

*De la conferencia  
en D.O.P.M.*

THE LATIN AMERICAN POPULATION DOCUMENTATION SYSTEM (DOCPAL)

AND

ITS APPLICATIONS INVOLVING ISIS

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(Note: \*\*\* indicates missing information to be  
added by the ISIS Newsletter staff).

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CELADE - SISTEMA DOCPAL  
DOCUMENTACION  
SOBRE POBLACION EN  
AMERICA LATINA

This paper will discuss the applications of ISIS in the Latin American Population Documentation System (DOCPAL), which is now being made operational in the United Nations Latin American Demographic Centre (CELADE) in Santiago, Chile. DOCPAL is designed to assist countries of the region and others to more easily obtain documents concerning population which were written in or about Latin America since 1970. To place the discussion of DOCPAL and its utilization of ISIS into proper perspective, the integrated program of CELADE activities in the area of information will be described first with emphasis on their relation to CELADE's objectives as a social and economic development-oriented organization serving the Latin American Region. Then the objectives and requirements of DOCPAL within this orientation will be outlined, followed finally by a discussion of present and future uses of ISIS to satisfy the DOCPAL requirements.

#### INTEGRATED INFORMATIONAL ACTIVITIES IN CELADE

CELADE, with a staff of around 150 persons in total in Santiago and San Jose, Costa Rica, has the responsibility for executing the United Nations Regional Population Programme in Latin America. It is organized in terms of five sub-programmes that encompass its substantive activities including population research, training and technical assistance, all of which are directed towards meeting the development needs of the countries of the Region. Within this organization, the Latin American Population Information Storage, Retrieval and Processing Sub-Programme integrates all informational activities of CELADE directed towards the countries and towards satisfying the informational needs of other CELADE sub-programmes. The components of this sub-programme are:

- a). Computer Services and Systems.
- b). Data Bank (micro-data: census samples and population surveys)
- c). DOCPAL
- d). Specialized Library.

The Computer Services and Systems unit which has five programmers, two system analysts and a computer operator, provides data processing technical assistance to Latin American organizations, processes micro-data for the countries such as the elaboration of entire national censuses when the country is unable to do so, conducts national and regional training courses, and develops systems required by the countries when suitable ones cannot be obtained elsewhere. Emphasis is placed on the utilization of existing computer processing packages in the countries and, in particular, on packages that are user-oriented, that is, able to be employed directly by investigators and others with little or no intervention by programmers. This avoids users becoming dependent on scarce human resources, i.e., programmers, who tend to leave government and research centers for industry as soon as they become proficient. The major system developed by CELADE to date which is used widely in Latin America and other regions, is CONCOR, a user-oriented system for checking micro-data consistency in censuses and surveys and correcting it either by automatic imputation or by human intervention.

The Data Bank, collects, stores and makes available micro-data from <sup>population</sup> censuses and surveys. However, unlike DOCPAL, it does not endeavor to collect all micro-data produced in Latin America; rather it attempts to acquire samples of all the 1960 and 1970 censuses (it now has around 35 such data sets) and only those surveys and other micro-data from studies in which CELADE participated or needs for its research or technical assistance. With resources from Canada, the Computer Services and Systems unit will soon begin work to adapt Canadian software to produce a user-oriented "data base census and survey tabulation system" which eventually will be employed to access the Data Bank holdings and obtain tabulations via terminal or batch processing. The system will permit complex tabulations and manipulations of data to be obtained more easily and rapidly than at present, facilitating the planning, implementation and evaluation of development policies involving population variables. When the system is ready (estimated around early 1979), the

Data Bank will be put into data base form and will be known as the Latin American Population Data System (DATOPAL).

DOCPAL

DOCPAL, which is now being integrated functionally with the CELADE specialized population library, has as its major objectives (a). the acquisition of the published and unpublished documents of any aspect of population produced in or about the Latin American Region since 1970; (b). the improvement of the flow of information within the Region by making the documents known and available; (c). the participation in the development of any world population information system.

