

# **Creation of Digital Document Archives with Winisis**

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# Creation of Digital Document Archives with Winisis

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## **Abstract**

*The article begins with the need for librarians to familiarize, learn and utilize new information technologies in handling abundantly available digital documents. It describes briefly about Winisis software and its components. The steps needed to install the software and to create the modifications to be made in the print format are shown, with screenshots as well as description about it, in an easily understandable manner. It concludes that the archive can be converted into a web-application with GenesisWeb software. The archive thus created can be treated as a stable prototype digital library, the creation of which can be learnt so easily. The use of Winisis for digital archiving in our libraries can help in transforming our libraries into knowledge dissemination centres and libraries into knowledge managers.*

## **Introduction**

Academic libraries can no longer confine their document collection to the traditional print materials alone, if they want to be reasonably comprehensive in their information management. Modern academic libraries need to select, collect, organize, maintain and serve digital documents, in addition to print materials, to emerge themselves as critical partners in the academic activities of their institutions in a world of abundant digital documents. So Librarians need to familiarize, learn and utilize new technologies that would help them in better management of information.

Winisis, a free windows-based software for creation of textual database, can be used for developing searchable digital archives of full text documents in doc, xls, ppt, html, pdf, audio, video or picture format. A database created with Winisis can be modified into digital archive by adding a command line in its *print format* so as to display a hyperlink in the database display screen. The hyperlink can link up the record to the appropriate document in

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the digital document collection. A mouse click on the link will result in automatic opening-up of that document.

### **Objectives of this paper**

The precise purpose of this paper is to describe the steps in creation of digital document archives containing text, pictures, talks, video etc. so as to search the database, retrieve the appropriate record and open the document from the archive by a few mouse clicks.

### **About Winisis**

Winisis, developed by Unesco, is a flexible, easy to use, menu-driven and generalized information storage and retrieval software. The software is designed specifically for creating and managing textual databases. Winisis has capability to create any number of databases with completely different data elements. Winisis application can be used by anyone having a reasonable computer experience.

### **Components of Winisis database**

Winisis database comprises of a set of records and each record contains a set of fields such as author, title etc. A field in a record is a container of data elements. Winisis database has a *master file* containing all the records of the database. An *inverted file* functions as an index to the *master file* for faster access to any record.

In order to create a Winisis database with any chosen fields, you need to define the following components.

- *Field Definition Table (FDT)*: The FDT defines the fields such as Author, Title, Publisher etc. of the records in the database and their characteristics. FDT determines the nature of data entry worksheet.
- *Data Entry Worksheet(s)*: The worksheet is the screen layout used to create and/or update the records of the database. Winisis provides a specially designed editor to create the worksheet.
- *Print Format (PFT)*: The PFT is the format for display or printing of records.
- *Field Selection Table(s) (FST)*: FST defines fields that can be searched in the database. Search is made possible by creating an inverted file of terms indexed from the fields chosen for search.

Let us examine the steps to install the software, define the above components and creating the hyperlink for opening the archived document.

## **Installation of Winisis**

Double Click on the **Wis15.exe**<sup>1</sup> to start its installation and merely follow the default options in the installation wizard by pressing the **Enter** key all the time.

### **Figure 1 Winisis 15.exe Software**

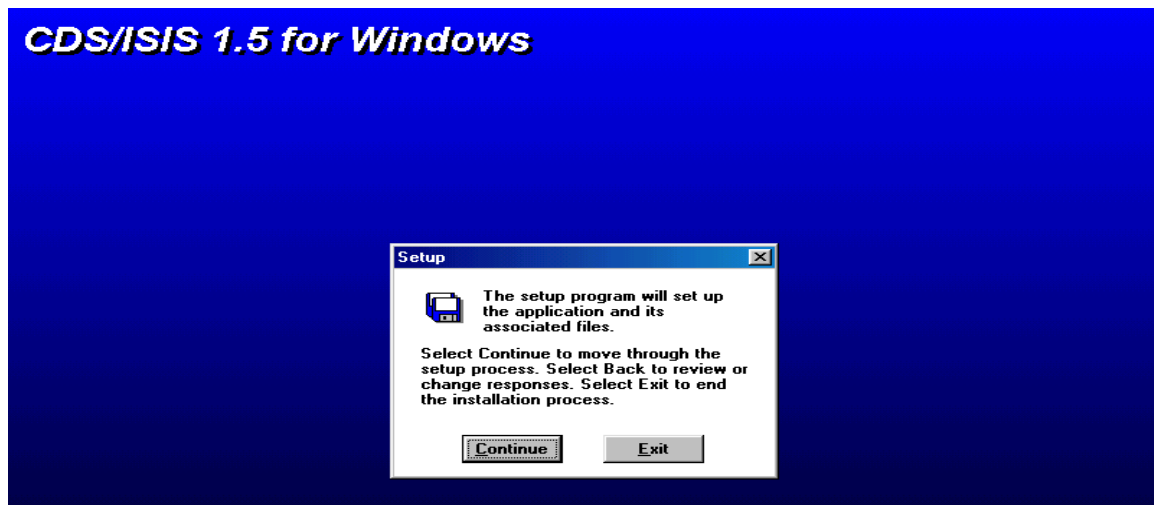


When you double-click on the software, you will get the first screen in the installation process as follows: -

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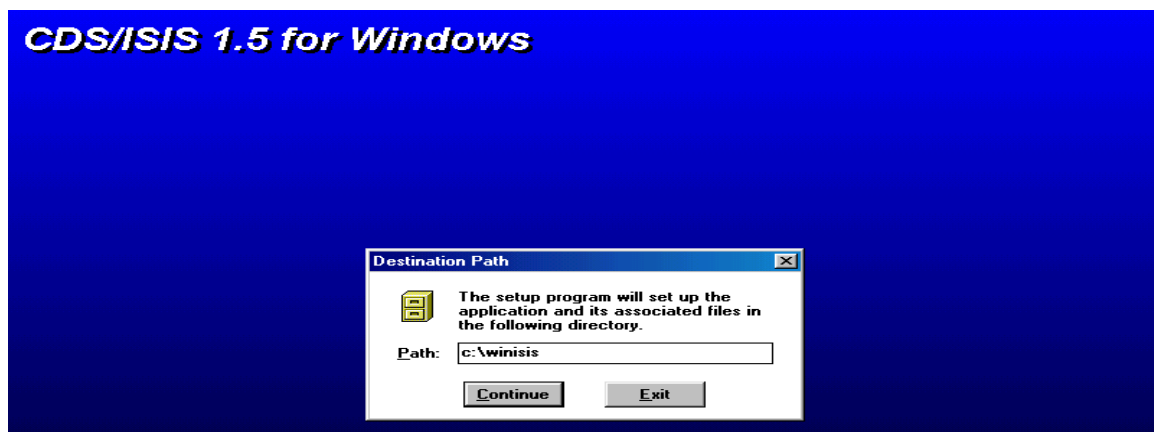
<sup>1</sup>Winisis and associated softwares are obtainable from Unesco website [www.unesco.org/isis](http://www.unesco.org/isis). You can download Winisis directly from [www.unesco.org/isis/files/Winisis15\\_3.exe](http://www.unesco.org/isis/files/Winisis15_3.exe) or [www.unesco.org/isis/files/winisislicense.html](http://www.unesco.org/isis/files/winisislicense.html)

