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# DOCUMENT

## VIRTIS: Rosetta Enhanced Science Archive Review Procedure

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# CHANGE RECORD

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## 1 INTRODUCTION

### 1.1 Purpose and scope

This document provides information on the Rosetta Enhanced (ENH) Science Archive Review with a specific focus on the data and procedures to be followed when reviewing the instrument **VIRTIS**.

This document complements, and is an Appendix to the Rosetta Archive Enhancement Oct 2018 review procedure document [1], which provides important information on the review as a whole.

### 1.2 Reference Documents

[1] Rosetta Archive Enhancement Oct 2018 review procedure, RO-SGS-PR-2021, Issue 1.0, 26 July 2018

## 2 DATA FOR REVIEW

VIRTIS (Visible Infra Red Thermal Imaging Spectrometer) is part of the Rosetta Orbiter payload. The team underwent a review with L2 and L3 in 2015 and 2017. For this review they provide one MTP (MTP24) of L3 with an updated calibration and geometry.

The instrument and data are described in the EAICD document located in the DOCUMENT directory. The calibration documentation is in the DOCUMENT directory and the calibration files are in the CALIB directory.

### 2.1 What data is under review?

VIRTIS delivered L3 calibrated data V3.0 with an updated calibration pipeline and new geometry.

It is also expected to receive during the review L5 data (maps) hopefully with enough time to enter into the review.

#### 2.1.1 Level 3 Data:

RO-C-VIRTIS-3-ESC4-MTP013-V3.0

RO-C-VIRTIS-3-ESC4-MTP024-V3.0

RO-C-VIRTIS-3-ESC4-MTP027-V3.0 (planned but not available at kick off time)

RO-C-VIRTIS-3-ESC4-MTP029-V3.0 (planned but not available at kick off time)



### **2.1.2 Level 5 data**

TBD dataset ID (planned but not available at kick off time)

## **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 VIRTIS data for this review are not yet public, and the PSA ftp public server currently holds only the old versions of these data sets. These can be used for comparative purposes if needed.

The data for this review 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.

If you wish to have a look at the previous version of Virtis calibrated data or at the raw data, they are released to the public. You can retrieve them directly from the PSA as described below.

It is recommended to use ftp to retrieve the data. Any standard ftp client such as FileZilla can be used to download your data set(s).

From within your preferred client, use an anonymous login to

***psa.esac.esa.int***

Then navigate to

***pub/mirror/INTERNATIONAL-ROSETTA-MISSION/VIRTIS/***

The relevant data set(s) can be downloaded from there.

If you wish to first view the list of data sets or select files from within a data set, you can access the PSA ftp directly using the following link:

<ftp://psa.esac.esa.int/pub/mirror/INTERNATIONAL-ROSETTA-MISSION/VIRTIS/>

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

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)). The VIRTIS team has provided their own software that can be used to view the data. This software is located in the EXTRAS directory of each data set.

### 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
  - o 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.
  - o 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)
  - o **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 September 28<sup>th</sup> 2018.

**The system will close on 28<sup>th</sup> September 2018 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 9-10<sup>th</sup> October 2018 at ESAC, Madrid. For US reviewers, a parallel meeting will take place at PDS SBN, University of Maryland. 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 Science Archive EOM Comet Data 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:dfraga@sciops.esa.int">dfraga@sciops.esa.int</a>     | +34 918131578 |
| 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>   |               |