

Data products from VST/OmegaCAM pipelines. Comparison and Discussions

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- Following the VST realignment meeting on September 2010, the VST Public Survey Panel (PSP) encouraged some cross evaluation of the results between different pipelines.
- Goals:
 - Create a forum where open issues concerning data products from VST/OmegaCAM can be documented and discussed.
 - Ensure homogeneity of products and quality across data centers
- The data centers are Astrowise in Groningen, VST tube in OAC –INAF, and CASU in Cambridge UK.

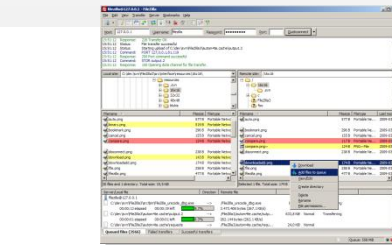
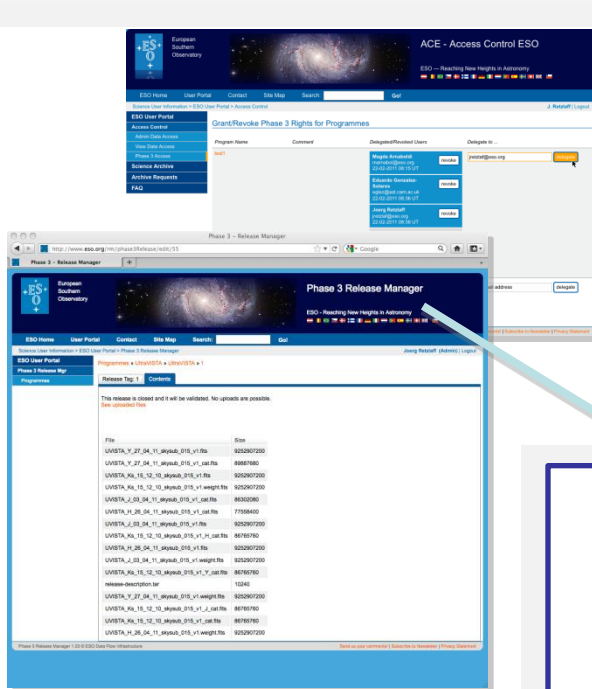
■ Three sections

- A. Issues common to wide field imaging surveys data processing
- B. DATA PRODUCTS
- C. TEST DATA SET

■ In each section, representatives from data centers present their results on the questions circulated on the data reduction issues.

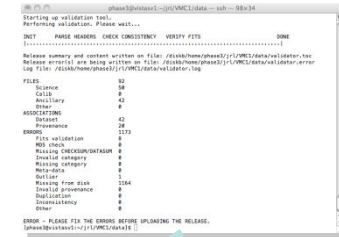
■ **Follow-up:** A report the VST PSP to document the outcome of the cross comparison of the data products. Edited version will become available to support the community access to the VST data products from public surveys via the ESO archive.

Phase 3 data flow & infrastructure



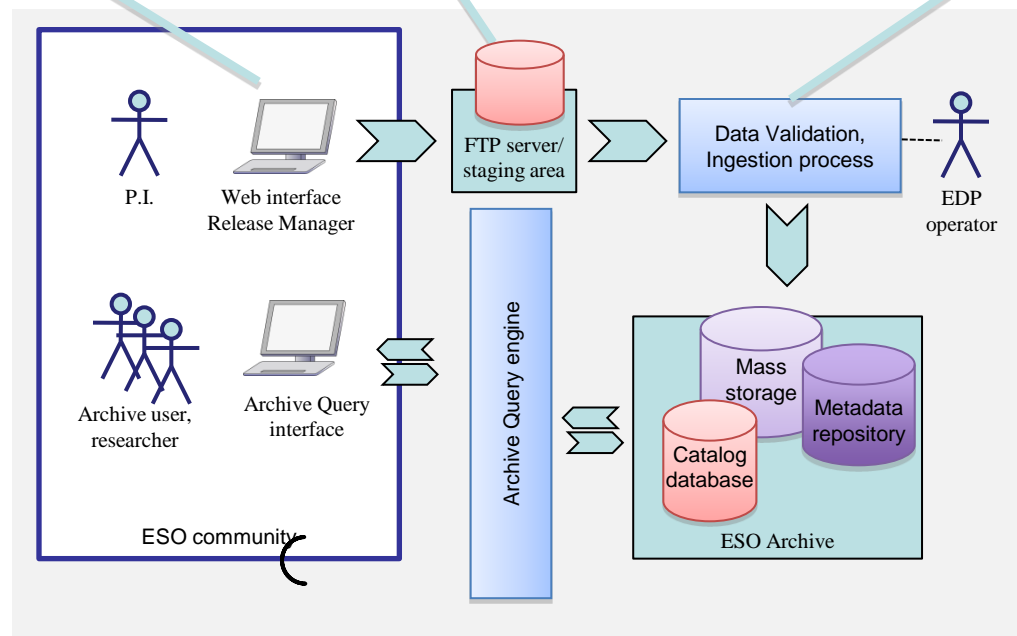
The release validator is a command-line application that helps to verify the data standard and validity of the header keywords against predefined rules.

