Geophysical Research Abstracts
Vol. 15, EGU2013-13304, 2013
EGU General Assembly 2013

The Capabilities brought by the Heliophysics Integrated Observatory

Robert Bentley (1), Andre Csillaghy (2), Jean Aboudarham (3), and the HELIO Team

(1) University College London, Mullard Space Science Laboratory, Dorking, United Kingdom (rdb@mssl.ucl.ac.uk), (2) Fachhochschule Nordwestschweiz, 5 Steinackerstrasse, Windisch 5210, Switzerland, (3) Observatoire de Paris, 5 Place Janssen, Meudon 92190, France

The Heliophysics Integrated Observatory (HELIO) is a research infrastructure designed to facilitate access to heliospheric data. The project was funded under the Capacities specific programme of the EC's Seventh Framework Programme (FP7); it had a duration of 42 months and involved partners from seven countries.

HELIO provides integrated access to more than 200 instruments from nearly 60 space- and ground-based observatories scattered through the Solar System. It also provides the tools that make it possible to easily identify interesting phenomena, track them as they propagate through the heliosphere and identify which datasets could provide information that allow events to be studied in detail.

The capabilities of HELIO are implemented as services that can be used independently or combined together. The services include event and feature catalogues, propagation modelling and the ability to identify instruments that may be suitably located to provide the required types of information.

A significant amount of effort has been expended to ensure that the services and the metadata that they employ are as interoperable as possible and comply with standards developed by bodies such as the International Virtual Observatory Alliance (IVOA). As such, HELIO has defined new ways of organizing heliophysical resources and provides a framework that can be used for future projects.

We will describe the capabilities of the project in detail and show how they can be used to address many use cases related to heliophysics.

For more information about the capabilities of HELIO and to gain access to them visit the project Web site on helio-vo.eu