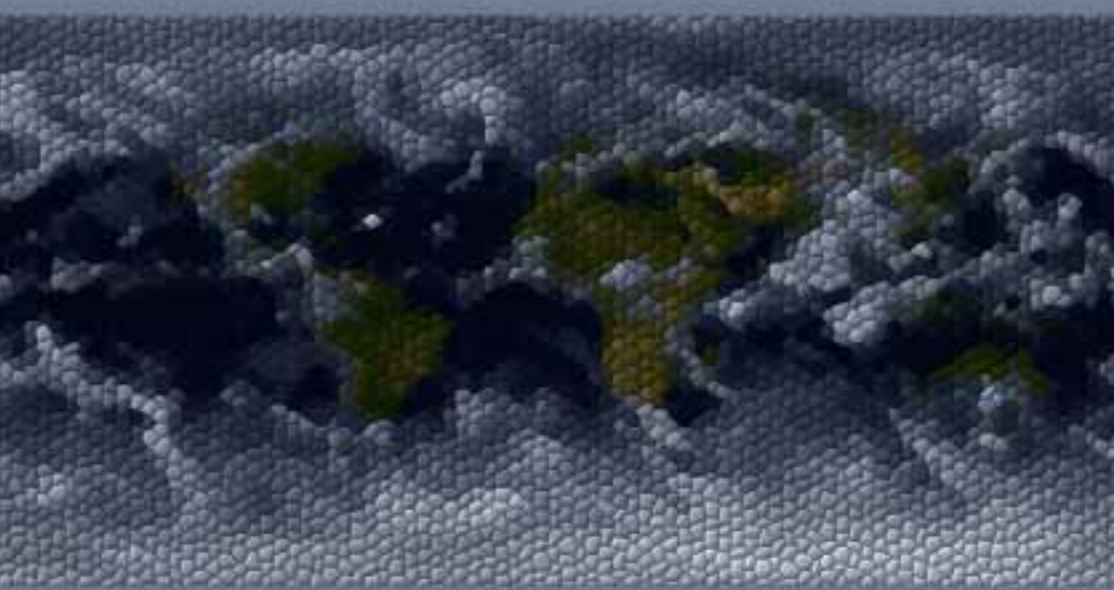


UNESCO

Information Processing Tools

Information Retrieval - Data mining - Statistical Analysis



CDS/ISIS

Greenstone

IDAMS



UNESCO and Software

In the digital age, software is essential for knowledge management and sharing. UNESCO has therefore accumulated significant experience in facilitating the development of some key software tools for processing information. These software tools are distributed free-of-charge and the objective is to empower the users by giving them access to some key technology for development and knowledge sharing, that most of them otherwise could not afford. The development model is based upon international cooperation and the software tools are continuously enriched, modified and updated with the co-operation of a community of experts from different countries. The most popular UNESCO software tools are CDS/ISIS, Greenstone and IDAMS.

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<http://www.unesco.org/inftools>

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Other websites:

UNESCO
<http://www.unesco.org>

Communication and information sector
<http://www.unesco.org/webworld>

Free Software Portal
http://www.unesco.org/webworld/portal_freesoft





Information Storage and Retrieval

CDS/ISIS is a generalized Information Storage and Retrieval system designed specifically for the computerized management of structured non-numerical databases.

The CDS/ISIS software family consists in a variety of applications and development tools that enable people to automate their information processing workflow. The main software is CDS/ISIS for Windows, which is supported by a set of extensions or applications designed for particular purposes.

CDS/ISIS is the result of an **international software development** effort and is supported worldwide through a network of more than 170 national and regional distributors.

With more than **20,000 registered users**, most of which are public institutions, CDS/ISIS software solutions are among the most popular database software in the world, especially in developing countries and countries in transition.

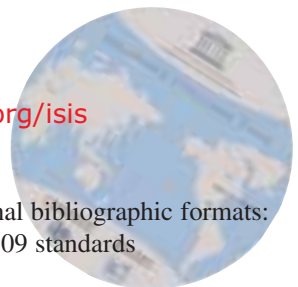
CDS/ISIS is available in **many languages** among which: English, French, Spanish (several local versions), Russian, Kazakh, Portuguese, Dutch, German, Polish, Italian, Vietnamese, Arabic, Slovak, ...

