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THE LA PLATA ASTRONOMICAL DATA CENTER

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RESUMEN. El Centro de Datos Astronómicos tiene su sede en la Facultad de Ciencias Astronómicas y Geofísicas de la Universidad Nacional de La Plata y funciona por convenio entre esta facultad y el Centre des Donées Stellaires de la Université Louis Pasteur en Estrasburgo (CDS), Francia.

La finalidad de este centro es la de proveer a los astrónomos del área con copias de los alrededor de 500 catálogos acumulados y/o preparados por el CDS a la vez que promover la producción y/o acumulación de catálogos en el área. Para la realización de esta tarea se cuenta con el apoyo del Centro Superior para el Procesamiento de la Información (CESPI) de la UNLP cuyos equipos se describen.

Las tareas simultáneas que se estan realizando incluyen la distribución de *SIMBAD* a los astrónomos argentinos y se efectuan ensayos de distribución en linea de *CD-ROM* TEST DISK del Astronomical Data Center (ADC) de la NASA que contiene los 31 catálogos mas solicitados por los astrónomos de todo el mundo.

ABSTRACT. The La Plata Astronomical Data Center operates by an agreement between the Facultad de Ciencias Astronómicas y Geofísicas at La Plata University and the Centre des Données Stellaires of Louis Pasteur University at Strasbourg (CDS), France.

The purpose of the Center is to provide to the area astronomers with copies of the catalogs they need amongst those stored and/or prepared at CDS. At the same time the center will act as collector of the astronomical data produced within its area.

Key words: **DATA ANALYSIS**

During the last few years there has been an explosive increase of astronomical computer readable data. hese data are available for distribution in a variety of ways, but most of it remains stored at the data provider institution ther in disk files of an unreachable computer or in magnetic tapes.

Considerable efforts have been done recently both in USA (Warren 1989) and France (Jaschek 1988; ubois 1989) to improve this situation. In both cases centers in which data in computer readable form can be stored ı an orderly and well documented fashion were organized.

At NASA's Goddard Space Flight Center (GSFC) and within the framework of the National Space Science ata Center (NSSDC) there is an Astronomical Data Center (ADC) devoted to store astronomical related data. This :nter provides copies of the data (usually a whole catalog) upon written request from any astronomical researcher.

One interesting bonus of this center is that is reachable by means of computer networks such as Space hysics Analysis Network (SPAN) and Internet. Remote log-ins can be performed into special accounts and a small atabase containing information concerning the catalogs available at the ADC can be consulted on-line. Furthermore ou can order the copy of the catalog/s you need by just leaving a message before logging-off. If the catalog is smaller ıan 2 megabytes you can even download it to your computer through the network.

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The Centre des Données Stellaires (CDS) of the Strasbourg Observatory at the Universite Louis Pasteu in France provides two valuable services. First, almost 500 catalogs containing astronomical data are stored and copie can be requested by mail or through the European Academic Research Network (EARNET). These catalog are classifie according to the kind of data in seven categories, Figure 1 shows the percentage distribution of the catalogs availabl from the CDS in the different categories by June 1988.

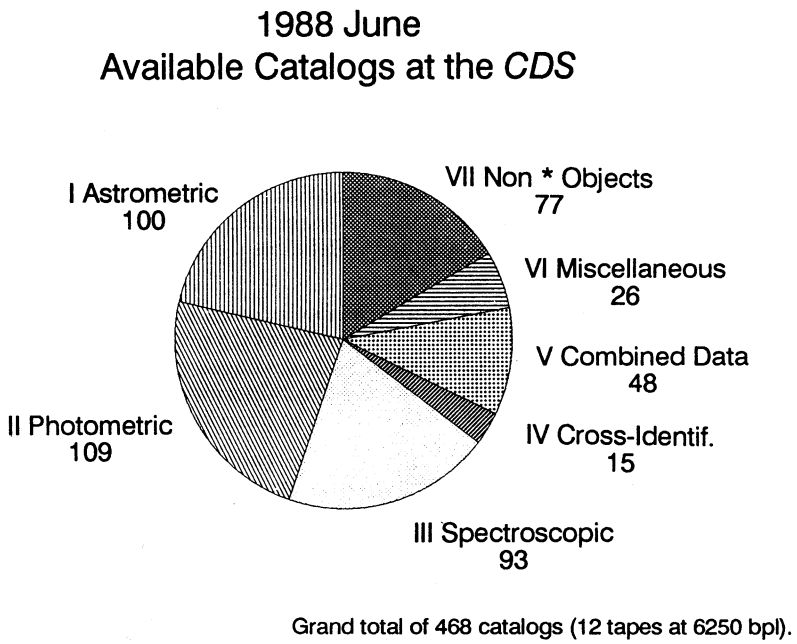

Fig. 1. Distribution in categories of the catalogs available at CDS.

