JAVAISIS

Reference Manual

(Version 3.0)

UNESCO © April 2000

Credits and history

JAVAISIS is a multithreading client-server Java application to manage CDS/ISIS databases through an Internet/Intranet connection by means of BIREME's WWWISIS package. The project started in 1997.

The first release, completed in March 1998, was distributed by DBA (Florence, Italy). It included a C++ Server, written by my brother, Alessandro, and a Java Client to get a multiplatform WinISIS-like interface. However, this release only supported browsing, searching and the dictionary (inverted file) display.

The second release shipped in the beginning of April 1999 and was distributed by myself. The Java Server became multithread and multiplatform while the Java Client was added the support for Import and Export of ISO2709 files and hypertextual formats. For the first time, thanks to a more portable Java coding, it was possible to manage CDS/ISIS database on a Macintosh system.

A simple Web site was established to distribute release 2: more than 200 users downloaded both the JAVAISIS Client and Server from all around the world.

The third release, distributed and supported by UNESCO, is the one you are looking at.

The major improvements include a complete multiuser data-entry module with a nice record lock-timeout feature and a simple worksheet format: JAVAISIS now allows to update databases via a remote connection.

My software is fully open source: this means that you are free to modify and redistribute it according to the GPL, GNU General Public License. If you wish so, you can submit your changes and/or additions to UNESCO for including them into the standard JAVAISIS package.

I hope that my work will help you to get the results you want improving the way you work. Please feel free to use e-mail or the JAVAISIS forum to contact me in case you need some help.

Last but not least… I want to thank my brother, Alessandro Enea, who made JAVAISIS possible.

Renato Enea

Programmer: Renato Enea, Italy

CDS/ISIS Information Retrieval System, JAVAISIS - **UNESCO**

http://www.unesco.org/webworld/isis - Contact: Davide Storti

WWWISIS, CISIS - **BIREME** (Brasil)

http://www.bireme.br

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JAVAISIS

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1. Package overview

A. The JAVAISIS package

JAVAISIS is a multilingual TCP/IP client-server suite for CDS/ISIS data bases. In other words, it allows to access and manage remote data bases on several platforms (Windows, Linux/Unix, Macintosh). CDS/ISIS is a non-numerical information storage and retrieval software developed by UNESCO. You can find more information at:

http://www.unesco.org/webworld/isis

The JAVAISIS package consists of two distinct software:

1. JAVAISIS Server: allows to share CDS/ISIS data bases through a TCP/IP network (Internet, Intranet o Extranet);
2. JAVAISIS Client: the interface to access the data bases shared through the Server. It provides management facilities such as browsing and searching.

For further information and the most recent updates, you can consult the JAVAISIS official web page at:

http://www.unesco.org/webworld/isis/javaisis.htm

or the mirror site:

http://web.tiscalinet.it/javaisis

In order to use the JAVAISIS client, you should know about a JAVAISIS server to connect to or share your own data bases. This manual will first examine the client's features and how to connect a shared CDS/ISIS data base and then how to set up the server to share yours.

B. System functions

The major functions provided by JAVAISIS allow you to:

- Share data bases through a TCP/IP network
- Retrieve records by their content, through the sophisticated CDS/ISIS search language;
- Display the records or portions thereof according to your requirements;
- Create and modify records in a given data base;
- Import and export records using the ISO2709 format.

C. Data base structure

The JAVAISIS client and server access standard CDS/ISIS data bases. JAVAISIS Server is based on Bireme's WWWISIS software:

http://www.bireme.br/wwwisis1.htm

Please refer to the WWWISIS Reference Manual to know about specific issues on a given platform. For example, under Microsoft Windows you can use CDS/ISIS data bases without any conversion, while under Linux an export-import process will be necessary. The import tool comes with the standard WWWISIS release.

The CDS/ISIS for Windows Reference Manual contains more details on the structure of a CDS/ISIS data base (Chapter 1 - System overview: Data base structure).

D. System architecture

The JAVAISIS Client user interface reproduces as close as possible the graphical interface of CDS/ISIS, including its menu system which allows to access the various services. In order to manage your ***remote*** data bases you must also learn a number of ***techniques*** which are specific to CDS/ISIS technology, such as the search language (if you are a user) or the formatting language (if you are a provider). Techniques are in turn implemented by using the proper ***tools*** provided by JAVAISIS. For example, if you want to carry out a search in a data base, you must first select the appropriate menu option and formulate a search expression following the rules of the CDS/ISIS search language.

1. Menus

You select the operations to be performed by choosing the relevant command from ***menus*** that the system displays on the screen. A command is an instruction that tells JAVAISIS to perform a certain operation. A menu is a list of commands from which you will make your choice. Menus are displayed in the menu bar at the top of the JAVAISIS main window and at the top of every Database window, just below the title bar. To select a command, first click on the appropriate menu with the left mouse button (this will display the commands available on the selected menu). Then point to the desired command and click the left mouse button.

Note that the various menus may in actual fact be different from the ones displayed in this manual, as each user may change the layout of menus, as well as the corresponding command descriptions. When a menu is displayed, some commands may appear dimmed (i.e. displayed in a light gray color). These commands may not be selected, as they are not operational in that particular context.

Below is an example of the Database menu:

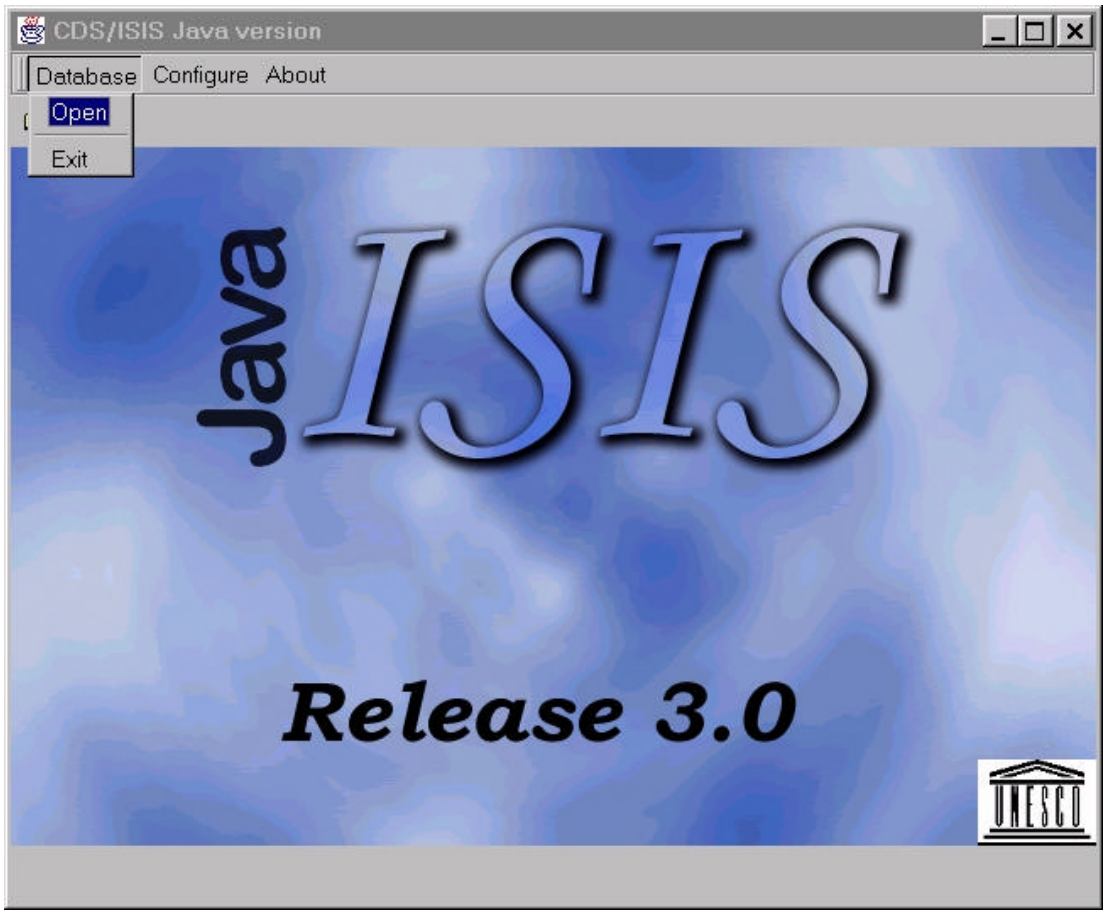


Figure 1 : The main JAVAISIS menu

All JAVAISIS menu options are described in detail in Section 3.