**Figure 2**



Click on the **Continue** button and you will get the following window

**Figure 3**



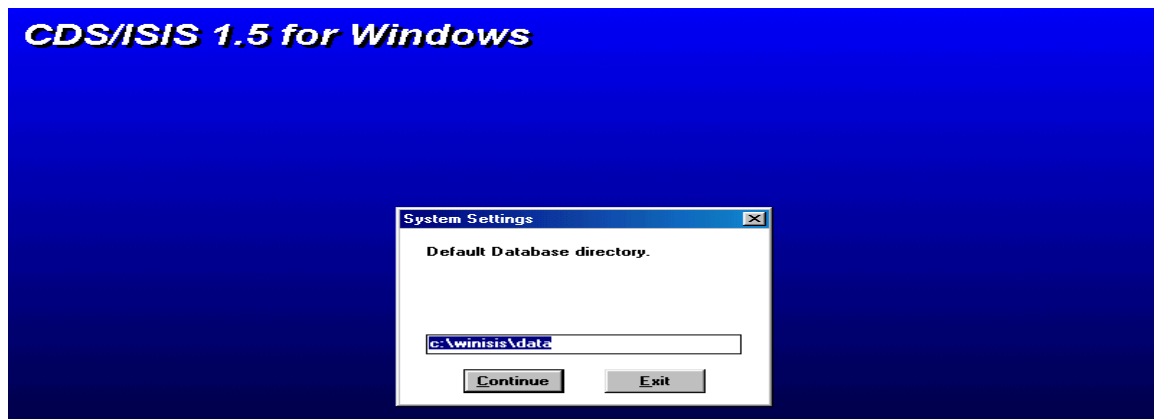
Click on the **Continue** button.