Many among the CDS/ISIS applications are available as Free or Open Source software.



<http://www.unesco.org/isis>

CDS/ISIS easily accommodates international bibliographic formats:
MARC, CCF and other ISO2709 standards



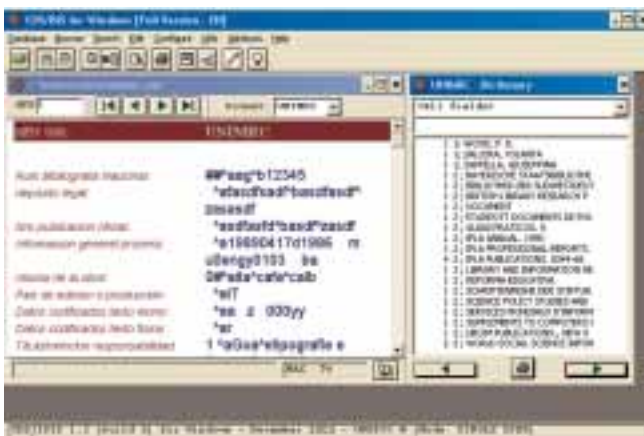
Creating and Managing Databases

This generic **CDS/ISIS software** (also called Winisis) allows you to define, create and manage a set of databases for storing and handling your information.

CDS/ISIS is a **textual** capable non-relational information storage and retrieval system. Its data structure allows storing information on fields which can have an "unlimited number" of occurrences (zero, one or more), an undefined length¹ and divided into subfields. These capabilities make CDS/ISIS well adapted to accommodate international information standards, such as MARC21, UniMARC etc. which are most widely used in libraries, documentation and information centres.

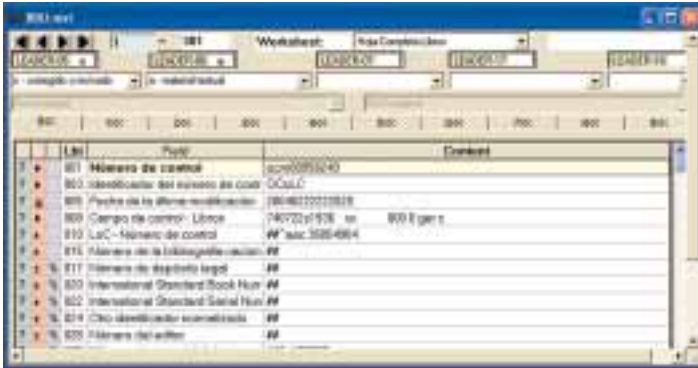


However, in every context where the information can be grouped into logical, (semi) structured records, CDS/ISIS provides the right approach: for example, directories of institutions, experts, projects, etc.

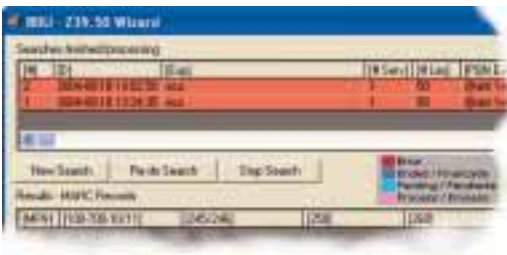


¹ Within the limits of the memory and the system capabilities, CDS/ISIS stores usually between 8 to 32Kb per record/field.

ISISMarc is a data entry interface for CDS/ISIS databases particularly adapted for handling MARC-like formats, namely MARC21, UNIMARC, etc. However it can be used with any other CDS/ISIS database very easily.



- Multi-user capable (LAN)
- Totally customizable multi-lingual worksheets
- Allows single subfield units data entry, each one with a complete description
- Handling of authority files as external databases
- Field or even subfield level user-help links
- Powerful record validation
- Cross-database copy/paste of records
- Supports multiple profiles
- Z39.50 search and import



Marc21Lite and Unimarc

ISISMarc features complete sets of both Marc21Lite and Unimarc databases in CDS/ISIS format, ready to be used for your applications.