2. Multilingual dialogue

JAVAISIS is fully interactive and multilingual. The latter facility is particularly interesting as it allows you to select the language in which the system menus and messages will be displayed.

Each time it starts JAVAISIS displays the menus in the default language selected by your data base manager when the system was installed on your machine. You may change the dialog language at any time, by executing the ***Change Language*** command in the **Configure** menu. This will display the list of available languages. To select a language click on the desired one with the left mouse button. From that point onwards all menus, system messages and prompts will be in the language you have chosen.

You can decide to set the current language as default language executing the *Save Configuration* in the **Configure** menu.

3. Dialog boxes

In some cases JAVAISIS needs additional information before it can execute a command. You provide this information by selecting options in a special type of window called a *dialog box*. For example, the Export dialog box is shown below:

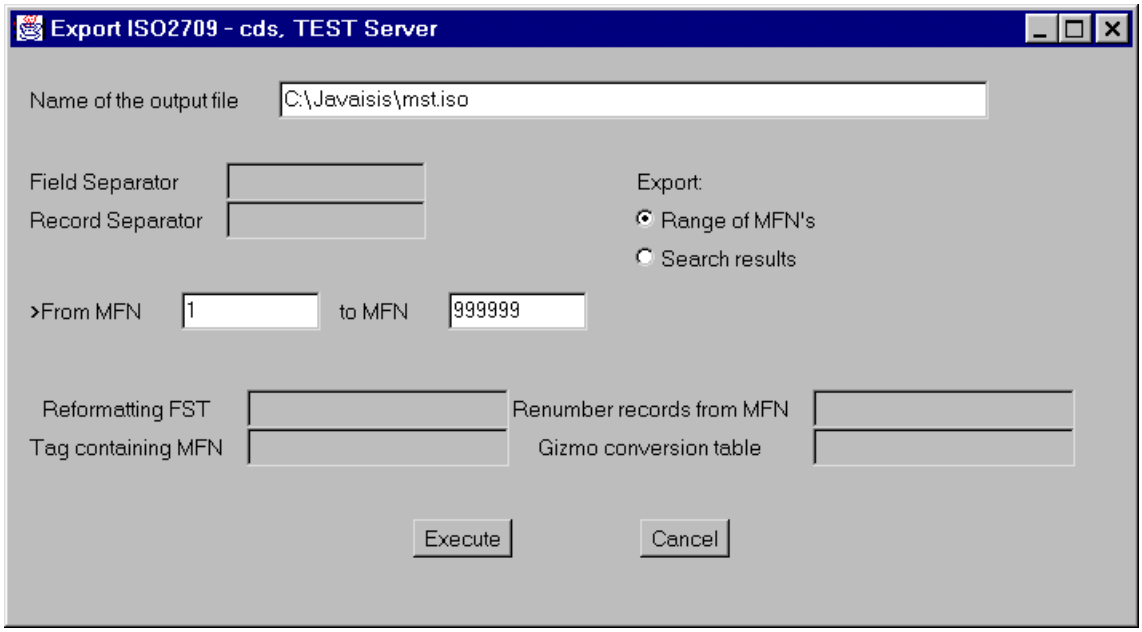


Figure 2 : Sample JAVAISIS Dialog Box

All JAVAISIS Dialog Boxes are described in detail in Section 4.

4. Windows

JAVAISIS uses different types of **windows** which are designed for a specific purpose. For example, to display a record of a data base it will use the **data base window** (see the sample below), to carry out a search the **search window**, or to enter data in a record the **data entry window**. These are automatically put on the screen as soon as you select the corresponding menu command. All JAVAISIS Windows are described in detail in Section 3.

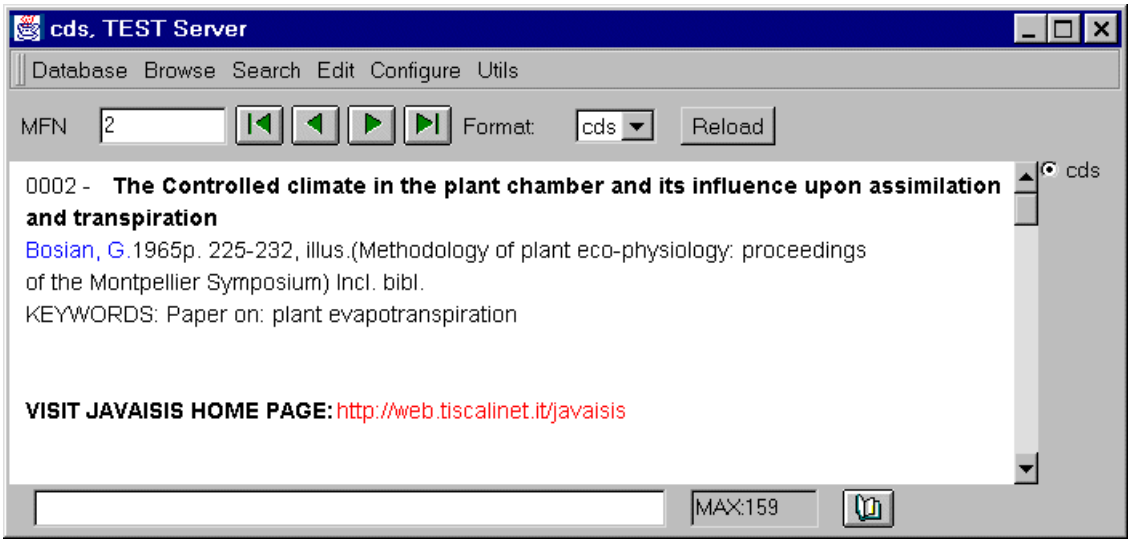


Figure 3 : Sample Data base window

2. JAVAISIS Client installation

A. Hardware and software requirements

The minimum and recommended hardware requirements for running JAVAISIS on Windows systems are the following:

CPU:	Pentium at 100Mhz or higher recommended
RAM:	16Mb or more recommended
HARD DISK:	with at least 4Mb free
VIDEO:	VGA 640x480 TRUE color (super VGA 800x600 or higher recommended)

Windows 95 or higher

JAVAISIS doesn't run under Windows 3.1, it runs under Windows 95, Windows 98, Windows NT and Windows 2000 without specific known problems.

If the Java Virtual Machine (JVIEW.EXE) is not installed in your **Windows** system, or if you have problems to run JAVAISIS please read carefully our Web site http://web.tiscalinet.it/javaisis or write us at: javaisis@tiscalinet.it

For any **Unix** systems, download and install the Java Development Kit or the Java Runtime Environment for your platform and look for the requirements; see on URL http://www.javasoft.com

For **Macintosh** systems you have to use a porting of the Java Development Kit or of the Java Runtime Environment. We have tested the Client with MRJ System Development Kit 2.0.1 Early Access 2 that is an implementation of JDK 1.1.3.