**Figure4**



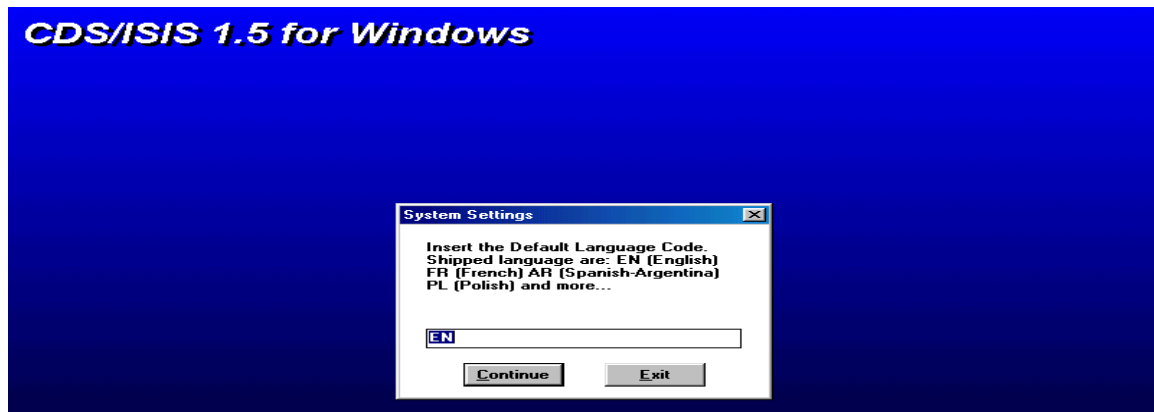
Click on the **Continue** button

**Figure 5**



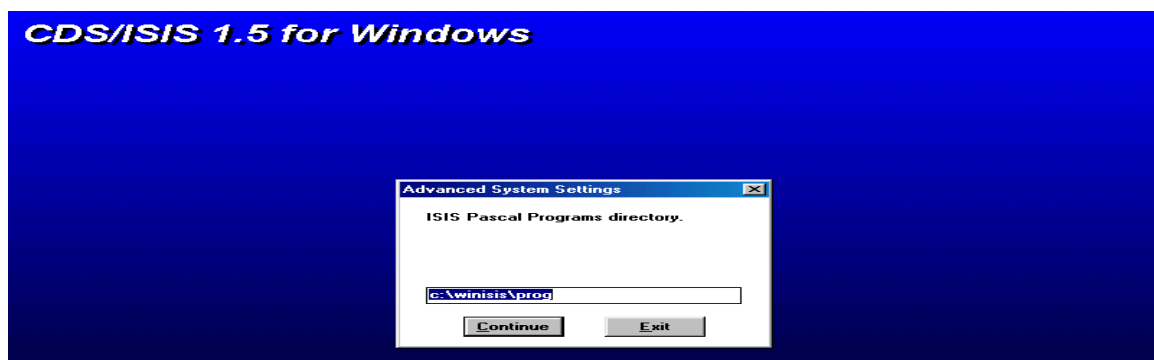
Click on the **Continue** button

**Figure 6**



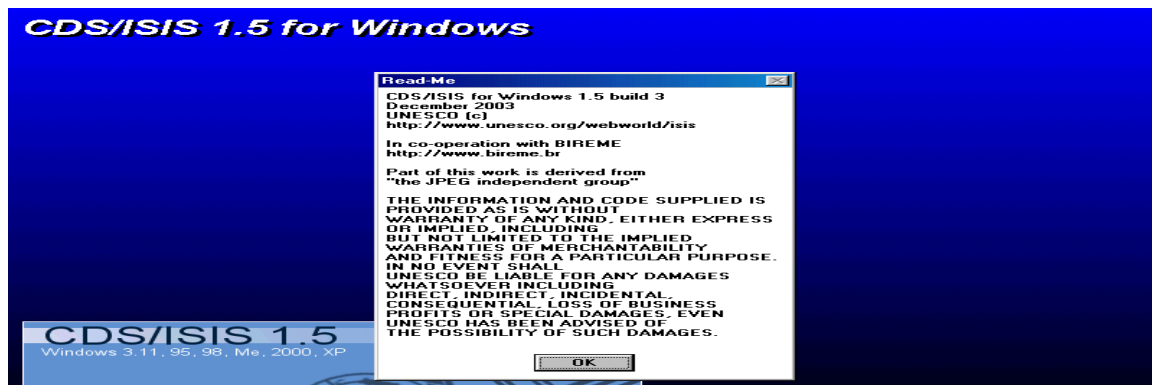
Click on the **Continue** button

**Figure 7**



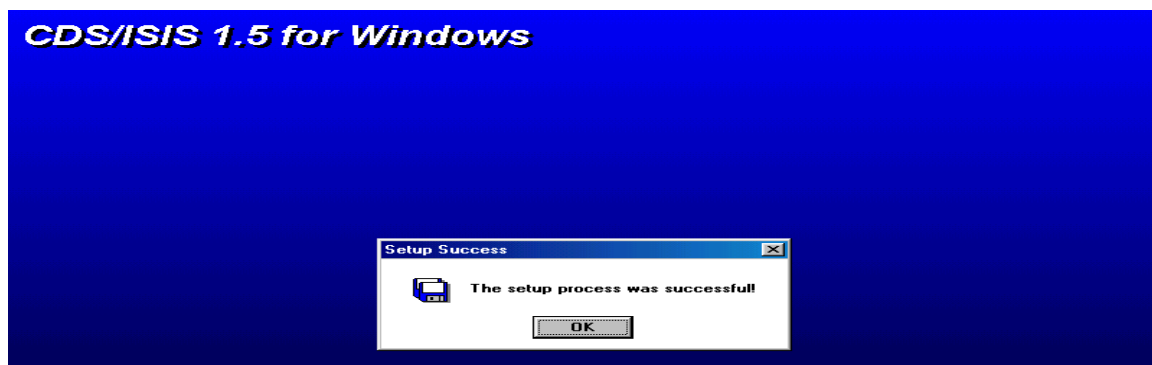
Click on the **Continue** button

**Figure 8**



Click the **OK** button and you will be notified the successful installation of the programme.

**Figure 9**



Click the **OK** button to finalize the installation.

The next step is the creation of database.

### **Creating the Archive**

In order to create an archive of digital documents, you need to collect a few full text documents and place them in a folder in your computer. Create a database of the above digital documents using Winisis<sup>2</sup>. The database can

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<sup>2</sup> Winisis will be installed in the C:\winisis folder. *Data* subfolder holds the Winisis data files. Each Winisis database consists of around 12 files. Files ending with *.mst*, *.fdt*, *.pft* and *.ifp* are important data files. *Syspar.par* is the parameter file that determines many things. Each file in the Winisis must have a *numeric tag* to identify it. You cannot change the tag number of a field name without resorting to import or export process.



have any number of fields. But our sample database will have the following tags and fields for convenience.

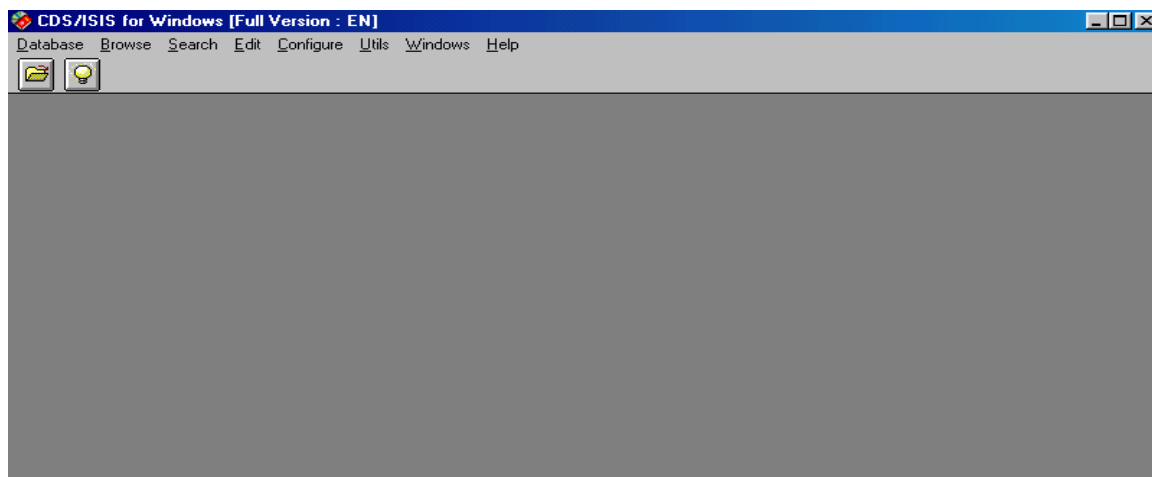
- 10 Author
- 20 Title
- 30 Keywords
- 40 Fulltext

*(It is advisable to use an international standard, such as MARC 21 or Common Communication Format for Bibliographical Description (CCF/B) for the purpose)*

Creation of database by using Winisis is very easy and automatic.

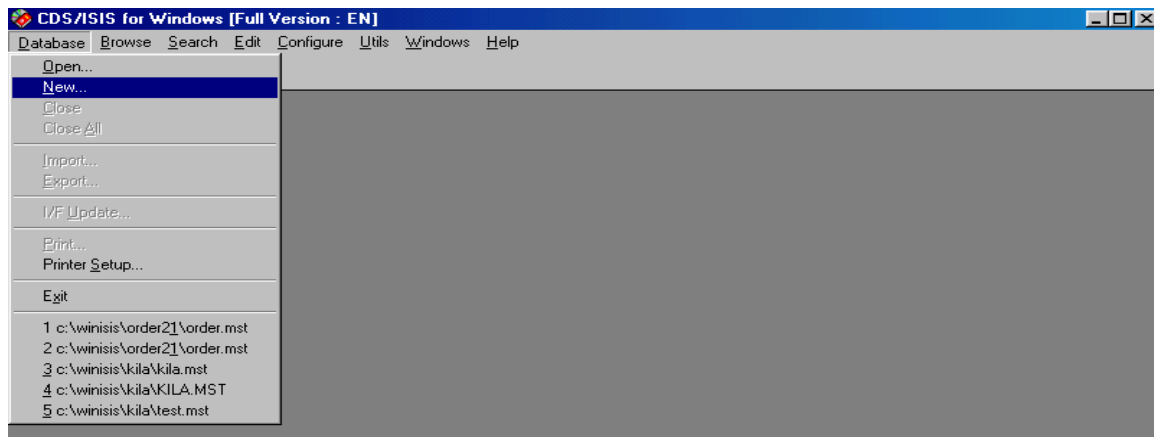
For creation of database, open the **Winisis** programme by clicking **CDS\_ISIS for Windows** under **Start ⇒ Program**. Then you will get the following screen: -

