MINISIS Users' Group Meeting 1983
Proceedings of the Fifth Annual Meeting of the MINISIS Users' Group

May 1985
The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to support research designed to adapt science and technology to the needs of developing countries. The Centre's activity is concentrated in six sectors: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; earth and engineering sciences; and communications. IDRC is financed solely by the Parliament of Canada; its policies, however, are set by an international Board of Governors. The Centre's headquarters are in Ottawa, Canada. Regional offices are located in Africa, Asia, Latin America, and the Middle East.

This series includes meeting documents, internal reports, and preliminary technical documents that may later form the basis of a formal publication. A Manuscript Report is given a small distribution to a highly specialized audience.
The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to stimulate and support scientific and technical research by developing countries for their own benefit.

The Information Sciences Division of IDRC has developed MINISIS, a multi-lingual, generalized data base management and information retrieval software package for the Hewlett-Packard 3000 family of mini-computers. The complete package - software, training and on-site implementation - is made available free of charge to non-profit-making organizations in developing countries, and for a fee to other organizations. When they acquire MINISIS, these organizations become members of the MINISIS Users' Group.

The members of the MINISIS Users' Group meet annually to share their experiences and expertise with the MINISIS system, and to participate in discussions with IDRC over the future development of the system. The first meeting, in 1979, took place at IDRC. Since then, other users have taken turns at hosting the annual Users' Group meeting.

The joint hosts for the fifth meeting of the MINISIS Users' Group in Wageningen, the Netherlands, 25-28 October 1983, were the Agricultural University of the Netherlands and the Directorate of Agricultural Research of the Ministry of Agricultural and Fisheries, the Netherlands. These two organizations have a shared automated library and documentation system for the libraries of the Agricultural University and research institutes in the Netherlands, originally called BAS (an acronym for, in English, Bibliographic Automated System), which is now called AGRALIN. The AGRALIN system uses the MINISIS software on a computer at the Central Library of the Agricultural University in Wageningen.

The meeting was planned and co-ordinated by the AGRALIN Team at the Central Library of the Agricultural University. We would like to express our appreciation to the host institutions and members of the Team - in particular, Drs. Frans Leemreize, Mr. Age Jan Kuperus and Mr. Nico Lamers - for their hard work in ensuring that the meeting ran smoothly, for their help to the many participants in arranging accommodations and user presentations, and most of all for their warm hospitality. We would also like to thank two other organizations, HP Nederland and ASSYST-RAET, for the hospitality which they extended to the participants.

Finally, we would like to thank all of the participants to the fifth annual meeting of the MINISIS Users' Group for their contributions to this meeting.

Dr. C.A. Godfrey
Associate Director
MINISIS and Computer Information Systems
International Development Research Centre (IDRC)
Ottawa, Canada
Le Centre de recherches pour le développement international est une corporation instituée en 1970 par le Parlement du Canada pour encourager et subventionner des recherches techniques et scientifiques réalisées par les pays moins avancés, pour leur propre bénéfice.

La Division des sciences de l'information du CRDI a mis au point MINISIS, progiciel multilingue qui combine la création d'une base de données, les fonctions de gestion et la recherche de l'information et qui s'exploite sur les mini-ordinateurs de la famille Hewlett-Packard 3000. Le progiciel complet -- logiciel, formation et installation -- est offert gratuitement à des organisations sans but lucratif de pays en développement et contre paiement d'un droit aux autres organisations. Quand elles se procurent MINISIS, ces organisations deviennent membres du Groupe des usagers de MINISIS.

Les membres du Groupe des usagers de MINISIS se réunissent chaque année pour se faire part de leur expérience et de leurs connaissances en rapport avec MINISIS et pour discuter avec le CRDI du développement du système. La première réunion, en 1979, a eu lieu au CRDI. Depuis lors, d'autres usagers ont, à tour de rôle, servi d'hôte à ces réunions.

Les hôtes de la cinquième réunion du Groupe des usagers de MINISIS, qui s'est tenue à Wageningen aux Pays-Bas, du 25 au 28 octobre 1983, ont été l'université agricole des Pays-Bas et la Direction générale de la recherche agricole rattachée au Ministère de l'agriculture et de la pêche des Pays-Bas. Ces deux organismes partagent un système bibliothécaire et documentaire informatisé qui dessert les bibliothèques de l'université agricole et les instituts de recherche des Pays-Bas: le système AGRALIN, anciennement appelé BAS (Bibliographic Automated System). Le système AGRALIN s'exploite à l'aide du logiciel MINISIS sur un ordinateur de la bibliothèque centrale de l'université agricole à Wageningen.

La réunion a été planifiée et coordonnée par l'équipe d'AGRALIN de la bibliothèque centrale de l'université agricole. Nous voulons remercier les institutions-hôtes et les membres de l'équipe, plus particulièrement MM. Frans Leemreize, Age Jan Kuperus et Nico Lamers -- qui ont tout fait pour que la réunion se déroule sans encombre, qui ont aidé de nombreux participants à se trouver un hôtel et à prendre les dispositions voulues pour leur présentation, et surtout qui ont réservé un accueil chaleureux à tout le monde. Nous tenons aussi à remercier deux autres organisations, HP Nederland et ASSYST-RAET, pour leur hospitalité.

Enfin, nous remercions tous les participants à la cinquième réunion annuelle du Groupe des usagers de MINISIS de leur contribution à cette réunion.

Le Directeur associé
MINISIS et systèmes d'information
informatisés

C.A. Godfrey
Centre de recherches pour le
développement international (CRDI)
Ottawa, Canada
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APPENDIX G

Letter to AGRIS MINISIS users from APU, Vienna
Two documents were distributed at the meeting by

the BAS Project Team
Agricultural University of the Netherlands
Automation Dept. Jan Kopshuis
P.O. Box 9100, 6700 H A Wageningen, The Netherlands

They are

*Pudoc's computerized current awareness service (SDI)*
by Jan van der Burg
and Frans Leemreize

and

*LOANS*
by Age Jan Kuperus
and Bert Schuurs

These documents are being distributed separately
Welcome Address to Participants in the Fifth MINISIS Users' Group Meeting
Wageningen, the Netherlands, 25-28 October 1983

by

Dr. D. de Zeeuw

General Director of the Agricultural Research Department
of the Ministry of Agriculture and Fisheries
The Netherlands
It is a pleasure to me to welcome you on behalf of the Ministry of Agriculture and Fisheries and the Agricultural University of Wageningen. We appreciate the fact that the MINISIS Users Group is holding its meeting in our country this time. I hope that the exchange of ideas which will take place will contribute to optimum cooperation for development and the use of automated information systems.

In our country and in particular in agricultural science, we set great store by the supply of information. One of the reasons for this is that we, as a small country with a large agricultural export trade, are highly dependent on other countries. As an introduction to your visit, it seems appropriate to me to tell you something about the importance of agriculture, agricultural science and agricultural extension and the relevant supply of information.

In the Netherlands, agriculture is one of the most important economic activities in spite of the fact that our country is one of the most densely populated countries in the world. We have 14 million inhabitants, who must live, work and recreate on 4 million ha land. That means that for 7 persons an area of no more than 100 x 100 m² is available. When we subtract from the total area of 4 million ha, all canals, lakes, sites for towns and cities, factories and suchlike, only 2 million ha remain for arable farming, horticulture and animal husbandry. On those 2 million ha we have some 115,000 holdings, 20% of which concentrate on horticulture. That means that many holdings are smaller than 10 ha. The number of workers in agriculture amounts to some 6% of the working population. Together with the processing industry and trade, another 6% of the working population, they nevertheless make it possible that ca. 25% of our national exports consist of agricultural products. Important products are meat, milk products, eggs, seed and seed potatoes, vegetables and particularly our world-famous flowers. In addition we provide our own population with a very wide range of high-quality foodstuffs, so far as to be almost self-sufficient. We depend on imports only for a large proportion of cereals.

This achievement of our farming population is due in the first place to their exceptional professional skill. This professional skill is fostered by the facilities provided by the Government in the field of education, extension and research. It is essential for farmers and horticulturists to possess up-to-date information and to apply it in the correct way. The research institutions have been instructed to spend 5% of their budget on aid to developing countries. We have experienced in the Netherlands that knowledge is one of the pillars of the development of agriculture and the rural areas, and with that of the development of a country as a whole. In the Netherlands we spend a lot of money on the procuring and passing on of utilisable information. In our country, Wageningen is the most important center for agricultural science. At the Agricultural University some 6,000 students are educated. This institution employs 1,800 staff for teaching and research. Besides, in Wageningen, but also outside Wageningen, another 33 institutes and experimental stations perform applied agricultural research. In all, these institutions employ 3,700 staff. In this structure the throughput of information is vital. A system has been carefully constructed to enable the problems of farmers and horticulturists to be treated as subjects for research.
by the experimental stations. Thus, agribusiness and the agricultural
extension services are directly involved in the drawing up of research
programmes. The information present in the research organization or obtained
by the research, is passed on to the farmer and horticulturist mainly by
expert extension officers.

We realize fully that in spite of our large research organization with staff
of excellent quality, there is a lot of information elsewhere in the world.
Therefore, a library facility has been developed in Wageningen with the fourth
or fifth largest collection in the world. I emphatically term it a library
facility, because our objective is something more than a library. We are in
the process of creating a library network of all agricultural libraries. The
philosophy behind this network is that publications should be as close as
possible to the users. This means per institute, experimental station,
University department, a small library facility. Per field for example,
animal husbandry, plant diseases or mechanization the collection is built up
by mutual agreement. And so central library units are created where all the
most immediately topical literature of a field of science is available. These
technical libraries (13 in all) are run by university graduates. The
librarian of the central library of the Agricultural University has been
charged with the task of optimizing the utility of the organization as a whole
in conjunction with the decentralized units. To promote effective
communication in day-to-day affairs between the decentralized units and the
central library, rapid connections are necessary. Computers make these
possible. We chose the MINISIS programme which has proved highly
satisfactory. As to the way in which we apply the MINISIS system, you will
undoubtedly be able to study that in the days before you. I hope you will
view it critically so that our staff can learn from your expertise.

The supply of information does not start with libraries. The Centre for
Agricultural Publishing and Documentation, commonly called PUDOC, has for
decades provided researchers with literature surveys, rendered current
awareness services and what not. The information specialists sift through the
world literature in their search for subjects which are of interest
to our
research workers. Today MINISIS is also used for this work.

For a small country, it is unwise to amass large data banks itself,
particularly when they already exist elsewhere. Therefore we make use in the
first place of foreign databanks, and we assist in building up databanks such
as Agris and Agrep using MINISIS.

We also use the MINISIS system to establish a documentation of Dutch
literature which is not or insufficiently present in the large international
databanks.

A good supply of information we regard as a prerequisite for good and
efficient research. Our aim is to let others, notably the developing
countries, profit from our research capacity. One hundred years ago the rural
structure in the Netherlands was unfavourable, too; there was real hunger and,
driven by poverty, large numbers of people moved to the towns or emigrated.
It was proved possible to change all that and to achieve great prosperity. To
that end, we people of the world will have to cooperate in the field of agricultural information. We are delighted that the Technical Centre for Agricultural and Rural Cooperation for the European Community for the African, Caribbean and South-Pacific Countries is to be established at Wageningen. We hope that by means of our information facilities and our scientists in many disciplines, we will be able to contribute to the success of this centre.

We have realized that the installation of computer equipment is not the whole story. Active cooperation between the decentralized intermediary librarians and the information specialists is indispensable and not to be brought about by orders from above. It requires a careful harmonization of wishes and needs on the one hand and possibilities on the other. But not only that, the joint utilization of computer facilities necessitates people of diverse institutions actively attuning to each other. In the years behind us, personal and especially informal contacts have increased enormously which has rendered the whole information organization much more flexible. That flexibility does not, however, alter the need for clear agreements and decisions. Similarly our cooperation with IDRC has always been characterized by both flexibility and clarity in agreements and decision. I express my gratitude to this Canadian organization which makes such a large contribution to the realization of useful information facilities wherever they are needed in the world. I hope you will all profit from the excellent work the IDRC has achieved with MINISIS. I wish you a successful meeting and a pleasant stay in our country.
HOW BAS LINKS DUTCH AGRICULTURAL INSTITUTES TOGETHER FOR EXCHANGE OF BIBLIOGRAPHIC INFORMATION
INTRODUCTION

The Agricultural Information Bank for Asia started as early as 1974 as one of the major projects of the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). The information bank which is known as AIBA is the regional center for agricultural information for the following Asian countries: Indonesia, Malaysia, Thailand, Bangladesh, Korea, Philippines, Hong Kong and Singapore.

The regional information system of AIBA used to reside in an IBM/370 using CDS/ISIS of a computer installation in the University of the Philippines Los Banos (UPLB) campus. AIBA was only timesharing the computer with other institutions, so it had a very limited access to the computer and the databases. Other problems inherent to a service-bureau oriented computer processing added-up to the slow-growth of the information system for the initial years. In order to alleviate the chronic problems of AIBA, the center had decided to acquire an in-house computer in August 1982. The computer, a Hewlett-Packard 3000 Series 40, was installed late October 1982 and was made operational mid-November 1982.

MINISIS TRAINING COURSE

The early arrival of the computer made it possible to conduct the MINISIS training course in AIBA/SEARCA. The MINISIS training was conducted by Mr. T.A. Gavin of IDRC for two weeks and attended by users, information specialists and systems analysts from AIBA, National Science and Technology Authority (NSTA), the Southeast Asian Fisheries Development Center (SEAFDEC) and the University of the Philippines at Los Banos (UPLB) Library.

CONVERSION OF AIBA DATABASE TO MINISIS

During the MINISIS training course, the AGRIASIA database, a bibliographic information system for the region, was defined with AIBA information and user specialists defining their requirements, and systems analysts providing the technical aspects of the definition. A conversion program was written by Mr. T.A. Gavin with the support of the systems staff to convert the existing
AGRIASIA files to ISOCONV input requirements. So, as early as January 1983, the AGRIASIA files of about 38,000 records were fully loaded to the MINISIS database and ready for on-line retrieval.

MINISIS DATABASES AND ACTIVITIES

A. BIBLIOGRAPHIC DATABASES

1. AGRIASIA - a collection of agricultural documents (monographs, serials, theses, extension literature, conference papers) from all the AIBA national centers. Similar documents submitted directly to AGRIS but pertaining to the AIBA regional group are also included in the database.

2. FISHERIES - an expanded subset of AGRIASIA to include Fisheries documents and its corresponding categorization scheme.

3. CARIS - database for on-going research in the region. With the selection of AIBA as regional center for Current Agricultural Researches Information System (CARIS), CARIS/ASIA was set-up through an installation tape shared with us by Centre National de Documentation Agricole of Tunisia, through the Library and Systems Documentation Division of FAO. Revisions to the database were provided by AIBA systems group to cater to the needs of the regional center.

4. DATANTRY - where all bibliographic-formatted input is entered and "cleaned". This database serves as a clearing house for such input documents before transferring them to their corresponding databases.

B. NON-BIBLIOGRAPHIC DATABASES

1. WINGED BEAN BANK - a research databank containing raw and computed factual data from research findings. Although the database is newly-created, there are already requests to include other commodities in the data bank.

2. FELLOWS - a directory of all fellows who were granted scholarships by the center.

3. MANPOWER - a directory of consultants and researchers affiliated to the center.

C. SPECIAL PROGRAMS/ACTIVITIES

1. Conversion of AGRIS OCR input sheets to magnetic tape. The AGRIS input sheets submitted by the National Centers are entered, modified and validated in the DATANTRY database and output to tape using the MINISIS PRINT processor.
2. A validation program for AGRIS input was written to validate the textual part of the document.

3. Production of bibliographies:
   a. AGRIASIA - (quarterly)
   b. Bibliographies for National Center
   c. Bibliographies for Winged Bean, AGROFORESTRY and other commodities.

FUTURE PLANS

1. Expansion of AGRIASIA/FISHERIES database to include AGROFORESTRY bibliographic information system.

2. Implementation of SDI for AGRIASIA and similar databases.

3. Generation of AGRIASIA database on tape for distribution to the national centers.

4. Integration of other commodities, i.e. potato and peanut, in the research data bank.

5. Loading of AGRINDEX for the last six months as soon as additional disc space can be resolved.

CONCLUSION

With MINISIS, our conversion from a main-frame to HP/3000 was easily done in a short span of time. We are able to grow faster because MINISIS has a flexible database structure and modular set-up.
Presentation to the 5th Annual Meeting of the MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

CENDIT/IDEA

by

Mr. Anil Srivastava
CENDIT, P.O. Box 5249, New Delhi 110017, India

Centre for Development of Instructional Technology (CENDIT) is a non-profit foundation created in 1972 to evolve and promote appropriate communication methods and tools to serve the departmental needs of the region. CENDIT activities today revolve around research and training in communication technology and informatics, information storage and retrieval systems for better access to developmental information, audiovisual programme production and a clearinghouse for information on the work done and experience gained by the voluntary sector.

In 1976, an agreement was signed between the International Labour Office and CENDIT for the ISIS package, which was amended in July 1977 when the responsibility for the package was assumed by Unesco. CDS/ISIS (Release 3) was installed in 1979 in New Delhi by us on a Reyad 1022 computer at a service bureau. Another installation was made at the Reyad 1033 computer center in Bombay because of the growing interaction between CENDIT and the National Centre for Software Development and Computing Techniques (NCSDCT) for study and reference purpose in view of our interest in developing a version which could run on other computers of Indian manufacture. Release 3.2 of the CDS/ISIS was also implemented on the IBM 360/44 at the Delhi University Computer Centre in 1980 and until the end of 1982 served as the main installation for production of CENDIT databases.

The experience gained in adapting CDS/ISIS to run on inadequate hardware configurations (Reyad 1022, Reyad 1033 and IBM 360/44) was frustrating but valuable and educative, as it compelled our people to look into the intrinsics of the program and functions of each module.

In the meantime, closer cooperation was developing between CENDIT and IDRC particularly because of DEVSIS. CENDIT has been contributing to the DEVSIS database and created a DEVSIS INDIA database, mainly describing documents on the micro-level development experiences in India. The first product from the DEVSIS INDIA database (DEVINDEX INDIA 1) has been published this year and the second volume is in the press.

By this time, a HP 3000 minicomputer was ordered for the National Council for Applied Economic Research (NCAER) and an agreement was reached for collaboration between NCAER and CENDIT for use of the MINISIS package on their
machine. In April 1983 the MINISIS package was transferred to CENDIT and NCAER. At this time CENDIT is using in tandem both MINISIS and CDS/ISIS on HP 3000 minicomputer and IBM 370 mainframe computer respectively.

