

## 04Q2\_casu\_deliverables.xls

WP	CASU WP name /sub task / 04Q2 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>					
1.1	<b>report to VISTA, UKIDSS, JAC, ATC, GSC</b>						<b>62</b>
	provide fortnightly meeting minutes, monthly reports on progress + quarterly review reports and planning		STH, MJI				
	prepare for and present paper at SPIE meeting		MJI				
1.2	<b>interface control document between CASU and JAC</b>				completed		<b>100</b>
1.3	<b>interface control document between CASU and WFAU</b>				completed		<b>100</b>
1.4	<b>define WFCAM data structures and FITS headers</b>				completed		<b>100</b>
	check SDF example for completeness		JRL				
	use to generate test FITS header		JRL				
1.5a	<b>define WFCAM observing protocols</b>						<b>75</b>
	monitor and help update MSB guidelines		MJI + STH				
	check first pass survey MSBs		MJI + STH				
1.5b	<b>define VISTA observing protocols</b>						
	help define science and user requirements		MJI + PSB				
1.6a	<b>liaise with UKIDSS&amp;JAC on WFCAM obs strategy, surveys planning</b>						<b>75</b>
	monitor progress		DWE				
1.6b	<b>liaise with Project Scientist on VISTA observing strategy &amp; survey planning</b>						
	monitor progress		PSB				
1.7a	<b>liaise with VDOC on VDFS products for WFCAM</b>						<b>62</b>
	monitor progress		STH + MJI				
1.7b	<b>liaise with VDOC on VDFS products for VISTA</b>						
	monitor progress		MJI + STH				
1.8a	<b>liaise with UKIDSS and JAC on survey progress DB</b>		JRL		paused		<b>50</b>
1.9	<b>system documentation</b>						<b>62</b>
	update and maintain web pages of system docs		DWE				
	<b>2 ESO VISTA software interface deliverables and documentation</b>	<b>4.0</b>					
2.1	<b>VDFS user requirements document</b>						<b>30</b>
	compile RID response document		PSB				
	prepare for and attend PDR, update docs as appropriate		PSB				
2.2	<b>data reduction specification document</b>						<b>30</b>
	compile RID response document		PSB				
	prepare for and attend PDR, update docs as appropriate		PSB				
2.3	<b>calibration plan document</b>						<b>60</b>
	compile RID response document		PSB				
	prepare for and attend PDR, update docs as appropriate		PSB				

<b>2.5</b>	<b>ICD ESO/VPO</b>					<b>60</b>
	update DID and write first draft of DID doc for FDR	PSB				
<b>2.8</b>	<b>liaise with VISTA IR camera development team</b>					<b>62</b>
	continue liaising	PSB				
<b>3</b>	<b>Pipeline infrastructure and pipeline progress monitoring tools</b>	<b>3.5</b>				
<b>3.1</b>	<b>interactive tools for running pipeline</b>	JRL		paused		<b>50</b>
<b>3.2</b>	<b>high level scripts to interrogate headers</b>	STH, JMI		paused		<b>50</b>
<b>3.3</b>	<b>automatic progression of results to web pages</b>	STH, JMI		paused		<b>50</b>
<b>3.6</b>	<b>group documentation on pipeline infrastructure</b>					<b>55</b>
	stress test documentation and update as necessary	JRL				
<b>4</b>	<b>Set up and manage raw science archive</b>	<b>0.0</b>				
<b>5</b>	<b>Set up and manage data processing system hardware</b>	<b>2.0</b>				
<b>5.2</b>	<b>buy hardware and install</b>	MTB		paused		<b>70</b>
<b>5.3</b>	<b>integrating and testing</b>	MTB		paused		<b>55</b>
<b>5.4</b>	<b>Manage day-to-day maintenance and upgrades</b>	MTB		paused		<b>25</b>
<b>6</b>	<b>Run standard pipeline</b>	<b>2.5</b>				
<b>7</b>	<b>Development work for summit pipeline</b>	<b>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				
<b>7.3a</b>	<b>documentation for ORAC-DR interface</b>					<b>60</b>
	update and deliver documentation as development proceeds	JRL				
<b>7.4a</b>	<b>upgrade and maintain summit pipeline WFCAM</b>					
	upgrade and maintain	JRL				
<b>8</b>	<b>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				
<b>8.2a</b>	<b>liaison with WFCAM development team</b>					<b>30</b>
	continue discussion on reset anomaly, crosstalk and linearity	JRL				
	assess engineering test data for above problems and report	JRL				
<b>8.2b</b>	<b>liaison with Project Scientist &amp; VISTA development team</b>					
	develop and test methodology for non-linearity correction, write report	MJI				
<b>8.3a</b>	<b>partake in planning WFCAM commissioning observations</b>					<b>80</b>
	continue liaising with ATC/JAC	STH				
<b>8.3b</b>	<b>partake in planning VISTA commissioning observations</b>					
	liaise and discuss with VISTA PS	STH				
<b>8.6</b>	<b>documentation for 2D processing software</b>					<b>50</b>