The design of the system, which began in late March 1976 with financing for the first two years from the International Development Research Centre (IDRC) of Canada, is based upon the assumption that there are only a few well-endowed Latin American centers such as CELADE, which have investigators and administrators sufficiently trained to have an immediate need for and the capacity to utilize a population information system employing sophisticated storage and retrieval technology. The vast majority of the governmental and other institutions utilizing population information are poorly endowed with limited human, library and financial resources. They could take very good advantage of a Regional population information system to reduce their isolation, but only if the output of the information system is easily available, if they do not have to depend directly on complex technology, and if they are trained to utilize the output.

The implications of these assumptions, which are developed in more detail in CELADE (1975) and Conning (1976), are that DOCPAL should have, on the one hand, a user-oriented on-line retrieval system for internal CELADE use and eventually for some other well-endowed centers, and on the other hand, for

the poorly endowed centers, a regularly distributed abstract journal with informative Spanish language abstracts suitably indexed and in highly readable format plus an intensive DOCPAL program of on-site visits in order to provide the technical assistance and training. The provision of informative abstracts of up to 400 words is particularly important to those with little access to libraries. Finally, it is necessary for the retrieval services to be backed-up by a clearinghouse to provide copies of the documents on request, when permitted by the producers.

Because of the integration of DOCPAL within the CELADE information sub-programme, it can take advantage, without administrative complications, of the Computer Services and Systems programmers (one of which is paid by the DOCPAL project, although others work on DOCPAL as well) and their wide experience in providing technical assistance to the countries and in designing and programming systems. Furthermore, since DOCPAL is a system which must be designed for use directly by substantive personnel with little or no assistance from documentalists -- many poorly endowed centers do not have documentalists or even librarians available -- it must be integrated fully with the other sub-programmes of CELADE. In this way DOCPAL also benefits from CELADE's experience in providing nearly 18 years of technical assistance to the countries and from the fact that CELADE has trained most of the persons now working in the field of population, per se, in Latin America.

#### THE SELECTION OF ISIS FOR DOCPAL

The forgoing objectives and assumptions of DOCPAL led to a number of specific requirements for the information storage and retrieval system employed. First, since CELADE must provide technical assistance, the system had to be able to be implemented by CELADE in national institutions concerned with population if they are capable of utilizing it efficiently. This means the system has to be reasonably inexpensive both to acquire as well as to use,

must not require a large computer, must work in batch form, and permission to install it must be easily obtained. Second, particularly for CELADE's internal use, the system had to be able to be used with on-line terminals and able to retrieve on the abstracts, which are available for other reasons, as well as on controlled vocabulary indexing. In this regard, it must be user-oriented. Third, because of special requirements involving the production of the journal and other needs of DOCPAL, it was desirable that the source program of the system be available so that modifications can be made if necessary. Fourth, because the tapes of DOCPAL must be able to be used with any future world-wide population information system and therefore must follow the UNISIST Reference Manual almost without exception, the system had to permit the application of these rules, or the DOCPAL tape had to be able to be easily transformed into UNISIST form. Fifth, the rather large record size resulting from the up to 400 word abstract had to be acceptable. Sixth, it should be relatively easy to enter and update or correct information.

While various systems can meet the second through the sixth requirements, some more elegantly and conveniently than ISIS, such systems all failed on the key first point, namely that they be of reasonably low cost to obtain, implement and run so that they could be implemented in the countries. ISIS, on the other hand, could meet all the other points, or could be adapted or interfaced to meet them, and in addition was suitable for implementation elsewhere (with appropriate permission), should the need and conditions arise. Adopting ISIS for DOCPAL also permitted CELADE to utilize the same system as the Latin American Social and Economic Documentation Centre (CLADES) of ECLA.<sup>1/</sup>

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<sup>1/</sup> ECLA: United Nations Economic Commission for Latin America.

THE IMPLEMENTATION OF ISIS IN SANTIAGO

Since CELADE was ready to implement ISIS for batch processing in Santiago around the time CELADE required it for both batch and teleprocessing, the implementation of the ISIS-DOS version on the University of Chile IBM computer was done jointly by CLADES and the Computer Services and Systems unit of CELADE with technical assistance in making certain required modifications and in using the teleprocessing mode from the ISIS Outreach Advisor, Robert Valentin, of IDRC. Since he has described this implementation in Santiago in a previous \*\*\* article (Valentin, ) it will not be described here, but rather the applications involving ISIS will be discussed.