Since 1979, ISIS has acquired the status of a major activity within CENDIT. CENDIT's major objective is to serve as a catalyst in the creation of a cooperative information system within which CENDIT's role will be that of the ISIS Resource Group and provider of database service. This decision is the result of CENDIT's assumption that ISIS software (CDS/ISIS and MINISIS) are resources to be shared and that a cooperative information system is needed. At this point I must explain that the government has a National Information Centre (NIC) to serve the information needs of the departments and ministries of the Government of India and it is our perception that a large country like ours also needs an information system in the public domain without the concerns for security which a government information system is bound to have. Also their priorities are very different and this has been amply demonstrated by the databases generated so far.

In pursuit of a cooperative information system, CENDIT has:

- organized ISIS User Seminars and workshops;
- formal and informal training for users;
- assisted other institutions in using the packages and creating their databases;
- acquiring developing databases and preparing own databases;
- participating in international cooperative information systems like DEVSIS and SALUS.

The Director of the Centre is the Head of the Informatics and Clearinghouse Activities (ICA) and has a team of ten people working on a full time basis. They are:

- Development Database Coordinator;
- Two Programmer/System Analysts designated as Manager for CDS/ISIS and MINISIS respectively;
- One Programmer for microcomputer I/C interface for data preparation and output;
- Five indexers (Database Administrators);
- One assistant for inputting data for external users.

Besides the above team, ICA has several other persons from within CENDIT and outside available on regular part-time basis for training, training material development, database preparation and development of an ISIS-like package to run on an Indian computer. It is our earnest hope that we will be able to develop in the next three years (1984-86), a version of an ISIS-like package written in ISO Pascal or C-language running under UNIX operating system. At the present time, we are trying to put together a team to work on this project and development of the design specifications are underway. The candidate machine is ICL 101 minicomputer which is now manufactured in India and the second target machine is NELCO 5000 (a version of Quantel 5000 now
manufactured in India). We are restricted by lack of funds due to circumstances peculiar to our country, but we have no choice but to pursue this objective as we need an ISIS-like package to run in-house.

Databases created by CENDIT using CDS/ISIS and MINISIS packages can be broadly categorized into the following:

1.0 INTERNAL DATABASES: These databases are the ones created because of CENDIT's own requirement and no outside organization is providing the inputs. The databases, however, are available to other organizations. Some of these operational databases are mentioned below.

1.1 DEVISIS INDIA on social and economic development in Indian includes inputs provided to DEVISIS International database by CENDIT plus an extensive micro-level development experience literature coverage. A FILE TWO is under creation. Discussions are presently underway for participation of other organizations. Recently an arrangement has been made between CENDIT and the Jawaharlal Nehru Memorial Library, under which the latter would provide the publications for indexing and take the responsibility for housing the collection, microfilming and providing copies to the requesting institutions.

This arrangement will release some of CENDIT's resources to extend the search for fugitive documents and also to widen the coverage. DEVINDEX INDIA 1 is a printed product and the second volume is in preparation.

1.2 CENTIS (CENDIT Technology Information System) is a large database consisting of over 20,000 records consisting of bibliographic description of products and technical information relating to communication technology, computers, video and image processing, transfer of broadcasting technology, etc. This database was created on Reyad 1022 and IBM 360 machines and is in the process of being converted (and tuned) for maintaining online on HP 3000. This database has been one of the most used information resources because of our training and consultancy work in the South Asian region.

1.3 CENLOG is a database, the work on which has just begun, which will combine the records management, mailing and inventory functions at CENDIT. As we do not have a traditionally staffed library, we are considering including a limited loans and procurement function.

1.4 NIBIT (National Information Bank on Instructional Technology) is a database of non-book material. Historically, the need for this information started us on a search for an information retrieval package. However, this started as a small project for the Family Planning Foundation in 1982 with a resource list of non-book
materials on family planning and health and is being continued by CENDIT as ongoing work. The computer-generated family planning resource list is being published.

2.0 COLLABORATIVE DATABASES are created by CENDIT in collaboration with other organizations. Input is provided both by CENDIT and the collaborating organization(s). In the process CENDIT assumes the responsibility for standardization and training besides assisting the organization in using the computer package. Some of them are:

2.1 SALUS INDIA which is a database modelled on SALUS at IDRC covering documents on low-cost health care and health manpower training in India. Using the MINISIS software, this database is being jointly created by the Centre for Community Medicine of the All India Institute of Medical Sciences, Indian Council for Medical Research and the Voluntary Health Association of India. CENDIT is providing some input (because of its involvement in rural health manpower training) and is responsible for the database operation and maintenance. The first volume of SALUS INDIA is in preparation, containing descriptions of about 1,000 documents.

2.2 DEVCOM database on development communication literature is a joint effort of the Indian Institute of Mass Communication and CENDIT. Beginning early next year, a monthly accession list, and sometime in mid-1984 a regular SDI service is planned for this database. A selected merger of records from CDS database of Unesco is also being done on a progressive basis.

2.3 ILS (Industrial Licensing System) database has been created on an experimental basis with the Public Enterprises Centre for Continuing education (PECCE) and is expected to provide a planning aid for industrial development.

3.0 EXTERNAL DATABASES are those that CENDIT is acquiring for its own use and use of other organizations in India and at present, CENDIT receives the following:

3.1 CDS database of Unesco;
3.2 IBEDOS from IBE/Unesco;
3.3 IDA (Industrial Development Abstracts) from UNIDO;
3.4 LABORDOC from ILO;
3.5 DEVSIS international database from IDRC.

From the above it would seem that CENDIT has an ambitious plan and is perhaps over-extending itself. This is true, but in a country like ours where information is 'hoarded', we believe that easy availability of information is necessary for holistic development. We intend to provide this to our user community. Also with dwindling financial allocations for the libraries, we
hope that a cooperative information system will help broaden the coverage by reducing duplication. With this approach, we are presently negotiating for MARC tapes from the Library of Congress and ISI tapes.

In the end I may mention that we are presently using a version of CAN/SDI distributed by Unesco for some experiments we have done with INSPEC and SSCI databases. We have also completed the first draft of the CDS/ISIS Manual for Librarians which would now become a member of the CDS/ISIS System Documentation and has been prepared under a contract from Unesco. I hope that this account will give you some idea of our work in India and lead to further cooperation with other MINISIS users.
Contribution à la 5e Réunion du Groupe des usagers de MINISIS
Wageningen, Pays-bas, 25-28 octobre 1983

LE CENTRE NATIONAL DE DOCUMENTATION

par

M. Mohammed Mounji
CND, B.P. 826, Rabat, Maroc

1. Présentation du CND

Crée en 1968, le Centre National de Documentation (CND) du Royaume du Maroc est rattaché à l'autorité gouvernementale chargée du Plan. Il a pour tâches essentielles:

- la collecte, l'indexation, la conservation et la diffusion de toute la documentation relative au développement économique et social du Royaume, parue au Maroc et à l'étranger;

- La coordination et la promotion des unités documentaires spécialisées relevant du secteur public, dans le cadre d'un réseau national d'information et de documentation scientifiques et techniques;

- La coordination du réseau national avec les systèmes nationaux, internationaux existants ou mis au point à l'avenir.

Un fond documentaire analysé à l'heure actuelle comprend un fichier d'environ 105 000 documents mis à la disposition des utilisateurs par la publication d'une série d'index analytiques. Dans ces derniers, les unités documentaires sont définies par des phrases descriptives où des termes standardisés sont mis en évidence.

Les termes standards utilisés dans cette méthode d'analyse appartiennent à deux dictionnaires différents:

- LA LIDEST, Liste de descripteurs scientifiques, techniques et économiques;

- LA LIMMAR, Liste des mots clés et identificateurs du Maroc, constituée par des noms propres.

Historique de la terminologie

La première terminologie utilisée, pour analyser les documents d'intérêt agricole s'était inspirée au vocabulaire de la FI. Mais en 1971, avec la collaboration de l'Unesco, le CND ayant décidé d'étendre ses objectifs à
toute la littérature économique, scientifique et technique, la terminologie a du être entièrement revue et complétée afin de répondre à ces nouveaux domaines d'intérêt. En juin 1974, enfin, après une analyse des possibilités de mécanisation des procédés d'analyse documentaire le CND a entrepris avec la collaboration de l'Unesco l'établissement d'un thésaurus structuré à partir des listes de descripteurs et mots clés existants.

Terminologie de base du CND, pour l'indexation de la documentation marocaine; il devait obligatoirement englober les termes de type LIDEST et LIMMAR déjà utilisés par les analystes; instrument de travail, il devrait également être de consultation facile. Ce thésaurus a été appelé MAKNAZ, d'un terme arabe qui signifie thésaurus, coffre fort, trésor, noyau.

MAKNAS couvre en général, tous les aspects de la science, de la technologie, de l'économie et des sciences sociales faisant partie de domaines d'intérêt du système de documentation du CND.

L'organisation du CND

Son organisation est répartie en 5 services et 5 bureaux chargés d'assurer les différentes tâches qui lui sont dévolues.

Les services

- Service de traitement des documents
- Service questions/réponses
- Service études et coordination
- Service imprimerie/reprographie
- Service de gestion informatique

Les bureaux

- Budget et comptabilité
- Affaires du personnel
- Fournitures et matériel
- Bureau d'ordre
- Archives

1. Service traitement des documents

Est chargé de l'entrée des données économiques, scientifiques, techniques et sociales relatives au Maroc et de la publication des index bibliographiques rétrospectifs et courants.

Le service traitement des documents est équipé de deux terminaux pour l'entrée des données en direct sur la base de données nationale (MARBIR).
2. Service études et coordination

Le service études et coordination poursuit les études nécessaires à la mise en place et au développement du réseau national d'information scientifique et technique et sa coordination avec les divers systèmes d'information régionaux et internationaux déjà opérationnels ou en cours de réalisation.

Il est également chargé d'étudier les besoins du secteur au moyen d'enquêtes et de recensements dont il publie les résultats sous forme de répertoires ou de catalogues collectifs d'ouvrages et de périodiques.

3. Service imprimerie - reprographie

Le Service imprimerie/reprographie doté d'équipements importants et modernes assure le microfichage systématique de tous les documents indexés par le Service traitement des documents, sous forme de microfiche mères dont les copies diazo sont destinées à la microthèque.

4. Service questions/réponses

Le service questions/réponses accueille les utilisateurs du Centre, les aide dans leurs recherches, répond à leurs questions et met tout en œuvre pour leur procurer les documents nécessaires à leurs travaux.

Afin de mettre à la disposition des utilisateurs le maximum d'informations disponibles dans les temps les plus courts, le Service questions/réponses est équipé de deux terminaux de télédocumentation pour l'interrogation en direct de la base de données nationale MARBIB et des fichiers internationaux stockés par l'Agence spatiale européenne à Frascati (près de Rome) et des différents fichiers nationaux et internationaux qui seront reliés ou centralisés au CND au fur et à mesure des accords conclus.

Parallèlement à cette recherche automatisée, les utilisateurs peuvent consulter à la bibliothèque de références - les index bibliographiques publiés par le CND et de nombreux ouvrages de références (encyclopédies, dictionnaires, bibliographies nationales et spécialisées).

Les utilisateurs ont accès, dans le cadre de microthèque, aux microfiches des documents traités par le CND et se peuvent les procurer soit sous forme de microfiches, soit sous tirage papier.

5. Service de gestion informatique

Le service de gestion informatique a été crée au mois d'août 1980; il comprend quatre bureaux : deux bureaux d'analyse qui s'occuperont de l'analyse des différentes applications, deux bureaux de programmation et exploitation.
Matériel

Un mini-ordinateur HP 3000 série III qui comprend:

- une mémoire centrale de 512 Kb (1024 prochainement)
- deux unités de disques d'une capacité totale de 240 millions de caractères
- un dérouleur de bandes magnétiques à 1600 BPI
- une imprimante à 600 lignes/minute
- un matériel de télécommunication x 25 qui permet aux différentes délégations du pays de consulter les fichiers de l'Agence spatiale européenne à partir de leurs terminaux
- 1 console et 3 terminaux

L'équipe informatique

L'équipe informatique actuelle composée de deux analystes et trois programmeurs, est chargée d'automatiser les différentes opérations du Centre, notamment l'utilisation de MINISIS pour les travaux documentaires.

Le personnel informaticien et informatiste utilisant le logiciel MINISIS au Maroc comprend 6 informaticiens dont 5 au service de gestion informatique au CND et 1 au Centre national de coordination et planification de la recherche scientifique et technique.

11 informatistes attachés au Service traitement des documents au CND.

7 autres attachés au Service questions/réponses au CND.

7 informatistes attachés au Ministère de l'information, 1 à l'Ecole des sciences de l'information et 7 informatistes aux différentes régions économiques du Maroc.

Réalisation

Les bases de données établies par le CND:

1. Création d'une base de données bibliographiques marocaine (MARBIB).

   Cette base contient tous les fichiers déjà traités en différé avec le logiciel de la FAQ. Actuellement nous avons, grâce à MINISIS, saisi 105 000 références dans cette base.

2. Base de données des bibliographies espagnoles sur le Maroc (BIMMES).

   C'est une opération entamée pour signaler l'existence de documents concernant le Maroc. Cette application est menée en collaboration avec le Centre culturel espagnol et des professeurs d'espagnol de l'Ecole des sciences de l'information (ESI) à Rabat.
3. Base des données concernant la gestion du personnel du CND.

4. Base de données concernant la diffusion des publications produites par le CND.

5. Base de données concernant la gestion de la bibliothèque de Centre, c'est-à-dire:
   - la gestion des commandes
   - la gestion abonnements et réabonnements
   - la gestion des prêts
   - la gestion de la diffusion
   - les statistiques

6. Réalisation de la décentralisation

Cette décentralisation entre dans le cadre du projet MINISIS, pour permettre au CND d'améliorer ses services aux utilisateurs. Dans le cadre nous avons installé:

- 1 terminal à Oujda (Nord-Est)
- 1 terminal à Fez
- 1 terminal à Meknès
- 1 terminal à Tanger (Nord)
- 4 terminaux à Rabat dont
  1 à l'Ecole des sciences de l'information
  1 au ministère de l'information
  1 à l'Institut agronomique et vétérinaire Hassan II
  1 au Centre national de coordination et planification de la recherche scientifique et technique
- 1 terminal à Agadir (Sud)

Démonstration de MINISIS (cette année)

À la demande du Centre informatique attaché au ministère de l'Éducation nationale et dans le cadre de la formation continue de ce Centre, s'est déroulé un séminaire durant 4 jours dont le but était de préciser la définition et l'utilisation d'une base de données. L'exemple de MARBIB et MINISIS a été présenté par l'équipe informatique de CND. Une trentaine d'analystes et programmeurs y ont participé.

Réalisations futures

1. Le ministère de l'information ont demandé l'assistance du CND pour création d'une base de données concernant les actualités marocaines.

2. Création des bases de données à l'Institut agronomique et vétérinaire Hassan II à Rabat.
3. Extension de la bibliothèque dans les 7 directions du ministère du Plan, de la formation des cadres et de la formation professionnelle.

4. Le Centre continuera à appliquer son programme de décentralisation. Les usagers européens pourront faire des recherches dans les bases de données du Centre par l'intermédiaire de l'Agence spatiale à Frascati, en Italie.

5. Informatisation des statistiques et du service questions/réponses concernent le fichier chercheur.

6. Courrier électronique.

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Royaume du Maroc
Premier Ministre
Ministère du Plan, de la formation des cadres
et de la formation professionnelle
Contribution à la 5e Réunion du Groupe des usagers de MINISIS
Wageningen, Pays-bas, 25-28 octobre 1983

LE CENTRE NATIONAL DE DOCUMENTATION AGRICOLE

par

M. Ahmed Gharbi
CNDA, 30 rue Alain Savary, Tunis, Tunisie

I) INTRODUCTION

Le Centre National de Documentation Agricole (CNDA) a été créé en 1975 par le Ministère de l'Agriculture avec l'appui du PNUD et de la FAO, pour mettre en œuvre un système de collecte, de traitement et de diffusion des informations scientifiques et techniques relatives à l'agriculture tunisienne. Ces informations concernent les activités d'étude, de recherche, d'enseignement et de planification.

Pour ce faire, il sauvegarde sous forme de microfiche puis traite la documentation agricole produite sur la Tunisie.

II) TRAITEMENT INFORMATIQUE

Au départ le CNDA a utilisé le système ISIS en sous-traitance sur un IBM 370. Puis avec l'achat, en 1979, du HP 3000 le centre a opté pour MINISIS et depuis on a créé 5 grandes bases:

1) CNDABIB

Cette base contient les références de la bibliographie agricole nationale. Elle contient environ 14000 références. Cette base est utilisée pour la recherche documentaire et l'édition des bulletins du centre.

La recherche documentaire est devenue à partir de 1983 payante. On distingue 3 types de client:

- Les fonctionnaires du Ministère de l'Agriculture sont servis gratuitement.
- Les étudiants payent demi tarif.
- Le reste paye plein tarif.
Un programme spécial a été écrit pour cette fin. Ce programme est greffé à la fonction QUERY de MINISIS et il ne considère que le temps de connection et le nombre de pages éditées (voir exemple).

2) CNDADIF

La base diffusion contient la liste des abonnés (chercheurs, directeurs, bibliothécaires ...) avec notre centre. Ces abonnés reçoivent périodiquement des bulletins courants, rétrospectifs ou spéciaux.

3) CNDAVOC

Cette base contient le vocabulaire utilisé par le centre au moment de l'analyse et de la recherche documentaire. C'est un vocabulaire unilingue et la langue utilisée est le français.

4) AGRIS

C'est l'extraction, à partir de la base internationale AGRIS, des références bibliographiques se rapportant aux pays méditerranéens. Avec le changement du système d'exploitation en MPE IV la longueur du bloc physique des bandes AGRIS n'est plus reconnue. On est en train de voir avec HP pour résoudre ce problème.

5) CARIST


Le CNDA ayant utilisé le système MINISIS sur HP 3000, il était nécessaire d'automatiser CARIST et concevoir un bordereau d'entrée.

6) JORTAGRI

Le Journal Officiel de la République Tunisienne est un périodique mensuel édité et diffusé par le Premier Ministère et contenant sous forme d'article tous les lois, avis, nomination, création de poste, de société et d'établissement étatique etc. Il a commencé à apparaître d'une façon régulière à partir de 1970.