**Figure 10**



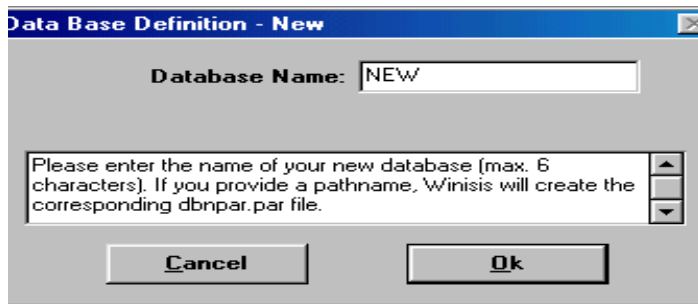
Click on the **Database** drop down menu and select **New** as follows: -

**Figure 11**



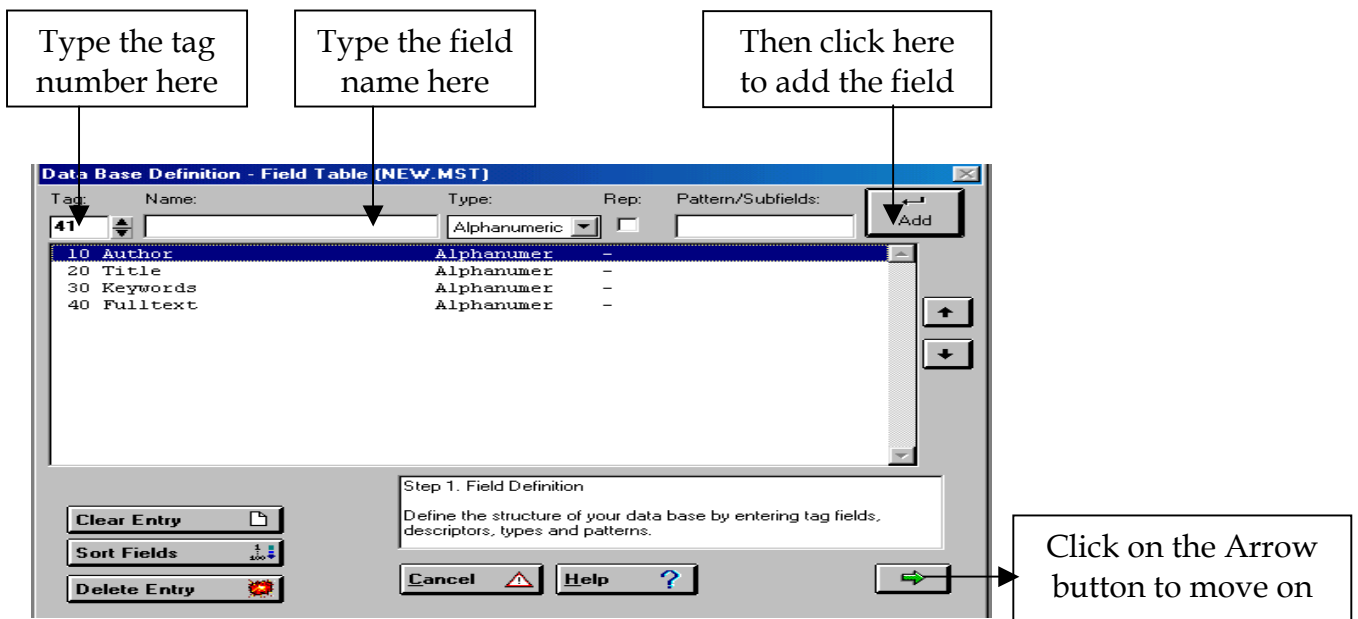
Now you will be lead to the following screen: -

**Figure 12**



Give a database name such as **NEW** and click on the **Ok** button. Then you will get the following screen: -

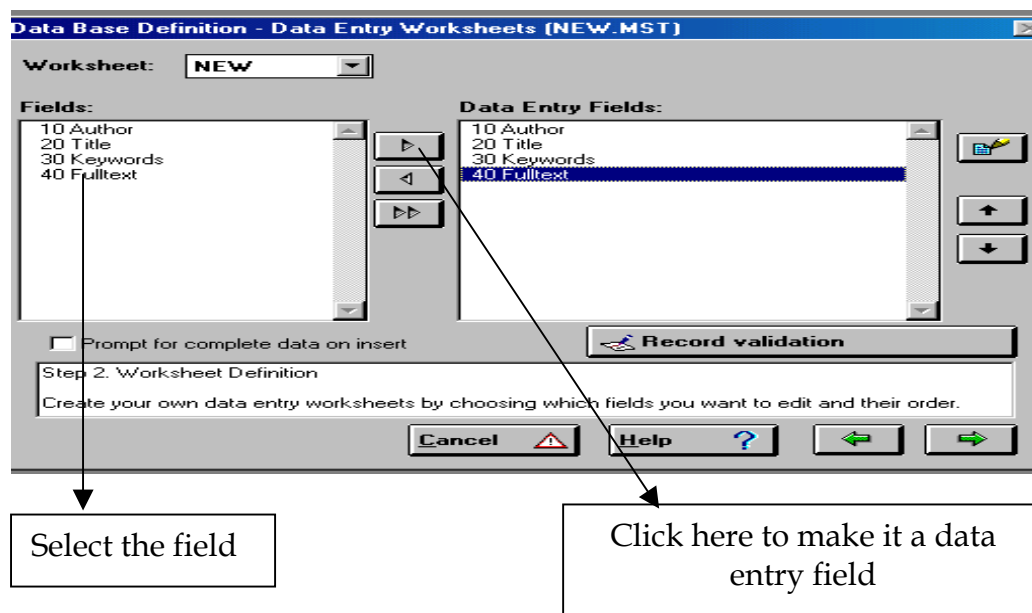
**Figure 13 Field Definition Table**



You need to provide the **Tag number** (10, 20, etc) and **Field name** (Author, Title etc) of your choice in the appropriate boxes. Beginners may choose *Alphanumeric* under *Type* so as to enable the database to handle the alphabetical and numerical data. Click the check box under *Rep* for multiple occurrence of the field, or else leave it as blank. *Pattern/Subfields* can be ignored, if you are not dividing the field into subfields. Click the **Add** button every time on completion of each entry.

On entering the *Tag* numbers and the *Name* of fields, click the **arrow button** at the right bottom corner to move on to figure 14.

**Figure 14 Data Entry Worksheet**



In the above screen, highlight the fields (in the left pane), which you want to include as the **Data Entry Field** and click on the **side arrow button** in the middle so as to make the field as a **Data Entry Field**.