DOCPAL COMPUTER INFORMATION SYSTEM REQUIREMENTS

This section will outline the major requirements of the information entry and retrieval system involving ISIS as seen from the points of view of the documentalists working in DOCPAL and the potential users who are not documentalists. Following this, technical details will be given on the present and planned use by DOCPAL of ISIS and associated programs to meet these needs.

Data Entry ProceduresSuccessive completion of a record

DOCPAL began to enter information into ISIS around the end of the sixth month (September, 1976) after beginning to design and create the system. It was thought then that only complete worksheets should be entered so that the ISIS entry program could be used; successive entries to the same record require moving back and forth from the master and the transaction files and the use of the "correction" procedure to add new information, making entry rather slow. However, it soon became evident that one-time entry of a record was not practical under the conditions in which DOCPAL operates and with the large number of fields and long abstracts utilized (a set of worksheets are given at the end of this article). To retain the abstractors, many of whom depend only on the abstracts for their livelihood, requires a total of 90-100 documents per week. While a small amount of basic bibliographic information must be entered on the worksheets before releasing a document to an abstractor, the work of checking the abstracts, completing the bibliographic and other information and indexing from a controlled vocabulary falls behind the production of the abstractors since the three documentalists in DOCPAL are also involved in missions abroad, thesaurus development, the production of the journal and other activities. The net result with the initial plan was that the number of complete records entering ISIS was much less than the number of documents started each week, and hence, the control listings produced via ISIS were missing many documents which were, in fact,



available. In addition, fewer documents were available immediately for searches, at least on titles and authors.

To solve this problem it has recently been decided that at first only the basic bibliographic information placed on the worksheets before handing documents to the abstractors will be entered into the record -- identification numbers, type of literature and bibliographic levels, authors and titles (at analytic and monographic levels according to the document), written date, conference name (if any) and a few other items including control fields indicating the date and stage of entry. When the rest of the information is ready, the record is completed.

This decision is leading to a number of other benefits. Since only basic information is entered initially, the documentalists make all indications directly on the front page of each document from which the information is directly entered, thus, saving the intermediate stage of partially filling out the worksheets which in turn saves documentalist time and reduces errors that result from an additional transcription. A computer generated worksheet with the basic information is produced to attach to the rest of the worksheets which are filled out later since computer produced sheet does not contain all the bibliographic description.

The early entry of basic information also permits the frequent generation via ISIS of authority lists of all personal and corporate authors, conference names, publishers, etc., saving the need for the documentalists to make library type cards for controlling this information. Since the lists will be produced around once a week when the early entry system is on a production basis, the gap between entering a new name and receiving it on a listing will not be very serious.

To make this system of successive entries of each record work, the entry program must be flexible and permit later entries on the same document to be done conveniently. Furthermore since there are so many documents to enter (for the size of the staff) and the abstracts are long, it is convenient at times to have secretaries assist the data entry operator; hence, the entry program must be user-oriented and easily learned and should permit corrections

to be made with ease at the time of entry and later. Of course it is much more rapid to work at a CRT than on a typewriter type terminal. It also is very desirable to be able to copy selected fields from one record to another, for example, the same monographic information and conference fields concerning a conference proceedings could be copied into the succeeding records of the articles in the proceedings saving the time of the documentalists and the data entry operator.

#### Editing on entry

Because the DOCPAL staff of three documentalists is very small for the amount of work required and because many fields are entered, the number of logical errors must be kept to a minimum to save correction time. This requires sophisticated editing routines.

The editing routines must not only check a maximum field lengths and whether the field should be numerical, etc., but should determine if and only if the proper fields are entered for a given combination of literature and bibliographic level (determined by fields #02 and #03 on the first worksheet, HDB1; around 50 combinations are permissible in DOCPAL). Errors should be indicated immediately so that the operator can make the correction, if possible, and should be available in a hard copy as well. Other editing should consider logical relationships between fields, and improper codes on pre-coded items.