La base JORTAGRI contient les textes législatifs à caractère réglementaire relatifs au Ministère de l'Agriculture et à l'agriculture tunisienne d'une façon générale.
CENTRE NATIONAL DE DOCUMENTATION AGRICOLE

30, RUE ALAIN SAVARY TUNIS

FACTURE

NOM ET PRENOM: Gharbi Ahmed
ORGANISME: CNDA

<table>
<thead>
<tr>
<th>TEMPS MACHINE</th>
<th>PAPIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEBUT</td>
<td>FIN</td>
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<tr>
<td>1:08</td>
<td>1:14</td>
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</tbody>
</table>

PHOTOCOPIE: NB ☐ PU 150 ☐

MICROFICHE: NB ☐ PU 1500 ☐

SIGNATURE NET A PAYER ☐
I) INTRODUCTION

Du fait que le CNDA dispose d'un ordinateur HP 3000 qui dépasse ses besoins actuels, on a pensé faire bénéficier une Direction (DAFL) du Ministère de l'Agriculture de notre installation et de nos logiciels pour automatiser le contrôle foncier des terres étatiques.

II) DAFL

La Direction des Affaires Foncières et de Législation fait partie du Ministère de l'Agriculture. Elle se trouve à 100 m environ du CNDA. Elle s'occupé essentiellement de:

- Appurement foncier des terres domaniales et collectives.
- Assainissement des terres domaniales à vocation agricole.
- Préparation et mise en œuvre de la politique d'aménagement foncier agricole et rural.
- Application de la réforme agraire dans les périmètres publics irrigués.
- Études foncières et sociales aux projets de mise en valeur.

Ces différentes tâches ont mené la DAFL à constituer des dossiers documentaires dont l'information se trouve actuellement à l'état brut et dans différents départements de la DAFL et des organisations sous tutelle.

III) PORTEE DU PROJET

Sur un total de 16 millions d'hectares, la Tunisie compte approximativement 8,2 millions d'ha de terres agricoles et forestières réparties comme suit:

- 5,2 millions d'ha de terres privées;
- 800,000 ha de terres domaniales;
- 1,3 million d'ha de terres collectives;
- 900,000 ha de terres forestières.

Ces terres sont partagées en 330 000 exploitations dont 250 000 privées, 50 000 domaniales et 130 000 collectives.
Les bases reliées à la base FERME servent à valider et inverser les informations correspondantes.

1) **Morcellement du problème**

<table>
<thead>
<tr>
<th>ECHelon --- PARAMETRE</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Univers</td>
<td>Terres</td>
<td>Terres</td>
<td>Autres</td>
</tr>
<tr>
<td></td>
<td>domaniales</td>
<td>collectives</td>
<td>terres</td>
</tr>
<tr>
<td>B: Source</td>
<td>Dossiers</td>
<td>Enquête sur</td>
<td></td>
</tr>
<tr>
<td></td>
<td>administratifs</td>
<td>le terrain</td>
<td></td>
</tr>
<tr>
<td>C: Espace</td>
<td>Gouvernorat</td>
<td></td>
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<td></td>
<td>de Bizarte</td>
<td>Autres</td>
<td>gouvernorats</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D: Technologie</td>
<td>Base de données</td>
<td>Banque de données</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MINISIS</td>
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</tbody>
</table>

**Etapes de réalisation**

<table>
<thead>
<tr>
<th>10/10 à 12/83</th>
<th>1/84 à 12/85</th>
<th>1/86 à ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>A1</td>
<td>A1</td>
</tr>
<tr>
<td>B1</td>
<td>B2</td>
<td>B2</td>
</tr>
<tr>
<td>C1</td>
<td>C1</td>
<td>C2</td>
</tr>
<tr>
<td>D1</td>
<td>D1</td>
<td>D1</td>
</tr>
</tbody>
</table>
2) **Base des exploitants**

Cette base contient les informations relatives à chaque exploitant. Sa structure est la suivante:

PERSONNE (RD)

- **PO82** + **D210** DELEGP (KSAM): localisation de l'exploitant (délégation)
- **PO83** + **G210** GOUVP (KSAM): localisation de l'exploitant (gouvernorat)
- **PO70** + **S010** SEXE (RD): sexe de l'exploitant

La base globale s'appelle DOSSIER et elle a la structure suivante:

PERSONNE (RD)

- **PO11** + **F010** FERME (RD)
- **F070** + **O010** ORIGINE (RD)
- **F080** + **D010** DOMAINE (RD)
- **F090** + **M010** MODE (RD)
- **F032** + **O110** DELEGF (KSAM)
- **F033** + **G110** GOUVF (KSAM)
- **PO82** + **O210** DELEGP (KSAM)
- **PO83** + **G210** GOUVP (KSAM)
- **PO70** + **S010** SEXE (RD)

3) **Matériel installé**

Pour gérer indépendamment son projet la DAFL a installé:

- Deux (2) terminaux de type 2621A pour la saisie et la consultation.
- Une (1) imprimante 26318 pour l'édition sur papier des inventaires des résultats de recherche, de statistique, etc...

IV) **PROBLÈMES RENCONTRÉS**

Le problème majeur est la collecte d'informations éparpillées dans plusieurs dossiers et dispersées géographiquement. Ces informations sont parfois contradictoires d'un dossier à un autre ou inexistantes.
V) **DATADEF**

Sur le plan informatique, on n'a pas pu réaliser les relations qui mettent en évidence les cas suivant:

- Un exploitant peut avoir plusieurs exploitations.
- Une exploitation peut être exploitée par plusieurs exploitants.

VI) **TERRES DOMANIALES**

Les terres domaniales exploitées par environ 33,000 Exploitants sont gérées par les arrondissements régionaux de la DAFL qui effectuent les opérations suivantes:

- Effectuer un recensement général de toutes les terres domaniales dans chaque gouvernorat.
- Assurer la confection des contrats de cession aux particuliers et aux collectivités publiques.
- Suivre les attributions de façon à veiller sur la mise en valeur des terres attribuées et à éviter les spéculations.

VII) **MÉTHODE ACTUELLE**

Toutes les opérations sont manuelles. Il s'ensuit un travail important d'enregistrement avec des risques d'erreur trop grandes. Les informations sont dispersées entre plusieurs dossiers se trouvant dans différents directions et offices. Il est donc difficile de trouver l'information au moment voulu et d'établir des statistiques permettant d'orienter la politique de la DAFL en matière d'attribution des terres.

VIII) **SOLUTION PROPOSÉE**

Le solution informatique doit atteindre les objectifs suivants:

1) Création de fichiers plus riches en information et dont la mise à jour et la consultation soient rapides et faciles.

2) Réalisation de statistiques pour orienter la politique de la DAFL dans l'attribution des terres domaniales.

Dans une première phase on a établi deux fiches de renseignement pour l'exploitation et l'exploitant (voir fiches ci-jointes) qui vont permettre de collecter les information se trouvant sur dossier administratifs. On a créé deux grandes bases (une base pour chaque type de fiche):
1) **Base des exploitations**

Cette base contient les informations relatives à chaque exploitation. Elle a la structure suivante:

**FERME (RD)**

- F070 + Q010 ORIGINE (RD): origine de la terre
- F080 + D010 DOMAINE (RD): appartenance de la terre
- F090 + M010 MODE (RD): mode d'exploitation
- F032 + D110 DELEGF (KSAM): localisation de la ferme (délégation)
- F033 + G110 GOUVF (KSAM): localisation de la ferme (gouvernorat)

On ne peut faire figurer qu'une seule relation. Dans le cas de la relation (Exploitation, Exploitant) on est obligé de répéter l'exploitant. Dans l'autre relation (Exploitant, exploitation) on doit répéter l'exploitation.

Au moment de la recherche et dans les deux types de relation, avec le flattening le système éclate soit les exploitants soit les exploitations pour rejoindre la relation R(1,1) c'est-à-dire qu'à un exploitant on fait correspondre une seule exploitation.
IX) **TABLEAUX STATISTIQUES**

La majorité des tableaux statistiques sont du type:

**ENTETE DU TABLEAU**

<table>
<thead>
<tr>
<th>PARAMETRES</th>
<th>NOMBRE OCCURENCES</th>
<th>SUPERFICIE MOYENNE</th>
<th>SUPERFICIE TOTALE</th>
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</thead>
<tbody>
<tr>
<td>Parametre 1</td>
<td>N1</td>
<td>SM1</td>
<td>ST1</td>
</tr>
<tr>
<td>Parametre 2</td>
<td>N2</td>
<td>SM2</td>
<td>ST2</td>
</tr>
<tr>
<td>Parametre P</td>
<td>NP</td>
<td>SM P</td>
<td>ST P</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>N</strong></td>
<td><strong>SM</strong></td>
<td><strong>ST</strong></td>
</tr>
</tbody>
</table>

Il sont traités par COMPUTE de MINISIS.

Le reste des tableaux où il y a des comparaisons de paramètres sont traités par des programmes spéciaux se basant sur les sorties de INDEX de MINISIS.
I) INTRODUCTION

La Direction de l'Assistance des Petites et Moyennes Exploitations a voulu automatiser la gestion des crédits agricoles qui constitue sa tâche principale.

II) DAPME

Dans le but de promouvoir le secteur agricole, la Direction de l'Assistance aux Petites et Moyennes Exploitations (DAPME) procède par le biais de la Banque Nationale de Tunisie (BNT) à l'octroi d'un crédit agricole intéressant toutes les activités agricoles. Cet octroi est constitué de trois parties:

- Subvention octroyée à titre d'encouragement au demandeur.
- Autofinancement que le demandeur doit apporter pour lancer son projet.
- Prêt remboursable selon sa nature: A Court, Moyen et Long terme.

III) SOLUTION INFORMATIQUE

La solution doit réaliser les objectifs suivants:

1) Création de fichiers plus riches en information et dont la mise à jour et la consultation sont faciles.

2) Gérer un nombre de demandes sans cesse croissant, les classer rapidement et pouvoir y accéder facilement suivant plusieurs critères, en un temps rapide.

3) Mettre sur pied une comptabilité permettent de gérer les fonds du crédit de telle sorte qu'au début de chaque année, les remboursements et le budget alloué pour le plan doivent constituer l'enveloppe de l'année en cours.

Dans une première phase, on a créé une base de données pour stocker les informations relatives à chaque demande de crédit. Cette étape peut permettre à la Direction de suivre et de contrôler les octrois effectués par les différents arrondissements régionaux. Pour expérimenter les programmes et base de données, la DAPME a saisi 3,000 enregistrements. La phase démarrera en janvier 1984. 2 terminaux et une imprimante ont été installés dans les locaux de la Direction. Ce matériel sera renforcé de 3 autres terminaux avant de démarrage de la phase exploitation.

GESTION DES INDEMNITÉS FAMILIALES

I) INTRODUCTION

La troisième direction qui a bénéficié des services informatiques du CNDA est la Direction des Affaires Administratives et Financières (DAAF). Cette Direction gère 18,000 employés environ relevant tous du Ministère de l'Agriculture.

II) INDEMNITÉ FAMILIALE

L'indemnité familiale est la somme perçue par les employés ayant des enfants à leur charge. Elle est composée:

- Indemnité de salaire unique pour les employés dont le conjoint ne travaille pas.

- Allocation familiale pour chaque enfant.

III) AUTOMATISATION

L'automatisation consiste à la création d'une base de données (ci-joint bordereau) permettant de gérer les indemnités familiales. Cette application sera élargi pour les avancements, la retraite, la gestion des congés, etc.

La DAFF a saisi environ 13,000 enregistrements. L'opération se poursuit pour les 5,000 qui restent.
The IDRC Library was established in 1971 with the primary objective to facilitate access to information about the social and economic aspects of Third World development. In meeting this objective, it uses MINISIS to provide access to its specialized collection of development literature; to make available to Canadian not-for-profit institutions IDRC's in-house databases and the databases it receives from international organizations; and to build and maintain a database of acronyms relating to international development.

IDRC Library Data Base

The IDRC Library became the first MINISIS user when it converted its 18,000 ISIS records to a MINISIS format in January 1978. Today, the IDRC Library database contains approximately 50,000 records and includes 5,000 serial titles. Bibliographic records representing the IDRC Library holdings are contained in a single master database with a variety of "user views" defined, which are used at various stages in the processing cycle. For example, a record created at the acquisitions stage is accessed through an acquisitions user view to produce a purchase order; once the item is received, the same record is again accessed, this time via the cataloguing user view and modified to complete the bibliographic description, add subject descriptors and add the call number; once the record is proofread and declared "clean", it is RELEASED and is ready for retrieval by reference staff through the end user view, BIBLIOL. By means of a unique status code assigned to each record, it is possible to determine at what stage an item is in the ordering and cataloguing cycle.

As well as the main database containing bibliographic records, the IDRC Library application includes several authority files, each of which is a database in itself. These are the corporate name authority file (CNAF), thesaurus file, vendor file, vendor-message file and the stopword file. Each record in the CNAF contains the name, city, country code and regional code of a particular institution, as well as a unique six-digit authority code. An authority code entered in an institution field in the bibliographic record provides the link between the CNAF and the main bibliographic database. The thesaurus used by the IDRC Library is an updated version of the trilingual (English, French and Spanish) Macrothesaurus for Information Processing in the
Field of Economic and Social Development (1978). Names and addresses of the Library's commercial book suppliers and exchange partners are stored in the vendor authority file, with each supplier being assigned a six-letter authority code. A particular vendor code entered in a bibliographic record at the acquisitions stage allows the corresponding name and address of the supplier to be printed on purchase-order forms. Frequently-used messages to suppliers are entered in the vendor-message authority file. A given code entered in the vendor message field in the bibliographic record will expand the code to the appropriate trilingual message which will be printed along the bottom of the purchase order form. The multilingual stopword file is used to strip "noise" words from the title inverted fields.

Products generated from the Library database include an accessions list, Ex Libris, and magnetic tapes which are sent to a commercial supplier for the production of COM-fiche indexes to the Library collection (personal author, corporate author, title, conference name, serial title and serial corporate author). One of the personal author, corporate author or title indexes is produced every two weeks; the other indexes are run less frequently. As well, a tape of the corporate name authority file for COM-fiche production is produced on a monthly basis. These products are, of course, in addition to the bibliographies prepared by the Library's reference staff in response to clients' requests for information.

Our use of MINISIS in managing the Library operations has not changed drastically since its implementation almost six years ago. In the next year, however, some major changes are planned for technical services in the acquisitions and cataloguing and indexing areas.

We are currently undertaking a systems study of Acquisitions Services which will result in streamlining operations, to take advantage of the MINISIS enhancements over the past few years. One aspect of the study will be to determine the feasibility of using CARDEX, the serials check-in module developed by the Agricultural University of the Netherlands.

Cataloguing and indexing procedures will be modified in 1984 when sufficient terminals will be acquired to allow indexers to catalogue online, rather than having to complete computer-produced cataloguing worksheets and to forward them to a terminal operation for data entry. Furthermore, later in 1984, we will begin to plan for restructuring the Library database according to the recommendations of the Manual for the Preparation of Records in Development-Information Systems. This record structure was designed primarily for use by the socio-economic information systems of the United Nations regional economic commissions. It has been adopted successfully by the Economic Commission for Africa's PADIS-DEV, by the Development Information System (DIS) of the United Nations Department of International Economic and Social Affairs, and by IDRC's in-house databases, DEVSIS and SALUS. The change to the new record structure is consistent with a move within IDRC's Information Sciences Division to ensure compatibility of the structures of its bibliographic databases.
Development Databases Service

Since 1979 IDRC, using MINISIS and the Information Sciences Division's computer, has provided Canadian government and not-for-profit institutions with online access to selected development-oriented databases. At present, there are over eighty users to this free service known as the Development Databases Service. Eight databases can currently be accessed. These include the databases of four United Nations agencies (FAO, ILO, Unesco and UNIDO) as well as IDRC's four in-house databases (BIBLIOL, DEVSIS, SALUS and PINS). BIBLIOL, as previously mentioned, contains the holdings of the IDRC Library. DEVSIS contains references to Canadian development literature, as well as experimental input from approximately 10 other countries. SALUS consists of references to literature on low-cost rural health care and health manpower training in developing countries. PINS (Project Information System) is a non-bibliographic database which includes descriptions of projects supported by IDRC.

The Development Databases Service was initially a Centre project and proved to be very successful. It demonstrated that it was technically feasible to provide remote online access via MINISIS to the development databases maintained at IDRC. It also demonstrated and met the information needs of Canadian researchers dealing with development issues. Because of its success in April 1982, this activity ceased to be an IDRC project and became an integral part of the Library's Users' Services program.

Acronyms Database

The IDRC Library also maintains a non-bibliographic database of acronyms relating to international development. It started as a small database in 1979 for the purpose of producing the IDRC publication, Acronyms Relating to International Development. During the past year in preparation for the second edition of this publication, the acronyms database was completely restructured and the number of entries has tripled to exceed 4,500. The second edition will be published late in 1983. It is anticipated that access to the acronyms database will eventually be offered to Canadian government and not-for-profit institutions via the IDRC Library's Development Databases Service. The acronyms database (on magnetic tape) may also be offered as part of exchange agreements with other international organizations dealing with international development.

Concluding Remarks

The previous discussion has been a brief description of the IDRC Library's major uses of MINISIS, which have grown considerably over the past six years. In 1978, our efforts were concentrated on developing the Library database; we added the Development Databases Service and the acronyms database. Reports to future MINISIS Users' Group Meetings will provide updates on these activities, and we are confident that they will also include descriptions of additional MINISIS applications in the IDRC Library.
MINISIS APPLICATION AT THE INTERNATIONAL LIVESTOCK CENTRE FOR AFRICA (ILCA)

by

Mr. Michael Hailu
ILCA, P.O. Box 5689, Addis Ababa, Ethiopia

The International Livestock Centre for Africa is one of the 13 international agricultural research centres sponsored by the Consultative Group on International Agricultural Research (CGIAR). ILCA is an institute devoted to research, information and training in the area of animal production.

At this meeting, I don't wish to take your time by reporting on the history of MINISIS application at ILCA. Instead, I will briefly report on developments at our site since last year's Users' Group Meeting.

The bibliographic database has increased in size to a level of over 24,000 records. During the year, a further five country bibliographies and one subject bibliography were produced and distributed to various researches and libraries in and outside of Africa. A direct link from the HP 3000 to a Linotype typesetting machine has enabled us to speed-up our publications production process quite remarkably.

At the beginning of this year we initiated a monthly SDI service by converting CAB tapes into a MINISIS-format database, which we interrogate on-line through search strategies saved for each user using QUERY's 'keep' command. At the moment we have over 200 profiles of in-house users as well as various African research workers to whom we give this service free-of-charge.

We hope that we will be able to support a larger number of profiles when the proper SDI processor is incorporated into the MINISIS package.

Other new applications of MINISIS at ILCA this year include the development of two data banks for our research programs. The first one is the Plant Genetic Resources data bank which holds data on various parameters of plant accessions collected from different African countries. Each record has about 70 fields and the data bank is expected to hold over 65,000 records by the end of 1984.