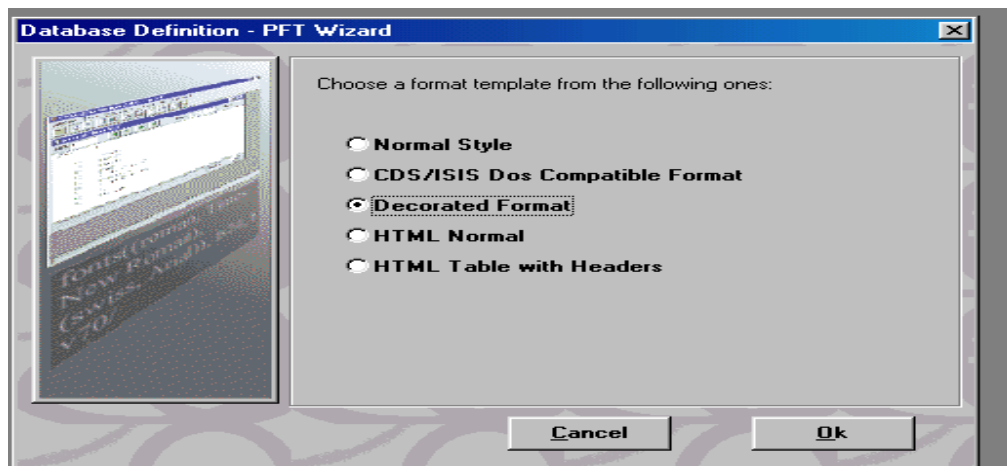
If you click on the double arrow button above, all fields will be selected as **Data Entry Fields** and will appear in the right pane as above. Then click on the **green arrow** button to move on to the next screen.

**Figure 15**



Click **Yes** to launch the wizard Print Format Assistant

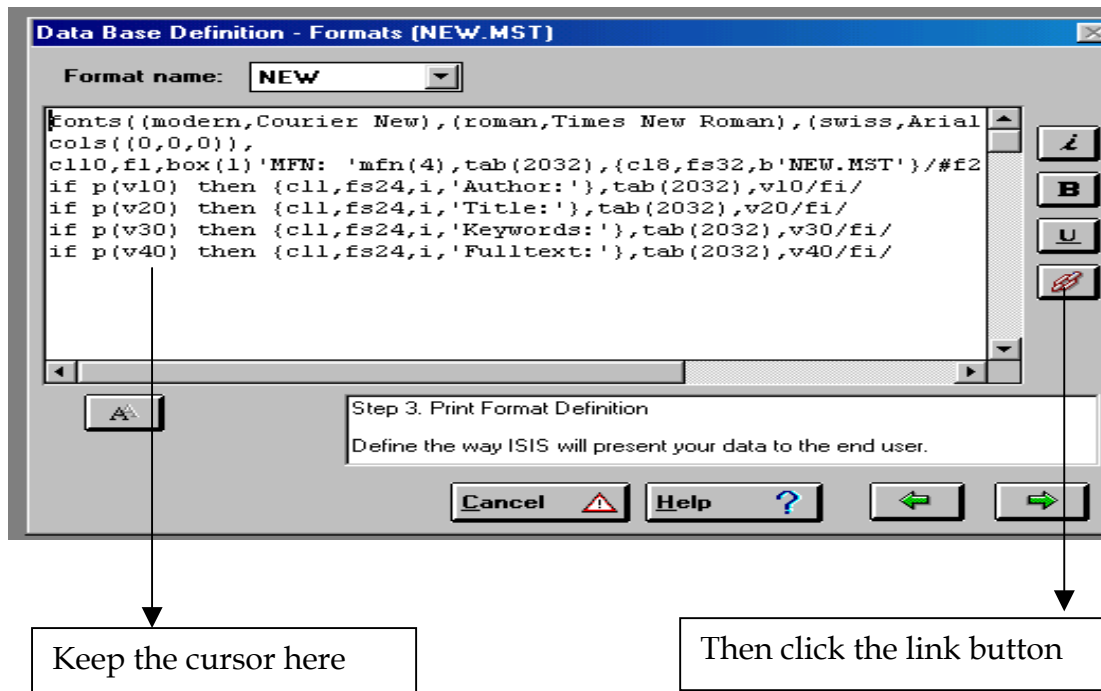
**Figure 16 Choose a Print Format**



Select the appropriate print format and click **Ok** button to get the print format screen as in Fig 17.

*Decorated format* is the preferable choice due to its colorfulness.

**Figure 17 Print Format**



In the print format shown above, you need to add the following format line in order to appear a hypertext link with the words **Click here**. The hyperlink will be cross-linked to the full text document, if the full path of the document is provided in the tag **40 Fulltext**

**link (('Click here'), 'OPENFILE ', v40)**

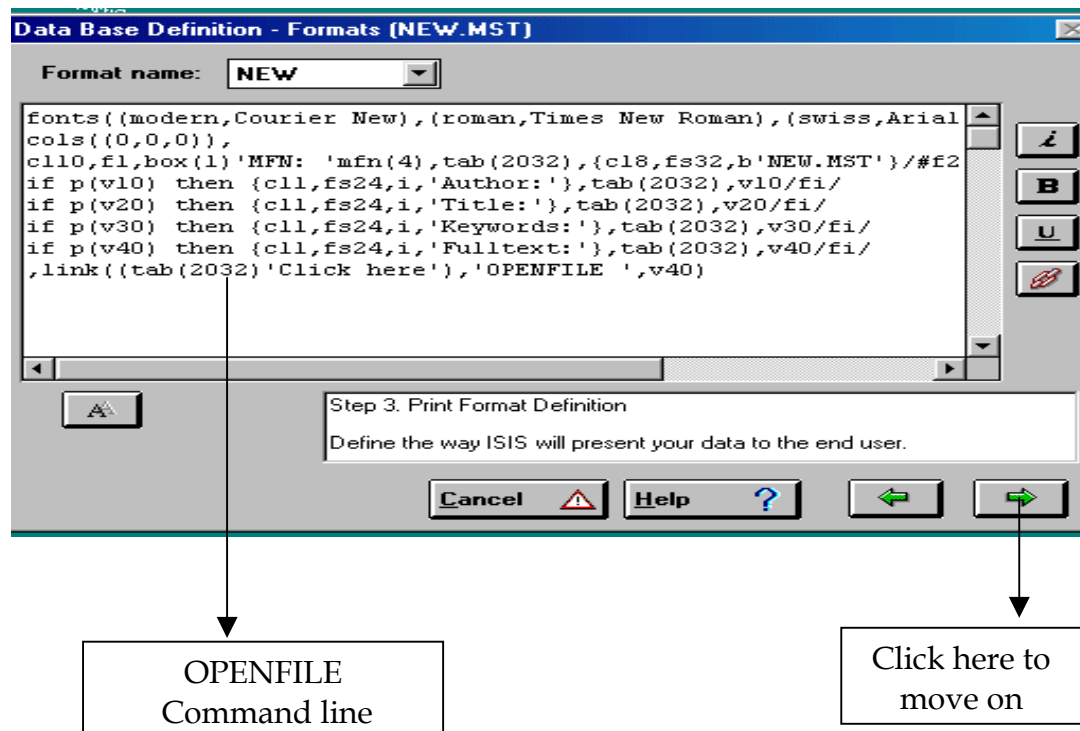
(The basic format for the above line will appear if you move the cursor to the last line and click the **link** button)

Ensure to *provide a space between the OPENFILE command and the single quote*, and the command OPENFILE should be in upper case as shown above.

