

Charter of the International Planetary Data Alliance

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1. Mission Statement

The International Planetary Data Alliance (IPDA) is a close association of partners with the aim of maintaining and continuously improving the quality and services to planetary science data from space based instrumentation.

The specific mission of the IPDA will be to facilitate global access and exchange of high quality scientific data products managed across international boundaries and organized by a set of governing data standards.

2. Scope

Scientific and engineering data from planetary missions originate from diverse scientific disciplines. Data is often characterized as being one of a kind, obtained by unique space instrumentation. It has always been a paradigm in the planetary community to guarantee the long-term availability of these data that are defined and captured using simple data structures and well-defined data models and data dictionaries.

The challenges in the planetary community are two-fold.

- 1) How can simple, but efficient data exchange and access be obtained from space missions flown by different space agencies around the world?

2) How does an archiving standard evolve in a world of continuous and major technological changes?

It is the belief of the IPDA partners that both challenges can be faced by a worldwide alliance focused on achieving interoperability primarily by agreeing on common data models and dictionaries. As a consequence, distributed archival systems are expected to be developed and maintained by the individual partners in coordinated manner..

The data standards within the IPDA, including the data models and derived dictionaries, are based on the NASA Planetary Data System (PDS) standard that is the de-facto standard for all planetary data at the time of the IPDA founding.

IPDA will also examine possibilities to ease future application for other data sources, i.e., ground-based observations, in-situ probes, numerical models, forecasts, etc.

The work on the data standards will not be restricted to planetary data sets only, it is foreseen and will be encouraged to use the standards developed for solar system data sets in general, whenever possible.

3. Objectives

The main objective of IPDA is the enhancement of the research activities in the worldwide planetary community.

The IPDA as a whole shall propose and adopt standards for planetary science data archiving, exchange and access, and will implement accompanying tools in the areas, such as, however not restricted to:

- long-term data preservation
- data modeling
- data dictionary management
- interoperability
- data generation, validation, access, exchange, visualization and mining
- services registry
- and others

4. Membership

The IPDA will be represented by a steering committee. **Membership in the steering**

committee shall be comprised of representatives from any space agency, scientific research institute, university or other organization that indicate a willingness to fully participate in the IPDA activities and provide the commensurate level of support for defining and implementing the IPDA standards.

The IPDA activities will be supported by working groups. The working groups are formed by the steering committee, by the members assigned by the steering committee.

Interested partners shall contact the steering committee members and notify them of their approval and acceptance of this Charter, providing a best level of effort to ensure the support and usage of the IPDA proposed standards and tools.

5. Dependencies and Success

The success of the IPDA is dependent on acceptance and adoption of the products and services developed through the alliance by the stakeholders. These stakeholders cross international boundaries and include planetary scientists and engineers, data producers, data users, data curators, standards authorities and international space agencies.

The IPDA shall remain committed to keeping the stakeholders engaged to ensure that the IPDA and its products serve their needs.

The activities of the IPDA shall be reviewed in regular intervals of 3-5 years taking into account the charter of the IPDA and the quality and usability of the maintained standards, dictionary, protocols and software. The review board shall be constituted of independent members representing end users within the planetary scientific community and information technology experts.

6. Intellectual Property

The IPDA promotes an open working environment. Whenever possible, standards, software, protocols or any other results from IPDA working groups shall be made unencumbered by intellectual property claims.