This data bank is jointly maintained and used by ILCA and a GTZ-supported project in Ethiopia and the accessions lists produced from the database will certainly enhance the exchange of useful genetic materials among institutions all over the world.
The second one is the Feed Composition data bank which holds details of the nutritional values of feedstuffs analyzed by the Centre's laboratory in Addis Ababa. The feedstuffs are collected and sent in from various sites all over Africa by ILCA staff and national institutions, and for each sample the result of the analysis is keyed in and listings are produced to be dispatched to whoever requested for the analysis to be made. The data stored in the computer is used to produce details of composition of feeds on request, and also to compare easily the performance of a given species at various agroclimatic zones and its acceptability to different animal species.

In both applications, the powerful tools of MINISIS have made it very convenient to our scientists to make queries, sortings and printing as required.

Our mailing list database had also grown considerably from a holding of 1,000 records last year to 3,000 addresses this year. Again, because of the various options MINISIS offers, we have been able to categorize addresses according to language preference, publication type, subject interest, country and type of institution.

Finally, I would like to make a general remark, and that is most of us who were at the Rabat meeting last year have witnessed how much the MINISIS family has grown up this year. And I think that the annual meeting alone is not frequent enough or long enough to keep us informed of the various useful activities being undertaken at various sites. I therefore would like to suggest that the MINISIS Newsletter should be more frequent and regular with everybody's contribution of course.
PADIS REPORT

by

Mr. George Abraham
PADIS, ECA, P.O. Box 3001, Addis Ababa, Ethiopia

You may recall that the Pan-African documentation and information system (PADIS) was established in January 1980 under the aegis of the United Nations Economic Commission for Africa. As a pan-African project entrusted with the responsibility of providing easy access to Africa's resources in information, PADIS has received generous assistance from ECA, UNDP, the African Development Bank (ADB) and the International Development Research Centre (IDRC).

At the last meeting held in Rabat, Morocco, I explained the scope of PADIS and some of the future plans of actions. Let me add a few words here. PADIS is multidisciplinary in scope and dedicated to create a data bank consisting of several components for the explicit purpose of directly aiding the socio-economic development in the African region. It has been said over and over that the outside world knows more about Africa than Africans themselves. To redress this imbalance, UNECA has taken the initiative to create the necessary information infrastructure at the regional, subregional and national level and the PADIS databank is the first step towards that realization.

A Hewlett Packard 3000 Series III was installed in January 1981 with the configuration of 2Mb memory for the CPU, 2 120Mb disc drives, 2 slow type drives and 2 300LPM printers. It was initially connected with 32 terminals distributed within PADIS and other substantive divisions in ECA. At present, our system is not totally dedicated to MINISIS. We do develop other applications and are involved in data processing activities for ECA administrative needs, but it has never slowed down our work in the area of documentation. ECA has augmented the system configuration by obtaining another 404Mb disc drive. It seems to have solved the lack of storage capacity for some time to come.

MINISIS was chosen for all our documentation needs. It is accurate to say that MINISIS was acquired for PADIS requirements and the HP 3000 came with it. From that you can conclude how much importance we attach to the MINISIS package now and a long time towards the future.

PADIS-DEV

Most of our effort is still concentrated in building up the PADIS-DEV database. It is a database which contains bibliographic references which deal
with socio-economic development relevant to the African region. Five volumes of DEVINDEXES are already published. The 6th one is under printing and 8-12 volumes are under preparation now.

**TCDC Roster**

In response to the dire need for the exchange of information relevant for technical cooperation purposes, PADIS has published a Roster of African Experts. It contains information on individuals from the region who live around the globe. It highlights the basic data on experts' qualifications and their expertise. We are sure that it will be a useful tool for the developing countries who are always in short supply for skilled personnel, for the purpose of identifying at least its own citizens who may be lured back for a minimum period of time.

As in the case of the PADIS-DEV database, the TCDC Roster database also makes use of MINISIS, and we are thankful for a helping hand from IDRC as far as reformatting the data for photo composition purposes.

**Other Applications**

We at PADIS encourage substantive divisions in ECA to make use of MINISIS for all their documentation needs and it is beginning to show results. The Population Division has created the POPIN database as the first step towards making use of MINISIS for all their documentation needs. POPIN now contains an inventory of demographers on a global basis and it is due for publication at the end of this year.

The program and planning division has just created PRPLAN database for the purpose of eventual monitoring and evaluation of various project activities conducted by ECA, and the list is growing.

**Complimentary Files**

In addition, PADIS has entered agreements with other international organizations to store and make available on request, information residing at U.N. specialized agencies. As a first step towards that goal, we have selected records from ILO's LABORDOC and DIESA's databases which are relevant to the African region and made them part of PADIS's complimentary files.

**Future Plans**

Our future plans definitely include upgrading of our hardware to add more disc storage capacity in particular.

ECA library automation was set aside due to the shortage of hardware resources. The problem is now resolved and we will proceed with it at the beginning of next year.

PADIS has ordered 2 HP 3000s for Benin and Sudan to be used in their national documentation centres. I must assume that they will be using MINISIS for their documentation purposes.
THE APPLICATION OF MINISIS AT THE RUBBER RESEARCH INSTITUTE OF MALAYSIA

by

MR. KAW HUN WOON
RRIM, P.O. Box 10150, KUALA LUMPUR, 01-02, MALAYSIA

INTRODUCTION

The Rubber Research Institute of Malaysia (RRIM) is a large research institution devoted to research on all aspects of natural rubber, from the cultivation stages to the processing and marketing of raw natural rubber and finally to the applications and manufacturing aspects of the product. It has a total staff of about 1,500 of which over 230 are senior research and management staff. To support the research and developmental activities, a library and information centre has been maintained and with the proliferation of scientific publications generated, it is getting more and more difficult to provide effective information services. To sustain effective information services, there is a need for frequent improvement in information processing techniques. At the RRIM an in-house computer information system has been in operation for some years for the processing and retrieval of bibliographical information. However, this system is dedicated only to one job. In November 1982, we acquired the MINISIS software package and have since used this package quite effectively for a number of applications.

In information processing we have taken a rather narrower approach when one speaks of the need to keep up-to-date with the voluminous growth and diversities of scientific literature being published. Being a developing country and having to face so many constraints, particularly with limitation of funds, we have chosen to follow the path of limited self-reliance where information processing is concerned. By this we believe that it is more important for us to have some effective systems to control the information materials that we already have, both published and unpublished materials, than chasing for the ideal which we may never be able to achieve.

We have not, at the moment, placed much emphasis on computerized SDI services. For such services, we have been relying on our sister organization in the United Kingdom (also a natural rubber research organization) to provide us with SDI services from the profiles we have formulated for our researchers. Search will be made from the tapes subscribed by our sister organization and the matched profiles will be sent to us in tapes, from which we will produce the hard copies for distribution to our researchers.

The infrastructure of the RRIM has resulted in research units and stations located in various parts of the country. When telecommunication facilities
permit, we have planned to provide network services to some of the main stations. At the moment we are in the process of linking up with the Malaysian Rubber Research and Development Board which is our parent organization, by the use of a dedicated line. In Malaysia the packet switching telecommunication system has just been introduced and is now in the experimental phase. It is anticipated that by the end of next year we will be able to have access to this system and we will then be able to take good advantage of external databases. MINISIS will therefore be applied for the development of specialized databases to cater for our own requirements. We will use MINISIS more for information processing rather than for administrative functions, and some of the databases currently established are outlined below.

**Research Projects Monitoring**

The main objective of this programme is to monitor to the management, information on all the on-going research projects of the RRIM, together with the summarized quarterly reports on an on-line basis. This will enable details of any research projects and the corresponding quarterly reports to be displayed whenever required, and thus provide management with an up-to-date research projects monitoring system.

At present, two databases have been established, one for the research programmes and projects and the other for the individual quarterly reports of the researchers. Ideally it would be best to combine these two databases into one system, but because of the limitation of the record size, the two databases will have to be maintained. This is not a major drawback and it involves only a little extra time in query. The first database on the research projects (db RESEARCH) contains information on the programme code, programme title, project title, department, division, group, priority of project, estimated project cost, percentage cost of the project, project duration, date project implemented, objectives of project, progress of previous year, current projects, names of researchers involved in the project and the percentage of their effort for the project, the number of junior staff associated with the project, the project status and two other fields which are for comments by two management committees on the project.

The second database (db QREPORT) is for the individual quarterly summarized reports of the researchers. This database contains details on the programme code, the project number, project title, the year and quarter of the report, the name of the researcher, a descriptive summary of the report and finally an evaluative report by the group leader and/or the divisional head of the researcher. Access to both the databases can be made by names, subject and other fields that we have considered necessary.

These two research projects monitoring databases have been established for the exclusive use of management only. However, the system maintenance and the data input is done by the Library and Information Unit. There are terminals provided for various members of the management and access to the databases is
made through their terminals in on-line mode. The two databases can provide effective monitoring of the research project activities to cater for management's needs.

Bibliographic Information

A bibliographic database for information relating to all aspects of natural rubber is also established. This database (db NR) contains only the basic bibliographic data elements consisting of the author/s, title, citation, publisher, year and the abstract. Most of the records in this database pertain to articles of scientific journals, specific reports, patents, standards and other types of specific literature requiring in-depth control for meaningful information access. It is not used for monographic types of literature as we are still handling this form of literature in the conventional way by the use of the classified catalogue.

All incoming literature, particularly scientific journals, are scanned and the items related to our needs are selected for indexing into this database. The flexibility of MINISIS has enabled us to build this database without the use of pre-prepared input forms. Emphasis is on simplicity and ease of data entry and usage, so that the database can be generated as quickly as possible without too much labour involved.

The quality of a bibliographic information system depends very much on indexing and abstracting standards. The NR database is being established with a definite bias towards our own specific requirements, and the depth of indexing as well as the scope of coverage are very much influenced by our research activities. Being research oriented, there is usually a need for us to practice depth indexing. Complete natural language indexing is not acceptable due to reasons of economics of storage space as well as the problems associated in effective search formulations, especially if researchers can have direct access to the database. The NR database will eventually be the main database and maximum efforts will be directed to establish it as an effective database for all forms of natural rubber information.

Directory of Rubber Manufacturers

MINISIS is also used to develop another database (db RUBMAN) which contains information relating to the rubber manufacturing industries in Malaysia. Based on surveys and questionnaires, the database contains rather extensive information on the rubber manufacturing companies operating in the country, from names, addresses, telephone numbers, telex and cable addresses to authorized capitals, the products and statistics of export, the compounding ingredients used and a whole host of other information. In fact the total number of fields and subfields exceeded 80 and we did have some difficulties accommodating all the information into the system.

This database can be used for the production of numerous directories relating to the rubber manufacturing industries in Malaysia. The system contains a good amount of confidential information, most of which, of course, will not
appear in the published directories. Access to this database will be limited only to management and certain technical advisory researchers associated with the unit providing technical advisory services to the rubber manufacturers in the country. The database can be developed into a very useful system and with constant update and additions, an effective on-line management type of information can be maintained for the rubber-based industries in Malaysia.

Other Applications of MINISIS

Besides the above applications, MINISIS has also been used for the development of a database for the personnel control of the RRIM, one for the control of theses generated by the research staff of the RRIM, one for the terminology control of scientific and technical terms and a limited one for retrieval of the more commonly used data. There is also a plan to develop a database for the control of a large collection of wild Hevea germplasm derived from the neo-tropics of South America. These materials will form the foundation for the next era of Hevea breeding in the effort to widen the genetic base for natural rubber. MINISIS will also be used to control and monitor the collection of patents which the RRIM is maintaining as well as for those pending which we have applied.

Hardware Facilities and Staffing

The Central Computer Unit of the RRIM has an HP3000 Series 44 computer with a memory of 2Mb, a tape drive, two disc drives capable of holding around 450MB of storage, word processing and graphic facilities and other peripherals. The system supports over 30 terminals of which four terminals and a line printer are located in the Library. Most of the activities in the application of MINISIS are centered in the Library, from query to data input.

All the staff associated with the databases generated by MINISIS spend only part-time in the development of the databases, as they are also involved in other library and programming duties. Three professionals and two clerical staff from the Library and two programmers from the Computer Unit are involved. The demand for adequate staffing will always be a major problem in most institutions, but in a situation like ours, we cannot wait for the ideal. Systems and methodologies currently adapted have been developed within the constraints encountered, and even with such limitations, we have been fortunate in achieving reasonable success and have been able to operate quite independently.

Experiences with MINISIS

After loading the MINISIS software into our system in November 1982, a few months were spent experimenting on certain applications whenever we had the time to do so. We have not been able to devote full-time for any of our staff to be associated for our programme of computerized information processing. It was not until March or April that we felt some confidence to use MINISIS for some of the jobs we have been planning for. The research projects monitoring
system was the first to be implemented, simply because management wanted a monitoring system as quickly as possible. To date, two years of research projects and programmes have been stored in the system for 1982 and 1983.

Most of the records of this database are quite large and a certain amount of textual information is also included. The total number of records for this database (db RESEARCH) currently stands at around 600. Together with the quarterly report database (db QREPORT) which is a much larger database, this research projects monitoring system, as a whole, has functioned quite well. MINISIS has provided the means for us to establish this system quite quickly and effectively, and the only minor drawback is the limited size of the records that MINISIS allows.

With regard to the bibliographic database, implementation of the system is quite simple. The problems of controlled versus free term indexing will always be controversial and we have adopted a system which is partly controlled while maintaining the free term structure. Due to the selectivity of our policy and the need to maintain abstracts, the development of this system will take some time to mature due to limited staff working for this system.

The development of the database for rubber manufacturers has been both interesting and tedious. The amount of information for each record as well as the numerous types of information to be accommodated had enabled us to better appreciate MINISIS in its usage and application. For this database a high degree of juggling was needed. As output is intended both for publication and on-line interaction, formatting can be tedious and complicated. However, results so far obtained have shown very satisfactory progress in the development of this database.

Our experiences so far have shown MINISIS to be quite effective for the applications we have implemented. From the usage point of view, movement of one database to another, particularly from the management's usage point of view, seems to be a bit cumbersome. For management type of information, if record size can be increased, it would certainly be less of an inhibition factor for certain types of applications. With regard to bibliographic databases, the limitation of the record size does not pose any problem at all, as most bibliographic records do not require such space.

For the moment, MINISIS at the RRIM will continue to be used for the various applications mentioned earlier. Its emphasis will be for management information as well as for bibliographic information. Like any other effective information system, the approach now is towards consistent input of reasonable volume into the various databases so that they can become effective working tools as quickly as possible. MINISIS has certainly made it possible for us to develop our own databases to suit our requirements. The flexibility of MINISIS is also greatly appreciated, together with its simplicity in application and query. However, it should also be noted that access to the relevant information or the formulation of effective search strategies can only be effective with constant usage and experience.
The World Bank, which consists of the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), has one central purpose: to promote economic and social progress in developing nations by helping raise productivity so that their people may live a better and fuller life. This is also the aim of the International Finance Corporation (IFC), which works closely with private investors from around the world and invests in commercial enterprises in developing countries.

The IBRD, IDA, and IFC have three interrelated functions: to lend funds, to provide advice, and to serve as a catalyst to stimulate investments by others. The three institutions are closely associated; both IDA and IFC are affiliates of the IBRD. The IBRD and IDA share the same staff. While IFC has its own operating and legal staff, it shares certain administrative and other services with the Bank. The same person is President of all three institutions. Unlike the Bank, IFC lends without government guarantees, and can take equity positions in commercial companies.

Over the years, the IBRD, IDA and IFC have served to reinforce one another's work in a variety of ways. Whether working separately or together through joint projects, their common objective has been to help poor nations move to that stage of economic strength at which development becomes self-sustaining, and eventually to a level that permits these same nations to contribute to the development process in countries that are less developed.

The IBRD is owned by the governments of the more than 140 countries that have subscribed to its capital. Under the Articles of Agreement, only countries that are members of the IMF can be considered for membership in the IBRD. Subscriptions by member countries to the capital stock of the IBRD are related to each member's quota in the IMF, which is designed to reflect the country's relative economic strength.

The IBRD makes loans only to creditworthy borrowers. Assistance is provided to those projects that promise high real rates of economic return to the country.

The International Development Association was established in 1960 to provide assistance to the poorer developing countries on terms that would bear less
heavily on their balance of payments than IBRD loans. IDA's assistance is concentrated on the very poor countries - mainly those with an annual per capita gross national production (GNP) of $795 or less (in 1981 dollars). By this criterion, more than fifty countries are eligible. In practice, over 80 percent of IDA lending goes to countries with an annual per capital GNP of less than $410.

Membership in IDA is open to all members of the IBRD, and most of them have joined. The funds lent by the IDA come mostly in the form of contributions from its richer member countries, although some developing countries contribute to IDA as well.

The International Finance Corporation was established in 1956. Its function is to assist the economic development of less developed countries by promoting growth in the private sector of their economies and helping to mobilize domestic and foreign capital for this purpose. More than 120 countries are members of IFC. Legally and financially, IFC and the Bank are separate entities. IFC has its own operating and legal staff, but draws upon the Bank for administrative and other services.

Up to now, we have made limited use of MINISIS. Last January we installed a Hewlett Packard 3000 series 44, configured with two megabytes of main memory, two 404 megabytes disc drives, one 1600 BPI tape drive, and one line printer. We have already in use 4 local terminals in addition to 28 remote dial-up terminals. Two major applications have been developed so far: the first is a bibliographic system, and the second is a World Bank Thesaurus.

In order to provide Bank staff with improved reference retrieval service, the Records Management Division has developed the Integrated Bibliographic Information System (IBIS) to facilitate the storage and retrieval of descriptive bibliographic elements of World Bank internal documentation. The IBIS system provides reference to all Bank internal operational and research reports; to directives, manuals and administrative documents; to Bank publications; and also to selected externally prepared background reference documents, such as those of other international organizations or governments.

Rather than the full text of documents, the IBIS data base contains citations, that is descriptive bibliographic data, for various groups of documents prepared in the Bank and includes all loan/credit documentation, Country Economic and sector reports; and selected economic and project-related research work and Sector Policy Papers. Bibliographic data elements are title, date, document type, document number, security classification, pagination, language, primary and secondary sector classification, country, region and, whenever appropriate, personal author, originating department. In addition, the system will retrieve a descriptive/informative abstract and a set of indexing terms for current (since 1966) Project documents, Staff Working Papers, Reprints Series, organized series from various ERS departments and some Country Sector Reports. For Project Reports the abstract and indexing terms cover purpose, type and project components; general content and purpose is covered for the other documents. To date, over 15,000 documents
have been entered into the system, of which over 10,000 are indexed and abstracted, and we are continuing to add to the database. Not every component of the IBIS system is operational.