The meaning of the command is that, when you click on the '**Click here**' link, the click will automatically result in opening the digital document denoted in the field V40, in a new window.

The resultant print format would appear as in Figure 18.

**Figure 18**



Click the green **Side arrow** button to move ahead and you will be asked whether to launch the Dictionary Assistant. Dictionary Assistant will help you to select the fields for *indexing* and the *indexing technique* for creation of *Inverted File Index*.

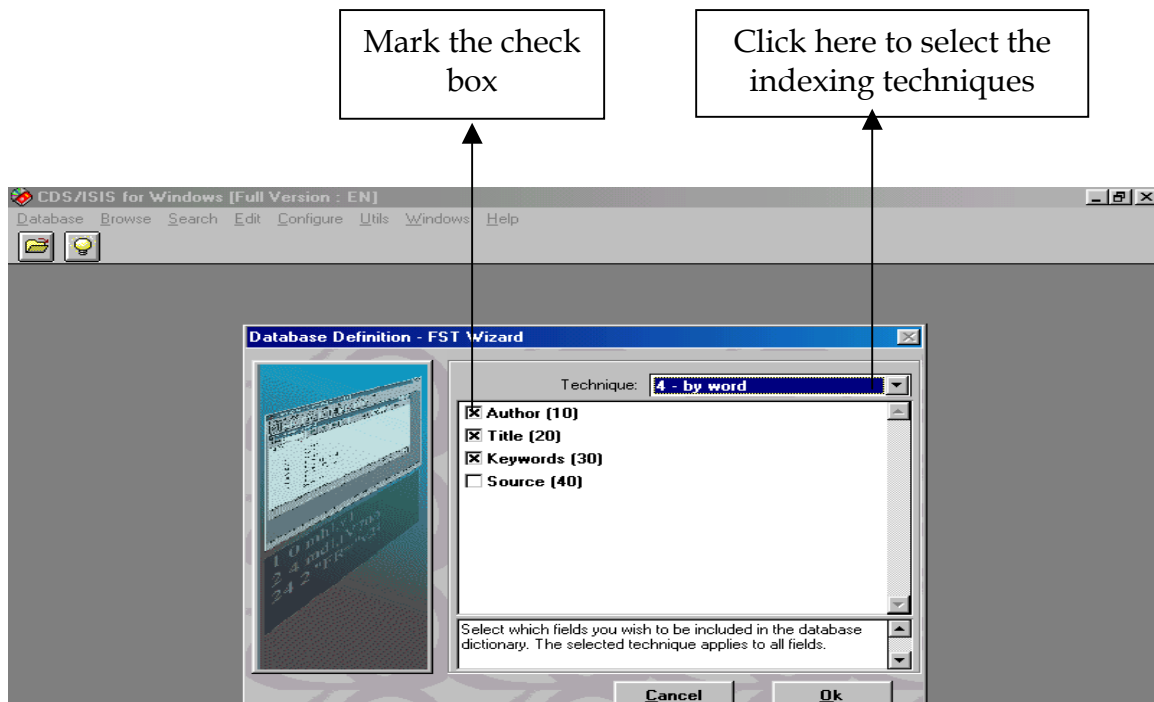
**Figure 19**



Click **Yes** to launch the Dictionary Assistant.

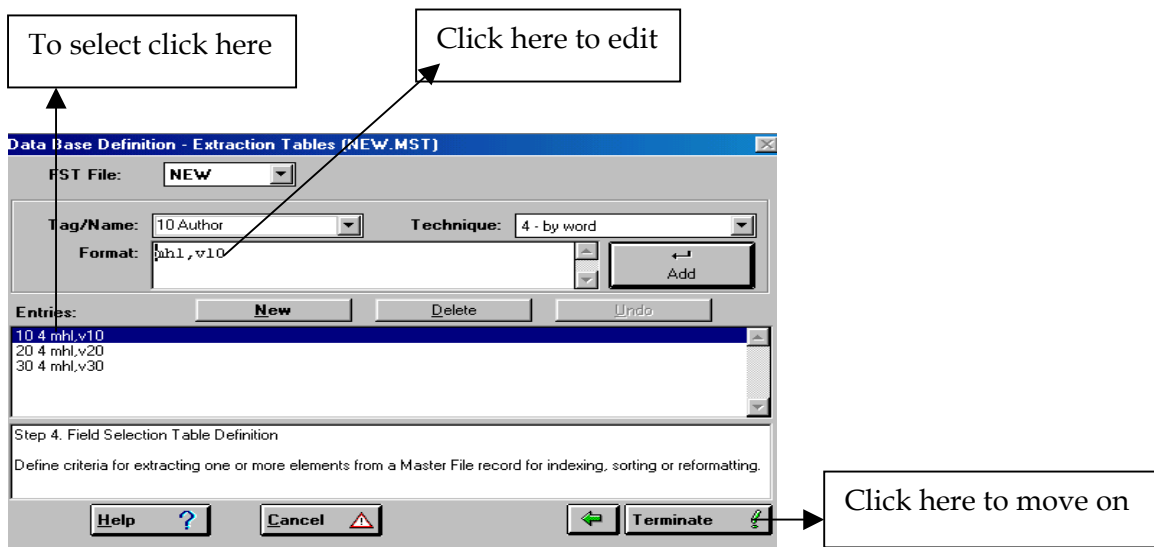
You will then get the following screen.