B. Installing JAVAISIS Client on your computer

JAVAISIS Client is distributed as a compressed file, one for each supported platform:

1. **javaisis.zip** for Windows platforms;
2. **javaisis.tar.gz** for Unix platforms;
3. **javaisis.sea.hqx** for Macintosh platforms.

You may expand any of the above files in any position of your hard disk or your file system.

A **javaisis** directory will be created and all the necessary files will be copied inside.

The compressed file can be deleted as soon as the extraction process is concluded.

C. System Parameter files

1. SERVER.INF: JAVAISIS list of servers

The file **SERVER.INF** contains the list of available JAVAISIS servers. Note that each server can contain more than one shared data base. During the installation process, a default **SERVER.INF** file is created. This file is read only once each time the JAVAISIS Client starts.

SERVER.INF is a standard ASCII text file which may be edited with any text editor such as **Notepad**. Each parameter starts on a new line and must comply the following format:

hostname:port:label

where:

hostname	is the name of the remote JAVAISIS server (or its IP address);
port	is the TCP/IP port number used by that particular JAVAISIS server;
label	is a user friendly name of the server that appears when you open the data base servers list from the "Database" menu.

You can insert as many lines as the JAVAISIS servers you know.

2. LANGUAGES.TXT: Multilingual menu and messages

In the Windows version of CDS/ISIS both menus and system messages are stored in CDS/ISIS data bases, by default located in special system directories **\winisis\menu** and **\winisis\msg**. The JAVAISIS Client system file **LANGUAGES.TXT** contains both menus and system messages, in all available languages. It may be edited with any text editor such as **Notepad** in order to change the default description or to create a new language version, as will be explained later in chapter 7. "Creating a new language version".

The general format of the LANGUAGES.TXT file is:

[***Language 1 label]***

Menus and Messages of Language 1

[***Language 2 label]***

Menus and Messages of Language 2

You can add comments anywhere using the ; (***semicolon***) character at the beginning of the line.

Example:

; This is a comment to the languages.txt file

In order to set the default language select the “Save Configuration” command from the **Configure** menu.

3. DEFLAN.TXT: Default Language

This file stores the default language and its automatically maintained by JAVAISIS Client.

YOU DON’T HAVE TO MODIFY IT !!

3. JAVAISIS Menus

A. The Main Window

This window is displayed each time JAVAISIS is started.

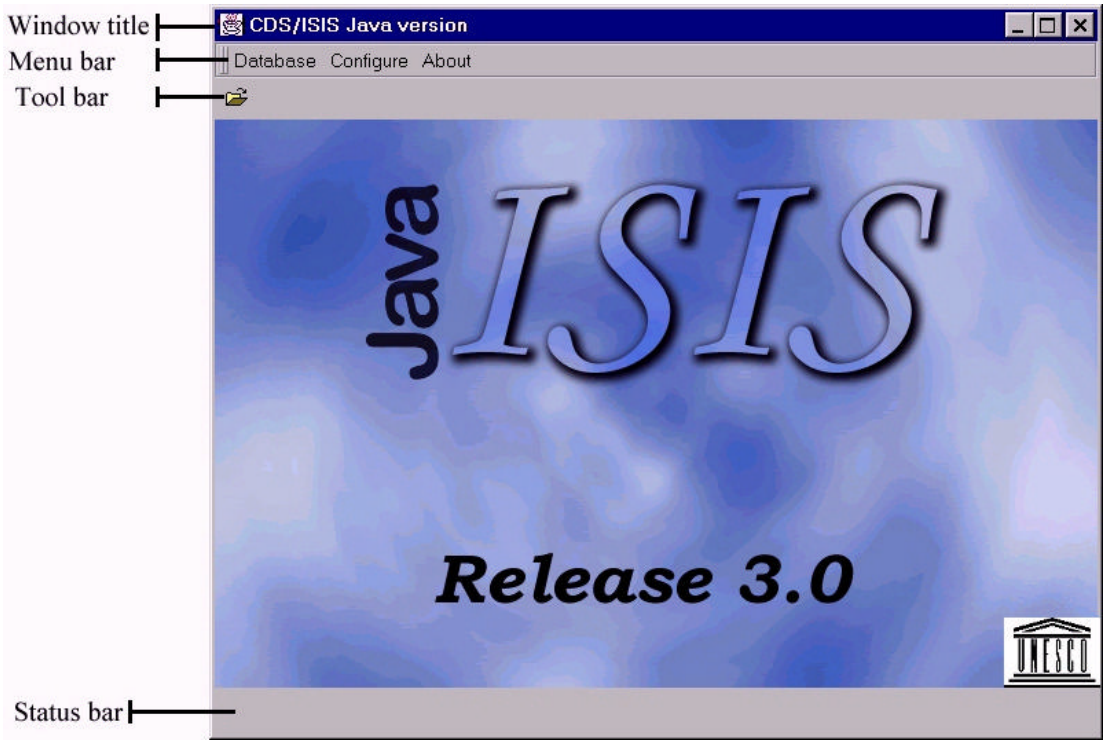


Figure 4 : Main Window

The main components of this window are:

- the **window title bar**, at the top of the window;
- the **menu bar**, which provides access to all the JAVAISIS functions (some of these functions may also be activated by clicking on the various buttons of the tool bar);
- the **tool bar**, located just under the menu, which provides a quick mouse access to the most frequently used functions of JAVAISIS. This version just includes one button to open a data base server;
- the **status bar**, at the bottom of the window, which is normally used to display help messages (for instance, network error messages).

The following sections describe each menu in detail.

1. Database menu

This menu contains the following commands:

Figure 5 : Database Menu

i. Open

Here there is a fundamental difference between JAVAISIS and CDS/ISIS for Windows: in JAVAISIS before opening a data base, you must open a connection with a JAVAISIS server. Once the connection is successfully activated, the server's default database will show its first record in a new window.

You open a new connection by choosing the "***Open***" option from the "***Database***" menu or by clicking the open data base button on the toolbar:

Then, JAVAISIS will display the **List of available servers** dialog box. One click will be enough to start the connection. Note that connecting a remote server could take a while and that the attempt could fail. During the connection, you will loose the control of JAVAISIS Client. If the connection fails, you will receive a "***Network error***" message in the status bar and JAVAISIS will be re-activated.

After a successful opening of a connection, the a new **data base window** is displayed to the user and the default database is shown.

You can open several connection to the same JAVAISIS server in order to see several data bases in different **windows**.

ii. Exit

This command terminates the operations and close JAVAISIS. All data base windows will be closed.

2. Configure menu

This menu contains the following commands:

Figure 6 : Configure Menu

i. Change Language

This command allows you to change the language in which menus, windows, prompts and system messages will be displayed. Initially JAVAISIS will start in the language selected as default in the **deflan.txt** file. When you select this command a list of available languages is displayed from which you may select the one desired. You can change the order by which the languages are listed changing the order of the language labels, menus and messages in the **languages.txt** file. Once selected, a language remains in effect until you change it again. Note, however, that any window opened before you change the dialogue language, will remain in the language it was when it was initially opened.

ii. Save Configuration

This command allows to save the current language in use as default language.

iii. View Configuration

This command is disabled in this version.

3. About menu

This menu allows you to display the JAVAISIS Copyright notice, credits and version number.

B. The Database Window

The data base window, a sample of which is shown below, is displayed when you open a connection to a JAVAISIS server. It displays the current record according to the currently selected display format. The contents of this window may be modified by selecting applicable commands in the **Browse menu**.