Database publication

GENISIS an Open Source authoring software for visually producing web forms to query CDS/ISIS databases. There are two versions of the tool:

- **GenisisWeb**, for web publishing
- **GenisisCD** for CD-Rom publishing

GENISIS
GENISIS

Available interface **languages**:
English and French.

Additional language translations can be developed by users.

Genisis, helps in the following tasks:

- Building web query forms
field selection and index access, ...
- Displaying of query results;
- Displaying records' details;
- Customize the web page



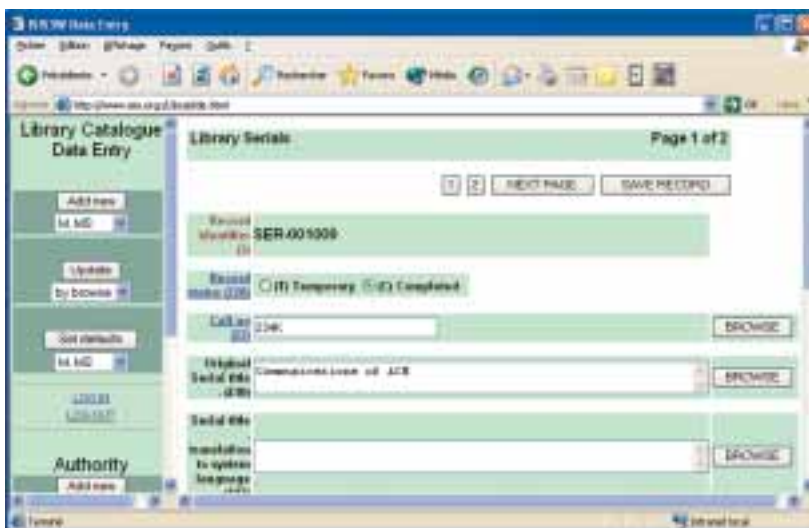
For publishing, Genisis exports the generated application to a real internet/intranet server (Windows, Unix, Linux) or prepare the structure of your CD-Rom for the copy.

Library tools

WEBLIS

Responding to a large demand from national and local libraries for help in approaching and using library automation tools, WEBLIS is a **Web based Library Integrated System** based on CDS/ISIS.

WEBLIS runs on the WWW-ISIS engine, also developed by ICIE.



WEBLIS consists of the following modules:

- **Cataloguing** system (books, papers from books, papers from journals, journals, miscellaneous -slides, photos, audio, video, etc)
- **OPAC** -on-line public access catalogue- (basic and advanced search, history, saving queries function, and ISIS Query language facilities, thesaurus based search)
- **LOAN** module (hold/reserve, loan/ renew, automatic claiming by e-mail or a traditional mail in word form, urgent task lists)

IsisAscii allows importing ASCII delimited files into CDS/ISIS databases. Most office software is capable of generating ASCII delimited files (MS Excel, MS Access, OpenOffice, MySQL, etc). IsisAscii makes it easier.



IsisAscii can be customized for handling most ASCII formats through a series of powerful parameters.

XML2ISIS allows data mapping and importing of XML formatted data into CDS/ISIS databases.

IsisSWK is a set of tools for the control of CDS-ISIS databases quality and their maintenance.

ISIS_DLL is a fully fledged set of functions for integrating CDS/ISIS capabilities in your own applications. Many tools, from WEBLIS to IsisMarc, have been developed with the DLL (BIREME-UNESCO)

JAVASIS is a multilingual TCP/IP client-server suite for CDS/ISIS databases.

1. The JAVASIS Client interface is a Java application running on every platform for which a Java Virtual Machine is available: Windows, Linux, Macintosh, Sun Solaris, HP-UX and IBM-AIX.
2. The JAVASIS Server is also a Java application but relying on BIREME's WWWISIS 3.x, a web engine for CDS/ISIS. The Server is available for Windows, Sun Solaris, Linux, HP-UX and IBM-AIX operating systems.