**Figure 20 Field Selection Table**



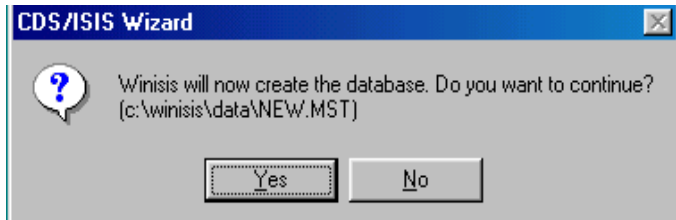
Put **x** mark in the **check boxes** on the left side of the field names and select the appropriate **Technique** for indexing from the dropdown menu at the right top. The most commonly used indexing techniques are *0-by line* and *4-by word*. Select **4 by word** indexing technique in the drop down menu. Then click **Ok** to move on to the next screen.

**Figure 21 Field Selection Table-Definition**



Here you can edit to change the indexing technique. If you need to correct any entry, just click on the entry in the **Entries** box and that will appear in the edit box shown above. You can edit the text, if needed. Then click the **Terminate** button and you will get the following message.

**Figure 22**



Then click the **Yes** button for confirmation and you will be notified that the database has been created.

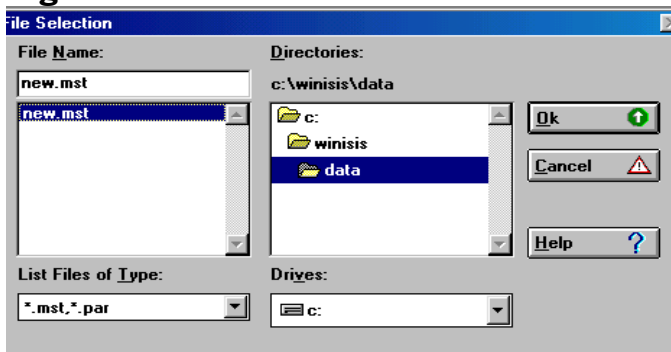
**Figure 23**



Click the **OK** button.

Now creation of the database is over.

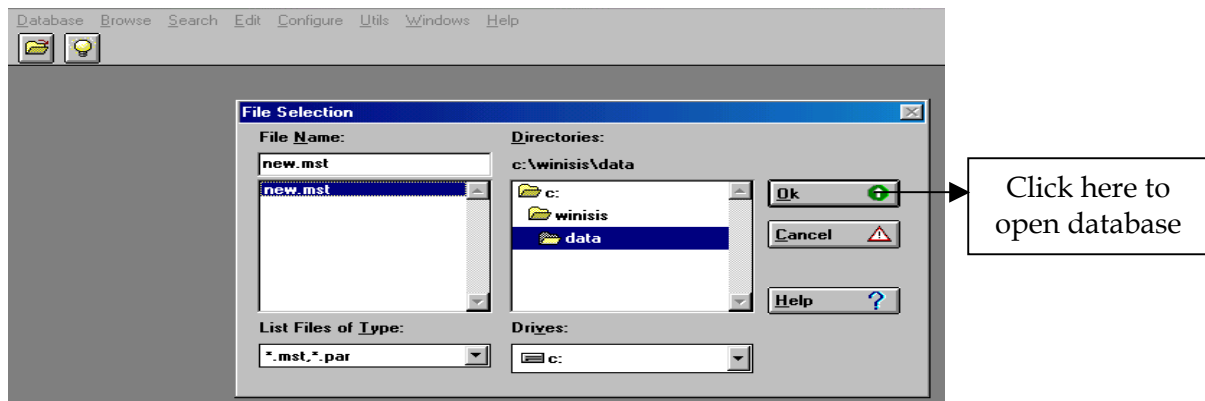
**Figure 24**



Then select **.mst** (*new.mst* in this example) file

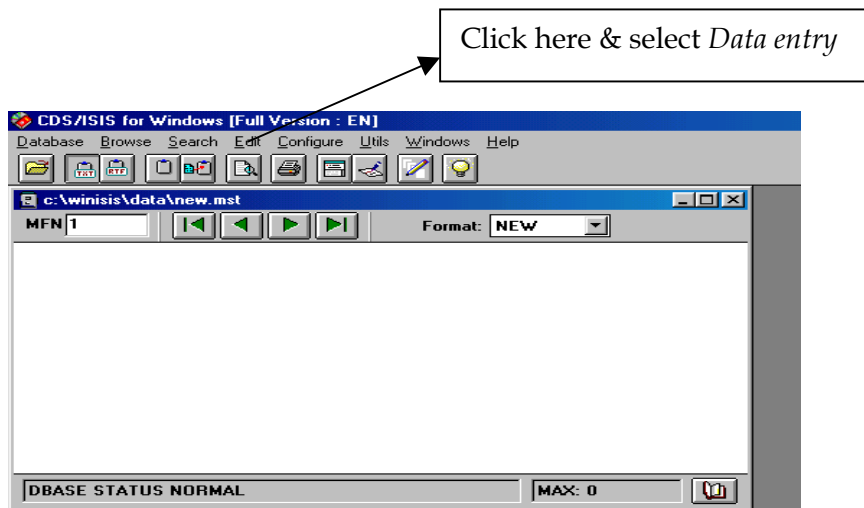


**Figure 25 Opening the Database**



Click the **Ok** button to get the following screen.

