Paris Observatory (OPAR) Data Center
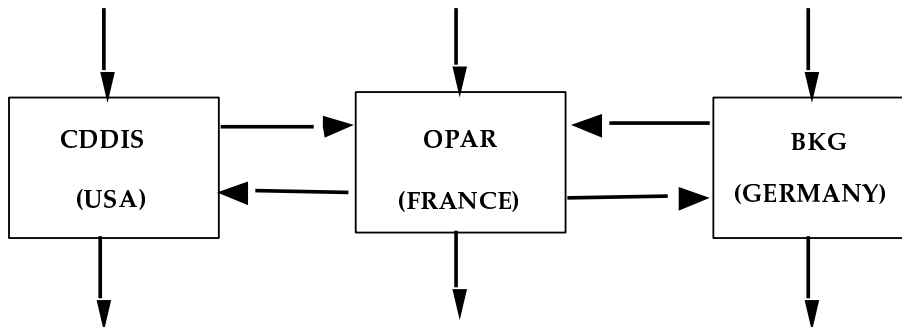
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Abstract

This report summarizes the OPAR Data Center activities over 2004. Included is information about functions, architecture, status, future plans and staff members of OPAR Data Center.

1. OPAR Data Center Functions

The Paris Observatory (OPAR) has provided a Data Center for the International VLBI Service for Geodesy and Astrometry (IVS) since 1999. The OPAR as well as CDDISA 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 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, 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 a permanent access to files in case of a data center breakdown.

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 IVS Data Centers has evolved since 2002, the Pilot Project for baseline product has been added:

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ivscontrol/          : provides the control files needed by the data center
                         (session code, station code, solution code...)
ivsdocuments/        : provides documents and descriptions about IVS products
ivsdata/             : provides files related to the observations:
    aux/             :    auxilliary files (schedule, log...)
    db/              :    observation files in data-base CALC format
    ngs/             :    observation files in NGS format
    sinex/           :    observation files in SINEX format
ivsproducts/         : provides results from Analysis Center:
  eopi/              :    Earth Orientation Parameters, intensive sessions
  eops/              :    Earth Orientation Parameters, sessions of 24h
  crf/               :    Celestial Reference Frame
  trf/               :    Terrestrial Reference Frame
  daily_sinex/       :    Time series solutions in SINEX format of Earth
                          orientation and site positions
  trop/              :    Tropospheric time series (starting july 2003)
ivs-iers/            : provides products for IERS Annual Report
ivs-pilot2000/       : provides products of 2000 for special investigations
ivs-pilot2001/       : provides products of 2001 for special investigations
ivs-pilottro/        : provides tropospheric time series for Pilot Project
                          (until june 2003)
ivs-pilotbl/         : provides baselines files
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3. Current Status

The OPAR data center is operated actually on a PC located at Paris Observatory, and running the Debian Linux operating system. To make all IVS products available on-line, the disk storage capacity was significantly increased and the server is equipped now with more than 120 Gb disc storage for VLBI activities.

The OPAR server is accessible 24 hours per day, seven days per week through Internet connection with 2Mbit/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. Future plans

The OPAR staff will continue to work with the IVS community and in close collaboration with the two other Primary Data Centers in order to provide public access to all VLBI related data. To ensure better access to the OPAR Data Center the staff is studying some computer system enhancements, including a RAID disk system.

5. Staff Members

Staff members who are contributing to Data Center and OPAR Analysis for IVS are listed below :

- Najat Essaïfi, Data Center manager.
- Christophe Barache, Data center and data analysis.
- Anne-Marie Gontier, responsible for GLORIA analysis software.
- Martine Feissel, scientific developments.
- Daniel Gambis, interface with IERS activities.

6. Contact Information

To obtain informations about the OPAR data center please contact:

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