The **window title** shows the data base actually selected and the friendly **name** of the JAVAISIS server to which you are connected.

On the right side of the window one or more radio buttons represents the list of the data bases available on the current server; clicking one of them will automatically close the current data base and open that one.

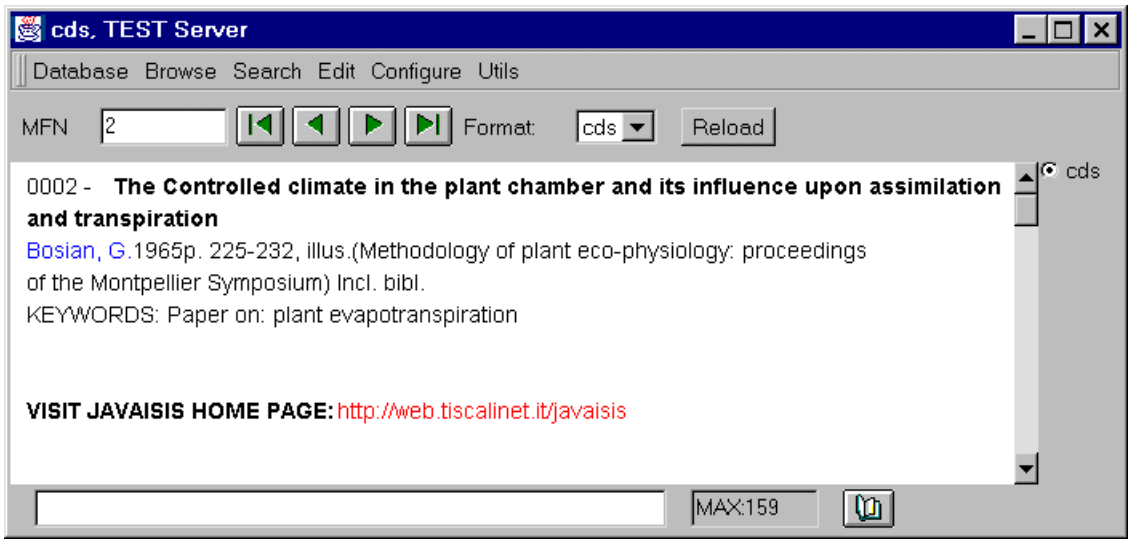


Figure 7 : Data base window

i. Window's controls

The data base window toolbar contains the following items:

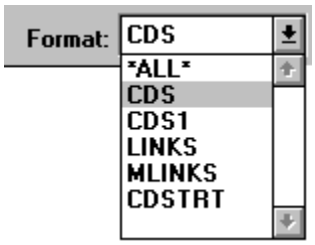
This field contains the current MFN number. Clicking on this field allows you to display a particular record by typing the desired MFN number and then pressing the Enter key.

Displays the first record. If you are displaying a search result the first record matching the search expression is displayed. If you are browsing the data base sequentially, the first data base record is displayed.

Displays the previous record. If you are displaying a search result the previous record (if any) matching the search expression is displayed.

Displays the next record. If you are displaying a search result the next record (if any) matching the search expression is displayed.

Displays the last record. If you are displaying a search result, the last record matching the search expression is displayed. If you are browsing the data base sequentially, the last data base record is displayed.



This field shows which format is currently in use. You can change the display format by first clicking on the field, which will pull down the list of display formats available, and then selecting a new display format. (The list of display formats is read from the Field Definition Table of the data base).

Ask JAVAISIS to refresh the content of the window (i.e. re-read the current record).

The status bar, at the bottom of the window, contains the following two fields:

Record Status: this field displays the status of the current record. The status is not displayed when the record is in a normal state, otherwise it indicates that the record has been deleted. When displaying search results, a phrase similar to the following is displayed:

Record 1/10

which means that you are watching the first of the 10 records found by the search expression you have submitted.

Maximum MFN: displays the maximum master file number in the current database.

ii. Other controls

Watching attentively to figure 10, you can see two colored phrases:

- the BLUE phrase (Bosian, G.) represents a **search link**: clicking any of the words will automatically perform a new search of that term and display the results in a new window;
- the RED phrase (http://web.tiscalinet.it/javaisis) is a **program link**: click on it to execute you can execute an external program, the Netscape browser in the sample.

These links are embedded in the display format and can enabled or disabled only from the Server using the JAVAISIS Formatting Language, described in detail in Section 6.

2. Database menu

This menu contains the following commands:

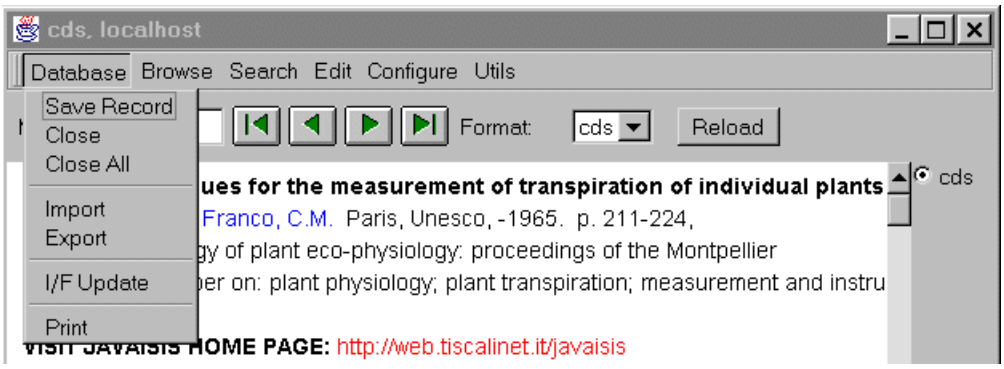


Figure 8 : Database Menu

i. Save record

You may save the current record in an ASCII file.

If the Database window is displaying a search result, this option will save in the ASCII file all the records of the search.

ii. Close

This command closes the current data base. All associated windows, such as the search window, will also be automatically closed.

iii. Close all

This command closes all the currently open data bases.

iv. Import

This command allows you to import data from external files recorded according to the ISO-2709 standard format for information interchange. When you select this command JAVAISIS will first display an **Open Dialog Box**, where you select the file to be imported, and then the **Import Dialog Box** which contains the various parameters you must also supply.

This command may be not available is the JAVAISIS server manager has disable it in the server configuration (see *Server parameter files*).

v. Export

This command allows you to extract a data base or a portion thereof normally for transmitting it to other users. You may also use this command to perform some reformatting of the records of a data base and then use the import function to store the reformatted data into the original or a different data base. When you select this command JAVAISIS will first display an **Open Dialog Box**, where you select the output file, and then the **Export Dialog Box** which contains the various parameters you must also

supply.

vi. I/F Update

This command execute on the Server a complete Inverted File full generation. At the moment you cannon choice between update and full inverted, and any message will appear when the generation will be finished.

This command may be not available if the JAVAISIS server manager has disabled it in the server configuration (see *Server parameter files*).

vii. Print

This command is not available in this version.

3. Browse menu

This menu contains the commands shown below, which affect the contents of the **data base window** and the **data entry window**.

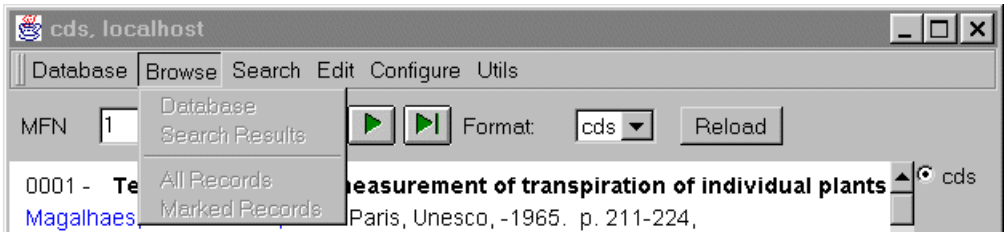


Figure 9 : Browse Menu

i. Data base

Sets the data base in *browse mode*. In this mode the whole data base may be browsed or edited independently from any search performed.

ii. Search results

Sets the data base in *display search mode*. In this mode only the records retrieved by the selected search are displayed. When you choose this command, JAVAISIS displays the list of searches performed so far, from which you may select the one desired.

