Italy INAF Data Center Report

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Abstract

This report summarizes the activities of the Italy INAF VLBI Data Center. We also report about some major changes that occurred during 2004: we have changed the affiliation of our Institute and the location of the DC, officially starting from 1st January 2005. Modification of names and codes necessary for the IVS affiliation will be requested and performed during 2006. A new contact person for the IVS DC will be indicated, soon.

1. Introduction

Our Geodesy section and its Data Center moved to the Bologna headquarter during the year 2004, leaving the former location at the Center of Space Geodesy, Matera. This decision was partly due to the reorganization process that was started by the Italian Government in June 2003, and integrated the Institute of Radioastronomy (IRA) into INAF (Italian National Institute for Astrophysics; http://www.inaf.it). Therefore, as of 1st January 2005, IRA is not part of the Council of National Research (CNR) anymore. The structure of IRA, as well as its territorial organization, has changed: it is now a section of INAF, the latter being the main institute. In its constitution act, INAF is explicitly indicated as the national institute in charge of promoting, both at national and international levels, the activities related to astronomy, astrophysics and radioastronomy. The geodetic activities of IRA are continued within the new institute, but the Geodetic Division changed location and structure. At the moment, the main analysis activity and storage is concentrated in Bologna, where we store and analyze single databases, using CALC/SOLVE software. We are using f-solve regularly updated.

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 antennas. However we also store all the databases with the Ny-Ålesund antenna observations. Since 2002, we store all the databases available on the IVS data centers, starting from 1999. All the databases have been processed and saved with the best selection of the 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 (at present only for EUROPE experiments for the years 1998 and 1999), as if they were produced by a WVR. Also these databases are available and stored with a different code from the original databases. For this we have produced a modified version of DBCAL, available to external users.

2. Computer Availability and Routing Access

The main computer is an HP 785/B2600 workstation. 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 is the following:

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
10= /geo/data
11= /geo/1999
12= /geo/2000
```

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 main computer that was formerly located in Matera, and that was moved to 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 up to 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.