Tectonic motion visualization through a Virtual Observatory, from space geodesy techniques.

Florent Deleflie (1), Laurent Soudarin (2), David Coulot (3), and Christophe Barache (4)
(1) Observatoire de Paris, IMCCE / GRGS, PARIS, France (Florent.Deleflie@imcce.fr), (2) CLS, Toulouse, France (lsoudarin@cls.fr), (3) GRGS/IGN Univ. Paris Diderot, France (David.Coulot@ign.fr), (4) GRGS / Observatoire de Paris - SyRTE, France (christophe.barache@obspm.fr)

This paper presents the astronomical so-called Virtual Observatory (VO), and gives some examples of Webservices hosted by GRGS Analysis Center webpages, that can be used for Earth sciences applications, and for stations operations.

GRGS, Groupe de Recherche de Géodesie Spatiale, France, routinely delivers geodetic products to most of the space geodetic services of the International Association of Geodesy. Some of these products are now natively archived following the data format recommended by IVOA, the VO-Table format, an improved version of the XML format.

In this paper, we pay a particular attention on the capabilities suitable to extract and use time series of (i) Space Station Coordinates deduced from SLR, DORIS and GPS data, (ii) EOP deduced from SLR and VLBI data. We show how to use all these on-line tools through the web: select charts to plot, display and edit the data (scale, appearance) ; download data, plots and graph statistics in several formats. The examples will be based on some stations of interest with coordinates (latitudes, longitudes, altitudes) affected by several features such as earthquakes or technological evolutions.