#### Production of the Abstract Journal

The abstract journal will have subject, author and geographical indices. The first time a document is mentioned in the subject index it will have the full entry and the abstract along with an abstract number assigned consecutively within the volume; second and third appearances of the document will contain only a small amount of information including the title and the abstract number. Since funds are not available for photocomposition, the computer output, in upper and lower case, double columned with aligned margins on the right, will be directly photocopied for printing by offset.

On-line Searches

It should be possible for the investigators in CELADE and in any other institution where the retrieval system may be implemented, to "browse", as well as to make specific searches. The browsing capacity is extremely important since it should increase the use of the system; this requires that the retrieval system be highly user-oriented and permit the easy selection of fields to be searched and printed depending on the needs of the user.

THE UTILIZATION OF ISIS AND ASSOCIATED PROGRAMS IN DOCPAL

Environment

The ISIS-DOS system used by both CELADE and ECLA/CLADES is running on a IBM 370/145 with 1 megabyte of main memory located at the Computing Center of the University of Chile; it is operated with the Virtual Machine Facilities system (VM/370). VM via the Control Program (CP) permits the simulation of different machines which can be operated from terminals acting as consoles; each machine has its own operating system, virtual reader, card punch and printer, disc space, the possibility of temporarily attaching magnetic tapes, and terminals can be dialed to the machine.

The Computer Center has a Virtual Machine for DOS/VS users. However, CELADE has its own small DOS/VS machine (generated with one partition working in real mode) for running only catalogued programs. This permits the CELADE staff to operate both on-line and batch ISIS programs from any terminal at any time, independently from other users. The major reason for defining a special DOS machine was to avoid the overhead involved in using the DOS/VS machine of the Computer Center that works with POWER, four partitions and double paging. This is avoided with the small CELADE machine.

IBM Conversational Monitor System (CMS), designed especially to work under VM, has efficient and easily used facilities for creating and editing files. This allows the creation, editing and storage of JCL and parameter card decks for running ISIS. When any ISIS-DOS program is to be used, the corresponding deck is sent to the virtual DOS reader by using the spooling facilities provided by VM. In this way, it is possible to carry out in CMS sophisticated procedures for generating different sequences of ISIS programs.

The ISIS-DOS version employed in Santiago has the Ottawa Monitor requiring a 2741 typewriter terminal when used on-line. CELADE has a 2741 in its offices although it also uses the 2741 terminals located at the University.

Maintenance of ISIS

The ISIS system is catalogued in a private CIL, with access possible from any DOS machine (Read only). The system is maintained using the DOS/VS machine of the Computer Center which permits compiling and cataloguing programs. Modifications in the ISIS programs are made using the editing facilities of CMS and are then sent to the DOS/VS machine to be catalogued always under a new name, thereby maintaining the original system intact.

DOCPAL Experience and Applications with ISIS

Since it is impossible to run ISIS under CMS as the latter does not support Indexed Sequential Files, up to now the work has been concentrated primarily on the development of interfaces and operational procedures which permit taking advantage of the facilities offered by the VM system. The ideal solution would be to run ISIS under CMS, but this would require modifications of the system that go beyond the resources available.

The major problems encountered are with the on-line ISIS programs. The Entry and Search programs available in Santiago must be manipulated by a 2741 typewriter terminal. Even with operational improvements, the programs are still slow and, in their present form, do not meet all the DOCPAL requirements. The programs are slow because of the intrinsic overhead resulting from the way ISIS is processed under VM and because the 2741 has a low velocity.

The slowness inherent in processing ISIS under VM can be clarified by referring to Diagram 1. Since the University of Chile Computer Center has around 12 CRT terminals (IBM/3277) and 12 typewriter terminals (2741) which function constantly, usually with CMS, it is easy to see how the on-line ISIS process has been degenerating.

