



IDIS, the European Planetary Virtual Observatory: status and perspectives

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Abstract

Europlanet RI is a Research and Infrastructure project funded under the seventh European Community framework program (FP7). At the heart of Europlanet is the Integrated and Distributed Information Service (IDIS), whose aim is to become the European Virtual Observatory devoted to planetary sciences.

1. Introduction

Europlanet RI is a Research and Infrastructure project funded under the seventh European Community framework program (FP7). It officially started on January 1, 2009 and will last for four years, till the end of 2012. The Integrated and Distributed Information Service (IDIS) is at the heart of Europlanet. It is a remote service facility infrastructure dedicated to the remote access, manipulation and modeling of data collected in connection with past and future planetary missions, as well as data produced by the different types of activities in the Europlanet project.

The IDIS service capitalizes on the on-line services and portal already developed by Europlanet under its preceding contract (6th Framework Program) and is progressively evolving into an information access system providing interoperability of a wide range of different information and data sources and access tools, located in different data centers. IDIS will in this way become the European Virtual Observatory for the planetary sciences.

2. Structure of IDIS

IDIS is structured into a Service Activity and a Research Activity. The IDIS Service Activity (IDIS SA) is organized in 5 thematic scientific nodes and a

technical Node. The Nodes are located in Germany, France, Italy, Finland, and Austria. A continuous enhancement of the on-line capabilities offered is taking place, thanks to the work of a set of supporting research activities inside Europlanet. One of them (JRA-4) is in particular directly defining and building the tools necessary for this expansion, developing the necessary functionalities to access, analyze, manipulate, assimilate into models etc. data of Planetary Science relevance.

3. IDIS Research Activity

The role of the Research Activity (JRA-4) is exactly to transform the current IDIS service activity into a Planetary Virtual Observatory, preparing essential tools so that the Planetary Science community can interrogate the relevant datasets and visualize the results in ways that allow them to make use of data from a variety of sources in a simpler way. To produce “data models” that will allow planetary scientists to make use of them in coordinated fashion. The key objectives of this JRA are:

1. To produce “data models” that will allow planetary scientists to utilize data from a wide range of different sources in a coordinated fashion.
2. To define the standards required to enable the services provided by SA IDIS to work in an interoperable fashion.
3. To provide “added value” services to users that go beyond the provision of raw datasets, bringing the interrogation process much closer to the actual scientific aims of European planetary scientists.

Among the most important current accomplishments of IDIS, there are the spectroscopy and emissivity databases, and the definitions of the data model and access protocols that will enable the transformation of IDIS into a real Virtual Observatory. Updated

information can be found browsing the IDIS website:
<http://www.idis.europlanet-ri.eu/>.

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