey planning						75
	monitor progress		DWE	31/01/04	nothing to report	10	
			DWE	29/02/04	generated plots showing SDSS DR2 & 3 coverage w.r.t UKIDSS surveys. This has been posted on the UKIDSS www pages	50	
			DWE	31/03/04	nothing further to report	100	
1.7	liaise with UKIDSS & JAC on VDFS products						62
	monitor progress		DWE	31/01/04	STH attended meeting with Casali & Warren and asked SJW to read JRL's report on UFTI processing and send feedback. STH suggested to SJW that a meeting be arranged in february to discuss processing issues.	10	
			DWE	29/02/04	see JRL's reports on processing issues	50	
			DWE	31/03/04	regular telecons held throughout quarter with JAC.	100	
1.8	liaise with UKIDSS and JAC on survey progress DB		JRL		paused		50
1.9	system documentation						62
	update and maintain web pages of system docs		DWE	31/01/04	script for generating document www pages completed. awaiting internal review and feedback before pages go live. Document numbering now almost complete.	50	
			DWE	29/02/04	document numbering completed and web page live	50	
			DWE	31/03/04	some more organisation and rationalisation	100	
	write wrapper for WFCAM fits header for ESO		JRL	31/01/04	no progress this month	0	
			JRL	29/02/04	draft sent to ESO, awaiting reply	50	
			JRL	31/03/04	completed	100	
2 ESO VISTA software interface deliverables and documentation		4.0					
2.1	VDFS user requirements document						30

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update & prepare for PDR	PSB	31/01/04	WJS is collaborating in expanding/updating science requirements	10	
	PSB	29/02/04	Gave feedback to WJS on UK-VDFS first draft. Will incorporate parts of 2nd draft	50	
	PSB	31/03/04	User requirements document will be ready to submit to PDR after a final iteration	100	
2.2 data reduction specification document					30
update & prepare for PDR	PSB	31/01/04	made a small amount of progress	10	
	PSB	29/02/04	no progress	10	
	PSB	31/03/04	DRS document completed and ready to submit to PDR subject to minor changes	100	
2.3 calibration plan document					60
update & prepare for PDR	PSB	31/01/04	no progress	0	
	PSB	29/02/04	studying FLAMES calibration plan document	10	
	PSB	31/03/04	significant work in the last month has finalised the calibration plan which is ready to submit to PDR bar last minute mods	100	
report on QFITS & CPL -v- CASU module & CFITSIO	PSB	31/01/04	JRL has extracted the CFITSIO functionality used in CIRDR and we have produced a comparison with QFITS/CPL for discussion at the next CASU meeting. This will lead to a section in the DRS	50	
	PSB	29/02/04	short report completed and presented to CASU meeting. More detailed report to be presented at VISTA camera-pipeline meeting and incorporated into PDR documentation	50	
	PSB	31/03/04	required FITS functionality included in PDR DRS and reported to VISTA camera pipeline meeting	100	
2.5 ICD ESO/VPO					60
update draft version of Data Interface dictionary - especially FITS header specification	PSB	31/01/04	corrected HIREARCH keywords, generated full VISTA dummy FITS file, reviewed HOWFS DID	50	
	PSB	29/02/04	no progress	50	
	PSB	31/03/04	DID is updated including FITS header specs and included in PDR Cal Plan	100	
work on templates/Obs	PSB	31/01/04	template/obs: installed P2PP for training	10	
	PSB	29/02/04	studying P2PP OB generation, especially IMPEX	50	
	PSB	31/03/04	completed and included in PDR cal plan	100	
use ISAAC example for translating pipeline DID keywords to ESO style	PSB	31/01/04	no progress	0	
	PSB	29/02/04	Examined ISAAC keywords for sequencing and their appropriateness for VISTA	10	
	PSB	31/03/04	jittering keywords converted to ISAAC style	50	
2.8 liaise with VISTA IR camera development team	PSB	31/01/04	Obtained access to ATC ESO W/S, ESO CMM. Reviewed data transfer issues with SMB	50	62
	PSB	29/02/04	Iterating towards camera PDR dates. Liasing on timestamps issue	50	
	PSB	31/03/04	Meeting held in Cambridge to discuss pipeline and camera issues. Weekly telecons held in run up to PDR document submission, plus frequent email exchanges.	100	
3 Pipeline infrastructure and pipeline progress monitoring tools	3.5				
3.1 interactive tools for running pipeline	JRL		paused		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					55
modify current documentation according to recommendations from stress tests.	JRL	31/01/04	no progress	0	
	JRL	29/02/04	no progress	0	