Second, the CDS provides a stellar database available on-line. This database is known as *SIMBAD,* a acronym for Set of Identifications, Measurements and Bibliography for Astronomical Data. A special data base manage language speeds up the access to almost 1.2 Gbytes of stellar related data, including bibliography. The system no located at the Paris Sud Informatique complex and to be moved soon to a microVAX at Strasbourg can be accesse through commercial packet switching networks (X.25 protocol) and through SPAN.

All the above mentioned services provided by both centers have made access to astronomical data simpl and easy for astronomers in North America and Europe. For latin-american researchers, although substantiall improved, the access is still difficult, complicated and expensive. Several facts contribute to this difference: remot log-ins are expensive from any country that must use a satellite link to connect (this is also true for login into *SIMBA* from USA); mail is inefficient and sometimes the customs make it complicated and bureaucratic; access to compute networks is not still widespread within Latin-America; and last, there are researchers that have only access to persona computers that lack open reel $\frac{1}{2}$in drives to read the tapes as they are provided by the centers.

A modest and straightforward approach is being taken now at Facultad de Ciencias Astronómicas Geofísicas, La Plata University. We formalized an arrangement with CDS (Strasbourg, France) to have copies of all th catalogs now available at this center in a scaled down local version christened in Spanish "Centro de Datos Astronómicos (CeDA) and located at La Plata. The La Plata University computing center (CESPI) has adequate facilities to accomplis the copying, density changes and ASCII/EBCDIC changes that will be necessary to distribute locally the catalogs. Figur 2 shows a schematic of the available hardware at CESPI.

The computing center at La Plata is still unconnected to any computer network but has a commercia X.25 link to the argentine national packet switching network: ARPAC. Remote log-ins are possible through this lin and we plan to have captive accounts to receive requests of data from the center. There are, however, some computer at hand connected to the SPAN and uucp networks that can be used for electronic mail as is displayed below.

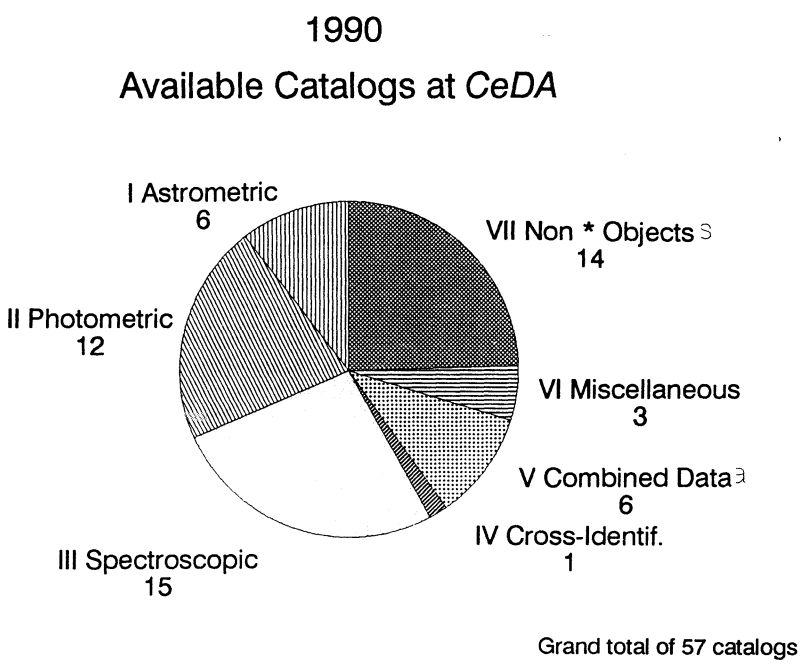

Fig. 2. Distribution in categories of the first 57 catalogs to be available at CeDa.

Presently we are in the process of receiving the first 57 catalogs from the CDS. The initial ones have been chosen as those most frequently requested at ADC and with the addition of some others selected by local astronomers according to their immediate and future needs. Figure 3 is a sketch showing the percentage distribution of the first 57 catalogs according to the CDS categories. Table 1 is a list of these catalogs using CDS categories and numbering.

