

BKG Data Center

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Abstract This report summarizes the activities and background information of the IVS Data Center for 2017 and 2018. Included are information about functions, structure, technical equipment, and staff members of the BKG Data Center.

1 BKG Data Center Functions

The BKG (Federal Agency for Cartography and Geodesy) Data Center is one of the three IVS Primary Data Centers. It archives VLBI-related data of IVS components and provides public access for the community. The BKG Data Center is connected to the OPAR and GSFC CDDIS Data Centers by mirroring the OPAR and the CDDIS file stocks several times per day. The sketch in Figure 1 shows the principle of mirroring.

The IVS community can choose the Data Centers to put their data into the IVS archives by using its incoming area, which each Data Center has at its disposal. The BKG incoming area is protected, and users need to obtain a username and password to get access.

An incoming script monitors the incoming area and checks the syntax of the files sent by the IVS community. If it is okay, the script moves the files into the Data Center directories. Otherwise the files will be sent to a badfile area. Furthermore, the incoming script informs the responsible staff at the Data Center by sending e-mails about its activities. The incoming script is

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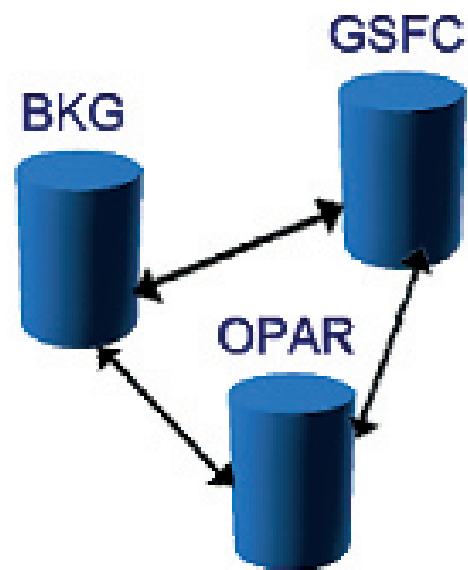


Fig. 1 Principle of mirroring.

part of the technological unit which is responsible for managing the IVS and the Operational Data Center and for carrying out the first analysis steps in an automatic manner. All activities are monitored to guarantee data consistency and to control all analysis steps from data arrival to delivery of analysis products to IVS.

Public access to the BKG Data Center is available through FTP and HTTP:

<ftp://ivs.bkg.bund.de/pub/vlbi/>

<http://ivs.bkg.bund.de/vlbi/>

Structure of BKG IVS Data Center:

ivscontrol/	: controlfiles for the data center
ivsdata/	: VLBI observation files
ivsdocuments/	: IVS documents
ivsproducts/	: analysis products
crf/	: celestial frames
trf/	: terrestrial frames
eops/	: earth orientation (24h sessions)
eopi/	: earth orientation (Intensive sessions)
daily_sinex/	: daily sinex files (24h sessions)
int_sinex/	: daily sinex files (Intensive sessions)
trop/	: troposphere
ITRF2014/	: daily sinex files for ITRF2014
RECENT	: mirror IVS incoming
bonnDB_IVS	: mirrored vgos data bases (experimental)
lincDB_IVS	: mirrored vgos data bases (experimental)
usnoDB_IVS	: mirrored vgos data bases (experimental)
vgosDB_IVS	: mirrored vgos data bases (experimental)
wienDB_IVS	: mirrored vgos data bases (experimental)

2 Technical Equipment

The BKG IVS Data Center is based on a system of Linux servers with disk space of 1000 GBytes (Raid system), and a backup system operated by an automatic library.

3 Future Plans

It is planned that the IVS Data Center of the BKG will be extended to also process the IVS session data submitted in the vgosDB format.

4 Staff Members

- Reiner Wojdziak (Data Center coordination, Web design, reiner.wojdziaak@bkg.bund.de)
- Volkmar Thorandt, until November 30, 2018 (data analysis, Data Center, volkmar.thorandt@bkg.bund.de)
- Gerald Engelhardt (data analysis, Data Center, gerald.engelhardt@bkg.bund.de)
- Anastasiia Girdiuk, since June 15, 2018 (data analysis, Data Center, anastasiia.girdiuk@bkg.bund.de)
- Dieter Ullrich (data analysis, Data Center, dieter.ullrich@bkg.bund.de)