Mid-july 2016, the whole system of IMCC-GRGS in Paris Observatory severely weakened, and a large part of analysis activities were affected for a while. As a consequence, the operational analyses and the contributions to the pilot projects from GRGS disappeared from the combination and the products delivered by the Analysis Steering Committee (ASC) of the ILRS. Two years later, thanks to the continuous support of the ILRS and from CNES and GRGS, the GRGS AC is operational again, and led by the authors.

We draw in this poster a quick assessment of the recovery of the GRGS Analysis Center, that is about to become again an official Analysis Center of the ILRS, once the new results are approved by the ASC. We take the opportunity to summarize the main updates of the new analysis scheme compared to the previous one, and we give here the headlines of the story that affected the French operational analyses since two years. In particular, we show the results obtained with ITRF 2014 from Lageos-1 and Lageos-2 data sets acquired by the ILRS network, with a particular attention on the period 2005-2016.

As GRGS results are also provided following the “VO-table format”, this poster presents as well the astronomical so-called Virtual Observatory (VO), and gives some examples of Webservices hosted by GRGS website. 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 sets, (ii) EOP deduced from SLR and VLBI data. We show how to use all these on-line tools through the web to: select charts to plot, display and edit the data (scale, appearance) ; download data, plots and graph statistics in several formats. The examples are based on some stations of interest with coordinates (latitudes, longitudes, altitudes) affected by several features such as earthquakes or technological evolutions.

Figure 2: Number acquired by the tracking network.

1. Headlines of the GRGS ILRS (former/future) Analysis Center

History of the GRGS ILRS AC:
• 2001: GRGS/Deleflie (Billèque et al.) contributes to the ASC but not on a regular basis
• 2003: Deleflie sits on the position as an autonomous
• 2008-09: GRGS/Deleflie is a subproject of the DeOs project within a MOOG package
• 2009: Deleflie leaves MOOG and joins PROMICE (2009-12)
• 2011: the location of OCA/Grasse is closed, and Deleflie sets up a new architecture for the GRGS AC on the BISOG project: the GeodeticPack MOOG package
• 2013: GRGS-2013 is completed, and some test functionalities around the whole of the website are definitively lost
• 2015: JULY, and then resonance: the whole BISOG MOOG package stops, and it is realized that the backup (that was full backup) is available.
• 2016: juillet, and then resonance: the whole BISOG MOOG package stops, and it is realized that the full backup is available.

Current status of the GRGS ILRS AC:
• It appears that some basic steps required must needs more than originally to be fulfilled operationally. Again, many steps of the analysis scheme are ready to be operational, but some work still required up to very recently to be able to (re)fully operational step on a weekly basis.
• For a new version, Deleflie plans to push the whole situation right concerning all issues within BISOG
• A new IT manager
• A new architecture. Fully documented, and robust. Backups currently parameterized
• what was lost must be rebuilt in partially recovered. By 31st December 2016, some scripts can be recovered, but other ones will need to be recovered first (due indepentently from the GeodeticPack package that is currently set up again)

2. First new results of the GRGS ILRS (former/future) Analysis Center

Status of the GRGS Data Exchange Format

The GRGS Data Exchange Format (VOtable) is a format, international proposal to provide uniform, consistent access to astronomical and geodetic data in a virtual environment. It is an initiative from the Virtual Observatory and from French geodetic institutions.

VOTable is a flexible, self-contained, and independent data format that can be used to exchange data independently of any specific application.

This format can be used for various purposes, such as:
• Data transfer between different systems
• Data exchange between different applications
• Data archiving and preservation

3. Benefits from a “Virtual Observatory”

Virtual Observatory (VO) is an ambitious international project to provide uniform, consistent access to datasets, geographically dispersed collections of astronomical data. The VO could be of interest for the geodetic community.

Virtual observatories are systems that allow different observatories to be integrated into a single system. They can include data from different sources, such as surveys, telescopes, and satellite data.

Astronomers using that Virtual Observatory are organized within an international association called the International Virtual Observatory Alliance (IVOA). As a result of this work, the VO has now been fully formed into VO 2005 with a vision to "harmonise the international coordination and collaboration necessary for the development and deployment of the tools, systems and infrastructural structures necessary to enable the smooth circulation of astronomical information and integrated and virtual observatory."