

European Organisation for Astronomical Research in the Southern Hemisphere

# ESO VISTA Public Surveys: Phase 3 concepts and documentation

J. Retzlaff (EDP)

1





# I. The Phase 3 concepts of data collection and release



#### provide the framework that supports the data submission process and facilitates data access through the ESO Archive; form a simple hierarchical structure where data collection is at the top and any data release must be associated to one and only one data collection; The data collection allows organizing the data from a given programme according to high-level criteria into self-consistent groups, which, Phase 3 Programme subsequently, the archive user can browse and access: Data Data Data Collection Collection Collection B С Release 2 Release 1 Release 2 Release 3 Release 1 Release 1 ESO VISTA Public Surveys Phase 3 Workshop 30.11.2010

ESO

European Organisation for Astronomical

Research in the Southern Hemisphere

### **ESO Data Release and Data Collection (1)**

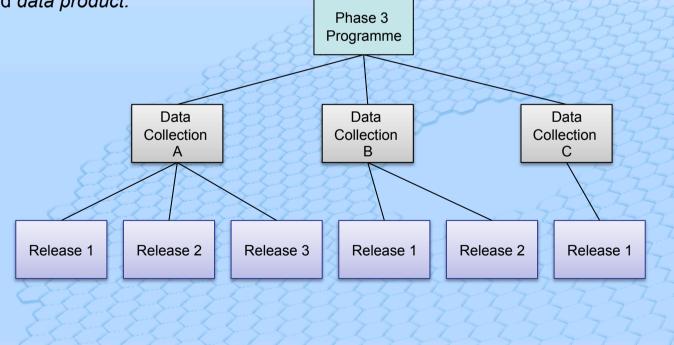
3

## **ESO Data Release and Data Collection (2)**



European Organisation for Astronomical Research in the Southern Hemisphere

- Initially, any collection consists of the first data release ("Release 1")
- Subsequent data releases for the same collection may follow to add more data according to the observing programme's progress (2, 3, ...)
- The individual data release may be considered a version of the data collection
- It is also possible to submit a revised version of a previously released data product.