You may also use this command to simply view the list of searches submitted so far.

iii. All records

This command is not available in this version.

iv. Marked records

This command is not available in this version.

Selecting commands from this menu will modify the behavior of the navigation buttons in

the **data base window** and the **data entry window** as follows:

Data base	First data base record	Previous record	Next record	Last data base record
Search results **All records**	First record retrieved	Previous record retrieved	Next record retrieved	Last record retrieved
Marked records	First record marked	Previous record marked	Next record marked	Last record marked

4. Search menu

This menu contains the following commands:

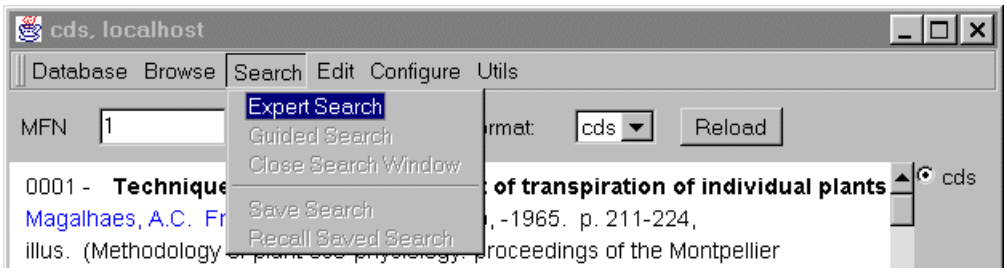


Figure 10 : Search Menu

i. Expert search

This command opens the standard **search window**, which allows you to search the data base.

ii. Guided Search

This command is not available in this version.

iii. Close Search Window

This command closes the search window, if any, and activates the **data base window**.

iv. Save search

This command is not available in this version.

v. Recall saved search

This command is not available in this version.

5. Edit menu

This menu contains the following commands:

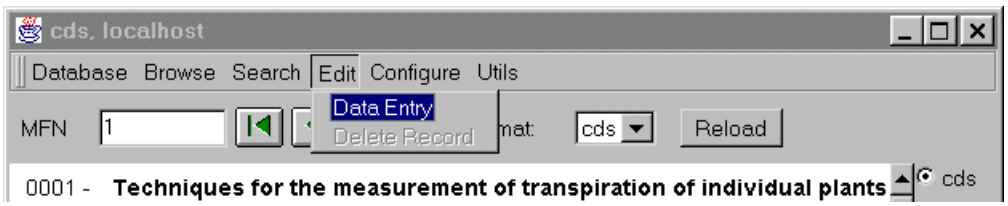


Figure 11 : Edit Menu

i. Data entry

This command opens the **data entry window**, which allows you to modify data base records. This command may be not available if the JAVAISIS server manager has disabled it in the server configuration (see *Server parameter files*).

ii. Delete record

This command is not available in this version.

6. Configure menu

This menu has the same behavior as the Configure option already presented in the "Main window" paragraph.

7. Utils menu

This menu is not available in this version.

C. The Expert Search Window

This window is displayed by selecting the ***Expert Search*** command in the **Search menu**.

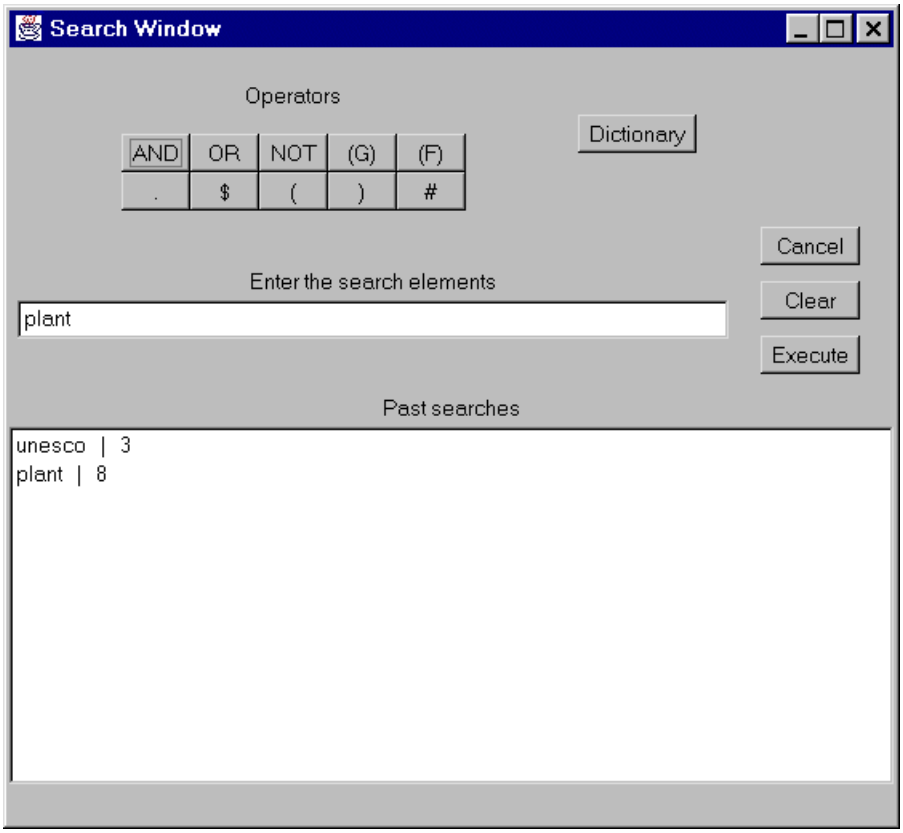


Figure 12 : Expert search window

i. Operators

Pushing any of these buttons will insert the corresponding operator in the *Search expression* box.

ii. Enter the search elements

This edit box contains the current search expression. Experienced users may type the search expression directly in this box (*see* the section "The CDS/ISIS Search Language" on p. 95 of the *CDS/ISIS Reference Manual - ver. 1.31*). The maximum number of characters you may type into this box is 50.

The following buttons operate on this box:

DICTIONARY displays the **Dictionary window**.

EXECUTE pressing this button executes the search expression

CLEAR pressing this button erases the search expression

CANCEL pressing this button returns to the **data base window**

iii. Past searches

This box contains the list of the search expressions which have been executed so far. For each expression it gives after the | char the number of hits. A new element is added to this list each time a search expression is executed.

Double clicking on an element of this list will display the corresponding results in the **Data base window**.

A single click and pressing the Enter key will normally insert the element in the ***Search expression*** box. However if the selected element corresponds to a search done on a different data base the search expression itself is copied.