	JRL	31/03/04	no progress - no input received	0	
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	MTB		paused		70
5.3 integrating and testing					55
finish installing and testing pipeline and toolkit on data ingest server	MTB	31/01/04	installed, undergoing testing	50	
	MTB	29/02/04	finished testing	100	
5.4 Manage day-to-day maintenance and upgrades					25
upgrade remaining development PCs to Debian Linux OS	MTB	31/01/04	all of the data development PCs have been successfully changed over to Debian Linux OS	100	
6 Run standard pipeline	2.5				
7 Development work for summit pipeline	1.0				
7.1 Interface test pipelines in ORAC-DR	JRL		completed		100
7.2 implement WFCAM pipeline at summit					75
End-to-end comparative pipeline tests (ORACDR/CASU/Starlink)	JRL	31/01/04	End-to-end comparative test completed between the two ORACDR UFTI pipelines (Standard and CASU). Results written up and posted to documentation www pages .	100	
Demonstrate catalogue and non-catalogue DQCs	JRL	31/01/04	DQC estimates demonstrated in comparative test document. No more can be done with this now until we have real data	50	
	JRL	29/02/04	paused pending arrival of engineering data	50	
	JRL	31/03/04	still awaiting engineering data	50	
7.3 documentation for ORAC-DR interface	JRL	31/01/04	paused		60
continue to add to interface documentation as pipeline modules are written. These will appear in the CIRDR and ORACDR documentation sets					
8 Development and testing of standard 2d processing	4.0				
8.1 further development of standard pipeline					80
finish & deliver report on flatfielding and sky subtraction strategies	JRL	31/01/04	FIRES data is now fully reduced and a report is underway. two nights of the UFTI service data were reduced using twilight (sunrise) flats. Results have been written up and posted in public WFCAM doc area.	50	
	JRL	29/02/04	sky subtraction paper written and posted in public WFCAM doc area	100	
write updated wrapper for improved version of catalogue software	JRL	31/01/04	no progress this month	0	
	JRL	29/02/04	updated catalogue generation routine nearly complete	50	
	JRL	31/03/04	completed	100	
finish incorporating extra parameter measures	JRL	31/01/04	no progress this month	0	
	JRL	29/02/04	started	10	
	JRL	31/03/04	good progress	50	
8.2 liaison with WFCAM development team					30
assess engineering test data for reset anomaly, dark stability, cross-talk, image retention and linearity	JRL	31/01/04	STH attended meeting with Casali and Warren to discuss status of camera and plans for characterisation in the lab, and commissioning on the telescope. Report from this meeting discussed in CASU meeting and minuted. No test data yet, but agreement reached that CASU will have access to these frames as they appear in the near future.	10	
	JRL	29/02/04	paused pending test data	10	
	JRL	31/03/04	still awaiting engineering data, but carried out tests on small sample of WFCAM test data	10	
8.3 partake in planning commissioning/characterisation observations	STH	31/01/04	paused		80

8.6	documentation for 2D processing software					50
	updates docs as necessary and as a result of feedback	JRL	31/01/04	no progress this month	0	
		JRL	29/02/04	no progress this month	0	
		JRL	31/03/04	no progress	0	
8.7	Comparison between automated and manual data products					75
	finish pipeline processing of FIRES data	STH	31/01/04	as 8.1, pipeline processing finished	100	
	pipeline process UFTI data as it comes	STH	31/01/04	UFTI data processed up to date. No more service observations planned	100	
9 Development and testing of standard catalogue products 4.0						
9.1	add in new measures requested					60
	test and debug new catalogue parameter measures	MJI	31/01/04	all of the new flux measures have been tested and debugged	50	
		MJI	29/02/04	parameter error analysis begun	50	
		MJI	31/03/04	no further progress this month	50	
9.2	refine astrometric calibration model	MJI		paused		80
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	JMI		no progress	0	
		MJI	29/02/04	see 9.1	10	
		MJI	31/03/04	no further progress this month	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	JMI		no progress	0	
		MJI	29/02/04	see 9.1	10	
		MJI	31/03/04	no further progress this month	10	
9.7	documentation of catalogue software and products					55
	update catalogue products documentation	MJI		no updates this month	0	
		MJI	29/02/04	no progress	0	
		MJI	31/03/04	minor updates incorporated	10	
10 Setup trial and run further processing pipeline 3.0						
10.2	development and assessment of PSF options 1,2					50
	produce prototype PSF fitting code level 1	MJI	31/01/04	awaiting oversampled PSF generator	0	
		MJI	29/02/04	prototype code written	10	
		MJI	31/03/04	code tested	100	
11 Photometric standards and calibration 3.0						
11.1	agree on primary standards					90
	complete narrow band filter calibration plan and update document	STH	31/01/04	no progress	0	
		STH	29/02/04	no progress	0	
		STH	31/03/04	no progress	0	
11.2	choose secondary standard fields					80
	incorporate feedback from working group on choice of secondary fields and update document	STH	31/01/04	no progress	0	
		STH	29/02/04	some feedback from WJS being incorporated	10	
		STH	31/03/04	more discussions held with head of calibration working group. some updates made to document	50	