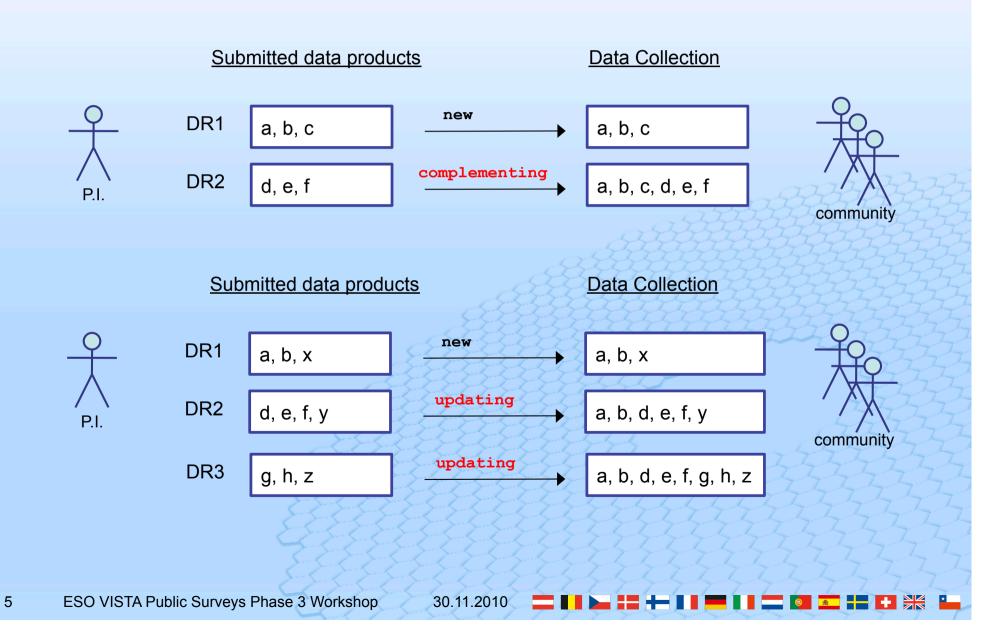


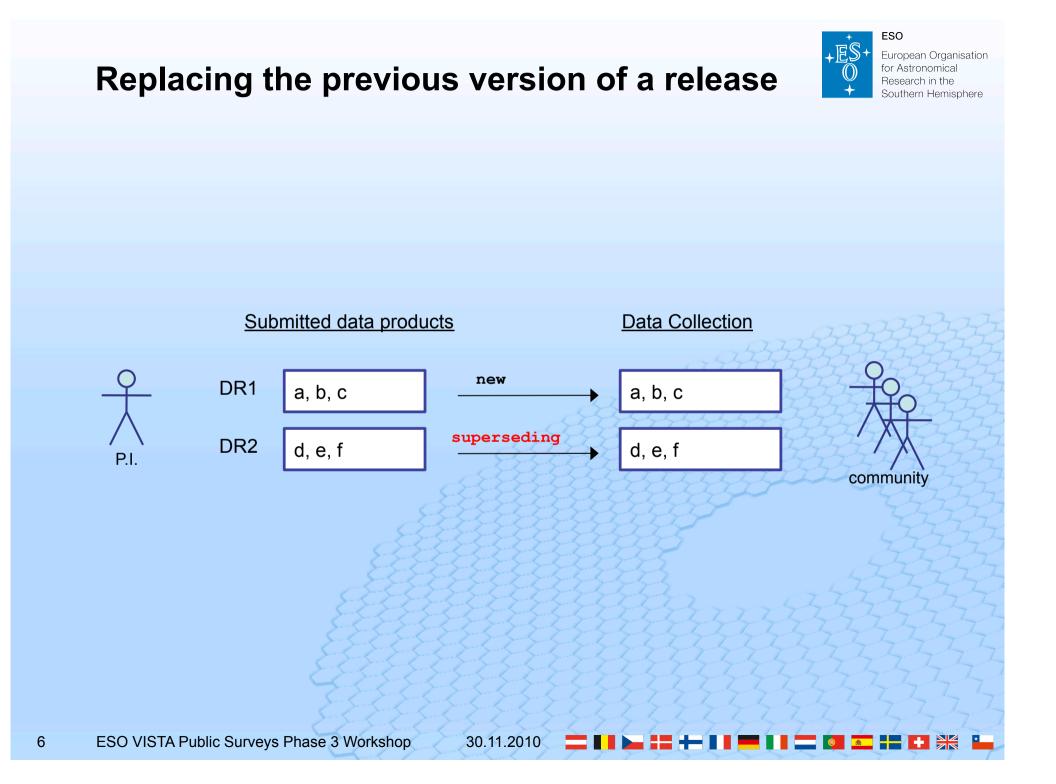
30.11.2010

# **Building up Data Collections**



European Organisation for Astronomical Research in the Southern Hemisphere







# Guidelines for the usage of Data Release and Data Collection (1/2)

- One data collection may correspond to one target object/ target region, in case of surveys.
- The collection name has to be defined at the time of starting the data submission and cannot be revised later by the user
- Each data release has to be accompanied by its release description specifying content, data properties and format
- The type or number of data products are, generally, not useful criteria for the definition of data collections.
- In practice, one ESO programme can result in a single data collection, like, e.g., the zCOSMOS galaxy redshift survey

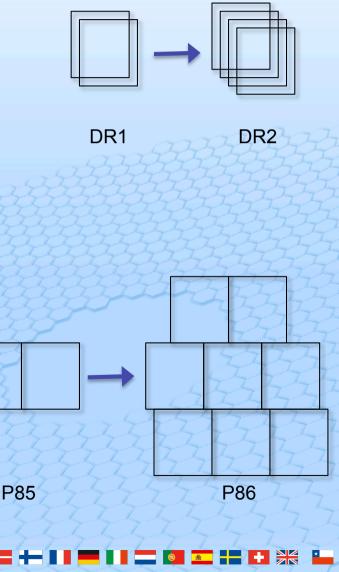
30.11.2010 📃 📕 🛌 🚼 🕂 📗 📕 💻 🚺 🔤 🗵

# Guidelines for the usage of Data Release and Data Collection (2/2)

30.11.2010

- For deep surveys different collections may be defined to distinguish by region (especially VIDEO, possibly Viking)
- UltraVISTA may use a collection for the deep and another one for the ultra-deep survey.
- For VVV the products resulting from the first-pass multi-color survey and from the variability survey may be released in different collections.
- Another option for VVV is to define one collection each for "bulge" and "disk".
- For surveys like VHS, which accumulate more and more area with time, collections may be defined according to observing periods.





ESO European Organisation



# II. Phase 3 user documentation







# EUROPEAN SOUTHERN OBSERVATORY + Organisation Européenne -pour des Recherches Astronomiques dans Htémisphère -Austral + Europäische-Organisation für astronomische Forschung in der südlichen Hemisphäre +

Ť.