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	updates docs as necessary and as a result of feedback	JRL				
<b>8.7</b>	<b>Comparison between automated and manual data products</b>					<b>75</b>
	finish pipeline processing of FIRES data	STH				
	compare FIRES with published results and write report	STH				
	in collaboration with SJW trial UFTI/CIRPASS data through the pipeline, compare with manually reduced data. write report	STH				
<b>9</b>	<b>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				
<b>9.2</b>	<b>refine astrometric calibration model</b>	MJI		paused		<b>80</b>
<b>9.3</b>	<b>generate model simulations of expected data</b>	STH, JMI		paused		<b>80</b>
<b>9.4</b>	<b>assess catalogue parameter reliability</b>					<b>70</b>
	refine parameter error estimates and check for systematics in new parameters - finish in conjunction with 9.1	MJI				
<b>9.5</b>	<b>intercomparison of catalogue products with other packages</b>	JMI		paused		<b>60</b>
<b>9.6</b>	<b>Completeness and error estimates</b>					<b>50</b>
	refine parameter error estimates and check for systematics - finish in conjunction with 9.1 and 9.4	JMI				
<b>9.7</b>	<b>documentation of catalogue software and products</b>					<b>55</b>
	update catalogue products documentation	MJI				
<b>10</b>	<b>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				
	produce prototype for PSF level 2	MJI				
<b>10.3</b>	<b>develop 1D/2D PSF-deconvolved Sersic profile fits</b>					
	assess GALFIT interactive package	MJI				
<b>11</b>	<b>Photometric standards and calibration</b>	<b>3.0</b>				
<b>11.1</b>	<b>agree on primary standards</b>					<b>90</b>
	complete narrow band filter calibration plan and update document	STH				
<b>11.2</b>	<b>choose secondary standard fields</b>					<b>80</b>
	finish updates to photom doc and circulate	STH				
<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				
	simulate from night(s) data and estimate expected accuracy	STH				
<b>12</b>	<b>Further development of DQC measures at summit and Cambr</b>	<b>2.0</b>				
<b>12.1</b>	<b>develop extra systematic noise measures</b>					<b>50</b>
	linked with detector characterisation	MJI				
<b>12.2</b>	<b>Refine current measures for WFCAM/VISTA data</b>					<b>20</b>
	linked with detector characterisation	JRL				
<b>12.3</b>	<b>implement 2mass for throughput measurement</b>	JMI		paused		<b>75</b>
<b>12.4</b>	<b>master calibration frames for detector monitoring</b>					<b>35</b>
	assess and report if current methods work on engineering WFCAM data	JRL				

<b>13 Co-located list driven photometry</b>						
<b>3.0</b>						
<b>13.2 develop basic WCS-based list driven photometer</b>						<b>90</b>
investigate practicalities and implement agreed ICD for parameters - finish	MJI					
<b>13.3 externally driven WCS photometry and define parameter set</b>						
						<b>75</b>
refine, test and debug list-driven parameter estimator - finish	MJI					
<b>14 Stacking and mosaicing</b>						
<b>4.0</b>						
<b>14.1 develop benchmark simple stacking/mosaicing framework</b>	MJI		complete			<b>100</b>
<b>14.2 NN algorithm with simple rejection</b>						
						<b>100</b>
refine current weighting method, test and report on alternative schemes	MJI					
<b>14.3 More sophisticated rejection dealing with pixellation</b>						
						<b>60</b>
continue development of better spurion rejection allowing for pixellation - finish	MJI					
<b>14.4 Stacking with optimum weighting and defect rejection</b>						
refine current weighting method, test and report on alternative schemes	MJI					
<b>15 Continuum subtraction and basic difference imaging</b>						
<b>4.0</b>						
<b>15.1 Simple WCS-based subtraction techniques</b>	MJI		completed			<b>100</b>
<b>15.2 investigate and apply different interpolation methods</b>						
						<b>100</b>
investigate PSF fitting algorithms and write report - finish	MJI		completed			
<b>15.3 develop adaptive kernel matching option</b>						
						<b>80</b>
continue debugging and enhancements to adaptive kernel package	MJI					
<b>16 Interpolation techniques and PSF modeling</b>						
<b>4.0</b>						
<b>16.1 investigate alternative interpolation/PSF schemes</b>						<b>70</b>
investigate PSF fitting algorithms and write report - finish	DWE					
<b>16.2 implications for different stacking methods</b>						
						<b>20</b>
quantify effects of interpolation on stacked image quality	MJI					
<b>16.3 implications for deriving catalogues and parameters</b>						
						<b>70</b>
test PSF fitting using optical data and include results within above report from 16.1	DWE					
<b>16.4 oversampled PSF generation per detector</b>						
						<b>50</b>
develop more robust oversampled PSF generator	DWE					