The IDIS Service Activity: Integrated and Distributed Information Service

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Abstract

The IDIS Service Activity (SA-IDIS) of EuroPlaNet RI consists in a series of web portals collecting and presenting to the community in an organized way various kinds of information services. These services are distributed resources that can be physically located anywhere in Europe. IDIS is structured in thematic Nodes, to better cover the diversity of fields existing in planetology. One or more scientific institutions, with a leading role in a given field, are taking care of the Node related to that particular field. A Technical Node is coordinating the technical aspects of the services provided to users. The *Technical Node (TN)* is hosted by the FMI, Helsinki. This node ensures the technical interoperability and coherence of the structure. It coordinates all the technical and implementation aspects of the thematic nodes. In SA IDIS, the TN will supervise the definition and implementation of all the technical and engineering tools necessary to guarantee the operation, accessibility and interoperability of the thematic nodes and the evolution toward a Planetary Virtual Observatory. The TN will also play a key role in the management of the whole IDIS, acting as bridge between the Service Activity and the Joint Research Activity. The *Planetary Surfaces and Interiors Node (PSIN)* is hosted by the Institute of Planetary Research (IPR) of DLR, Berlin. The *Planetary Plasmas Node (PPN)* is hosted by the Institut für Weltraumforschung, (IWF, Space Research Institute) of the Austrian Academy of Sciences (OeAW), Graz, and the CNRS/CESR CDPP Centre de Données de la Physique des Plasma/Plasma Physics Data Centre, Toulouse. The *Planetary Atmospheres Node (PAN)* is hosted by CNRS/IPSL Institut Pierre-Simon Laplace. The *Small Bodies and Dust Node (SBDN)* is hosted by IFSI (Istituto di Fisica dello Spazio Interplanetario), in close cooperation with IASF (Istituto di Astrofisica Spaziale), Rome. Both institutes are part of INAF, the Italian National Astrophysics Institute. This node coordinates with the *Virtual Meteor Observatory (VMO)* hosted at ESA/ESTEC RSSD, in Noordwijk (Netherlands). VMO is a web-based infrastructure for both professional scientists and amateur observers in the meteor science community, providing them with online access to data and software services. The VMO will provide access to a central database containing datasets on meteoroid orbits, meteoroid trajectories, meteor light curves, meteor spectra, meteor shower activity profiles and meteor mass distributions. VO Paris Data Centre, hosted by Paris Observatory, manages the *Planetary Dynamics and Extraterrestrial Matter Node (PDEMN)*. It will provide a VO service with its tool SkyBoT (the Sky Body Tracker tool) which provides ephemerides of Solar System bodies in a virtual observatory environment. VO-Paris, in addition to its implication in astronomy related data, already provides the distribution infrastructure for the IPSL atmospheric node. This general infrastructure will also be used to give on line access to an increasing number of observational and reference data, mostly produced by the Planetary Science team of LESIA at Paris Observatory. These include derived products from recent planetary missions (Mars-Express, Cassini, Venus-Express), plus possibly data bases of observed cometary properties and a large collection of asteroid spectra. A general presentation of the offered services will be made.