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complete choice of secondary standard fields for VISTA and update photometry document	STH	31/01/04	no progress	0	
	STH	29/02/04	visual inspection and construction of finding charts for all standard fields nearing completion	50	
	STH	31/03/04	secondary standards and strategy chosen for VISTA and incorporated in PDR documentation. Updates made to photometry document - release waiting 11.1, 11.2	100	
11.7 assess extinction monitoring methods and develop measures					50
complete investigation of UKIRT archive and write report	STH	31/01/04	no progress	0	
	STH	29/02/04	analysis of data underway	50	
	STH	31/03/04	analysis incomplete - will finish next quarter	50	
prepare for calibration WG meeting and present report	STH	29/02/04	no progress	0	
	STH	31/03/04	no decision made on date for calibration WG meeting	0	
12 Further development of DQC measures at summit and Cambr	2.0				
12.1 develop extra systematic noise measures					50
linked with detector characterisation	MJI	31/01/04	no progress, awaiting WFCAM data	0	
	MJI	29/02/04	no progress, awaiting WFCAM data	0	
	MJI	31/03/04	tested various options but final versions and algorithms awaiting WFCAM data	50	
12.2 Refine current measures for WFCAM/VISTA data					20
linked with detector characterisation	JRL	31/01/04	paused, awaiting engineering data	0	
	JRL	29/02/04	paused, awaiting engineering data	0	
	JRL	31/03/04	still awaiting engineering data	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	31/01/04	still paused, no engineering data	0	
	JRL	29/02/04	still paused, no engineering data	0	
	JRL	31/03/04	still awaiting engineering data	0	
13 Co-located list driven photometry	3.0				
13.2 develop basic WCS-based list driven photometer					90
investigate practicalities and implement agreed ICD for parameters	MJI	31/01/04	code for generating the default CASU 32 parameter set has been written and tested	50	
	MJI	29/02/04	no further progress	50	
	MJI	31/03/04	code for generating extra parameters all written, still needs incorporating in list-driven photometry framework	50	
13.3 externally driven WCS photometry and define parameter set					75
refine, test and debug list-driven parameter estimator	MJI	31/01/04	code for external list-driven photometry progressed to same stage as 13.2	50	
	MJI	29/02/04	no further progress	50	
	MJI	31/03/04	code for generating extra parameters all written, still needs incorporating in list-driven photometry framework	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					60
continue development of better spurion rejection allowing for pixellation	MJI	31/01/04	no progress this month	0	
	MJI	29/02/04	no progress this month	0	
	MJI	31/03/04	simple scheme for dealing with pixellation incorporated, improved scheme based on spatial local variance designed	50	

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		100
15.3	develop adaptive kernel matching option						80
	continue debugging and enhancements to adaptive kernel package		MJI	31/01/04	no progress this month	0	
			MJI	29/02/04	no bugs found. more tests done	50	
			MJI	31/03/04	further testing and debugging	100	
16 Interpolation techniques and PSF modeling						4.0	
16.1	investigate alternative interpolation/PSF schemes						70
	investigate PSF fitting algorithms and write report		DWE	31/01/04	first version of list driven PSF photometry code completed. Currently undergoing initial tests.	50	
			DWE	29/02/04	tests on simulated data complete	50	
			DWE	31/03/04	report half completed	50	
16.2	implications for different stacking methods						20
	quantify effects of interpolation on stacked image quality		MJI	31/01/04	no progress this month	0	
			MJI	29/02/04	no progress this month	0	
			MJI	31/03/04	no progress this month	0	
16.3	implications for deriving catalogues and parameters						70
	test profile fitting parameters and write report		DWE	31/01/04	no progress, awaiting 16.1	0	
			DWE	29/02/04	no progress, awaiting 16.1	0	
			DWE	31/03/04	included in report for 16.1	50	
16.4	oversampled PSF generation per detector						50
	write first pass PSF generator using optical test data		DWE	31/01/04	first-pass PSF generator written. Testing.	50	
			DWE	29/02/04	tests on simulated data complete (simple model)	50	
			DWE	31/03/04	tests on real data reveal need for a more robust estimator. first pass generator completed and tested.	100	