D. The Dictionary Window

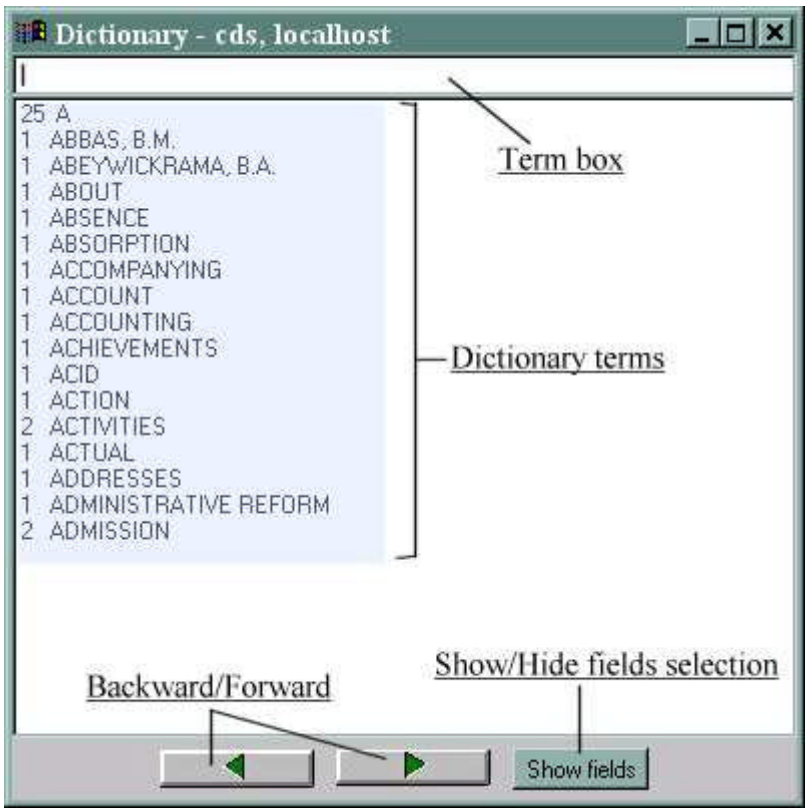


Figure 13. The Dictionary window

This window displays the dictionary of search terms. It is displayed whenever you press the Dictionary button on the **Expert Search** window or the **Data base** window.

i. Show fields

This button shows or hides the **Searchable fields list box**. The list box allows you to select the field to be searched when you are in expert search mode. Selecting a field will automatically append the corresponding **term qualifier** to search terms selected from the dictionary. Selecting **All fields** will search in every field.

When a field is selected, the Dictionary window is modified and the full dictionary is displayed but terms in other fields are displayed as "---" and are not selectable.

Note: the list box requires a very high exchange of data between the client and the server which slows down the response time. It is therefore recommended to use this option only if really necessary.

ii. Term box

Typing one or more characters in the ***Term*** box will position the dictionary window accordingly (e.g. typing F will show the dictionary terms starting with F).

iii. Dictionary terms

With one click on a Dictionary term and pressing the Enter key will select it and the term will be inserted at the current cursor position in the ***Search expression*** box.

Double clicking on a Dictionary term will execute the search of it. Use the method you find most convenient.

iv. Page forward and backward buttons

These buttons will page forward and backward. Note, however, that backward paging will go no further than the term from which a forward paging was started. To move to different parts of the dictionary use the **Term** box.

E. The Data Entry Window

This window is available only if your connection has enough rights of access: rights are established by the server manager. If the "Data Entry" command of the "Edit" menu is not grayed you may update the current database. However some JAVAISIS Servers may require you to enter a password before being able to access the Data Entry window.

Here is how the Data Entry window looks like:

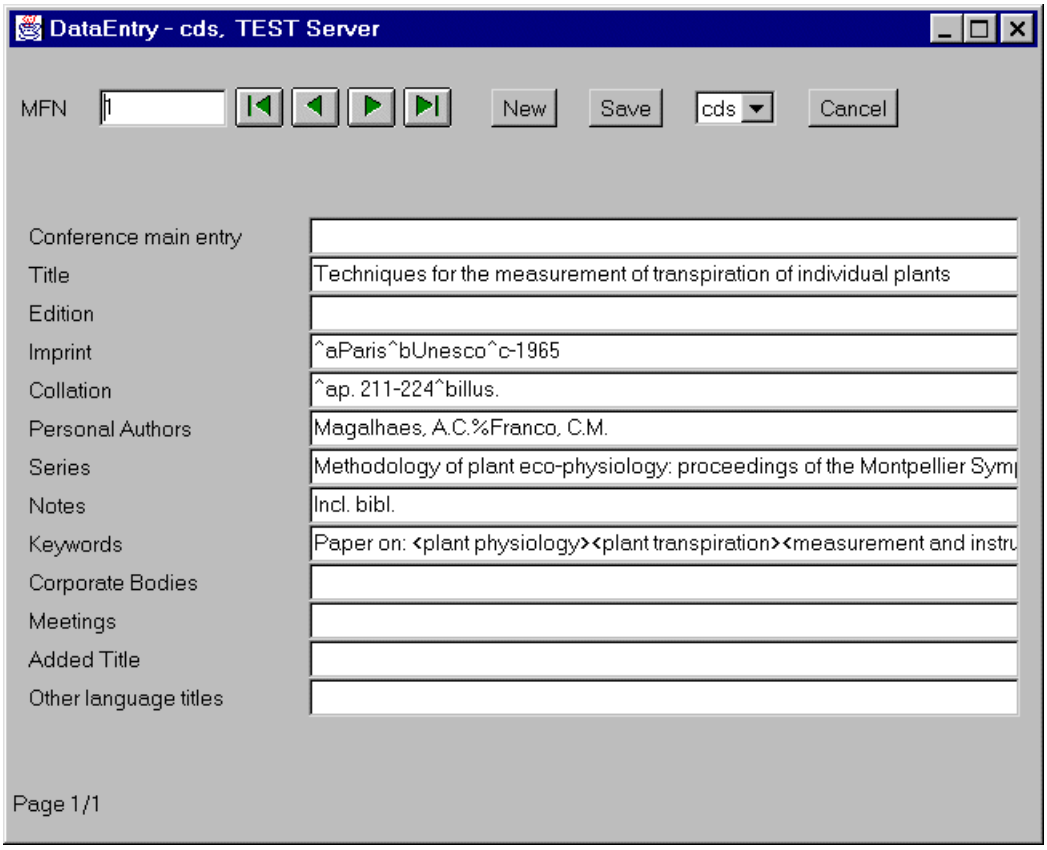


Figure 14 : The Data entry window

The data entry window toolbar contains the following items:

This field contains the current MFN number. Clicking on this field allows you to modify a particular record by typing the desired MFN number and then pressing the Enter key.

Displays and modify the first record.

Displays and modify the previous record.

Displays and modify the next record.

Displays and modify the last record.

Displays a new blank form to insert a new record.

Save the record. But don't close the window.

This field shows which worksheet is currently in use. You can change the worksheet by first clicking on the field, which will pull down the list of display worksheets available, and then selecting a new worksheet. (The list of worksheets is received from the JAVAISIS server). "ALL" is a particular worksheet that allow to modify all the fields.

Close this window and don't save the current record.

Depending from the current worksheet content, a number of fields is also sequentially displayed and available for editing. However, in case not all the fields in the worksheet fit the window's size, JAVAISIS will create more than one page. You can then move among the worksheet pages using the buttons on the bottom left corner of the window, where it is also shown how many pages are available for the current record.

JAVAISIS Data Entry works in a **multi-user** concurrent environment. Each time you edit a given record you "**lock**" it so that it won't be available to other users for further editing until you close your Data Entry window or you move to another record. In order to avoid a stalling situation with forever-locked records, JAVAISIS implements a system of automatic Data Entry timeout.

If you are too long in modifying the record or if you just forgot the Data Entry window open, the following window may appear:

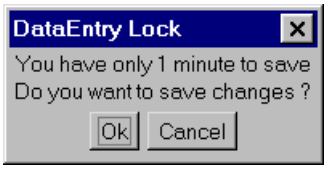


Figure 15 : The data entry lock warning after the timeout expiration

It's a **timeout** warning advising you to hurry up and save your work in the next minute not to loose your data entry lock: in practice you will loose the control over the record so that it will be available for editing again to other users. To save your work just quickly push the "**save**" button. The first timeout is set by the server manager, while the second

is fixed to 1 minute.