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Diagram 1 about here

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In this situation, the following conclusions have been reached:

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- a). The ISIS Entry program cannot be used conveniently for the entry of the DOCPAL record, which has an average of 3000 characters. The program was modified to permit up to eight prompting patterns (see Packer and Piro, \_\_\_\_\_) but this did not make a sufficient improvement in the rapidity of entry. Hence, it has been necessary to develop a separate entry program working under CMS that interfaces with ISIS (see below). However, it is feasible to use the Entry program for corrections.
  - b). The Search program meets most immediate needs of DOCPAL if modifications are incorporated to make it more user-oriented, for example, permitting the selection of different fields and formats to print retrieved documents.

#### The CELENTY Program

To meet the DOCPAL requirements for data entry outlined in an earlier section, a new entry program known as CELENTY (CELADE Entry) has been created working under CMS and which is manipulated from a CRT IBM/3277. The program is designed incorporating the facilities offered by CMS for programming interactive processes and manipulating files. The program produces a file with a format for batch entry via ISIS program CLDRTV15.

CELENTY is now used by DOCPAL to enter basic bibliographic information from a document and then, when the rest of the information is available, to recall the record for completion.

Other characteristics of the program, which are now operational, are:

- Automatic assignment of the ISIS identification number, if desired;
- Field by field entry in any order (required because of the successive entry of information for each document);
- Automatic saving of information entered;
- Copying of fields from a previously entered document;
- Correction of data already entered;

- Manipulation of texts displayed on the screen;
- Production of a printed copy of each record entered (when desired).

Periodically the documents entered via this CMS program are transferred to the ISIS Transaction File via CLDRTV15. Once entered into the Transaction File, remaining corrections are done via ISIS either on-line or in batch mode depending on the type and quantity of the corrections.

A preliminary version of the users manual of CELENTY may be obtained by writing to Abel Packer, CELADE, Casilla 91, Santiago, Chile; tapes of the system will also be available. Details of the CELENTY program will be the subject of a future article.

In the future the CELENTY program will incorporate the types of editing routines required by DOCPAL (see the Section on DOCPAL Computer Information System Requirements).

#### Production of the Abstract Journal

Work is now beginning (January, 1977) on the applications programming required to produce the DOCPAL abstract journal entirely via computer so that the output can be photocopied for printing by offset. This will require certain modifications in CLDRTV04 to permit different printing formats that depend on whether an entry in the journal is a first or later appearance. The output of CLDRTV04 will be sent to a virtual machine under CMS where it will be placed in its final output form via the IBM program SCRIPT.

#### On-line searches and other processing

The ISIS version in Santiago would be much more convenient particularly for searches, if CRT terminals (IBM 3277) could be employed. For the present, modification of the MONITOR has been excluded for a less elegant but more rapid solution. The MONITOR will be eliminated and the input/output routines for terminals will be substituted by Read/Write at a DOS console operator from a CRT screen, thereby avoiding the necessity to program the terminal. The only disadvantage of this solution is that only one ISIS program can be processed at a time.

BIBLIOGRAPHY

CELADE, 1975. An outline of the Latin American Population Documentation Service (DOCPAL): A Request to the Information Service Division of IDRC. Santiago.

Conning, Arthur M., 1976. A Report on the Implementation of DOCPAL during the first six months of operation. Background paper written for the joint meeting of the POPINS Interim Steering Committee and the POPINS Technical Task Force, Washington 20-24 September 1976. CELADE-Santiago. DC/5.

