Paris Observatory (OPAR) Data Center

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Abstract This report summarizes the OPAR Data Center activities in 2017–2018. Included is information about functions, architecture, status, future plans, and staff members of OPAR Data Center.

1 General Information

The Paris Observatory (OPAR) has provided a Data Center for the International VLBI Service for Geodesy and Astrometry (IVS) since 1999. The OPAR, together with CDDIS and BKG, is one of the three IVS Primary Data Centers. Their activities are done in close collaboration for collecting files (data and analysis files) and making them available to the community as soon as they are submitted. The three Data Centers (see Figure 1) have a common protocol and each of them:

- has the same directory structure (with the same control file),
- has the same script,
- is able to receive all IVS files (auxilliary, database, products, and documents),
- mirrors the other ones every three hours,
- gives free FTP access to the files.

This protocol gives the IVS community a transparent access to a Data Center through the same directory and continued access to files in case of a Data Center breakdown.

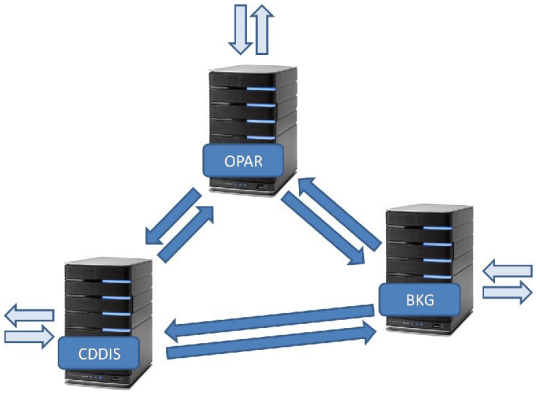

Fig. 1 The three IVS Data Centers.

2 Architecture

To be able to put a file in a Data Center, operational and Analysis Centers have to be registered by the IVS Coordinating Center. The file names have to conform to the name conventions. A script checks the file and puts it in the right directory. The script undergoes permanent improvement and takes into account the IVS components' requests. The structure of the IVS Data Centers is:
RECENT\
used for the new mirror method
ivscontrol\
provides the control files needed by the Data Center (session code, station code, solution code...)

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ivsdocuments\
provides documents about IVS products
ivsdata\
provides files related to the observations
ivsdata\aux\
auxilliary files (schedule, log...)
ivsdata\db\
observation files in MkIII database CALC format
ivsdata\ngs\
observation files in NGS format
ivsdata\sinex\
observation files in SINEX format
ivsproducts\
provides results from Analysis Centers
ivsproducts\eopi\
Earth Orientation Parameters, Intensive sessions
ivsproducts\eops\
Earth Orientation Parameters, 24-hour sessions
ivsproducts\crf\
Celestial Reference Frame
ivsproducts\trf\
Terrestrial Reference Frame
ivsproducts\daily_sinex\
Time series solutions in SINEX format of Earth orientation and site positions
ivsproducts\int_sinex\
Daily Intensive solution in SINEX format, mainly designed for combination
ivsproducts\trop\
Tropospheric time series (starting July 2003)

3 Current Status

The OPAR Data Center is operated on a PC Server (PowerEdge 2800 - Xeron 3.0 GHz) located at Paris Observatory, running the Fedora Linux operating system.

To make all IVS products available online, the disk storage capacity was significantly increased and the server is equipped now with RAID 3-TB disk extensible up to 4.7 TB.

The OPAR server is accessible 24 hours per day, seven days per week through Internet connection with 2 Mbit/s rate. Users can get the IVS products by using the FTP protocol. Access to this server is free for users.

FTP access:
ivsopar.obspm.fr
username : anonymous
password : your e-mail
cd vlbi (IVS directory)

4 Activities during the Past Year

During 2017–2018, there were 2,411 unique visitors. The bandwidth was 4.2 Go.

5 Future Plans

The OPAR Data Center was moved to a new server in March 2017 with Linux Debian 8.6.

To obtain information about the OPAR Data Center please contact: ivs.opa@obspm.fr.