If you don't save your record, you may receive the following message:

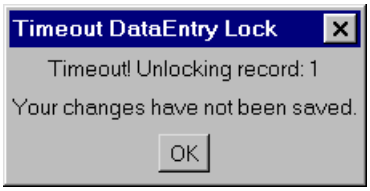


Figure 16 : The timeout confirmation during a Data entry session

All your modifications are lost.

Note that the lock timeout resets and starts again each time you come over the record.

4. JAVAISIS Dialog Boxes

A. Open dialog box

The following dialog box is displayed each time you select the "Database-Open" option from the menu or use the toolbar "Open" button. Note that in fact you are opening a connection to a remote JAVAISIS server:

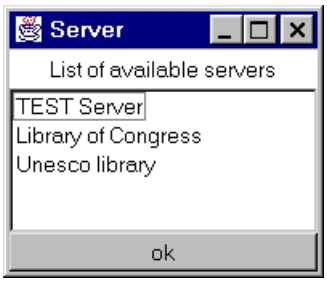


Figure 17 : Open Server Dialog box

Double click on one item, or a single select one and then push the **OK** button, to open a new connection: if the connection succeed the server's default database will appear in a new window.

B. Import Dialog Box

The Import Dialog box is displayed when choosing the ***Import*** command from the **Data base** menu. However, before it, JAVAISIS shows an Open File Dialog box for you to select the import file.

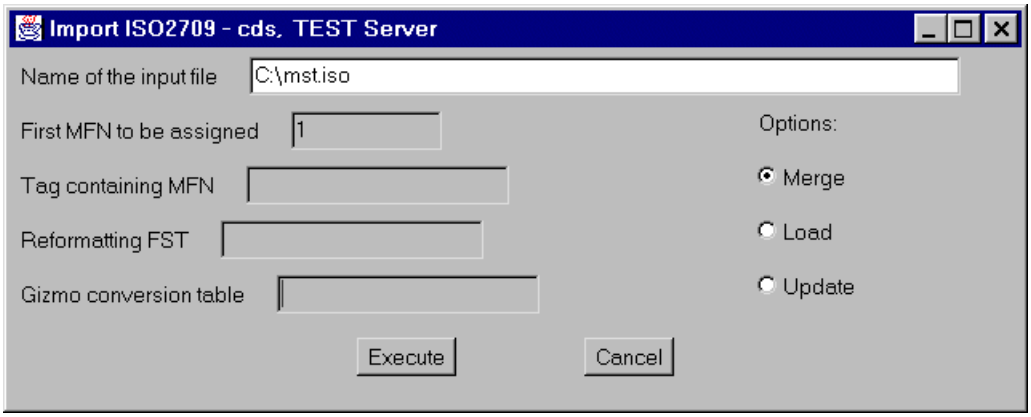


Figure 18 : Import ISO 2709 Dialog box

i. Name of the input file

This field contains the name of the file you are about to import. The file must be in the standard ISO 2709 format as described in the *CDS/ISIS Reference Manual*.

ii. First MFN to be assigned

This parameter is set to 1 and you can't change it using this version.

iii. Tag containing MFN

This parameter is not available in this version.

iv. Reformatting FST

This parameter is not available in this version.

v. Gizmo conversion table

This parameter is not available in this version.

vi. Options

Indicates how the imported records must be loaded into the data base. Can assume one of the following values:

Load: In this case the resulting data base will contain only the incoming records. This option erases any records which may already exist in the data base.

Merge: Merges the records in the input file with those already existing in the data base, if any. However, input records with the same MFN as an existing record are not replaced (unless they are marked for deletion).

Update: The same as Merge except that records with the same MFN are automatically replaced.

Note that the ***Merge*** and ***Update*** options, in this version, simply add the incoming records to the Master file and assign sequential MFNs starting from the highest MFN already assigned.

C. Export Dialog Box

The Export Dialog box is displayed in response to the ***Export*** command of the **Data base** menu. Prior to this, CDS/ISIS displays an Open Dialog box where you select the name of the output file.

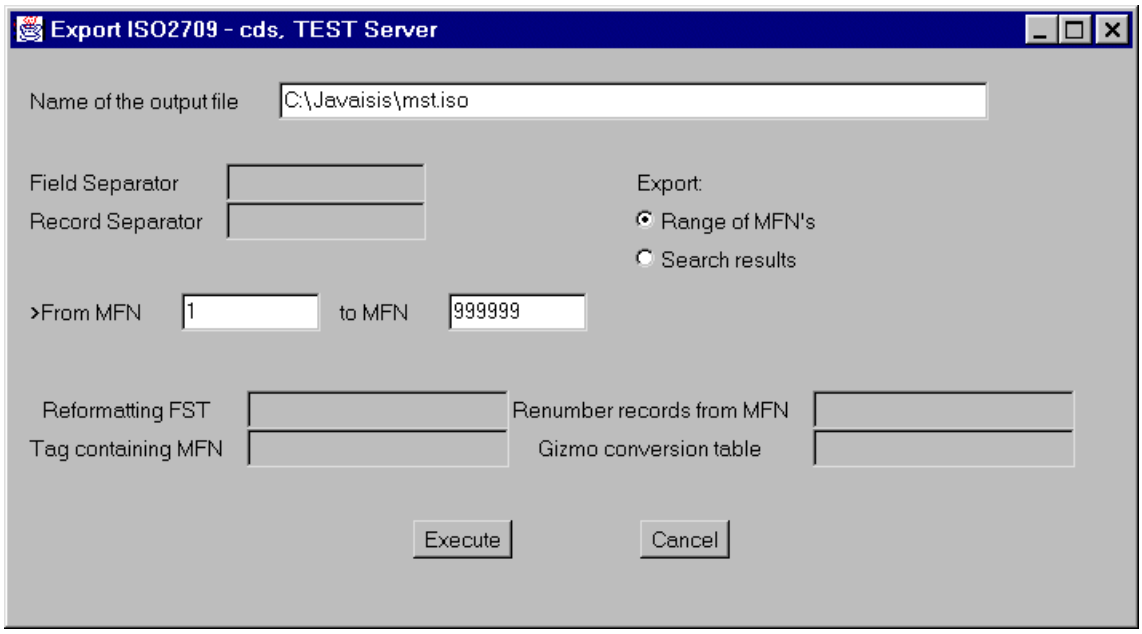


Figure 19 : Export Dialog box

i. Name of output file

This field contains the name of the output file you have previously selected. The file will be in the standard ISO 2709 format as described in the *CDS/ISIS Reference Manual*.

ii. Field separator

This field defines the field separator character to be used in the output file. However, in this version you cannot modify this value which is set to #. The file to be exported is transmitted over a TCP/IP connection, just like an FTP session.

iii. Record separator

This field defines the record separator character to be used in the output file. However, in this version you cannot change this value which is set to #.

iv. Selection parameters

You may selectively export only portions of the data base. To define the records to be exported you have two possibilities: use an MFN range or the results of the last search submitted.

To select a range of records by MFN enter the lowest and the highest MFN to be selected in the ***From MFN*** and ***to MFN*** boxes respectively. To select the last search results, click on the ***Search results*** button.

v. Reformatting FST

This parameter is not available in this version.

vi. Renumber records from MFN

This parameter is not available in this version.

vii. Output Tag containing MFN

This parameter is not available in this version.

viii. Gizmo conversion table

This parameter is not available in this version.