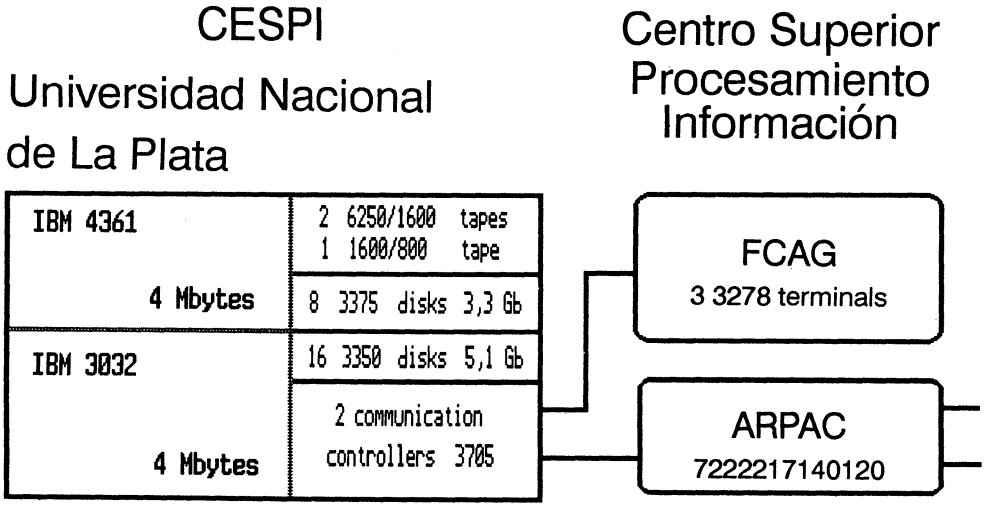

Fig. 3. Facilities available at the La Plata University computer center. ARPAC is the argentine commercial packet switched network.

TABLE 1

CDS CLASSIFICATION AND NUMBERING OF THE FIRST 57 CATALOGS AT CeDA

I: Astrometric Data	II: Photometric Data	III: Spectroscopic Data
10, 15, 61, 69, 72, 111.	34, 60, 62, 79, 97, 98, 104, 122, 124, 125, 126, 137.	4, 17, 18, 31, 42, 43, 51, 52, 63, 78, 80, 88, 92. 99, 130.
IV: Cross-Identifications	**V: Combined Data**	**VI: Miscellaneous Data**
17.	15, 25, 26, 36, 44, 47.	15, 35, 38, 40.
VII: Extended and Non-Stellar Objects		
1, 5, 24, 26, 31, 34, 44, 53, 54, 68, 73, 90, 92, 101.		

Additional catalogs: 1) *FK5*; 2) Michigan *MK* types for *HD* stars, 4 (Houck); 3) Combined List of Astronomical Sources (*ADC* 1983, Mead and Hill).

To alleviate the problem of those that only have access to *PC* compatible machines we are planning to produce copies in *DOS* $5\frac{1}{4}$ diskettes in both densities. No facilities are available to copy in *DOS* and Mac $3\frac{1}{2}$ diskettes yet.

We are also planning to act as a local center for collecting the data –in the form of catalogs– that are produced within our area.

Any request concerning the center activities as well as catalog's copies should be directed to the address below.

Address: Centro de Datos Astronómicos
Observatorio Astronómico
1900 La Plata
Argentina

Phones: +54-21-21-7308 21-1761 21-6931 3-8810

Telex: 31151 BULAP AR

E-mail:

hmarraco@fcaglp.edu.ar	*(uucp)*
uunet!atina!dcfcen!fcaglp!hmarraco	*(uucp)*
hmarraco%fcaglp.edu.ar@uunet.uu.net	*(Internet)*
hmarraco%psi#iafe%nssdca.span@noao.arizona.edu	*(Internet)*
hmarraco%psi#telenet.iafe%ssl.span@noao.arizona.edu	*(Internet)*
hmarraco%psi#iafe@nssdca.span.nasa.gov	*(Internet)*
psi%iafe::hmarraco%nssdca.span@star.stanford.edu	*(Internet)*
ssl::psi%iafe::hmarraco	*(SPAN)*

Presently we are using the facilities at Instituto de Astronomía y Física del Espacio (IAFE) to distribute the access to ***SIMBAD*** database to the argentine astronomers. We also borrowed a ***CD-ROM*** drive to read and distribute the ***CD-ROM*** TEST DISK from the ADC. It is planned to distribute on-line access to this 31 catalogs as soon as our own drive becomes available.

Lastly we shall remark that our effort is not alone: in this meeting we have learned that CDS is formalizing an agreement essentially similar to ours with the Physics Institute of Universidade Federal do Rio Grande do Sul (IF-

JFRGS) (Ducati 1989) and that the Instituto

Astronomico e Geofisico, Universidade de São Paulo (IAG-USP) is becoming a "regional host" of the nternational Ultraviolet Explorer *(IUE Uniform Low Dispersion Archive (ULDA)* as described by Wamsteker *et al.* (1989) :le La Reza and de Souza 1989).

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