The data is transferred by the PI/Co-I via FTP to the dedicated staging area.



The release manager is a web application that allows the P.I. to define data collections and releases and to manage the Phase 3 delegation to co-investigators.

Phase 3 Start of operations: 10 March 2011



Interfaces between the Phase 3 data flow, its users and the ESO Science Archive Facility.

VISTA Data releases and community access via ESO SAF

Survey	Submission Date	Date of Observations	Release Content	Pass-bands	Sky coverage (sq.deg)	Type of Data Products	Total volume	Total number of files	VISTA tile images	Pub. date
VVV	03.05.2011	Feb 2010 – Sep 2010	Contiguous patch of bulge and disk region including multi-epoch data in Ks	ZYJHKs	~520 (348 tiles)	Tiles, single-band source lists	1.5 TB	7980	2660	25.07.2011
VIDEO	03.05.2011	Nov 2009 – Feb 2010	XMM-LSS field	YJHKs	1.5	Tiles, single-band source lists	24 GB	291	97	25.07.2011
VMC	08.09. 2011	Nov 2009 – Nov 2010	2 tiles in the LMC: one overlapping the 30 Doradus and the other the South Ecliptic Pole region	YJKs	3	Stacked tiles and pawprints, single-band and band-merged source lists	8.1 GB	1256	6	25.09.2011
VHS	15.09.2011	Nov 2009 – Sep 2010	VHS DES: 120 secs in JHK VHS ATLAS: 60 secs in YJHK VHS GPS: 60 secs in JK	YJHKs	~1910	Tiles, pawprints, single-band source lists	3.9 TB	96474	4560	17.10.2011
UltraVISTA	06.10.2011 – 30.01.2012	Dec 2009 – Apr 2010	Deep imaging of the COSMOS field	YJHKs, NB118	1.5	Stacked images, SExtractor catalogues including Ks-selected multi-band catalogue	87 GB	19	5	15.02.2012
VIKING	10.10.2011	<i>Phase 3 data submission to be closed by P.I.</i>					19 GB	6276		

Date: 20.02.2012

Visibility of PS data products via the ESO science archive

- The total number of Phase 3 dataproducts files downloaded is 1144 for a volume of **~700 GB** since Dec 01, 2011
- Data volume and number of files downloaded listed by release name:

➤ VHS	6 GB	641
➤ VVV	63 GB	278
➤ UltraVISTA	582 GB	126
➤ VMC	7 GB	51
➤ VIDEO	6 GB	48
- Data volume and number of files downloaded listed by data products type:

➤ Source lists (tables)	50 GB	785
➤ Calibrated images	333 GB	190
➤ Weightmaps	281 GB	125
➤ Preview images	2 MB	32
➤ Calibrated pawprints	807 MB	12
- Raw data downloaded from ESO SAF by the community in same period is **3 TB!**

■ Participants

- VST data centers - **AstroWISE**: Gijs Verdoes Kleijn. **CASU**: Mike Irwin. **VST tube**: Aniello Grado, Massimo Capaccioli
- **VST team representatives**: Tom Shanks (VST ATLAS), Jelte de Jong (KIDs), Robert Greimel (VPHAS+)
- ESO staff
 - Garching - Magda Arnaboldi (*), Dietrich Baade, Nausicaa Delmotte, Armin Gabasch, Michael Hilker, Alberto Micol, Mark Neeser(*), Monika Petr-Gotzens, Joerg Retzlaff(*), Martino Romaniello.
 - Vitacura – Steffen Mieske(*), Fernando Selman, Giovanni Carraro.

Today's meeting – Agenda (I)

- 09:00 – 09:15 Welcome - Magda (15 min)
- 09:15 – 09:35 The ESO QC for OmegaCAM/VST – Mark (20 min)
- A. Issues common to wide field imaging surveys data processing – (9:35 – 11:20)
- 11:20 - 11:40 Coffee break
- B. DATA PRODUCTS – (11: 40 - 12:25)
- 12:25 – 12:40 QC at VST – Steffen (15 min)
- 12:40 – 13:30 Lunch Break

Today's meeting – Agenda (II)

- 12:40 – 13:30 Lunch Break
- C. TEST DATA SET – (13: 30 - 14:30)
- The VST PS – Requirements for data products and quality control – (14: 30 - 15:15)
 - KIDs (15 min)
 - VPHAS+ (15 min)
 - VST ATLAS (15 min)
- 15:15 - 15:45 Coffee break
- PHASE3 for VST PS : Policies & Requirements.
Joerg – 15:45 – 16:00
- 16:00 – 17:00 Discussion