Many other tools developed by Third Parties can be found on the Web.

Data Analysis and Management

**Data
Management?**

**Data
Validation?**

**Data Mining,
Analysis and
Presentation?**

IDAMS is a software package for the validation, manipulation and statistical analysis of data. It is organized as a collection of data management and analysis facilities accessible through a user interface and a common control language.

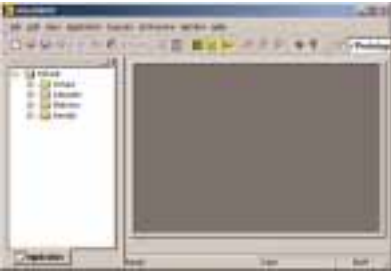
It has been and is continuously enriched, modified and updated by the UNESCO Secretariat with the **co-operation of experts and institutions from several regions** of the world.

This software is international: it is available in **English, French and Spanish**, and **soon in Arabic and Russian**. Other national language versions can easily be produced.



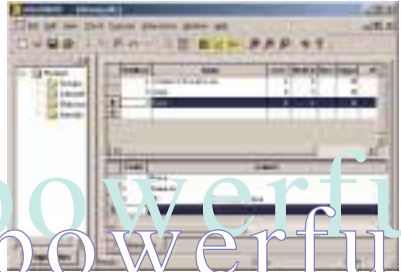
WinIDAMS counts already **over 9,000 registered users** (institutions/individuals) **in 180** countries all over the world.

<http://www.unesco.org/idams>



- Modern user interface and **on-line Manual**
- Possibility to customize the environment for an application

- **Editor** for creating/updating data description files



powerful
powerful

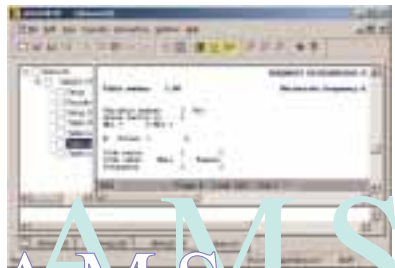


- Editor for creating/updating data files
- Interactive data import/export

- **Editor** for creating/updating files with instructions for program execution



- Viewer for displaying and quick **navigation** through results
- **Advanced** text editing facilities



WinIDAMS

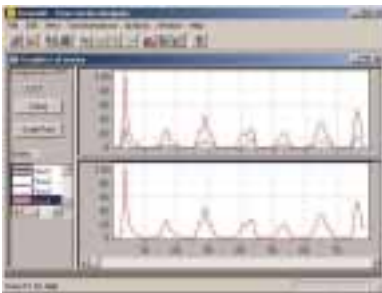
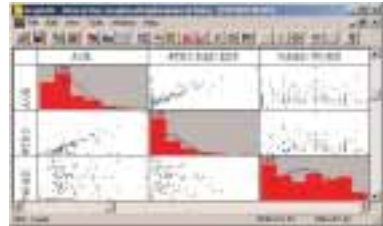
➤ **Data analysis:** univariate and bivariate tables and statistics, distribution and Lorenz functions, one-way analysis of variance, Pearsonian correlation, linear regression, multiple classification analysis, discriminant analysis, cluster analysis, principal component factor analysis and analysis of correspondences, partial order scoring, rank ordering of alternatives, segmentation, iterative typology, multidimensional scaling and configuration analysis



- Interactive construction of **multidimensional tables**

features...

- Interactive **exploration of data** through graphical visualization



- Interactive **time series analysis**

- **Data management:** sorting and merging files, data import/export, data editing, checking of codes and consistencies, correcting, listing, subsetting, aggregating and merging data
- **Powerful Recode facility** allowing construction of new variables using wide variety of arithmetic, relational and logical operators as well as numerous arithmetic and logical functions

Information Processing

Powerful software package for

- **information processing**
- **data mining**
- **statistical analysis**

In IDAMS you find a full set of data management functions, including a powerful language for data transformation, as well as a wide range of classical and advanced statistical techniques.