The World Bank Thesaurus contains almost 12,000 records, of which approximately 9,000 are main terms and 3,000 forbidden terms. The thesaurus covers subject areas of primary interest to the World Bank, with particular emphasis on agriculture, industry, development, economics. World Bank Thesaurus vocabulary is as consistent as possible with other international thesauri such as the Macrothesaurus and the United Nations' UNBIS Thesaurus.

The basic thesaurus database was constructed in six months, using a combination of unique manual procedures and locally developed thesaurus construction software. Production of a second draft printed edition is anticipated by the end of 1983, with a first edition to be published next spring after the ongoing UNBIS and Macrothesaurus revision efforts are completed. The second draft version will also be loaded and tested in an on-line environment before a first edition is published.

One of our future major applications is the Automated Records Management System. Under consideration for the management of the Bank's operational and non-operational records is what is referred to as a remote access information retrieval system. At its heart is a computer-controlled document store, which is typically microform (i.e., microfilm or microfiche), although several suppliers are presently developing optical data discs which could provide an alternative form of full text storage. At the request of the user who is accessing the document base from a remote site, the storage and retrieval device, which is under computer control, selects the particular "page" or document of interest and presents it to the linear array charge-coupled device (LA/CCD) camera contained with the retrieval device. The LA/CCD camera then digitizes (so that the computer can "read" the signal) the microimage (or page) and sends the information to a computer disc.

Once on disc, the image is relayed over a communication channel (such as broadband network) to and displayed at the high-resolution terminal at the remote user site. Digitization of the image and its reconstitution and display at the remote user site, takes no more than 10 seconds.

The terminal is capable of presenting an eye-readable image. In fact, some systems have what is referred to as a built-in "image enhancement circuitry" which can make the image the viewer sees clearer, more legible than the original document which was scanned to produce it.

The terminal, which will be placed at both remote user sites as well as in information centres, will be capable of displaying both alphanumeric data (e.g., information regarding the contents of the index) as well as video data (e.g., document images with signatures, etc.). It will most likely be able to interface with a word processing unit, an electronic mail system or other computer system. Moreover, it still will be possible for several users to be looking at the same image (or document) at the same time.
By combining the retrieval and display functions with a computer index of all documents maintained by the Records Management Division, users can save valuable hours of research time. First, the computer index (accessed through the terminal) allows the researcher to isolate the needed information. Next, the user is able to scan the requested materials immediately. No time is spent waiting for requests to wend their way through the bureaucracy, and there is no need to go in search of previously charged-out documents, since the document itself never leaves the storage and retrieval device. Finally, once the correct materials have been located and read by the user, they can be shared by electronically routing them to other users. There is no need to laboriously copy and distribute documents.

The random access architecture of the system allows new information to be added to existing files even though the microimages are not located on the same piece of microfiche. This feature is of course transparent to the user (i.e., the user does not have to concern him/herself with how this is accomplished) who merely sees "page 5" appear after "page 4". It also means that the same image may be "located" in any number of electronic files. For example, say that a particular graph or chart appears in ten different "files". Instead of storing ten images of this graph, the indexing system would merely present the same image in the correct sequence within each of the "files".

If necessary, documents can be restricted and whole sections of the database can be rendered inaccessible to certain users, even though images may be located in the same storage and retrieval device or even on the same microform.
The following paper was distributed
at the
Fifth Annual MINISIS Users' Group Meeting
Wageningen, the Netherlands, 25-28 October 1983

written by

Ms. Diane Hopkins
Picture Conservation Division
Public Archives Canada
395 Wellington Street
Ottawa, Ontario Canada
PHOCUS: PHOTOGRAPH CONSERVATION UNIVERSAL DECIMAL CLASSIFICATION SYSTEM

PHOCUS is an automated storage and retrieval system for bibliographic data on published and unpublished scientific and technical documents concerning the conservation of photographic materials. For the moment, PHOCUS refers both to the system and the database itself.

The System

PHOCUS uses the MINISIS software package, a database management system which operates exclusively on the Hewlett Packard 3000 series of computers. Two Televideo terminals have been connected directly to the minicomputer via special Bell data communication lines. One of the terminals, which will be dedicated to data entry, was chosen because it permits the user to program special command sequences to be stored in function keys. This saves data entry time by reducing a repetitive sequence of keystrokes to a single stroke on the function key.

The MINISIS software was chosen for the following reasons:

- the package was already available within the Department;

- appropriateness to bibliographic data since it was originally designed for a library application (includes an online thesaurus, permits online authority control, variable length fields, built-in text manipulation features);

- proven success in other applications;

- active software support group and user group;

- built-in ability for data exchange with other facilities in ISO 2709 format, which means that tapes of the database can be produced and distributed to other locations which may or may not also have a MINISIS installation;

- ability to convert the database to a format for loading on the CAN/OLE system, a public access system for all types of scientific and technical information;

- modular expansion of hardware and applications is possible;

- possible to enhance the existing system for fully bilingual operation.

The Database

The scope of the collection served by PHOCUS covers practical and theoretical aspects of conservation, photography, photographic technology, photochemistry, photographic history, and archival science. There is a direct relationship between the collection of documents and the citations recorded in the system. These documents are gathered from numerous libraries throughout North America, because no one institution has a collection of this scope. Those with similar collections are proprietary, and where access to their contents would be permitted, the level of indexing provided would not be of use to conservators.
or archivists. Before the automated system was developed, considerable effort was expended to develop a special classification scheme appropriate to the scope of the collection as well as a thesaurus which is linked to the classification scheme. The Universal Decimal Classification was chosen as the basis from which to begin this work. Most of the amendments we have introduced have now been approved by the governing body of the scheme, and we will be able to disseminate this unique tool for the organization of this literature.

By using MINISIS we were able to put the thesaurus online, permitting much easier maintenance. By hiring a consultant to assist with the development of the application program, we have also obtained a special program which permits manipulation of the classification number. Because the thesaurus is logically linked to the classification scheme, the classification number can be used like an alternative language, resulting in savings in data entry, and more powerful retrieval capabilities.

Once the backlog of documents to be indexed has been cleared, the volume of new items relevant to this particular database will be low enough to permit expansion of the collection to include literature concerning conservation of other archival materials. Paper is the first planned subject area for expansion. The classification scheme would again have to be amended to accommodate this subject area, but the groundwork has already been laid in the modular expansions which were introduced for conservation in general.

**MANIPULATING THE UNIVERSAL DECIMAL CLASSIFICATION NUMBER**

Although MINISIS allows you to store the Universal Decimal Classification Number, it has not previously been used as a searchable field, even at IDRC where MINISIS was developed and whose library uses this classification scheme. Since Picture Conservation is actively contributing to updating the scheme, and the Librarian makes extensive use of it during classification and indexing of the documents to be entered into this database, it was necessary to have a special user exit written in SPL. This exit is called "UDCEXIT", and should not be confused with another acronym in the system referring to User Defined Commands (UDC).

Essentially, UDCEXIT reads the UDC EXPRESSION, which is entered by the input operator, according to the rules of construction for a Universal Decimal Classification Number. The expression is analyzed, and broken down into a list of facets, based on the syntax of the expression. After checking for erroneous permutations, the valid facets are stored in various fields of the master record.

The UDCEXIT operates on each record before it is written to the database. After a certain number of records have been entered, the Librarian must invert the fields that were automatically recorded by UDCEXIT. Once the fields have been inverted, then subject access to the newly created records is possible, either through any of the facets of the expression, the thesaurus of descriptors which are linked to the facets, or any of the other fields into which the facets were stored.
Due to time limitations, only a subset of the common auxiliaries and special auxiliaries have been chosen for support by this exit. Those included are:

Place (1/9)
Time "...
Point of View .00...
Alphabetical subdivision after (092)
Form (0.)
Language =...
Relation :
Aggregation + and /
Special Auxiliary .0...

The code for the exit has been written in a modular fashion, so that rules for other auxiliaries may be added at another time. When the documentation is completed, it will be submitted to the User Contributed Library. Other users will find it simple to install. The only modification necessary will be renaming of the fields into which the potential keys are to be stored.

C300 UDC EXPRESSION Sample Documentation

This is the classification number which has been assigned by the Librarian. Usually, it will fit into one line, but if it is longer than 80 characters, break it at a logical point and make repeated entries for this field. Breaks may be made immediately before a double slash, or a left parenthesis. Double check this field after you have entered it to be sure it is accurate, because it will be used to generate all the subject access points to this record. Terms stored in this field will be inverted on release, so whenever modifications are made to either the UDC EXPRESSION, or any of the C3X0 fields, the Thesaurus must be reinverted.

Note that if you are creating both a parent and child record, only the child record has this field. However, if there is only a parent record without any children, then this field belongs to the parent.

UDCEXIT will check for syntax in the expression, and show you where the error has occurred with a small arrow below it. Re-enter the entire expression when this occurs. Possible errors could be:

.../.../... Change both slashes to plus signs "+"
..."1983-1984" Add (091) before the dates in quotes
...KODAK Add (092) before the name
...(024) (06) Never leave any spaces between characters
.../ Never start or end an occurrence with a punctuation mark other than a parenthesis
/...
Slide Presentation

Presented to the 5th Annual Meeting of the MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

by

Mr. Alain Boucher
La Centrale des Bibliothèques
1685 est, rue Fleury
Montréal, Québec, H2C 1T1
Canada
CENTRALE DES BIBLIOTHÈQUES DU QUÉBEC

- A non-profit organization affiliated with the Québec Ministry of Education.

Québec is a province of Canada, a 6 million community where most people speak French.

- La Centrale was established in 1964 and is based in Montréal.

- Our aim:

To create and disseminate bibliographic information on French language materials of all types which may be of interest to libraries and documentation centres.

- Budget and staff:

3 million Can. dollars annual budget.

Staff: 90 (half of them librarians and library technicians).
OUR WORK:

BY NATURE, IT IS MULTIDISCIPLINARY AND RELATED TO REAL AND CURRENT NEEDS OF THE 1,500 LIBRARIES WHICH USE OUR SERVICES.

OUR COMPUTER INSTALLATION:

- MINISIS INSTALLED IN FEBRUARY 1981.

- HP 3000 SERIES III COMPUTER, 2-MB MAIN MEMORY, 4 120-MB DISC-DRIVES, 22 HARDWIRED TERMINALS AND 5 DIAL-UP COMMUNICATION LINES.

- WE HAVE PLANS FOR AN HP 3000 SERIES 48 IN 1984.
OUR DATABASES:

- At this time, more than 15 applications, for a total of about 200,000 records.

- These applications range from a large database or monographs (110,000 records) to a very small one dedicated to reviews of toys and plays (1,000 records).

- As a rule, we comply with North American library standards: cataloguing, classification, subject headings.

- Some databases are developed in cooperation with other organizations in Québec or outside.

- In progress: retrospective conversion for 100,000 records from the 1964/1977 period (30,000 records converted per year).

- Annual growth: not less than 60,000 records.
- INTERFACING MINISIS DATA WITH OTHER SYSTEMS:
  
  o INTEGRATING OUR MINISIS DATA TO MARC NETWORKS (IN PROGRESS WITH UTLAS SYSTEM IN TORONTO).

  o INTEGRATING OUR MINISIS DATA TO MICROCOMPUTER-BASED LIBRARY MANAGEMENT SYSTEMS IN PROGRESS FOR THE BOOKTRAY SYSTEM (LOGITHEQUE IN FRENCH), DEVELOPED IN CANADA FOR APPLE IIE COMPUTER WHICH HAS NOW MORE THAN 800 USERS IN NORTH AMERICA, MOST OF THEM IN THE U.S.
DEVELOPMENTS:

- USING MINISIS IN AN EXCLUSIVELY FRENCH ENVIRONMENT

  o WE USE HP EXTENDED ROMAN CHARACTER SET.

  o WE HAVE PREPARED AND MAINTAINED THE FRENCH VERSION OF MINISIS DOCUMENTATION.

- NON-BIBLIOGRAPHIC APPLICATIONS

  o IN-HOUSE: MAILING LIST AND SOME ELEMENTS OF OUR MANAGEMENT INFORMATION SYSTEM.

  o IN COOPERATION. FOR EXAMPLE, A DATABASE ON FRENCH LANGUAGE PRODUCERS AND DISTRIBUTORS OF AUDIOVISUAL MATERIALS, A PROJECT WITH AGENCE DE COOPERATION CULTURELLE ET TECHNIQUE IN PARIS.
o DISSEMINATION OF INFORMATION:

IT IS OF MAJOR CONCERN TO US:

- PUBLICATIONS (TWICE A MONTH LISTS WITH ANNUAL BOUND CUMULATIONS)
  - LASER/OFFSET PRINTING.
  - PHOTOCOMPOSITION.

- LIBRARY CATALOGUE CARDS
  - 3 MILLION CARDS PRODUCED EACH YEAR (I.E. 15,000 PER DAY).
  - DAILY RUNS, LASER PRINTED BY CONTRACTOR FROM FORMATTED TAPES.

- COM MICROFICHE CUMULATIONS OF DATABASES (TWICE A YEAR).

- SDI AND ON DEMAND BIBLIOGRAPHIC LISTS AVAILABLE TO ALL INTERESTED LIBRARIES AND INDIVIDUALS AT NOMINAL COST.

- ON-LINE ACCESS WILL BE DEVELOPED WITH GROWTH OF OUR COMPUTER SYSTEM.
N’rabet, Fadila.
166 p. ; 22 cm. -- (Cahiers libres ; 141-142)
Notes (cart. bibliogr.) au bas p.
ISBN 2-7071-0252-0 (br.): 65 F
Ved.-mat. : *Femmes - Algérie
305.4:'095/M939f
CB: 8305026


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204 p. ; 23 cm. -- (Femmes)
Bibliogr. à la fin de certains chap. ISBN 2-89057-062-8 (br.) : 12,95 $
Ved.-mat. : *Femmes - Santé et hygiène - Aspect social *Femmes - Santé mentale *Femmes - Conditions sociales
305.42:'09714/M933
CB: 8305432

Recueil de vingt textes issus des colloques de 1981 et de 1982 ayant pour objet la situation de la femme par rapport aux soins de santé et à la santé physique et mentale. C’est une approche féministe, qui vise à combattre des stéréotypes discriminatoires pour la femme et à donner plus d’autonomie aux femmes pour qu’elles se prennent en main.

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Bien, Suzanne.
165 p. ; ill., graph., portr. ; 23 cm.
ISBN 2-920405-01-2 (br.) : 12,95 $
Ved.-mat. : *Femmes dans l’agriculture au Québec (Province)
305.43631:'09714/9582f
CB: 83055395

Résultat d’une enquête sur la place des femmes dans l’agriculture au Québec, leur apport à l’entreprise agricole, leurs aspirations.

---

Tristan, Flora, 1803-1844.
256 p. ; plan ; 22 cm. -- (Collection du Centre d’histoire du syndicalisme)
ISBN 2-7071-0680-6 (br.) : 19,75 $
Ved.-mat. : *classes sociales - Angleterre
305.4'094/7368p
CB: 8305460

Une militante vouée à la cause ouvrière et à la cause féministe, dresse un tableau de la société londonienne au milieu du XIXe siècle. Elle dénonce l’exploitation des classes populaires et s’attarde sur le cas des marginaux.

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Delacampagne, Christian, 1948-.
353 p. ; 24 cm.
ISBN 2-213-01117-6 (br.) : 89 F
Ved.-mat. : *Racisme
305.4/D3321
CB: 8305495

Le racisme est beaucoup plus ancien que le mot qui le désigne, apparu en français en 1932 seulement. Née en Europe bien avant le capitalisme, cette attitude discriminatoire largement fortifiée par le commerce de la main-d’œuvre africaine, a été suivie d’un développement inexorable. Un racisme est apparu dans le monde entier.

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160 p. ; 23 cm. -- (Cahiers d’études littéraires et culturelles ; 6)
Titre de la couv. Comprend des notes bibliogr.
50,00 $ (br.)
Ved.-mat. : *Culture *Québec (Province) - Vie intellectuelle
306.09'714/A664
CB: 8305467

Quatre articles très universitaires sur l’arbitraire culturel, le théâtre et la danse.

---

Weiner, Annette B., 1933-.
277 p. ; ill. ; 2 cartes, graph. ; 21 cm.
(Recherches anthropologiques)
ISBN 2-02-006250-X (br.) : 120 F
Ved.-mat. : *Ethnologie *Troïbland, Îles *femmes *Troïbland, Îles *Deuil - Coutumes Troïbland, Îles
306.09'853/W423w.Fs
CB: 8305035

L’auteur fait une analyse anthropologique des cérémonies mortuaires qu’elle a pu observer et auxquelles elle a participé pendant ses séjours aux Îles Troïbland en Papouasie.
Proulx, Jean-Pierre.


120 p. : graph. ; 28 cm.
Bibliographie p. 120-126.
3.00 $ : (br.)

Vedettes secondaires: *Comité de restructuration scolaire de l'Ile de Montréal (Québec)*

379.153'0971426/P966u

L'objectif global du document est d'exposer l'état général de la question de la restructuration scolaire de l'Ile de Montréal. Il entreprend à cette fin une analyse en plus approfondie possible des facteurs pertinents à une telle restructuration.

L'étude comprend trois parties. La première présente quelques caractéristiques générales de la population de Montréal. La seconde examine spécifiquement la situation au plan scolaire. La troisième étude les objectifs possibles de la restructuration en regard de la situation décrite dans les deux premières parties; elle entreprend ensuite d'évaluer les divers moyens susceptibles de les atteindre. Les facteurs socio-culturels et socio-économiques, en particulier ceux de nature confessionnelle et linguistique, sont pris en considération.

Après avoir analysé les objectifs de la restructuration, le document aborde les moyens possibles pour les atteindre, c'est-à-dire les solutions suggérées par la communauté pour résoudre les problèmes qui se posent. En tout, 60 options de restructuration sont examinées: les premières touchent l'école elle-même, son organisation au plan religieux, la langue d'enseignement et les services éducatifs; les options suivantes concernent le type de commission scolaire; les dernières portent sur les structures organisationnelles, plus précisément sur la taille des commissions scolaires, les structures de décision et le partage des pouvoirs.

Type de document: Recherche
Région(s) administrative(s): Région Montréal.
Disponibilité: 9 microfiches à la Centrale des bibliothèques.

No de notice EDUQ: 8270211

Duquet, Robert.


ii, 105 f. : graph. ; 28 cm.
Titre de la couv.

Vedettes secondaires: *Québec (Province) Direction générale de l'éducation des adultes. Service des études et projets*

374.9'/714/D946e

L'étude permet de dégager certaines constatations: 1. le volume d'activités total a subi une décroissance générale jusqu'en 1976-1977 où il marqua une légère remontée; 2. le volume financier, le volume à temps plein et le volume représentant la formation du travailleur ont un indice qui suit de près celui du volume total; 3. le volume autofinancé subit une décroissance générale; 4. les volumes représentant le temps partiel, la formation du citoyen et ce qui est financé par la clientèle ont vu leur indice respectif s'accroître de façon constante.