5. The JAVAISIS Server

A. Hardware and software requirements

The minimum and recommended hardware requirements for running JAVAISIS Server are the following:

CPU:	Pentium at 100Mhz or higher recommended
RAM:	16Mb or more recommended
HARD DISK	with at least 5Mb free

Windows 95 or higher

JAVAISIS doesn't run under Windows 3.1. It runs under Windows 95, Windows 98, Windows NT and Windows 2000 without specific known problems.

If you do not have the Java Virtual Machine (JVIEW.EXE) installed in your Windows system, or if you have some problem to run JAVAISIS please read carefully our Web site http://web.tiscalinet.it/javaisis or write us at: javaisis@tiscalinet.it

For Unix systems, download and install the Java Development Kit or the Java Runtime Environment for your platform and look for the requirements; see on URL http://www.javasoft.com

B. Installing JAVAISIS Server on your computer

1. JAVAISIS setup

JAVAISIS Server is distributed as a single compressed file for each platform:

1. **jserver.zip** for Windows platforms;
2. **jserver.tar.gz** for Unix platforms.

You may expand this file in any position of your hard disk or your file system.

A **Javaisis\Server** directory will be created and all the files will be copied in there.

At the end of the extraction process you can delete the compressed file.

C. System Parameter files

1. SETUP.INF: IP Port parameters

The file **SETUP.INF** contains system setup parameters. It is read only once, as soon as the JAVAISIS Server is started. During the installation process a default **SETUP.INF** file is created..

SETUP.INF is an ASCII text file which may be edited with any text editor such as **Notepad**.

It must contain the following three lines:

Port number
Shell path
Timeout:minutes

where:

port number is the IP Port number to which JAVAISIS server listen for connections (for example: **6555**);

Shell path reserved for Unix platforms, it's the default shell Path to use (for example **/bin/sh**).

Timeout this parameter sets the lock timeout of Data Entry in minutes. For example:
Timeout:15
after fifteen minutes the server will unlock the record automatically. An appropriate message is displayed to the user.

2. DBLIST: List of shared data bases

The system file **DBLIST** contains an entry for each CDS/ISIS data base that you wish to share through the server. You may set different export/import/data entry rights for any one of them. It may be edited with any text editor such as **Notepad**. Each line is formatted as follows:

database name; **format1[**, **formatN]** … | **access rights | password**

where:

database name is the data base that will be available for the connection through the JAVAISIS Client;

forma1, format2 one or more print format file (.PFT files), available for the Browse;

access rights if you leave it blank export, import and data entry are not available to the user (grayed), if **r** export is available, if **w** import is available (may be also **rw**), if **d** data entry is available (in the sample CDS database it is **rwd**).

Password you can here specify a case-sensitive password to better protect your data from accidental modifications. Be aware that this NOT a high level protection method.

Note that the first line of the **DBLIST** file defines the default data base which is automatically open as soon as a Client establish a connection to the server. All database listed here will appear as radio buttons on the right side of the browse window. The user will be able to change data base simply by clicking one of the radio buttons.

3. dbn.CIP: Data base path parameters

Since JAVAISIS is based on BIREME's WWWISIS, a CISIS Parameter file is needed in order to share a given database. In particular, you have to create a **dbn.CIP** file (where *dbn* is the data base name) for each database you declared in the DBLIST file. It is also an ASCII text file which may be edited with any text editor such as **Notepad**. In general this file is used by WWWISIS to locate the CDS/ISIS database files on the server. Below is a typical configuration:

```
cds.*=c:\javaisis\server\cds\cds.*
```

which means that all files related to the database CDS can be found in the directory c:\javaisis\server\cds.

Please refer to the WWWISIS Reference Manual for more information about this file.

4. dbn.FMT: Data Entry worksheets

In order to allow Data Entry sessions on a given database you must give the the correct permission in the DBLIST file. Moreover, you may create a Data Entry worksheet file to control **which fields** the user will be able to edit. The dbn.FMT file (where dbn is the data base name) must be created in the database directory. It is very similar to the worksheet file of CDS/ISIS, but it is much simpler.

A **dbn.FMT** file is a ASCII text file which may be edited with any text editor such as **Notepad.** Enter as many lines as many worksheets you wish to add.

The syntax of each line is the following:

<worksheet name>:<tag>[,<tag>]

where:

worksheet name is the name of the worksheet that will appear in the Client Data Entry window;

tag, tag ,.... are the tag numbers of the fields the user will be able to modify.

The Client Data Entry window will show the tag name instead of the tag number. Names are taken from the **dbn.FDT** which is also available in the data base directory on the Server.

The fields will be present in the same order as specified by the dbn.FMT file.

If necessary the Data Entry window will divide the worksheet in more pages.

Please check the CDS.FMT file included in the Server distribution as an example.

As a last step for publishing your database on JAVAISIS please carefully read the next chapter about the formatting language.

6. The JAVAISIS Formatting Language

A. Formatting rules

The CDS/ISIS formatting language used by JAVAISIS is basically the same used by WWWISIS (please refer to its Reference Manual), but some new functions have been added. Note that some of them are **mandatory**:

1. Master File Number (mandatory)

You **must** add to the main print format (the one corresponding to ***format1*** in the **DBLIST** file) the following command:

'mfn='mfn/,

at the very beginning of the format!

2. End spacing

Remember to **add** the vertical spacing commands

/#

as the last commands of the default print format (see CDS.PFT in the sample data base).

B. New commands

1. Character formatting commands

This set of commands concerns the appearance of text characters. They are coded as follows:

Command	Function
{bxxxx**}**	Display 'xxxx' in bold
{ixxxx**}**	Display 'xxxx' in italic

In order to use this commands you have to as literals and put them between single or double quotes (‘…’ or “…”). For example:

…,“{b”,v124,”}”,…

to display the tag 124 in bold characters.

2. Adding Hypertext links to formats: the LINK command

As the **LINK** command of CDS/ISIS for Windows allows you to add interactivity to your format, the **l** command lets you setup a link to execute an external program. For example, in CDS.PFT you will find a link to execute the Netscape browser.

The general syntax is:

{l*text to print*|*external program call***}**

The '*text to print'* will be displayed on the screen in the Browse window in red. When clicked, the '*external program call*' will be executed.

3. Adding Hypertext links to search

The **s** command lets you setup a link for executing a new search.

The general syntax is:

{s*text to display*|*term***}**

The '*text to display*' will be displayed in the Browse window in blue. Clicking this text will execute a new search for term, and the result are displayed in a new window.

7. Adapting JAVAISIS to local requirements

A. Creating a new language version (Client)

In the Windows version of CDS/ISIS both menus and system messages are stored in CDS/ISIS data bases (unlike the MS-DOS version, where menus were stored in special menu worksheets and messages in a special data base).

JAVAISIS Client, however, stores menus and messages in the **LANGUAGES.TXT** file (see *Section 2. C. 2.* . This makes it easier to create a new version, although it is then more difficult to maintain the language.

In order to add a **new language** version the following steps are required:

1. Open with an editor (i.e. Notepad) the file LANGUAGES.TXT

2. Move to the last line of the **LANGUAGES.TXT** file.

3. Add the language name adding a new line [New Language Name].

4. Select one among the other language versions above (that is, select all the lines of English for example) and copy the whole text at the bottom line (after [Language Name]).

5. You should now translate all lines in the new language.

6. Save the file and re-open JAVAISIS Client.

The new language will now be automatically available from the Configure menu.

B. Language coding

Note that the file **LANGUAGES.TXT** is coded with ANSI characters. Therefore it is a Windows ASCII file. If you edit it under MS-DOS you may loose all or part of the accents.