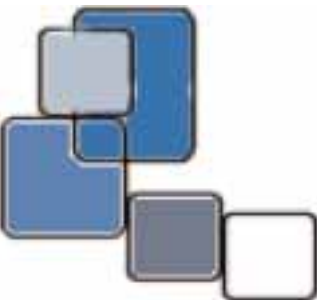
Do you need training? *International, national and specialized courses* are organized by various institutions and by distributors. *Highly qualified teachers* are available in many regions. In addition to traditional training, computerized tutorials and virtual courses will be available soon.

Access to IDAMS? *It is free! IDAMS is distributed free-of-charge by the UNESCO Secretariat, and it can also be obtained from officially nominated distributors.*

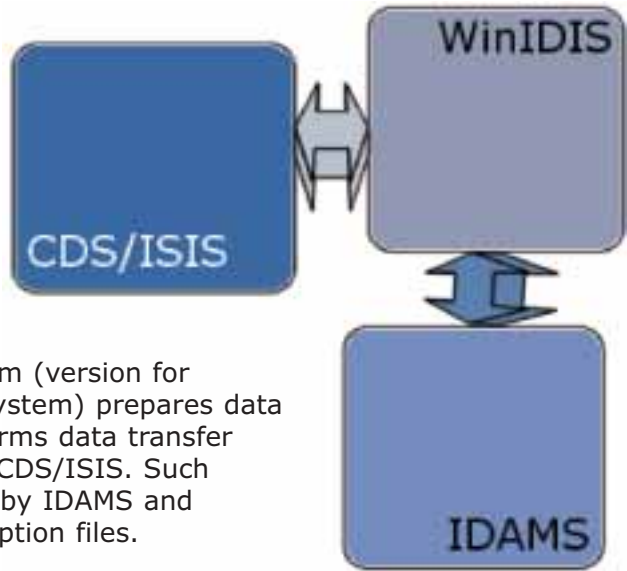


Modest resource requirements! Though the package is of high performance, the *system resources required by IDAMS are very modest*. It is executable under Windows 95, 98, NT 4.0, 2000 and XP. It requires 64 megabytes RAM and about 11 megabytes of disk space.

Subscribe for the future! Our main governing principle is to continuously *widen the analysis capability*, and to give the user an *increasingly efficient and friendly guidance* through the data management and analysis process.



Exchanging data between CDS/ISIS and IDAMS



The **WinIDIS** program (version for Windows operating system) prepares data description and performs data transfer between IDAMS and CDS/ISIS. Such transfer is controlled by IDAMS and CDS/ISIS data description files.



When going from ISIS to IDAMS, a new IDAMS Dictionary and Data files are always constructed and they can be merged with other data using IDAMS data management facilities.

When going from IDAMS to ISIS, there are three possibilities:
(1) a completely new database can be constructed,
(2) transferred records can be added to an existing database as new database records,
(3) records of an existing database can be updated with the transferred data.



Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato, and developed and distributed in cooperation with UNESCO and the Human Info NGO. It is **open-source**, multilingual software, issued under the terms of the GNU General Public License.



The aim of the Greenstone software is to empower users, particularly in universities, libraries, and other public service institutions, to build their own digital libraries. Digital libraries are radically reforming how

information is disseminated and acquired in UNESCO's partner communities and institutions in the fields of education, science and culture around the world, and particularly in developing countries. The hope is that this software will encourage the effective deployment of digital libraries to share information and place it in the **public domain**.

<http://www.greenstone.org>



Support

Consult the CDS/ISIS, IDAMS and Greenstone websites, for:

- software download
- documentation
- frequently asked questions
- news



[...] It is UNESCO's mission to promote the free flow of information, knowledge and data, to encourage the creation of diversified contents and to facilitate equitable access to information and to the means of sharing knowledge [...]



[...] formation of a world network of developers and users of digital and documentary information management and processing tools; [...]

[...] Promoting access to information and means of communication [...]