Type de document: Recherche
Disponibilité: 2 microfiches(s) à la Centrale des bibliothèques.
No de notice EDUQ: 8270258
Slide Presentation

Presented to the 5th Annual Meeting of the MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

by

Mr. Robert Wulf
International Labour Office
CH 1211 Geneva 22, Switzerland
* EXITS *

TEXT SEARCH (INDEX)
MULTIPLE KEY LOOKUP (INDEX)
WORD WITHIN TERM (INDEX)
ISN TO LOG FILE (ENTRY)
MINISIS
DBMS

HIGHLIGHTS:

* RELATIONAL APPROACH
* MODULAR DESIGN
* FLEXIBLE DB STRUCTURES
* IMMEDIATE FILE UPDATING
* SPECIAL BIBLIOGRAPHIC FEATURES
* POWERFUL CHECKING
* USER EXITS FOR LOCAL REQUIREMENTS
* USER FRIENDLY
** POWER TO THE END USER
NON EXISTENT TERM: ECONOMI

1. ECONOMETRIC MODEL
2. ECONOMETRICS
3. ECONOMIC

MORE EXISTING TERMS (Y/N) __

SELECT SEARCH TERM BY NUMBER OR RETURN - ___
THERE ARE 2 REFERENCES CONTAINING THESE 2 SEARCH TERMS

1. SUBJECT: ECONOMY ... #REFERENCES=1772
2. SUBJECT: POLAND ... #REFERENCES=2

DO YOU WANT TO SELECT A PREVIOUS RESULT (Y/N) __
SELECT LINE BY NUMBER OR RETURN __
0. EXPLAIN THE FOLLOWING

1. SEARCH "SUBJECT"

2. SEARCH "TITLE WORD"

3. SEARCH "YEAR OF PUBLICATION"

4. SEARCH "LANGUAGE OF TEXT"

5. SHOW REFERENCES FOUND

6. LIST EXISTING TERMS

7. RECALL A PREVIOUS RESULT

8. BEGIN A NEW SEARCH

9. EXIT

SELECT OPTION BY NUMBER - 

ENTER A SEARCH TERM OR RETURN - economy
YOU HAVE A CHOICE BETWEEN:

0. EXPLAIN THE FOLLOWING
1. SIMPLE SEARCH
2. INTERMEDIATE SEARCH (BOOLEAN)
3. ADVANCED SEARCH (MINISIS)
4. EXIT

SELECT OPTION BY NUMBER — ___
ON-LINE DATABASES

1) LABORDOC - LABOUR DOCUMENTATION IN ILO LIBRARY
2) CISDOC - OCCUPATIONAL SAFETY & HEALTH ABSTRACTS
3. ILODOC - ILO PUBLICATIONS
4. MAILOG - INCOMING & OUTGOING CORRESPONDANCE
5. MISSION - MISSIONS OF ILO OFFICIALS
6. INF SOC - SOCIAL LABOUR DOCUMENTATION
7. STATISTICS - ILO STATISTICS
8. LABOR - ILO LABOUR CONVENTIONS
9. QUALIS - QUALITY OF WORKING LIFE
10. HELP
11. EXIT

SELECT ENTRY BY NAME OR NUMBER ___
1. REFERRAL INDEX
2. ON-LINE DATABASES
3. OFF-LINE DATABASES
4. ELECTRONIC MAIL
5. TELEX
6. INTERNATIONAL DATA NETWORKS
7. HELP
8. EXIT

SELECT ENTRY BY NAME OR NUMBER __
3 LEVELS OF I.L.I.S COMPUTER SYSTEM

* REFERRAL LEVEL

* DATA DESCRIPTION OR SUMMARY LEVEL

* FULL DATA TEXT LEVEL
I.L.I.S. COMPUTER SYSTEM

SHOULD BE:

* SIMPLE TO USE

  1) MENU DRIVEN - NO COMMAND LANGUAGE
  2) AIMED AT USERS WITH NO COMPUTER EXPERIENCE

* ACCESSIBLE THROUGH PUBLIC NETWORKS

* A RAPID MEANS TO FIND OUT WHERE INFORMATION IS LOCATED, WHO TO CONTACT, AND EVENTUALLY VIEW INFORMATION ITSELF
FUTURE

I) I.L.I.S. INTERNATIONAL LABOUR INFORMATION SYSTEM

OBJECTIVE:

A) TO PROVIDE REGIONAL OFFICES, DEVELOPING COUNTRIES, AND MEMBER STATES WITH INFORMATION ON LABOUR RELATED MATTERS

THREE STAGES:

A) DEFINE WHAT POTENTIAL DATA IN THE I.L.O. COULD BECOME PART OF I.L.I.S. (ANY FORM)

B) ORGANISE I.L.I.S. INSIDE THE I.L.O.

C) DEFINE AND IMPLEMENT HOW TO PROVIDE EXTERNAL USERS WITH DATA.
SER/LEG

LABOUR LEGISLATION MANAGEMENT

* INTERNATIONAL INPUT
* TRANSLATION
* TRILINGUAL DATABASE
* ABSTRACTING
* INDEXING
* SEARCHING

* PUBLICATIONS
  1) TRILINGUAL LIST (BI-MONTHLY) OF MOST RECENT LABOUR LEGISLATION
  2) SUPPLEMENT TO LEGISLATIVE SERIES (1984)

CONTACT: M.O. WELLS
LABNOR
CONVENTIONS

1) LOGGING OF ALL ILO CONVENTIONS AND RATIFICATIONS

A) EASY FILE UPDATING
B) CONFERENCE LISTINGS
C) SEARCHING

CONTACT: G. THOMAS (8627)
DOSCOM
REGISTRY
1) LOGGING OF ALL I/O CORRESPONDANCE
   A) FILING CLASSIFICATION
   B) COMMUNICATION TRACING
   C) MISSIONS
   D) MEETINGS
   E) MICROFICHE
   1) ARCHIVES

CONTACT: N. NER (8104)
QUALIS

1) CONDITIONS OF WORK AND QUALITY OF WORKING LIFE

CLEARING HOUSE ON ALL RELATED MATTERS

A) INSTITUTION DIRECTORY
B) RESEARCH PROJECTS
C) MEETINGS
D) PUBLICATIONS
E) PHOTOCOMPOSITION INTERFACE
   1) DIRECTORY

CONTACT: L. STODDART
CIS

1) INTERNATIONAL OCCUPATIONAL SAFETY AND HEALTH

A) INPUT FROM NATIONAL CENTERS
B) ABSTRACTING
C) INDEXING
D) DUAL LANGUAGE DATABASE
E) SEARCHING
F) PHOTOCOMPOSITION INTERFACE
   1) CIS ABSTRACTS
   2) ANNUAL INDEXES
   3) THESAURUS
G) ISO TO OTHER HOSTS

CONTACT: H. SIEGEL
1) MAILING LIST MANAGEMENT

A) CONTROL OF ADDRESSES + PUBLICATIONS
B) ORDER PROCESSING (FREE + PAYING)
   1) SUBSCRIPTIONS
   2) RENEWALS
   3) REMINDERS
C) INVOICING
D) SEARCHES
E) STICKY + 3-UP LABELS
F) DIRECTORIES
G) STATISTICS

CONTACT: I. ELSMARK
BIBL

1) LIBRARY MANAGEMENT
   A) ACQUISITIONS
   B) INDEXING
   C) CATALOGING
   D) LOANS REGISTER
   E) SERIALS CIRCULATION
   F) MULTILINGUAL THESAURUS
   G) SEARCHING
   H) PHOTOCOMPOSITION + MICROFICHE
   I) ISO TO OTHER HOSTS

CONTACT: KATE WILD (8678)
**COMPUTER OPERATION**

* 24 HOURS / DAY

* 7 DAYS / WEEK

* DEDICATED TO ON-LINE ACCESS DURING DAY

* DEDICATED TO BATCH OPERATION AT NIGHT

* ALMOST NO OPERATOR INTERVENTION
  1) USER CONTROL OF PRODUCTION
  2) AUTOMATIC SCHEDULER

* DEDICATED COMPLETELY TO MINISIS DBMS SOFTWARE
HP 3000 - 64 [1984]

MFE IV

TELEPAC
PUBLIC NETWORK

IBM 9083

IBM 4341

TOTAL: 928 MB

70 VDU TERMINALS
01 PRINTER TERMINAL CONSOLE
01 LINE PRINTER (800 LPM)
02 LINE PRINTERS (1200 LPM)
  VIA SPOOK TAPE TO IBM
01 LASER PRINTER
  VIA SPOOK TAPE TO IBM
01 9845 DESKTOP COMPUTER
01 HP 125 BUSINESS ASSISTANT

GOOD RESPONSE TIME !!
IBM 4341

HP 3000
Series III - MPE IV

1600 BPI Tape Drive

16 4 MB Disks

TOTAL: 644 MB

48 VDU Terminals
01 Printer Terminal Console
01 Line Printer (600 LPM)
02 Line Printers (1200 LPM)
    Via Spook Tape To IBM
01 Laser Printer
    Via Spook Tape To IBM
01 9845 Desktop Computer
01 HP 125 Business Assistant

Poor response time......but
APPENDIX D

Slide Presentation

Presented to the 5th Annual Meeting of the MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

by

Mr. Dirk Janssens
International Labour Office
CH 1211 Geneva 22, Switzerland
THE MENU DRIVER

WHAT?
A piece of software to generate (display) menus on the terminal screen.

WHY?
To make the operations used to access information transparent to the terminal user.

HOW TO USE?
The first menu (main menu) is displayed at LOGON. Selecting an entry will route the user to the next menu until he/she gets to the information wanted.

THE MENU DISPLAYED
Every menu consists of a menu-name = menu-header and up to 15 menu entries. Every menu-entry consists of a menu-name and menu-number (serial number within the current menu). An entry-name can be a menu-name or a function-name.

THE SELECTION
A select message is displayed after the menu. At this point, the user can select by entering:

(1) an entry-number within the current menu;
(2) an entry-name within the current menu;
(3) any other entry-name in the menu-system.

THE MENU DEFINITION
The menus and entries are defined in the menu file. The menufilename is kept in the menu message file (MENUMESS) line 11 (MENUTBI).

This file is Editor (UNN) compatible (for easy update) and has to contain all the information the menu driver needs to:

(1) display the subsequent menus;
(2) activate the desired functions.

Every menu-name and every function-name used in the menu system has to be defined in the menu file. The order of the definitions is unimportant (except for the main menu, which has to be the first).
THE MENU FILE

The filename (MENUTBL) is kept in line 11 of the menu message file.

DEFINITION OF A MENU:

LINE 1
   COL 1/2   "M"
   COL 3/72  (MENU NAME)
LINE 2/N
   COL 1/2   "   
   COL 3/72  (ENTRY NAME)

REMARK 1: (MENU NAME) will be the menu header displayed. (ENTRY NAME) will be the entry displayed. Strings between "^" will be displayed but are not part of the (MENU/ENTRY NAME).

REMARK 2: Every (ENTRY NAME) must be defined as a (MENU NAME) or (FUNCTION NAME) in the menu file.

DEFINITION OF A FUNCTION:

LINE 1
   COL 1/2   "F"
   COL 3/72  (FUNCTION NAME)
LINE 2/N
   COL 1/2   "   
   COL 3/72  (FUNCTION ATTRIBUTES)

Where:

(FUNCTION ATTRIBUTES) = (TYPE) (ATTRIBUTES)

REMARK 1: (TYPE) defines the type of function you want to activate. (ATTRIBUTES) depends on the type specified.

(TYPE) = 00 Switch to another group/account before activating the function and switch back to home group/account after the function has been activated.
   (ATTRIBUTE):= (GROUP NAME), (ACCOUNT NAME)
   REMARK: This type has to be specified before any other type.

(TYPE) = 01 Print one line of comment.
   (ATTRIBUTE):= (COMMENT LINE).

(TYPE) = 02 Copy editor file to screen.
   (ATTRIBUTE):= (EDITOR FILE NAME).
(TYPE) = 03
Run a Program.
(ATRIBUTE):= (PROGRAM NAME).
Remark: only name, other params not yet implemented.

(TYPE) = 04
Execute a command.
(ATRIBUTE):= (MPE COMMAND).

(TYPE) = 05
Run MINISIS query.

(ATRIBUTE):=(DBNAME)r;DEFAULT=.."";FORMAT=..];=[INIT. RESTR.].

This line has to be followed by one line of type '051' and one or more (max. 5) lines of type '052'.
'051' (HEADER OF MINISIS MAIN MENU).
'052' (SEARCH FIELD NAME) & (SEARCH FIELD TAG OR MNEMONIC).

REMARK 1: (SEARCH FIELD NAME) is max. 12 characters. Minimum 1, maximum 5 search fields. The first field is the default query field. Thesaurus search not yet implemented.

REMARK 2: (FORMAT=...) will overwrite the default print format. This PF has to print an end of record indicator ("#@") in Col 1/3 at the end of every record.

REMARK: Comment lines have "*" in the first column.
EXAMPLE OF A MENU FILE

******************************************************************************
** ILIS External Menu File **
** **
** M = MENU F = FUNCTION **
** **
** 00 = SWITCH **
** 01 = COMMENT **
** 02 = COPY TEXT **
** 03 = PROGRAM **
** 04 = COMMAND **
** 05 = MINISIS QUERY **
** 051 HEADER FIRST MENU **
** 052 SEARCH FIELD (NON THES) **
** 06 = ... **
** ... **
** 10 = EXIT menu driver **
** **
** %strings% are displayed but not part **
** of the menu/function name. **
******************************************************************************
** MAIN MENU = FIRST MENU TO DISPLAY **
******************************************************************************

M MAIN INDEX
  REFERRAL INDEX
  ON-LINE DATABASES
  OFF-LINE DATABASES
  ELECTRONIC MAIL
  ACCESS TO DATA NETWORKS
  HELP
  EXIT

******************************************************************************
** GENERAL HELP FUNCTION **
******************************************************************************

F HELP
  02 HELP

******************************************************************************
** REFERRAL INDEX **
******************************************************************************

F REFERRAL INDEX
  02 HREFFER

**

F H-REFERRAL INDEX
  02 HREFFER
**ONLINE DATABASES**

**MON-LINE DATABASES**

LABORDOC% - Labor Documentation in ILO library%
CISDOC% - Occupational Safety & Health abstracts%
ILODOC% - ILO Publications%
MAILLOG% - Incoming and outgoing correspondence%
MISSION% - Missions of Officials%
INFSOC% - Social Labor Information%
STATISTICS% - Labor Statistics%
DABNOR% - Labor Conventions%
QUALIS% - Quality of working life%
HELP
EXIT

**F H-ON-LINE DATABASES**

01 SELECT ENTRY 2 TO GET A COMPLETE LIST OF ON-LINE DATABASES

**F LABORDOC**

00 ILIS BIBL
05 RDILIS;FORMAT PRIQUERY;=
051 LABORDOC ON-LINE DATABASE
052 SUBJECT$ADST
052 AUTHOR$A110
052 TITLE$TITLE

**F H-LABORDOC**

02 HLABORDOC

**F CISDOC**

00 ILIS.C1 -
05 CISDOC;FORMAT PCTSDOC;=
051 CIS ON-LINE DATABASE
052 MAIN SUBJECT (ENGLISH)$E420
052 MAIN SUBJECT (FRENCH)$F420

**F H-CISDOC**

02 HCISDOC

**F ILODOC**

01 NOT YET IMPLEMENTED

**F H-ILODOC**

01 NOT YET IMPLEMENTED

**F MAILOG**

01 NOT YET IMPLEMENTED

**F H-MAILLOG**

01 NOT YET IMPLEMENTED
F MISSION
  01 NOT YET IMPLEMENTED
**
F H-MISSION
  01 NOT YET IMPLEMENTED
**
F INFSOC
  00 ILIS.BIBL
  05 RDILIS;FORMAT PBQUERY;=V800 INFSOC
  051 INFSOC ON-LINE DATABASE
  052 SUBJECT$B210
**
F H-INFSOC
  01 HELP FILE NOT YET DEFINED
**
F STATISTICS
  01 NOT YET IMPLEMENTED
**
F H-STATISTICS
  01 NOT YET IMPLEMENTED
**
F LABNOR
  01 NOT YET IMPLEMENTED
**
F H-LABNOR
  01 NOT YET IMPLEMENTED
**
F QUALIS
  01 NOT YET IMPLEMENTED
**
F H-QUALIS
  01 NOT YET IMPLEMENTED

*****************************************************************
** NOT YET IMPLEMENTED                                      **
*****************************************************************
F OFF-LINE DATABASES
  01 NOT YET IMPLEMENTED
**
F H-OFF-LINE DATABASES
  01 NOT YET IMPLEMENTED
**
F ELECTRONIC MAIL
  01 NOT YET AVAILABLE
**
F H-ELECTRONIC MAIL
  01 NOT YET AVAILABLE
**
F ACCESS TO DATA NETWORKS
  01 NOT YET AVAILABLE
**
F H-ACCESS TO DATA NETWORKS
   01 NOT YET AVAILABLE
**
******************************************************************************
** EXIT                                      **
******************************************************************************
F EXIT
   10
******************************************************************************
** TESTING                                    **
******************************************************************************
M %ABC%DEF %GHI%JKL %MNP%  
%ABC%DEF %GHI%JKL %MNP%
**
F SWITCH
   03 SWITCH.PRIV.MAINLIB
**
F SHOWME
   04 SHOWME
**
F EDITOR
   03 EDITOR.PUB.SYS
**
F LISTEQ2
   03 LISTEQ2.PUB.SYS
**
MINISIS QUERY ERRORS

ERROR MESSAGE; XXX MINISIS QUERY PROBLEM [(NUMBER)]

WHERE (NUMBER) IS:

-14 = =20 CREATEPROCESS ERROR NUMBER (MAIN LINE)

