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# DOCUMENT

## VIRTIS: Rosetta Archive Enhancement Data Closeout Review Procedure

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## 1 INTRODUCTION

### 1.1 Purpose and scope

This document provides information on the Rosetta Archive Enhancement Data Closeout (CLS) Review with a specific focus on the data and procedures to be followed when reviewing the VIRTIS instrument deliveries.

This document complements, and is an Appendix to the Rosetta Archive Enhancement Data Closeout Review Procedure document [1], which provides important information on the review as a whole.

### 1.2 Reference Documents

[1] Rosetta Archive Enhancement Data Closeout Review Procedure, RO-SGS-PR-1023, Issue 1.0, 27 June 2019.

[2] VIRTIS RIDs from previous reviews, RIDS\_VIRTIS.PDF, 16 July 2019.

## 2 DATA FOR REVIEW

### 2.1 What data is under review?

The following data are provided:

#### Level 3 data (calibrated data)

Level 3 was already reviewed in 2018. The main focus here shall be to assess if the open RIDs/actions can be closed. Document RIDS\_VIRTIS.PDF provides the list of open actions, which can also be accessed in the Eclipse system under the project “Rosetta CLS Archive” located at the top left corner. Also a bug consisting in one line of data being missing at the end of the data cubes has been solved.

#### Level 5 data (maps)

Level 5 data is being reviewed for first time and the review shall therefore be full.

#### Level 2 (raw data)

Additionally Level 2 data is provided but it is not formally under review since it has already been fully reviewed. The reason to provide Level 2 data to the reviewer is to facilitate the assessment of the Level 3 data (to check, for example, if the equivalent Level 2 data is properly calibrated). There was however one bug also corrected in the pipeline affecting L2: one line of data was missing and has now been added. Reviewers are simply asked to ensure data are still readable / usable with the addition of the single line.



The specific datasets provided are:

- RO-C-VIRTIS-2-ESC1-MTP013-V3.0 (mainly as a reference, not under formal review)
- RO-C-VIRTIS-3-ESC1-MTP013-V3.0 (for delta review)
- RO-VIRTIS-5-V1.0 (for FULL review)

### **2.1.1 Supporting SPICE Data:**

Should you need them, the latest SPICE kernels for Rosetta are published in:

<ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/kernels/>

**NOTE: These data are NOT under review, but may be of use if you need to do some analyses using geometry.**

More precisely, you can use the kernels indicated in the meta-kernel:

[ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/kernels/mk/ROS\\_OPS.TM](ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/kernels/mk/ROS_OPS.TM)

The release notes for the latest version (V3.0.0) are published here:

[ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/misc/release\\_notes/ros\\_skd\\_current.txt](ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/misc/release_notes/ros_skd_current.txt)

Should you have any doubts concerning the SPICE data, please see here:

<https://www.cosmos.esa.int/web/spice/spice-for-rosetta>

Finally, there is a very nice online tool for geometry, supported by SPICE, called WebGeocalc:

<http://spice.esac.esa.int/webgeocalc/>

If using WebGeocalc, in the kernel selection, you should choose: “OPS – ROSETTA – OPERATIONAL”.

## **2.2 How to retrieve the data**

If you are a reviewer from the US, you will be contacted separately by PDS-SBN with details of how you will be provided with the data. For European reviewers, the data can be retrieved as described below.



The data for this review are not yet public and will be provided to you via a secure ftp. Details of how to connect and retrieve the data will be sent by e-mail separately.

Should you have any issues retrieving the data you wish to review, please contact us using the details provided in Section 6.

### 3 REVIEW PROCEDURE

Please check the Sections 2 and 5.2 of the Review Procedure Document [1] for an overview of the review objectives, and the strategy you should try to follow when reviewing the data. It is a good idea to try to replicate a published scientific result using the data provided.

#### 3.1 Special things to look out for

For the delta review of the L3 data set, the team has addressed all RIDs/liens raised during the previous comet science reviews. Details of the RIDs from the previous review are provided in RIDS\_VIRTIS.PDF [2], delivered as a supplementary document for this review.

Data should be readable by standard PDS readers such as NASAVIEW (<https://pds.nasa.gov/tools/nasa-view.shtml>) and READPDS ([https://pdssbn.astro.umd.edu/tools/tools\\_readPDS.shtml](https://pdssbn.astro.umd.edu/tools/tools_readPDS.shtml)).

