



International Planetary Data Alliance

<http://planetarydata.org>

INFORMATION NOTE 7

FIRST QUARTER 2009

This information note presents a review of the IPDA activities and on-going our projects for everyone interested in these activities. All readers are encouraged to further circulate this note among colleagues.

The IPDA WWW page (<http://planetarydata.org>), recently improved, offers both a public view with the most basic information and officially released documents, and a working platform for members of an IPDA project.

STATUS OF ONGOING PROJECTS

(APPROVED DURING THE 3ND STEERING COMMITTEE MEETING, JULY 2008)

1. ***Inter-operable PDAP implementations*** (leader *Jesus Salgado*)

This is an inter-agency project with the aim of implementing access to different missions' data by using the PDAP protocol.

2. ***Small bodies interoperability*** (leader *Iku Shinohara*)

An interoperability capability was demonstrated between NASA/PDS and ESA/PSA. This project is aimed at extend the interoperability to JAXA/DARTS.

A new PDAP product, the Flyby product, was defined experimentally and implemented using Hayabusa data. The URL of PDAP Hayabusa is in the following URL:

<http://darts.isas.jaxa.jp/planet/pdap/>

The technical document for the implementation to create the Flyby P \product will be posted to the IPDA web server.

3. **PDAP assessment** (leader Yukio Yamamoto)

Scope of this project is to assess the Draft Protocol in terms of how it meets the IPDA requirements, and develop a set of PDAP protocol requirements based on this assessment and the lessons learned from the development of the PDAP interoperability prototype.

The PDAP Assessment project is processing the discussion and trying to feedback for the next version of PDAP. The PDAP Assessment procedure is about 80% complete. The first draft was already shared in the middle of January 2009, and next version will be distributed for the completion at the end of May to the members. The PDAP Assessment draft was posted to the IPDA website, and the next version will be uploaded to the upcoming meeting.

4. **IPDA Architecture and Standards Definition** (leader Dan Crichton)

The project is aimed at the definition of the critical architecture and related standards necessary to support construction of IPDA-compliant archive systems derived from the level 1/2 requirements. It will necessitate the plans to integrate and use related efforts from PDAP, Information and Data Dictionary Modeling, and other related system engineering activities within IPDA.

The IPDA Architecture project is developing the architecture description and working to identify gaps in the current projects relative to the requirements and architecture. The IPDA Architecture document is about 70% complete and will be distributed in late May to the members. The IPDA architecture document will then be posted to the IPDA website for IPDA Steering Committee and TEG to access prior to the upcoming meeting in Rome.

5. **IPDA Information Model and Data Dictionary** (leader Steve Hughes)

The project is aimed at developing the IPDA Information Model and Data Dictionary. These are key components of the IPDA Data Architecture, an element of the IPDA System Architecture. These components are necessary to support construction of IPDA-compliant archive systems.

The "IPDA Information Model and Data Dictionary" project working group has reviewed the assessment report on the IPDA Archive Data Standards work from 2007. Based on the assessment, the requirements document has been updated. As recommended, the IPDA working group is also observing the development of the next generation PDS Information Model and determining alignment options. A status report is being prepared for the IPDA Steering Group meeting in Rome.

6. **Venus Express Interoperability** (leader Nancy Chanover)

Within the U.S. involvement in the European Venus Express mission, it was agreed that data from VEX would be made available to the U.S. scientists via the PDS Atmosphere Node using the interoperability concept. The Atmosphere

Node web server is actually providing datasets to the users via an http based interface. FTP access to data is not the standard. The idea is to offer users of the Atmosphere Node www server a fully transparent access to all VEX data.

The IPDA Venus Express Interoperability Project team developed a profile server that accesses the Venus Express data that were temporarily posted on a PSA FTP site. This stop-gap system only provided access at the dataset ID level. Now that some of the VEX data have officially been ingested into the PSA, we are modifying this profile server to perform a PDAP query and return OODT-style information for our users. This work should be completed by early June 2009.

IPDA TECHNICAL EXPERTS GROUP

The IPDA Technical Experts Group (TEG) is formed by representatives from all the institutions represented at IPDA, and is lead by Pedro Osuna.

The TEG has identified three areas for work:

❖ **Data Access Protocols**

The main focus will be on the already existing PDAP (Planetary Data Access Protocol) without pre-empting the possibility of creation of other protocols in a future.

❖ **Validation Tools**

The main focus will be on the possibility to create a collective Validation Tool.

❖ **PDS**

The main focus will be on the evolution of the PDS and its usage within the IPDA

A TEG splinter meeting will be held in Rome on **June 30, 2009**, immediately before the 4th IPDA SC meeting. More information on the website.

FUTURE IPDA-RELATED MEEINGS AND PRESENTATIONS

- ❖ **The 4th IPDA Steering Committee meeting (July 2-3, 2009, Rome). The meeting will be hosted by the Italian Space Agency (ASI).** You are all welcome to participate. Please visit the meeting website at if you want to be kept informed.

<http://planetarydata.org/meetings/4th-ipda-steering-committee-meeting/4th-ipda-steering-committee-meeting>

- ❖ **European Planetary Sciences Congress, October 14-18, 2009, Potsdam, Germany.** IPDA activities will be presented during the session “Management and exploitation of planetary data through planetary VO tools and services”. More information at the meeting website:

<http://meetings.copernicus.org/epsc2009>

- ❖ **PV 2009 Conference (Ensuring Long-Term Preservation and Adding Value to Scientific and Technical Data), December 1-3, 2009, European Space Astronomy Centre (ESAC), ESA, Villafranca del Castillo, Madrid, Spain.** IPDA activities will be presented. More information at the meeting website:

<http://www.sciops.esa.int/index.php?project=CONFERENCE&page=PV2009>

Please forward this information note to your colleagues. In case of further questions, please email to the Steering Committee of the IPDA (ipda-sc@planetarydata.org) or to the IPDA chair Maria Teresa Capria (mariateresa.capria@iasf-roma.inaf.it) and deputy-chair Yasumasa Kasaba (kasaba@pat.gp.tohoku.ac.jp).