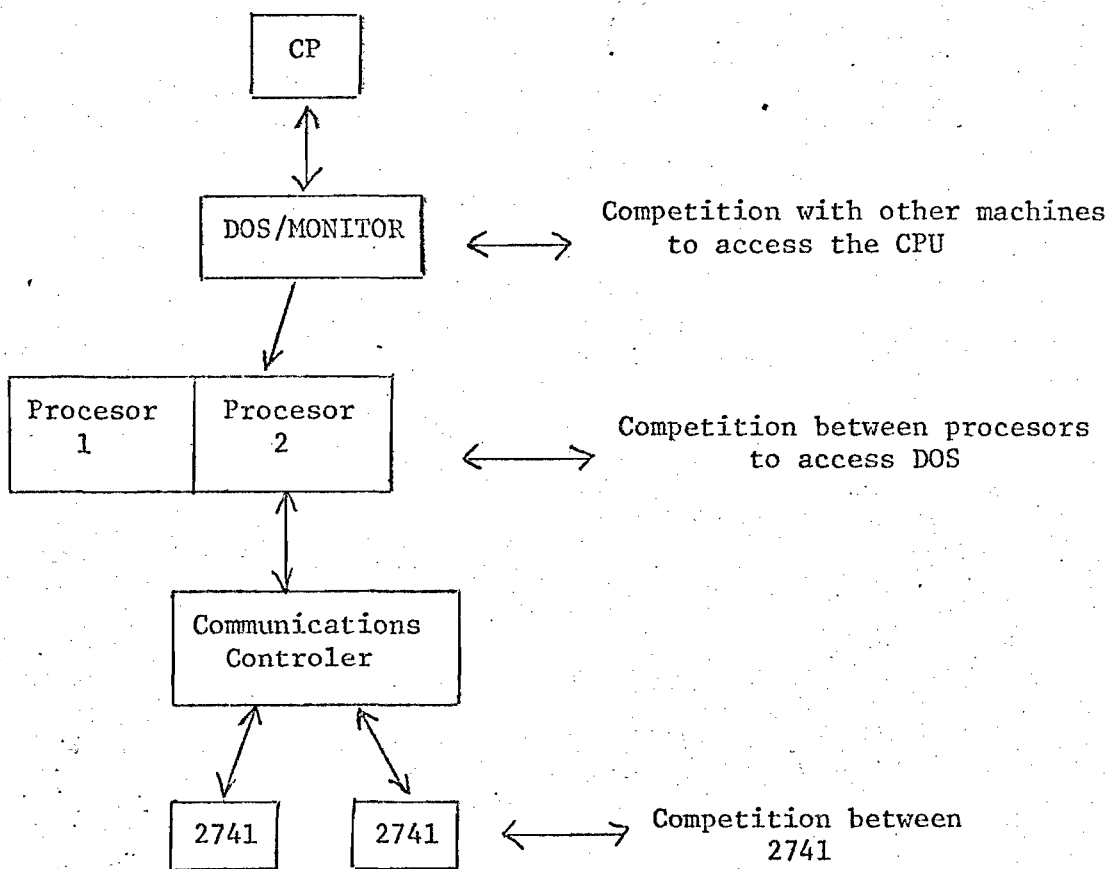
\*\*\* Packer, Abel and Nelson Piro, \_\_\_\_\_

\*\*\* Valentin, Robert, \_\_\_\_\_



DIAGRAM 1

LEVELS OF COMPETITION DURING ISIS ON-LINE PROCESSING



PLP  
NISIS

66  
01(A)  
NIMAIL  
NACCESO  
NDUCPAL  
Gente  
Partic  
DOCPAL  
DN  
CA

HD B 1  
HD B 2  
HD B 3

HOJA de DESCRIPCION  
BIBLIOGRAFICA  
I A N  
BIBLIOTECA  
Celade

Etapa Registro  
99 (Z)  
Fecha exacta

Tipo Literatura  
02 (B)  
Publ. Per.  
Libro  
Informe  
No-Conv.  
Articulo  
Serie  
Tesis  
Datos Num  
Formulario  
Comp.Prog  
Bibliogra.  
Dir / Dic  
Legis.  
Res. solo  
Conf.

03 (C)  
Analitico  
Monogr.  
en colec.

Centro  
partic.  
Fecha  
enviada  
Fecha rec  
en celade  
94  
92  
92  
G.  
CELDAE

AUTOR PERSONAL	04								
AEL. AU. PERS.	05								
AUTOR COR	06								
IDIOMA ORIG.	09								
Titulo									
ESPAÑOL (trad.)	10								
INGLES (trad.)	11								
PAGINAS									
									12
PA.	CIUD.								