100 FOPEN ERROR ON SYSLIST AS MESSAGE FILE (MAIN LINE)
101 FCLOSE ERROR ON SYSLIST AS MESSAGE FILE (MAIN LINE)
102 FOPEN ERROR ON JCLFILE AS MESSAGE FILE (MAIN LINE)
103 FCLOSE ERROR ON JCLFILE AS MESSAGE FILE (MAIN LINE)
104 FOPEN ERROR ON SYSLIST IN FATHER PROCESS (MAIN LINE)
105 FOPEN ERROR ON JCLFILE IN FATHER PROCESS (MAIN LINE)
106 WHEN ATTRIBUTES WERE PASSED ON TO MINISIS QUERY THIS RESULTED IN A MINISIS ERROR MESSAGE (**,$$,??) OR ABORT
108 FCLOSE ERROR ON JCLFILE IN FATHER PROCESS (MAIN LINE)
109 FCLOSE ERROR ON SYSLIST IN FATHER PROCESS (MAIN LINE)
110 FREAD ERROR ON SYSLIST (REAL'MINISIS OR READ'IN'FILE)
111 FWRITE ERROR ON JCLFILE (REAL'MINISIS OR WRITE'OUT'FILE)
112 INVALID ATTRIBUTE INDICATOR (MINISIS'PREPROCESS)
113 FREAD ERROR ON MENUTBL FILE (MINISIS'PREPROCESS)
114 DSF BUFFER IS TOO SMALL TO CONTAIN NEXT SEARCH LINE. YOU CAN GO ON BUT SEARCH LINE WILL NOT BE KEPT IN DSF BUFFER. BETTER EMPTY THE BUFFER USING RECALL OR REINIT (MINISIS'DSF)
Slide Presentation

Presented to the 5th Annual Meeting of the
MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

by

Ms. Dani Manthorpe
Systemhouse Ltd.
2827 Riverside Dr.
Ottawa, Ontario, Canada
## SYSTEMHOUSE CLIENTS

<table>
<thead>
<tr>
<th>CCOHS</th>
<th>HYDRO QUEBEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SASKCOMP</td>
<td>WORLD BANK</td>
</tr>
<tr>
<td>AECB</td>
<td>IMF</td>
</tr>
<tr>
<td>PUBLIC ARCHIVES</td>
<td>WESTRECO</td>
</tr>
<tr>
<td>EMR</td>
<td>MARIGOLD</td>
</tr>
<tr>
<td>METROPOLITAN LIBRARY</td>
<td>IMATRAN</td>
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<tr>
<td>DFO</td>
<td>EDITEL</td>
</tr>
<tr>
<td>USAID</td>
<td>ITC</td>
</tr>
<tr>
<td>REYNOLDS</td>
<td>CRIQ</td>
</tr>
<tr>
<td>NRC/CISTI</td>
<td>EMR - CALGARY</td>
</tr>
<tr>
<td>ST. FRANCIS XAVIER</td>
<td>RFB</td>
</tr>
<tr>
<td>DCS</td>
<td>U.S. ARMY</td>
</tr>
<tr>
<td>DSS</td>
<td></td>
</tr>
</tbody>
</table>
SYSTEMHOUSE DEVELOPED USER EXITS

• MANDEF

FORCES MANDATORY FIELDS

INSERTS DEFAULT VALUES - PRESENTLY ONLY DATE AND TIME STAMP

ENHANCEMENT PLANNED TO HAVE AN AUTOMATIC DATE/TIME UPDATE IN MODIFY
SYSTEMHOUSE USER EXITS

- MARCSUB

MARC CONVERSION:

- ELIMINATES ADJACENT REPEATED SUBFIELDS REPLACING WITH TWO BLANKS
- ELIMINATES EXCLAMATION POINT - REPLACING WITH A PERIOD
- TREATS $X$Y$Z AS IF THEY WERE ALL $X$

WHEN RUN IN CONJUNCTION WITH MALMARC USER EXIT PROVIDES A REALISTIC MECHANISM FOR LOADING MARC TAPES.
SYSTEMHOUSE USER EXITS

- GENERATION OF SEE AND SEE ALSO REFERENCES
  - NO BLIND REFERENCES
  - NO REPETITION

- DEVELOPMENT OF ON-LINE THESAURUS UPDATE PROGRAM
FOCUS USER EXIT

- PICTURE CONSERVATION DIVISION OF PUBLIC ARCHIVES CANADA

- UDC FIELD IS ANALYZED BY A USER EXIT WHICH EXTRACTS THE FACETS AND STORES THEM IN MINISIS FIELDS

- THE FACET FIELDS ARE INVERTED INTO A THESAURUS OF DESCRIPTORS AND FACET NUMBERS - THE FACET NUMBERS ARE TREATED AS A LANGUAGE EQUIVALENT IN A MULTILINGUAL THESAURUS

- THE USER CAN NOW SEARCH ON DESCRIPTOR OR FACET NUMBER (AND HAVE ONE TRANSLATED AUTOMATICALLY TO THE OTHER)
SYSTEMHOUSE ACTIVITIES

- PLP 3000 - VIDEOTEX FOR HP BASED UPON MINISIS
  - PROVIDES GRAPHICS DISPLAY CAPABILITY
  - PROVIDES ULTIMATE EASE OF USE
  - WILL WORK ON NORMAL HP TERMINALS (WITHOUT GRAPHICS)

- DIAL-IN DEMONSTRATION MARKETING
  - VIA PACKAGED SWITCHING NETWORK
  - KEY FEATURES OF MINISIS
  - SIMULATION
This screen shows a typical entry level page. The user is shown a list of data bases available and is asked to select one. The response will go into the box indicated, which is actually an inverse video area used to facilitate ease of comprehension. A default value will automatically be assumed (and indicated in the box) so that the user may only need to hit the carriage return. If there is in fact only one possible choice, at the option of the system manager, this menu can be bypassed and the data base opened automatically.

The top two display lines are user selectable as to content and format.
Having opened the data base the system now shows the user which fields can be searched. A default (TITLE) is already displayed in a half bright inverse video box and will be selected if the user hits the carriage return. The user need only key in enough characters to uniquely identify the field, e.g. "TO" for TOPIC. Again if there is only one possible choice this screen is bypassed. If the user replies with a "0" the system returns to the previous screen.

Note that all user responses will go into an inverse video box.
Having selected the field, the user must now enter the key to be searched for. The user should have some idea of the possible keys as the system, at this time, will not tell him what is available. As indicated, the key can be truncated on the right.
Here the user is told how many hits are found that match the key and is asked whether he/she wishes to browse through the hits, narrow or broaden the search with additional search criteria or return to the previous screen.
If the user chooses to browse the records found, the next screen will provide a menu of available print formats. As indicated there may be more choices than can be displayed on a single screen in which case multiple screens would be used. If there is only one choice this menu would be bypassed and the system would automatically display the first record found.
This final screen shows a displayed record and the options open to the users.
ARM S

AUTOMATED RECORDS MANAGEMENT SYSTEM USING MINISIS

ARMS - What it can do for you

- On-line subject classification for files and documents
  - using block numeric and keyword indexing
- Automatic file and document index creation
- Mandatory fields
- Default Values for specific fields
- On-line searching
- Circulation control
  - including user controlled Charge Out and automatic Bring Forward functions
- A powerful report generator
  - standard management reports include Bring Forward List, Charge Out List, Overdue List, File Number Index, Subject Index, and Retention Review List
  - special sort for all file numbers
  - additional reports can be produced on-line
- A comprehensive multi-lingual thesaurus
  - allowing true bilingual operation, vocabulary control of keyword terms and sophisticated searching
- Extensive security control features
- Access from videotex terminals with colour graphics capability

WHY ARMS

- COMPREHENSIVE Provides a records management system that can track files and documents throughout their entire life cycle, from creation to disposal.
- ADAPTABLE ARMS is easily customized to your unique needs
MINISIS-ARMS

USER

ENTER "NEW" DATA

MODIFY "OLD" DATA

DATABASE QUERIES (ON-LINE)

REPORT REQUESTS (BATCH)

UPDATE AUTHORITY FILES

FILES DATABASE

VOLUMES DATABASE

DOCUMENTS DATABASE

INVERTED FILES

AUTHORITY FILES

DATABASE

AUTOMATIC VALIDATION

AUTOMATIC KEY GENERATION
MINISIS–ARMS

SUBJECT CLASSIFICATION
• FILES DATABASE

105– ADMINISTRATION
  Includes policies and procedures....
  105–1 GENERAL
  105–2 ORGANIZATION CHARTS
  105–3 MESSENGER SERVICES
  105–3–1 IN TOWN
  105–3–1 OUT OF TOWN

FILE MAINTENANCE
• Volume Database
  105–2 Vol.999
  105–2 Vol.2
  105–2 Volume 1
  Start Date
  End Date
  Security
  Location etc.

MAIL RECORDING
• Document database
  DOCUMENTS
  LETTERS
  MEMOS
MINISIS ARMS

FEATURES

1— Hierarchical Subject Classification System using a relational database

2— Mandatory fields in entry and modify

3— Default values in entry and modify

4— Special sort feature for any file number

5— Sophisticated output formats
   * Form letters
   * Labels
   * Indexes
   * Lists
   * Statistics

6— Transfer of data to a historical sub-system
AUTOMATED RECORDS MANAGEMENT SYSTEM

using MINISIS

Functional Description

1. Printing of Numerical Index
2. Printing of Alphabetic Index
3. Production of Labels
4. File Recall
5. File Charge-out
6. Bring Forward
7. Mail Recording
8. Cross Reference
9. File Search
10. File Creation, Deletion, Amendment
11. File Disposal
12. Management Reports
1. **Printing of Numerical Index**

**Purpose:** To produce a numerical index of all the files by branch.

**Output:** For each branch, in numerical sequence, print the section, primary, secondary, and tertiary information for each file contained in the database. In addition, for each section print headings containing the section number, section description, and primary information.

The numerical index will be bilingual.
2. **Printing of Alphabetic Index**

**Purpose:** To produce an alphabetic index by branch of keywords and subjects associated with files.

**Output:** For every file contained in the data base produce an alphabetic index to file number from the primary subject, secondary subject, tertiary subject, and key word information.
3. Production of Labels

**Purpose:** To produce file labels for each new file volume created in the database.

**Output:** Each time a new file or volume is opened file labels are printed to be attached to the file folder. Two labels will be produced for each file:

- a large one containing the prefix, primary, secondary and tertiary numbers and subjects;
- a smaller one containing the file number.
4. File Recall

Purpose: To produce the recall slips for all files in the database which should be returned to the records management office.

Input: At the terminal, specify a date or name of an individual for which files charged-out should be returned.

Output: A list and count of files to be returned to the records management office. A printed recall slip for each recalled file containing: file numbers and subjects, name of file processor and date the file was charged-out.
5. **Charge-out System**

**Purpose:** To allow records management personnel to charge-out files to various individuals and to maintain pertinent information of the charge-out process.

**Input:** Using the terminal, the records management personnel will select the file to be charged-out by file number or keyword. When the file has been found the following information will be entered:

- person charged to;
- unit date;
- date charged-out;
- recall date.

Note: When the file is found but it shows that the file is already charged-out, it will be possible to enter B.F. information:

- B.F. date;
- requestor;
- unit;
- reason for B.F.

When a file is returned it will be possible to select the appropriate file and delete the charge-out information.

**Output:** A list and count of files charged-out in any given time period.

A list of all files charged-out.

A count of files passed from one individual to another.

A count of charged-out files which have been returned to the records office and put away.
6. **Bring Forward System**

**Purpose:** To allow existing files to be brought forward for a specific date by various individuals.

**Input:** Using the terminal, records management personnel will be able to enter the following information for specific files:

- B.F. date;
- name of requestor;
- unit;
- reason for B.F. (if applicable).

**Outputs:**

A listing and/or count of files which have B.F. dates within a given time period along with their current location and reason for B.F. action.

A listing of all files which are to be brought forward.

It will be possible to transfer the BF information to the charge-out information for all the files which are not already charge-out.
7. **Mail Recording**

**Purpose:** On a selective basis, allow records management personnel to record mail prior to placing the document in the appropriate file folder.

**Input:** For each piece of mail to be recorded enter the following information:

- originator of correspondence;
- date of correspondence;
- date received;
- addressee;
- subject of correspondence;
- file number.

**Output:** A listing of all mail recorded in a specific period of time. A count of all pieces of correspondence recorded within a time interval. Ability to retrieve a piece of correspondence, on-line, by specifying a value for any of the data fields entered above.
8. **Cross-References**

**Purpose:** To enable the records clerks to search the database using keywords, phrases or parts of keywords to locate a proper file number.

**Input:** For each piece of mail recorded the ability to enter the subject of the correspondence as a file cross-reference.

**Output:** The file numbers which satisfy the search criteria.
9. **File Search**

**Purpose:** To allow records management personnel to retrieve all information about a file or files in a variety of ways.

**Input:** Records management personnel will be able to retrieve a file by entering one or more of the following:

- section number
- the file number (or part);
- any word (or partial word) in the subject or cross-reference;
- important dates associated with the file;
- other important data elements.

**Output:** On the screen, the record(s) which meet the search criteria.

The ability to sort and/or print the results of any search.
10. File Creation, Deletion, Amendment

**Purpose:** To allow records management personnel to create new files and delete and amend existing files.

**Input:** At the terminal, records management staff will enter all pertinent information for a new file by replying to data field prompts. In addition, it will be possible to modify existing file information by deleting, changing or adding the required information.

**Output:** A listing or count of all files created or amended for a given time period.

The ability to list and count all files scheduled for destruction or transfer to another system. Also the ability to store these files on tape for historical purposes.
11. **File Disposal**

**Purpose:** To enable records management personnel to dispose of files according to predefined retention periods.

**Input:** Review date will be established as date file is closed plus 6 months.

**Output:** A list of files with review dates, similar to or on the bring forward list.

The ability to modify the review information and/or add disposal information.
12. **Management Reports**

**Purpose:** To provide management with the information necessary to maintain the records database effectively.

**Output:** Various lists, statistics, etc.
Slide Presentation

Presented to the 5th Annual Meeting of the MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

by

Mr. Lee White
U.S. Agency for International Development
Washington, D.C., 20523
U.S.A.
Bureau for Program & Policy Co-ordination
PPC/CDIE/DI, Room 209, SA-18
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

A.I.D. DEVELOPMENT INFORMATION PROGRAM

Sponsor: Agency for International Development
Bureau for Program Policy and Coordination
Center for Development Evaluation and Information
Washington, D.C. 20523

Presenter: Lee White
Technical Information Specialist

For: MINISIS Users Group, 10/83
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

DEVELOPMENT INFORMATION PROGRAM

- Serves as "institutional memory" for U.S.-sponsored development activities.
- Program's functions fully integrated with information systems via MINISIS
- Provides research and reference tools for project development
- Links official agency records to "institutional memory"
- Integrates bibliographic information system to project management information
- On-demand document or fiche delivery available for data base citations
- Serves as catalyst for transfer of development information to LDC's and USAID missions
DEVELOPMENT INFORMATION
PROGRAM SYSTEM
CONFIGURATION

MINISIS
SOFTWARE
- COBOL
- HP/WORD
- TDP/3000
- DSG3000
- SPL

H-P/3000 SERIES 44

20 ADCC PORTS
14 ATP PORTS

14 HARDWIRED TERMINALS
2622A
2623A
2624B
2626W
2628W LEXITRON

MODEMS

10 EXTERNAL USERS
2622A DATA GRAPHIX IBM/PC

5-7925 120MB DISC DRIVES

7970E TAPE DRIVE

2608A DOT MATRIX PRINTER

IBM/PC MODEMS
<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>MINISIS</th>
<th>SOFTWARE SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>HEWLETT-PACKARD SOFTWARE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COBOL HP/WORD TDP/3000 DSG/3000 SPL</td>
</tr>
<tr>
<td>1. Bibliographic Processing</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>2. Records Management</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>3. Thesaurus Construction/Maintenance</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>4. User Services</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>5. Inventory Control</td>
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<tr>
<td>6. Reference Services</td>
<td>✓</td>
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</tr>
<tr>
<td>7. Data Base Publishing</td>
<td>✓</td>
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</tr>
<tr>
<td>8. Micrographics</td>
<td>✓</td>
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</tr>
<tr>
<td>10. System/Technology Transfer</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
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RELATION OF MINISIS DATA BASE STRUCTURE TO PROGRAM FUNCTIONS

DOCUMENT ACQUISITIONS/ORDERING
- PURCHASES DB

BIBLIOGRAPHIC PROCESSING
- DOCUMENTS DB
- PROJECTS DB
- ABSTRACTS DB
- THESAURUS DB

MANAGEMENT/STATISTICAL REPORTING
- FILES BY ALL FUNCTIONS

USER SERVICES
- ORDER FULFILLMENT DB
- MAILING LIST DB
- CASH CONTROL/ACCOUNTING DB

MICROGRAPHICS PROCESSING
- FICHE HEADER DB
- AGENCY PROJECT MANAGEMENT RECORDS DB

INVENTORY CONTROL
- WAREHOUSE STOCK DB
- EQUIPMENT DB
- ARCHIVE RETENTION
FUNCTION 1:
BIBLIOGRAPHIC PROCESSING

- Acquisitions—purchase, gift, distribution
- Cataloging
- Abstracting/Indexing
- Document tracking—process control

![Flowchart Diagram]

INVENTORY (5,700)

ON LINE DOCUMENT PROCESSING

SOURCE DOCUMENT

TO WAREHOUSE

ON-LINE CATALOGING

MEET PROCESSING CRITERIA?

ACQUIRE DOCUMENTS

DOCUMENTS (32,000)

PROJECTS (4,300)

ABSTRACTS

TO LDC'S, AID/W USAID MISSIONS, AND IDO's.