### 4 THE RID / LIEN SYSTEM

This review will use the ECLIPSE system to raise, track and manage issues raised. Within ESA, issues raised are known as RIDs (Review Item Discrepancies), while PDS refer to these as liens. A User Manual for the ECLIPSE system is provided, and the Rosetta Archive Team is also on-hand to provide direct support should any issues arise (Section 6). You will receive a separate e-mail with your individual login credentials for the ECLIPSE system, and you can then choose your own password.

When you raise a RID, please click on the document associated with the instrument you are reviewing, and fill in all fields available, including recommendations for how any issue you find might be resolved to your satisfaction. The following briefly describes each of the fields available and how they should be filled in:

- The **RID Number** is automatically generated by the system.
- In the **Classification** field, please indicate whether the issue being raised is



- Minor: an issue that does not hinder the understanding of the data to an extent by which the data cannot be analyzed by an independent scientist.
- Major: an issue that compromises the understanding/use of the data to an extent by which the data cannot be analyzed without additional support.

*N.B. Editorial issues (e.g. typographical errors) are not RIDs, and should be raised as described in Section 4.1.*

- In the **Originator Reference** field, please follow the convention (note that you will have to type this yourself) **PLEASE FILL THIS FIELD IN!!**
  - **VIRTIS-AA-XX-YYY** where
    - **AA** is either **EU** for a European RID or **US** for a US RID;
    - **XX** are your initials;
    - **YYY** is a sequential number, starting at 001 for the first of your RIDs.
- The **Panel** is a drop-down selection. If you are a scientific reviewer, please choose *Science Panel*. If you are a technical reviewer (e.g. PDS or PSA), please select *Technical Panel*.
- In the **Title of RID** field, please provide a short title of the RID (max. 52 characters)
- The **Datapack Document** field is filled in automatically by the system.
- In the **Document Page / Section / Para** field, please include the specific DATA\_SET\_ID and, where applicable, the FILE affected by the issue.
- The **Discrepancy Document** field can be ignored.
- In the **Description of Discrepancy** field, please include a full description of the process you followed to encounter the issue, as well as the issue itself.
- In the **Initiator Recommended Solution** field, please provide a recommendation as to how the RID can be resolved to your satisfaction.

The remainder of the fields will be populated during the panel discussion at the review meeting.

**IMPORTANT:** The RID deadline is August 27<sup>th</sup> 2019.

**The system will close on 27<sup>th</sup> August 2019 at 23:59 (CET).**

You **must** have all of your items raised within the system by this time.



## 4.1 Raising Editorial Issues

Editorials are typographical errors and issues that have no impact on the understanding and/or use of the data provided. In case you identify any issues that are editorial in nature, they should be raised using the ‘Editorials’ menu in the blue bar at the top of the screen. As with a RID, please complete all applicable fields when raising an editorial. Note that these will not be discussed in the review meeting, and will be sent to the teams separately.

## 5 REVIEW MEETING

The panel meeting for this review will take place 4<sup>th</sup> - 5<sup>th</sup> September 2019 at ESAC, Madrid. For US reviewers, a parallel meeting will take place at PDS SBN, University of Maryland, starting the day before (3<sup>rd</sup> September). The exact agenda will be communicated to you by e-mail before the meeting, detailing when each instrument will be discussed within each meeting, and when joint discussions between the US and European reviewers will take place.

Further details of the review meeting are provided in Section 5.4 of the Rosetta Final Archive Enhancement Review Procedure [1].

## 6 CONTACT POINTS

In case of any questions related to the review, don't hesitate to contact the relevant person from the table below:

Role	Name	E-Mail	Telephone
Review Manager (issues using the ECLIPSE system)	Dave Heather	<a href="mailto:dheather@cosmos.esa.int">dheather@cosmos.esa.int</a>	+34 918131183
VIRTIS Archive Scientist (specific VIRTIS issues)	Diego Fraga	<a href="mailto:dfrag@sciops.esa.int">dfrag@sciops.esa.int</a>	
Rosetta SGS Archive Team (general Rosetta review issues)	Rosetta Archive Team	<a href="mailto:rsgs_arc@sciops.esa.int">rsgs_arc@sciops.esa.int</a>	
PDS Contact (specific US issues)	Tilden Barnes	<a href="mailto:tbarnes4@astro.umd.edu">tbarnes4@astro.umd.edu</a>	