# **VHS SMP RIXES**

# 19-Mar-2007

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#### 1. RIXes Email from EST

From: marnabol@eso.org Subject: Review VHS SMP Date: 19 March 2007 11:06:19 GMT To: rgm@ast.cam.ac.uk

Dear Dr McMahon,

The ESO survey team (EST) has now reviewed the VHS survey management plan, in consultation with the Chair of the PSP, Dr Duccio Macchetto. You will find the generated Rix'es as attachment to this email.

The answers to the Rix'es and the revised survey management plan (SMP) must be submitted by noon CET on May 21st, 2007.

When revising the SMP, please consider the following:

1. ESO will carry out the VISTA science verification in order to perform stress tests for tools and telescope operations, and ensure the most efficient scheduling and telescope data acquisition for public surveys. Furthermore, science verification and telescope commissioning data will be immediately available to the survey teams so that they can test their data processing and QC procedures before the starting of the Public Surveys. Therefore no specific science verification time will be allocated to individual surveys.

2. The EST requests a confirmation from the VHS PI that he accepts the responsibility, on behalf of his team, to carry out the data processing, the quality control, the scientific analysis of the Public Survey Data acquired with the VISTA telescope, and the delivery of the advanced data products to the ESO archive, within the limited resources currently provided by CASU and WFAU. Should this limited support cease to exist, the PI accepts the full responsibility for the complete data flow.

Please do not hesitate to contact me, should you need any additional information,

With Best Regards

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RID=Review Item Discrepancy, RIC=Review Item Comment, RIQ=Review Item Question Please use a separate page per RIx.

Reviewer: ESO Survey Team		
Document No	VHS SMP	
RID, RIC or RIQ ?	RID	
Section	Survey Observing Strategy	
Page(s)		

RIx text

<u>The PI must prioritize the survey regions</u>: The high priority area must be complementary as much as possible in the R.A. distribution to the other OPC recommended public surveys, i.e. VVV, VMC, and VIKING. The PI should investigate synergies with the PI of these surveys so that data can be shared.

Only 1 tile for 1 OBs is allowed so the current observing strategy must to be revised.

According to the ESO policies for Service Mode Observations (which will apply to VISTA observing) the exposure time cannot be adjusted at the telescope.

The Ks sky background is substantially stable at the Paranal Observatory, see ISAAC QC pages. For the bluer filters, it depends on the FLI.

The tradeoff between sky transparencies and seeing FWHM requirements is the PI responsibility, and cannot be delegated to the night astronomer.

PI should use SADT to avoid bright stars in their tiles.

OBs for different instrument cannot be linked, therefore no link is possible between VHS OBS and VST ATLAS OBS.

The survey team underestimates the number of nights required to complete their survey and consequently overestimate the total area covered within a certain time interval, as they do not take into account i) the time required to point the telescope, and ii) the one hour needed to calibrate the broad band filters, as described in the VISTA calibration plan.

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Reviewer: ESO Survey Team		
Document No	VHS SMP	
RID, RIC or RIQ ?	RID	
Section	Survey Data Calibration Needs	
Page(s)		
RIx text		

The Y band cannot be calibrated with 2MASS, and the survey team does not discuss a calibration plan for this filter.

The team has not investigated the impact of the 200 bad pixel region on chip#16 for their science.

As part of their quality control tests, the survey team expects to test the galaxy-star classification during Science Verification (SV): does the survey team have a backup plan is the SV time is not available?

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Reviewer: ESO Survey Tear	n	
Document No	VHS SMP	
RID, RIC or RIQ ?	RIQ	
Section	Survey Reduction Process	
Page(s)	-	
RIx text		
Who checks the uniformity of zero points across the whole survey area and the global astrometry?		
When submitting the revised SMPs, the PI must provide a written statement from both CASU and WFAU managers that the two data centers will support the data flow and the data processing needs as described by the PI in the VHS Survey Management Plan.		
Reply from Survey Team Name:		

RID=Review Item Discrepancy, RIC=Review Item Comment, RIQ=Review Item Question Please use a separate page per RIx.

Reviewer: ESO Survey Team	
Document No	VHS SMP
RID, RIC or RIQ ?	RIQ
Section	Manpower and hardware capabilities devoted to data reduction and quality
	assessment
Page(s)	

#### RIx text

There are no FTE committed to the survey data processing in addition to those of VDFS: the survey team must provide a detailed break-down of the FTE commitments in the revised management plan.

A required deliverable will be a photometrically and astrometrically uniform survey: once the survey team gets the basic stacked data from CASU, who will be carrying out this part of the data processing and quality control?

Creating a uniform ZP and global astrometry over several thousands squared degrees is a major undertaking and it is a key to their science. If WFAU is expected to do this, then the PI must provide a written statement by WFAU that they confirm to do this for VHS. Otherwise, the PI must provide detailed FTE for those parts of the data processing and the scientific analysis which is specific for the science goals of the survey in the revised survey management plan.

The team should have a person responsible for preparing the survey OBS.

When submitting the revised SMP, the PI must provide a written statement from both CASU and WFAU managers that the two data centers will have the sufficient FTE commitment to support the data flow and the data processing needs as described by the PI in the VHS Survey Management Plan.

RID=Review Item Discrepancy, RIC=Review Item Comment, RIQ=Review Item Question Please use a separate page per RIx.

Reviewer: ESO Survey Team		
Document No	VHS SMP	
RID, RIC or RIQ ?	RIQ	
Section	Data quality assessment process	
Page(s)		

RIx text

Can the PI clarify who sets the extraction parameters for the source catalogues? Where do the science requirements come into place? Or the PI involvement?

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Reviewer: ESO Survey Team		
Document No	VHS SMP	
RID, RIC or RIQ ?	RIQ	
Section	Data products and VO compliance	
Page(s)		

RIx text

- 1. The aperture matched photometry must be delivered to the ESO archive.
- 2. Will the DES optical data be available to the community?
- 3. Will the high level data products photo-z, etc. be available for the ESO archive?
- 4. If all data processing steps are performed by VDFS, and ESO receives the VO compliant data products from there, what is the team added value?