ON-LINE ABSTRACTING/INDEXING

MICROFICHE DOCUMENT
FUNCTION 2: RECORDS MANAGEMENT

- Controls official A.I.D. project documentation files
- Provides for automatic fiche header generation
- Links records management function to institutional memory

Diagram:
- Official Project Files
- Process for Microfiche Filming
- On-Line Processing
- Source Document Filming
- Microfiche Document
- To Missions, A.I.D./W Offices
- To Warehouse
FUNCTION: 3  
THESAURUS CONSTRUCTION AND MAINTENANCE

- 25,000 term word lists synthesized to 5,000 word development thesaurus using MINISIS features
- Features UNESCO hierarchies and OECD macrothesaurus concept terms
- Maps new terms to old terms following conversion to MINISIS
- Controlled vocabulary for bibliographic and project management information
- Available as on-line retrieval access tool
FUNCTION 4: USER SERVICES

- Links user request to mailing list, document file, and user authority
- Calculates costs, creates invoice and shipping label
- Provides for management analysis of document/user requests
FUNCTION 5: INVENTORY CONTROL

- Tracks location, quantities of warehouse publication stock
- Provides records management control over processed documents
- Maintains control over equipment, material used in program
FUNCTION 6: REFERENCE SERVICE

- Research and analysis of bibliographic and management information through MINISIS data base exchange
- Request response:
  - Tailored information packages
  - Source document delivery
  - Project experience reports
  - Special bibliographies
FUNCTION 7: DATA BASE PUBLISHING

- Produces quarterly abstract journal, special bibliographies, directories, thesaurus
- Create photocomposition driver tape directly from data base
- Flexible format commands

```
FUNCTION
7:
DATA
BASE
PUBLISHING

- Produces quarterly abstract journal, special bibliographies, directories, thesaurus
- Create photocomposition driver tape directly from data base
- Flexible format commands
```
FUNCTION 8: MICROGRAPHICS

- Fiche header generation as data base byproduct — quality control
- Microfiche production management, control and reporting through document tracking
- Records management control over processed documents — archival retention schedules

[Diagram of process flow]
FUNCTION 9: MANAGEMENT REPORTING/STATISTICS

• Production statistics as byproduct of processing operations
• Management tracking of work flow
• Special reports using graphics package
• Operations manual available on-line via HP/WORD
FUNCTION 10:
SYSTEMS/TECHNOLOGY
TRANSFER

PURPOSE: • Transfer A.I.D. "institutional memory" and documents
• Transfer information and storage methodologies
• Transfer information-related technologies

TO WHOM: • LDC's, USAID Missions, and International Development Organizations

WHY: Encourage use of development experience and technical information as an integral tool to improve effectiveness of development activities
FUNCTION 10: SYSTEMS/TECHNOLOGY TRANSFER (Continued)

HOW: • Transfering "institutional memory"
  — Documents — fiche or COM
  — Data base/information systems

• Transfering "methodologies"
  — Develop specific data base models
  — Create development-related thesaurus
  — Administer standards and procedures

• Transfering "technologies"
  — Networking — data tape exchange with ISO compatible users
  — Microcomputers — data base subsets and fiche to sites with appropriate hardware and software
  — Micrographics — complete fiche set of source documents or COM of DB contents to sites lacking ADP resources
  — Advanced software design — monitor, incorporate enhancements
  — Optical disk storage and retrieval as fiche/DB exchange medium
  — Telecommunications
FUNCTION 10: SYSTEMS/TECHNOLOGY TRANSFER (Continued)

LOCATIONS: • 2-5 selected A.I.D. Missions with capacity to receive, administer system
• 5-10 LDC’s chosen to test various transfer mechanisms

SCHEDULE: • Develop plans — November-February, 1983
• Implementation — March-September, 1984
The DIS is an automated on-line information storage and retrieval system which provides access to:

* Project experience memory for AID development projects
* Project and program documentation for AID projects
* Technical research and development materials and publications
* Organizations and institutions involved in designing, evaluating and implementing AID programs
* Development thesaurus of AID terms used to index AID's development experience found in program, project, and technical documentation which is AID-generated or AID-funded

The DIS is designed to support AID's information needs for:

* Program and policy planning
* Project design (Pre-PID, PID and PP stage)
* Project evaluation
* Transfer and application of development technologies
* Basic and applied research in development

Requests for DIS information can be initiated by:

* Completing a Development Information and Utilization Service information request form and forwarding it to PPC/CDEI/DI, Room 215, SA-18, Washington, DC 20523
* Contacting the Development Information Center located at:

  Development Information Center
  PPC/CDEI/DI/LS, Room 105, SA-18
  Washington, DC 20523
  (703) 235-1000
AID Project Experience

The development project experience memory includes AID projects which were active in September, 1974 or which have become active since that date. This collection of project experience reflects the results of the "New Directions" foreign assistance legislation passed by Congress in 1973. Alternative project development approaches and lessons learned from the implementation of these specific project designs are recorded for future DIS users (AID program officers, project designers and evaluators) by abstracting and indexing AID’s project design and evaluation documentation. The project design description consists of a project summary and the four narrative logical framework cells: goal, purpose, outputs and inputs. The project summary includes information describing the development problem addressed by the project, the general strategy approach for eliminating or alleviating the problem, the major project activities or components, project management, beneficiaries, participants, donors, formal implementing agency, special development concerns and key assumptions made in the project design. The project evaluation abstract includes a statement of the project purpose, type of evaluation, time frame covered, methodology, degree of attainment of project purpose and outputs, evaluation findings and lessons learned.

AID Project and Program Documentation

AID project and program documents are cataloged, indexed, and abstracted for principal design documents (project papers, non-capital assistance project proposals, loan/capital assistance papers, operational program grant proposals, etc.), principal evaluative documents (project evaluation summaries, special evaluations, project appraisal reports, audit reports, final reports, etc.) and other major document types such as feasibility studies, sector studies and discussion papers.

AID Technical Research and Development Materials

Technical R&D materials produced by AID programs are cataloged, indexed and abstracted. These documents represent findings and results produced in the search for expanded knowledge and new approaches to development problems. The reports encompass the period from 1962 through the present. The subject fields covered are: agriculture, health, nutrition, rural development, education, energy, human resources, urban development, development assistance, economics and selected problems in science and technology and in various branches of the physical and social sciences. Those documents which are abstracted appear in the AID Research and Development Abstracts (ARDA) publication which is produced quarterly.
Organizations and Institutions in Development

The DIS also includes information on organizations and institutions which have performed a major role in designing, evaluating, and implementing AID projects. This information is gleaned from the project and technical documents which are processed through the DIS. Institutional roles are briefly described and subject-indexed to indicate their major area of development participation.

Development Thesaurus

The DIS currently uses several descriptor lists for indexing project documentation and technical reports, analyzing requests for information and searching the DIS, and creating subject indexes in AID database publications.

A new DIS development thesaurus is being constructed which will incorporate the concepts contained in the existing DIS term lists in addition to those contained in other development-related thesauri such as the OECD Macrothesaurus, VITA Thesaurus, FAO's AGROVOC, and the UNESCO Thesaurus. The new thesaurus will provide complete geographic and subject area coverage for document indexing, information retrieval, and reporting requirements of the DIS system user. A hierarchical structure in the thesaurus will permit the user to move from broader to narrower concepts and will remind the user of related concepts. The printed and on-line versions of the new thesaurus, coupled with new indexing guidelines will facilitate access to AID development information.

DIS Retrieval/Access Points

Project and technical information can be retrieved quickly and easily through a variety of search fields. The most commonly used access points to the DIS system are:

* Project number
* Document ID
* Project title
* Document type
* Project status
* Document title
* Subject descriptor
* Author
* Geographic descriptor
* Publication date
* AID Bureau name
* Institution
DIS Reports

Several standard production reports and publications are produced by the DIS system on-demand and as current awareness tools for information dissemination. The on-demand reports which may be requested by DIS users include:

* Project title list
* Project experience summary report
* Country profile list
* Project document citation report
* Technical document citation report
* Institution report

The current awareness publications and reports include:

* AID Research and Development Abstracts (ARDA)
* Catalog for Research Literature in Development
* AID Bibliography
* AID project history list
* AID document title list
* AID document author list
Providing adequate water supply and sanitation (WS/S) to rural peoples has been described as the most urgent need facing developing countries today. This three-part guide, prepared as part of the National Demonstration Water Project’s "Water for the World" series, provides an overview of information needed by people who promote, design, and carry out programs to meet WS/S needs.

Part One of the guide describes the link between inadequate WS/S and disease, which affects children in particular. Water-related diseases, which may be transmitted by insects which breed near water, by contact with water-borne vectors, by ingestion of water-borne microbes, or by the lack of water for hygienic purposes, are listed. They include malaria, schistosomiasis, cholera, diarrhea, onchocerciasis, and scabies. Methods for developing water quality standards for use in preventing such diseases are discussed.

Part Two presents WS/S technologies appropriate to rural areas in developing countries. Steps identified for setting up a WS system are: locating a surface or groundwater source; retrieving water through the use of wells, intake structures, windmills, and/or pumps; removing contaminants through filtration, boiling, chemical disinfection, or more advanced methods; storing and distributing water; and operating and maintaining the system. Systems described for disposing of human, domestic, industrial, and solid wastes range from primitive latrines and open toilets to oil- and water-flushed toilets, septic tanks, cesspools, landfills, incineration, and advanced sewage treatment plants.

Part Three describes how to establish and implement programs that effectively match technical solutions to specific WS/S problems. Models and guidelines are offered for national, regional, and community level WS/S planning. Finally, methods to encourage community participation and provide WS/S training are described and strategies for funding WS/S system construction and operation are outlined.

Each chapter concludes with lists of sources and pertinent "Technical Notes" from the "Water for the World" series. The text is highlighted by 30 tables and 15 figures. Appended are a glossary of terms and a full listing of the "Technical Notes" prepared in the "Water for the World" series.

Descriptors: /Rural water supply/ /Sanitation/ /Water supply/ /Water supply
A.I.D.'s Sederhana project was designed to increase Indonesian rice production by rehabilitating or constructing small, technically simple irrigation systems. An A.I.D. team visited 29 subprojects (SP) to prepare this review of Sederhana's impact.

The project proved difficult to administer. Only 32 of 600 SP's completed or underway by June, 1980 had been reimbursed by A.I.D. due to start-up problems, design and construction faults that required work to be redone, and to the Fixed Amount Reimbursement method which allowed payment only after technical certification of completed construction. Nonetheless, the project led to substantial increases in rice production on Java and Sulawesi, confirming the assumption that farmers could make immediate use of additional water. In Sumatra, however, the production impact was not encouraging, due to adverse environmental conditions and farmer resistance to growing labor-intensive, non-cash crops. In most SP's, increased production benefited both landowners and permanent tenants, but sometimes affected sharecroppers and landless laborers adversely, as landowning families filled many of the jobs created by the increasingly profitable Sederhana system.

Key problem areas were a trade-off between SP quantity and quality due to a highly centralized implementation process, which should be altered to increase participation from the provinces and especially from farmers (whose participation, especially in geographically scattered projects such as Sederhana, is essential); lack of coordination between implementing agencies, a factor essential to the success of any project; and the lack of technical assistance which early on led to costly errors and the failure to build an experienced cadre in government agencies - technical assistance should be increased as the project moves to marginal areas, with a focus on improving local construction and management skills. The project also demonstrated the need for baseline data to assess a project's progress and the fact that programs such as Sederhana, while they can substantially benefit the rural poor, cannot result in the redistribution of wealth.

Appendices include an analysis of the project's irrigation and water management systems and a September, 1979 A.I.D. audit of the project.

Descriptors: /Indonesia/ /Irrigation/ /Rice/ /Agricultural production/ /Evaluation/ /Rural development/ /Construction/ /Land reclamation/ /Project impact evaluation/
**S180015 Ecuador**

**Integrated Rural Health Delivery System**

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Loan or Grant / Appropriation Code / LDP Cost: L / HE / 7235

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**<< ABSTRACT >>**

Project to develop a replicable model of primary health care (PHC) delivery in the rural areas of Salcedo, Quinzaig-Penipe, and Jipijapa, Ecuador. The project, to be implemented by the Ministry of Health (MDH) and the Ecuadorian Institute of Sanitary Works (IESD), aims to improve PHC management and upgrade PHC water supply, sanitation, and nutrition.

The institutional capabilities of Ecuadorian PHC planners and providers will be upgraded at the sub-provincial (area), provincial, and national levels. The National Health Council (NHC) will be helped to conduct up to 10 studies of key health concerns, evaluate the impact of low-cost health technologies, and organize or participate in PHC workshops and seminars. Three MDH area health chiefs will be trained for 3 months in Cali, Colombia to be PHC supervisors. Training will also be provided to area doctors, nurses, and midwives (30-35) and to 40 auxiliary nurses. Six MDH provincial chiefs and their staffs will be trained for 3-4 months in analysis, organization, evaluation, problem identification, and strategy development. At the national level, 8 MDH and university personnel will receive overseas training in health management and planning. In-country executive seminars will be held for 10 senior MDH officials.

To help IEDS test and implement water supply/sanitation (WS/S) projects, a national WS/S unit will be established; and a field level program including training, structural changes, equipment provision, and development of a maintenance capability will be undertaken. Field trials of new low-cost technologies will be financed, and provincial IEDS directorates strengthened. Support will be provided for baseline studies and surveys to be conducted by the Ecuadorian Food and Nutrition Project. Also, funds will be provided to enable the Secretariat to promote replication of WS/S technologies by producing handpumps, plastic faucets, water seal toilets, and a supply of disinfection devices.

The project will also implement PHC demonstration activities by training 35 campesino health promoters and 75 midwives, establishing 40 health sub-centers and several health centers, and initiating programs for diarrheal disease and goiter control, immunizations, and health education. To develop WS/S systems, the project will build 16 and upgrade 13 gravity flow water systems, develop 700 wells with handpumps, and install 5,600 pit latrines and campesino toilets. Finally, to improve nutrition, the project will fund trucks, training, and staff for the MDH Leche-Avena supplemental feeding program; establish 8 food outlets and 2 food storage centers; initiate a school feeding program; and develop local weaning foods. The IRD Secretariat will coordinate this component; USAID/E will provide equipment and commodity support.

(SOURCE: PD-AAJ-659)

**Descriptors:** /Instit building/ /Health delivery/ /Integ hth devl/ /Basic hth srvcs/ /Rural health/ /Ecuador/ /Wtr sup hth/ /Rural sanitn/ /Immuniztn/ /Partic training/ /Latrine constr/ /Health training/ /Supplement feed/ /Hth auxiliary/ /Hth cntr cnst/ /Hth promoter/ /Rur hth educ/ /Hth interagency/ /Food processing/ /Food storage/ /Midwife trng/ /Indigenous trng/ /Health plan pol/
Requestor Name and Title

Institution

Address

City and Country

Mail completed form to:

U.S. Agency for International Development
Center for Development Evaluation and Information
PPC/CDEI
Room 209, SA-18
Washington DC 20523

Please use this form to request copies of the following materials

- A.I.D. Research and Development Reports
- Development Information System (DIS) Description
- A.I.D. Development Information Program Brochure
- Presentation
- Development Thesaurus (DRAFT)
- Processing Guidelines, A.I.D. Document & Information Handling Facility
- Abstracting Guidelines
- Cataloging Guidelines
- System Documentation, please specify
- Forestry Bibliography
- Catalog for Research and Development
- Special Subject Search, please specify
Letter to AGRIS MINISIS Users

Distributed at the 5th Annual Meeting of the MINISIS Users' Group
Wageningen, the Netherlands, 25-28 October 1983

by

Ms. Helga Schmid
Agris Processing Unit (APU)
Vienna, Austria
Dear AGRIS MINISIS user,

Thank you for your interest in AGRIS under MINISIS. The magnetic tape you requested is sent to you under separate cover. It contains a sample AGRIS file in ISIS/ISO format, ASCII code. The file name is AGRIS.ISISIS.

The ISIS/ISO document structure reflects the experience accumulated in APU with the AGRIS database as implemented in the IAEA INIS/AGRIS DAP project using the information retrieval package STAIRS; in fact it is possible to print the document in the same format with ISIS and with STAIRS.

The conversion from the AGRIS internal format into the ISIS/ISO format is done using a table giving the correspondence between the AGRIS internal 4 character tags (i.e. level number plus input sheet tag) and the ISIS/ISO tags. This table together with some explanations is given in the Attachment.

If your experience with AGRIS/MINISIS is positive and you intend to use the tapes in this format in the future, please inform us and let us know the volume/issue number you would like to start with. Please do not forget to specify the highest tape density you can process.

In case you have some problems installing the test tape, please do not hesitate to contact us.

With best regards,

Yours sincerely,

I. Kurtev
APU VIENNA

Attachment
In the ISIS documents, the different tags of the AGRIS input sheet are no longer represented as separate fields. The individual fields represent the data grouped together in a way more convenient for the end user, rather than for the information specialist. For example, the imprint field contains the publisher, date and place of publication and collation information for the monographic literature, while the date of publication and the collation for a journal go into the journal field. Some encoded data like literary indicators, country codes, subject category codes, etc. are also available in decoded form.

Where possible, the data is recorded in a form suitable for creating inverted files using the standard ISIS inversion techniques. This includes the indexing terms, the author names, the subject category, object and geographic codes. Some data such as country code, volume/issue number, primary subject category code, are located in fixed places within particular fields. This will allow easier selection of records in case the user of the tape wants to create a sub-database of special documents.

The listed correspondence table gives more detail on the conversion done. The meaning and the contents of the columns of the table is explained below. The table is followed by some examples of ISIS documents.

1. (PC) Suggested ISIS name for a group of ISIS fields. When present, the conversion program creates an empty ISIS tag if some of the AGRIS tags following it in the correspondence table contain data to be converted. The empty tag is to be used later by the ISIS print program in a dummy print specification, so that more than one ISIS field can be printed under the same name.

2. (TAG) AGRIS__tag. Can be HEAD or four digit number. HEAD indicates the information to be transferred is part of the AGRIS record header. The first digit represents the consecutive number of the bibliographic level. (i.e. 1 for the first level, 2 for the second, 3 for the third level). The next three digits represent the tag number within that bibliographic level.

3. (BIB) Bibliographic__levels coming from the n-th level (first digit in the tag field). ALL means that the data element referenced by the AGRIS tag is converted for all combinations of bibliographic levels. A particular level combination indicates that the tag is to be converted only for documents with exactly the same bibliographic levels. Blank field indicates that the L field (see 4) of the table should be used.

4. (L) Level__name. The AGRIS tag to be used only for documents in which this level is in the position indicated by the first digit of the tag field of the table.

5. (IND) Indicator. If HEAD is specified in the tag field the indicator shows the part of the header record to be used. For example LIT stands for literary indicator. Otherwise it indicates the type of special processing to be performed. Especially <> causes the term in the tag to be put within <> so that A6 inversion is possible.
6. (*) Special processing indicator. The type of special processing is indicated by the IND field or it is built into the conversion program.

7. (DL) Displacement. It is used only for fixed length information supposed to be transferred into ISIS field 00.

8. (ISO) ISO tag number. Repeated ISO tag numbers in the table indicate that all the corresponding ISIS tags should go in the same ISO tag. No repeated ISO tags are present in the ISO record. The ISO tag number corresponds as much as possible to the STAIRS paragraph codes used in the INIS/AGRIS Direct Access Project (see AGRIS - 22).

The remaining fields of the correspondence table are not used by the conversion program. They are treated as comments and constitute suggestions for the later processing of the ISO tape.

9. (F#) Proposed ISIS field number.

10. (INVT) Possible ISIS inversion technique. XX indicates no inversion suggested for this field. MINISIS users should consult the CDS/ISIS manuals for the meaning of the different codes suggested here.

11. (FUNC) Recommended ISIS function. F stands for Search (find), T for Text, S for Sort and P for Printable field.

12. (CONTENTS) Comments on the field contents and the type of processing done.

Please note that the ISIS/ISO tape contains the descriptors in the different languages (English, French and Spanish) in separate fields. Each of these fields is made of two sentences, the first one is for the indexer assigned AGROVOC descriptors, the second one for the computer assigned descriptors.
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**AUTHORS**

| AU | 110 15 |

**MONOGRAPHIC SOURCE**

| MS | 150 30 |

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Toimetis – Eesti Agronoomide Selts Rootsis (Sweden).

ISSN 0280-946X. no. 3.

Bibliography p. 32–46.

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