Italy INAF Data Center Report

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Abstract

This report summarizes the activities of the Italian INAF VLBI Data Center. Our Data Center is located in Bologna, Italy, and belongs to the Institute of Radioastronomy, which is part of the National Institute of Astrophysics. We also report about some changes in the hardware facilities devoted to IVS activities.

1. Introduction

The main analysis activity and storage is concentrated in Bologna, where we store and analyze single databases, using CALC/SOLVE software.

The IRA started to store geodetic VLBI databases in 1989, but the databases archived in Bologna mostly contain data including European antennas from 1987 onward. In particular most of the databases available here have VLBI data with at least three European stations. However we also store all the databases with the Ny-Ålesund antenna observations. In 2002 we decided to store the complete set of databases available on the IVS data centers, although we limited the time span to the observations performed from 1999 onwards. All the databases have been processed and saved with the best selection of parameters for the final arc solutions. In order to perform global solutions, we have computed and stored the superfiles for all the databases.

In some cases we have introduced GPS-derived wet delays into the European databases (1998 and 1999 EUROPE experiments, for the time being), as if they were produced by a WVR. These databases are available and stored with a different code from the original databases. In order to produce these databases, we have modified DBCAL, and this new version is available to external users.

2. Computer Availability and Routing Access

To date, the main computer is a Linux workstation, where Mark 5 Calc/Solve version 10 was installed and all VLBI data analysis migrated. The Internet address of this computer is sarip.ira.inaf.it. Since 2007 a new server with a storage capacity of 1 TB has been available and, therefore, all experiments performed in the previous years were downloaded and archived, thus completing the catalogue. The older experiments will be analyzed in order to perform global long term analysis. At present, the databases are stored in the following directories:

1 = /data2/dbase2
2 = /geo1/dbase1
3 = /geo1/dbase
4 = /geo1/dbase3
The superfiles are stored in:
/data1/super

The list of superfiles is stored in the file /data2/mk5/save_files/SUPCAT. The username for accessing the databases is geo. The password may be requested by sending an e-mail to negusini@ira.inaf.it.

The HP 785/B2600 workstation is still maintained. The Internet address of this computer is boira3.ira.inaf.it, and the databases are stored in different directories and on different disks as well. The complete list of directories where databases are stored follows:

1 = /data1/mk3/data1
2 = /data1/mk3/data2
4 = /data6/dbase6
6 = /data5/dbase5
5 = /data4/dbase4
7 = /data7/dbase7
8 = /data8/dbase8
9 = /data9/dbase9

The username for accessing the database at the moment is geo. The password can be requested by sending an e-mail to negusini@ira.inaf.it.

The other workstation still working in Bologna is an HP282 computer with Internet address hp-j.ira.inaf.it. The databases are stored in the following directories:

7 = /data8/dbase8
8 = /data10/dbase10

The superfiles are stored in different directories:

/data2/super
/data10/super10
/data9/super9
/data8/super8

The list of superfiles is stored in the file /data6/solve_files/SUPCAT. The area for data storage has a capacity of 366 gigabytes with the installation of an external server. The data can be accessed using the username geo, and the password can be requested by writing to negusini@ira.inaf.it.