AUTOR PERSONAL	13								
AFIL. AU. PERS.	15								
AUTOR COR	16								
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FILE  
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 01(A) DOCPAL

HDB2

HOJA de DESCRIPCION  
 BIBLIOGRAFICA  
  
 DOCPAL Celode

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INST: Ciudad	38	Pais	39 0
		Gdo. Acd	40

Nombre	41			Clud.	42
				Pa.	43 (X)
Fecha normal	44 (L)	Parte	45	Escrita	46

De donde obtiene	58	DOCPAL Autor Inst (otro:)								Precio DOCPAL	59	(PAIS) (PRECIO)
Dist. según produc	60	CELpub Igno	Editorial No disp	Repet:								gratis igno nsa
Nº Bibl	63	General Interna No disp (otro:)	Rzstrin Confid Igno			Idioma texto	61	Es Pt En				Es Pt En
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NOTAS	67	
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Primer Info.	93 (U)	rnc' rcf doc					94				
Doc. recibido de	95 (W)	sbibl sdona sotro jbibl jdona jotro CEPAL						nsa	Monto pagado	96	00.00

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Fecha(s) de Entrada	98	OPERADOR: Llenar fecha que aplica (Entrada) DN- (Corrección) CA- (Cerrado) EL-	
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¿ES PARTE DE UNA COLECCION? - NO o NSA - SI : LLENAR 47 A 57 EN UNA HDB3

Form DOCPAL HDB2 31/12/75

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68				Centro Partic.
01(A)				DOCPAL

DN  
CA



HOJA DE  
RESUMEN  
(HRES)

Autor	TITULO	PAGINAS A RESUMIR
90	COMPENDIADOR (APELLIDO, INICIAL) HRES-	Autor nsa
70 (9)	AÑO/MES/DIA ASIGNADO	AÑO/MES/DIA PARA ENTREGAR
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RESUMEN (Dactilografiar a espacio y medio dentro de las líneas cortadas)

71	OBJETIVO
72	RESTO DEL RESUMEN

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CON  
SIN  
copia

FORM. DOCPAL HRES 31/12/76

¿RESUMEN  
SIGUE EN  
OTRA HRES  
— SI  
— NO

73 (R)	Nº DE REFERENCIAS:	Datos desde qué año	6	Datos hasta qué año	73
92	FECHA RECIBIDO	5-	Asistencia subalterna de:	Quién corrigió la HRES	Autor

FILE	
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68				Centro Partic.
01(A)				DOCPAL

DN  
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DE CONTENIDO  
(HAC)

UTOR

DESCRIPTORES DEL TESAURO DE POBLACION DE DOCPAL  
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AS TRATADOS  Incluir variables listas en campo	76	Usar \$\$\$Y entre conjuntos de descriptores de importancia primaria y secundaria.			
ARIABLES  Variables trata- en detalle con os empíricos)	77				
DATOS  entets) de los os)	78				
FORMULARIOS  istencia y su pósito)	79				
PROYECTOS, ETC. CELADE; DOCUMENTOS DE ADE CITADOS	80	< OMUECE > < ENCDM > < IMILA > < IMIAL > < PROYECCIONES >	< MIGMETRO > < EMAL > < ENCHOGAR >	< PECFAL-Urbano > < PECFAL-Rural > < PEAL > < WFS > < SIDES >	< EPLAFAL > < ENCPF >    < CELADE >
DISCIPLINAS (máx.3)	85				
PROPOSITOS (máx.3)	86				
PRIMARIOS (sólo Am.Lat) (máx.10)	87	AR BO BR CL CO CR CU DO EC SV GT HT HN MX NI PA PY PE UY VE AG BS BB BZ VG KY DM FK GF GD GP GY JM MQ MS AN PZ PR KN LC VC SR TT TC XL XS XC XZ ZZ			
SECUNDARIOS (máx.5)	88	AR BO BR CL CO CR CU DO EC SV GT HT HN MX NI PA PY PE UY VE AG BS BB BZ VG KY DM FK GF GD GP GY JM MQ MS AN PZ PR KN LC VC SR TT TC XL XS XC XZ ZZ      Otros países o regiones:			
DOCUMENTOS Y/O DOCPAL RELACIONADOS	89				

en hizo la HAC	90	HAC-	Fecha hecho	92	6-	Quien chequeó la HAC
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