

CASSIS CONFIGURATION MANAGEMENT PLAN

Doc.No: EXM-CA-PLN-UBE-00017 Issue: 0 Revision: 3 Date: 23. Jun. 2014

| Instrument name: | Colour and Stereo Surface Imaging System (CaSSIS) | |
|------------------|---|--|
| Origin Name: | Physikalisches Institut, Universität Bern | |
| WBS code: | N/A | |
| Package code: | N/A | |
| Restrictions: | N/A | |

| | Name | Signature | Date |
|-------------|--|-------------|----------------|
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| Approved by | Nicolas Thomas Principal Investigator | Phyle | 14 11 2014 |



DOCUMENT CHANGE RECORD

| Issue | Revision | Date | Pages, Tables, Figures affected | Modification | Initials |
|-------|----------|-------------|--|---|----------|
| 0 | 1 | 25 Apr 2013 | All | First Draft | RZ |
| 0 | 2 | 20 Sep 2013 | | Title changed | RZ |
| 0 | 3 | 23 Jun 2014 | Section 2 | Updated Hardware responsibilities flowchart | RZ |
| | | | Section 3.1.2 | Updated paragraph | RZ |
| 1 | 0 | 14 Nov 2014 | | Signatures for CDR | RZ |
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List of documents

| Applicable documents | | | | |
|----------------------|---|---|--|--|
| AD 01 | EXM-PL-IRD-ESA-00003 Issue 2 Rev 0 TGO E-IRD (JCCB - Signed) | Experiment Interface Requirements Document | | |

| Reference documents | | | | |
|---------------------|----------------------------------|------------------------------------|--|--|
| RD 01 | | RUAG configuration management plan | | |
| RD 02 | | SG configuration management plan | | |
| RD 03 | EXM-CA-LIS-UBE-00001 lss 1 Rev 0 | List-of-Acronyms | | |



1 PURPOSE OF DOCUMENT

Describes the methods and procedures used by the University of Bern to manage project/product information and configuration.

Describe the methods and procedures to be used by the Subcontractor to manage, share and archive project/product information and configuration for the ExoMars/TGO.

2 **RESPONSIBILITIES**

Hardware responsibilities are delineated in Figure 1 below. The University of Bern (UBE) has overall responsibility for CaSSIS including system engineering. RUAG (or RSSZ) Space is responsible for the CaSSIS telescope and associated thermal control. RUAG also contributes the transport container for the entire instrument. The Focal Plane System (FPS) – consisting of the Focal Plane Assembly (FPA) and the Proximity electronics (PE) – are in the responsibility of the italian space agency (ASI) through the University of Padova. SELEX/GALILEO is responsible for the system engineering of the FPS. The associated Power Converter Module (PCM) is also in ASI's responsibility. Although the Electronics Unit (ELU) is in UBE's responsibility, parts of the Instrument Power Converter Module (PCM), Rotation Control Module (RCM), Digital Processing Module (DPM) and instrument software are contributed by swiss industry.

UBE provides CaSSIS project-level information management through the Electronic Data Management System secure website (Alfresco). RUAG provides configuration management of the hardware configuration items in its area of responsibility. SELEX/GALILEO provides configuration management of the hardware configuration items in its area of responsibility. Other industrial Swiss partners are responsible for configuration management of their respective elements.



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Figure 1: Hard ware breakdown with responsibilities colour coded.

3 INFORMATION AND CONFIGURATION MANAGEMENT PLANNING

3.1 Configuration identification system

3.1.1 Organizational delegation

UBE has overall responsibility for the CaSSIS project and configuration management system. All released documents are archived on the UBE website (Alfresco) and given a document number. UBE delegates responsibility for configuration identification to partners ASI (Univ. of Padova) SELEX/GALILEO), RUAG and other swiss industries according to the responsibilities identified in Paragraph 2 above. The RUAG configuration identification system is documented in the attached [RD 01], SELEX/GALILEO's configuration identification system is documented in the attached [RD 02].

3.1.2 Document Management

1. UBE uses a document sharing system called 'Alfresco'. Alfresco is an open source Enterprise Content Management (ECM) system that manages all the content within an enterprise and



provides the services and controls that manage this content. At the core of the Alfresco system is a repository supported by a server that persists content, metadata, associations, and full text indexes. As an entirely Java application, the Alfresco system runs on virtually any system that can run Java Enterprise Edition. The Alfresco content application server is access protected and supports many folder and document-based protocols (CIFS, WebDAV, FTP, IMAP) to access and manage content held within the content repository using familiar client tools. Every document loaded onto the UBE file sharing system gets a unique document number. In addition, every document is provided with metadata to enable detailed searches. There are dedicated spaces (folders) for UBE, subcontractors (Swiss industry), Space Research Centre in Warsaw and SELEX/GALILEO. The document number follows the rules set up by ESA. Each CaSSIS document number is constructed as:

EXM-CA-XXX-YYY-ZZZZZ

EXM: ExoMars

CA: CaSSIS

XXX: Three letter document type (a list is provided by ESA)

YYY: Affiliation code (this can be chosen freely, the University of Bern uses UBE)

ZZZZZ: a number between 00000 and 99999

These rule shall be followed by subcontractors as SELEX, Space Research Centre Warsaw, RUAG (Telescope), nanoTRONIC (Software).

3.1.3 Communication System

UBE uses Apple Macintosh, Linux/Unix based system and Microsoft Windows hardware and operating systems.

Browsers: Internet Explorer (MS Windows), Mozilla Firefox (MS Windows, Mac, Linux), Safari (Mac), Camino (Mac)

Email clients: Outlook (MS Windows), Mac Mail (Mac)

Calendar: group calendar provided by the universities Microsoft Exchange Server

Video Conferencing: SWITCH (video conferencing software provided for Swiss universities), UBE also has a dedicated video conferencing room. Regular telecons are conducted wirth ESA via WEBEX.

3.1.4 Project Status and Reporting information

UBE reports quarterly to ESA. More frequent (2 times per month) teleconferences are held with the ESA POC (point of contact) for CaSSIS.

Team meetings are held weekly at UBE.

Progress meetings with RUAG are held on pre-defined dates according to the respective contract milestones. Intermediate telefon calls are held on demand.



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