#### ESO Phase 3 user documentation<sup>1</sup>

#### **CONTENTS**

1→Purpose and Scope	
2→Policies	
2.1→ESO public surveys	
2.1.1 → Introduction	
2.1.2→General policies on the delivery of data products from VISTA pub	
2.1.3→ Timeline of the Data Products delivery from the ESO public surve	
3→ESO External Data Products Standard	
3.1→Level of reduction	
3.2→ Data calibration	
3.2.1 → Astrometry	
3.2.2→Photometry	
3.2.3→Spectral calibration	
3.2.4→ Temporal characterization	
3.3→ Data characterization	
3.3.1 → Imaging data	
3.3.2→Spectra	
3.4→ FITS file format	
3.5→ File naming convention	
3.5.1 → Maximum filename size	
3.5.2 → Uniqueness of filenames	
3.5.3 → Filename suffixes	
3.6→ FITS keywords for External Data Products	
3.6.1 → Propagation of original keywords	
3.6.2 → Primary EDP keywords	
3.6.3→Data-specific keywords	
3.6.4→ World coordinate system	
3.6.5→Imaging data products	
3.6.6→Data quality parameters	
3.6.7 → ESO public imaging surveys	
3.6.8→ Checksums and reserved header keywords	
3.7→ Top-level category for data products	
P	
Prepared for the ESO Public Surveys Phase 3 Workshop, ESO Garching, November, 30, 2	2010

Authors: J. Betzlaff, M. Arnaholdi, Date: 27.11.2010

**e** 10

3.8→ Data format definitions	
3.8.1→Overview of VISTA-imaging data products	
3.8.2 → VISTA tile image	
3.8.2 ▼VISTA the image	
3.8.4 → VISTA stripes image	
3.8.5 → VISTA source-list	
3.9→ Data release description	
3.9 Data-release-description	
4→User guide for the phase 3 data submission process	
4.1→Enter the Phase 3 Release Manager	
4.2→ Log in to the ESO User Portal	
4.3→ Choosing your programme	
4.3.1→Principal investigator of ESO public survey or large programme	
4.3.2 → Co-Investigator	
Principal investigator of normal ESO programme	
4.3.3→ Data products resulting from archival research	
4.4→ Delegating the phase 3 process	
4.5→ Defining the ESO data release	
4.5.1 → Data collection and data release 34¶	
4.5.2→Guidelines34¶	
4.5.3 → Initial data release	
4.5.4→Subsequent data release	
4.6→ Adding data products to the release 37¶	
4.7→ Submitting the data release description	
4.8→ Closing the data release description	
4.9→ Data release validation	
4.0 → Data release becomes public 39¶	
4.10 → Data release becomes public	
5→Appendices	
5.1→ List of compatible FTP clients	
5.2→ Phase 3 Release Validator User Manual	
¶	
<u>त</u>	

**FCO** 

-Page Break

2

T

T

30.11.2010

10

#### Phase 3 web pages



European Organisation for Astronomical Research in the Southern Hemisphere

(B)

+ES+ Observatory	Observing with ESO Telescopes		
ESO Home User Por	tal Contact Site Map <mark>Search Go</mark> !		
Science Users Information > Observir	ng with ESO Telescopes > Phase III 29 Nov 2010		
Science Users Information	Phase III		
Observing Facilities			
Future Facilities	In a nutshell, phase 3 denotes the process, in which principal investigators of ESO observing programmes return their reduced data products for archival storage and data publication to		
Observing with ESO Telescopes	the scientific community. ESO's policies governing phase 3 are specific to the type of observing programme. Phase 3 is mandatory for ESO Public Surveys and for ESO Large		
Policies and Procedures	Programmes since period 75. For other ESO programmes there is no obligation but PIs are invited to take advantage of the phase 3.		
Telescope Time Allocation	To ensure the successful integration of External Data Products (EDPs) into the archive, ESO supports the users in carrying out the phase 3 process by defining ESO/EDP data		
Phase I Proposals	standards, by devising procedures and providing the infrastructure for the delivery of EDPs, and by supplying tools for the data preparation.		
Phase II Preparation	Public Surveys Phase 3 Workshop, Garching, 30.11.2010		
Phase III	Phase 3 policies		
Phase 3 Workshop	ESO External Data Products standard		
Release Manager	Data preparation and submission procedures		
Observing Tools and Services	Software tools		
Visiting Astronomers			
Science Software			
Data Handling and Products			
Science Archive Facility	Contact		
Science Activities	For any questions regarding phase 3, its policies, the data content and format, or the submission process of data products to the ESO Archive, please feel free to contact the EDP		
Scientific Meetings	group via email at		
IT Services	usd-help@eso.org, subject: EDP-ADP Submission.		
Libraries			
Publications			
Job Opportunities			
ESO for the Public			
ESO Intranet			
ast Update: 26.11.10 ©ESO	Send us your commants!   Subscribe to Newsletter   Privacy Statement		

## http://www.eso.org/sci/observing/phase3.html

30.11.2010 \_\_\_\_





European Organisation for Astronomical Research in the Southern Hemisphere

Contact the EDP team via email:

usd-help@eso.org, subject: EDP-ADP Submission

Phase 3 web page at

http://www.eso.org/sci/observing/phase3

- Access to the Release Manager
- Phase 3 Validator
- ESO Phase 3 user documentation

The slides of the presentations of this workshop will be posted as well.