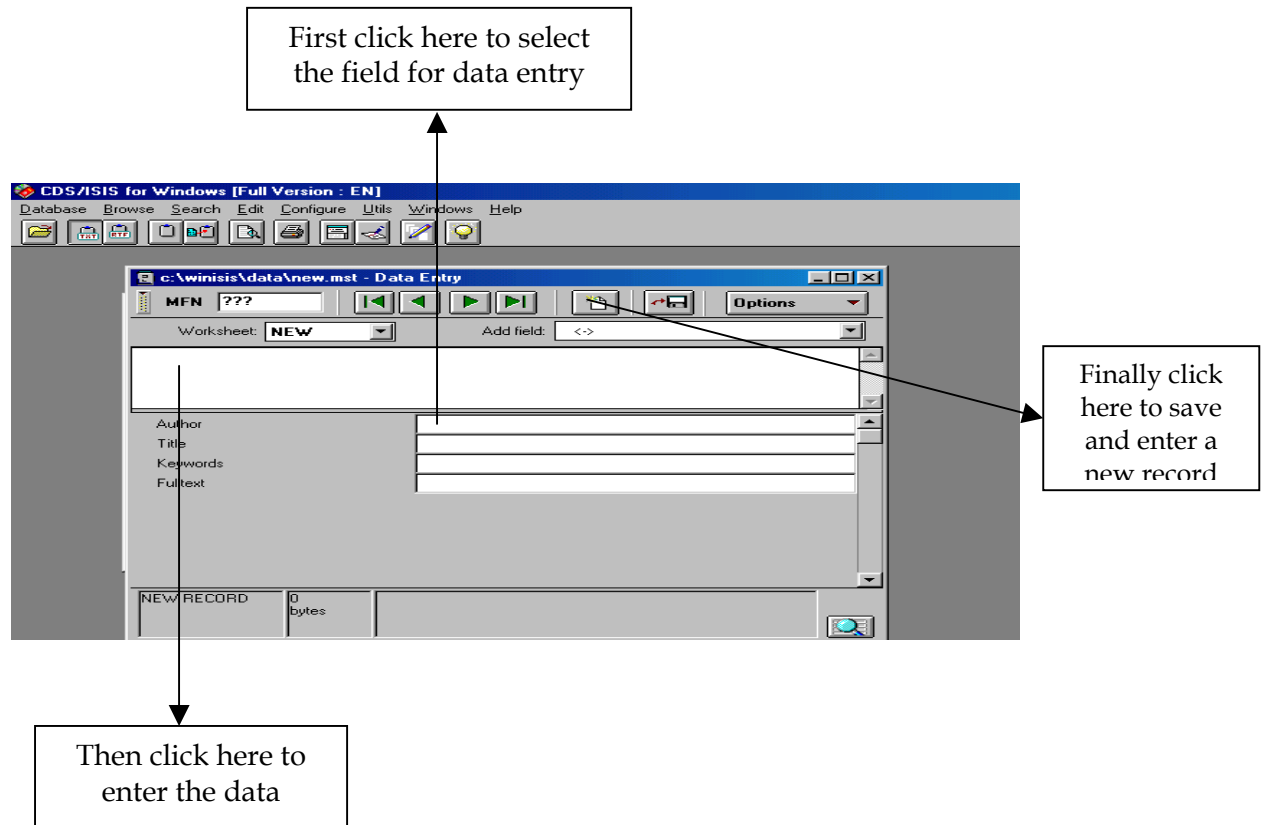
**Figure 26 Database Opened**



Database definition process is over and you need to enter the data by opening the Winisis as in Fig 26 and by clicking the **Data entry** under **Edit** menu.

You will then get the following screen in Figure 27.

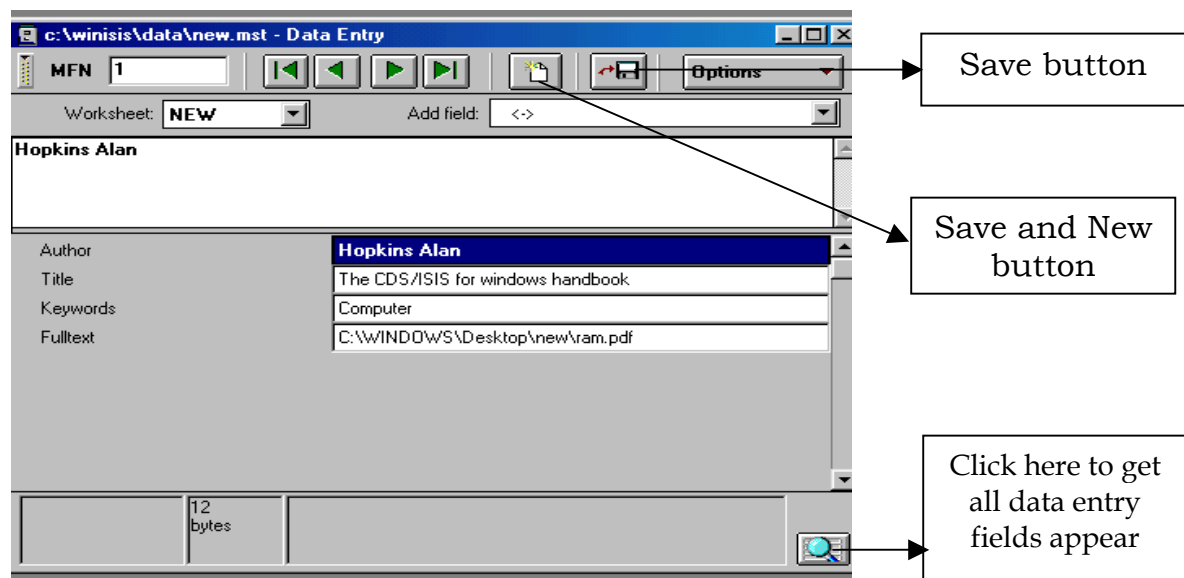
**Figure 27 Data Entry Window**



**Entering Data in the Database**

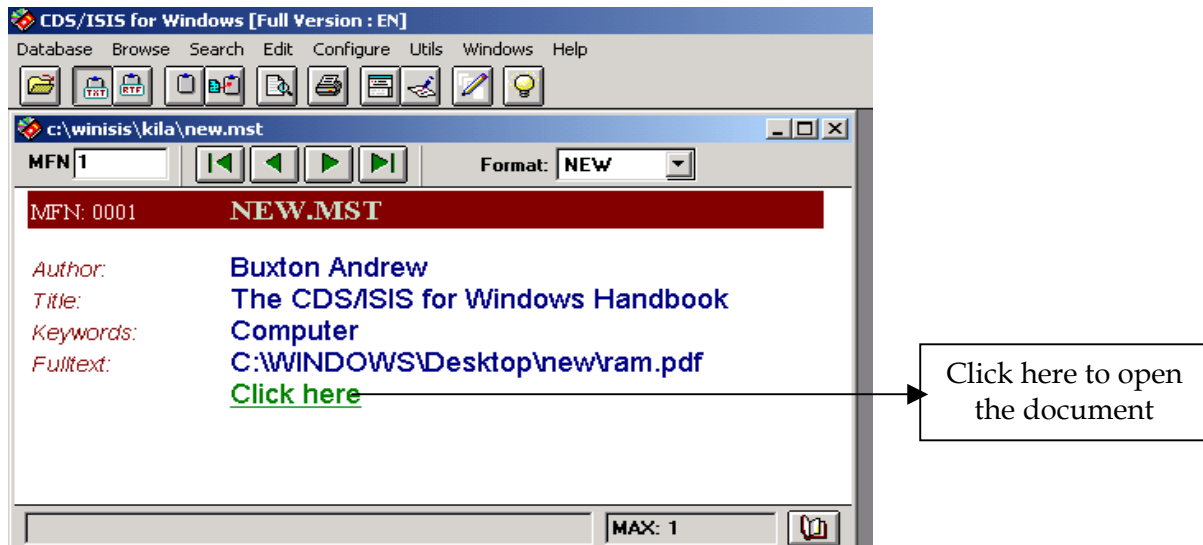
Enter the data of all the documents of the digital collection. The full path of the fulltext documents including extension (.pdf, .doc etc.) should be entered in the **Fulltext** field.

**Figure 28 Data Entry Screen**



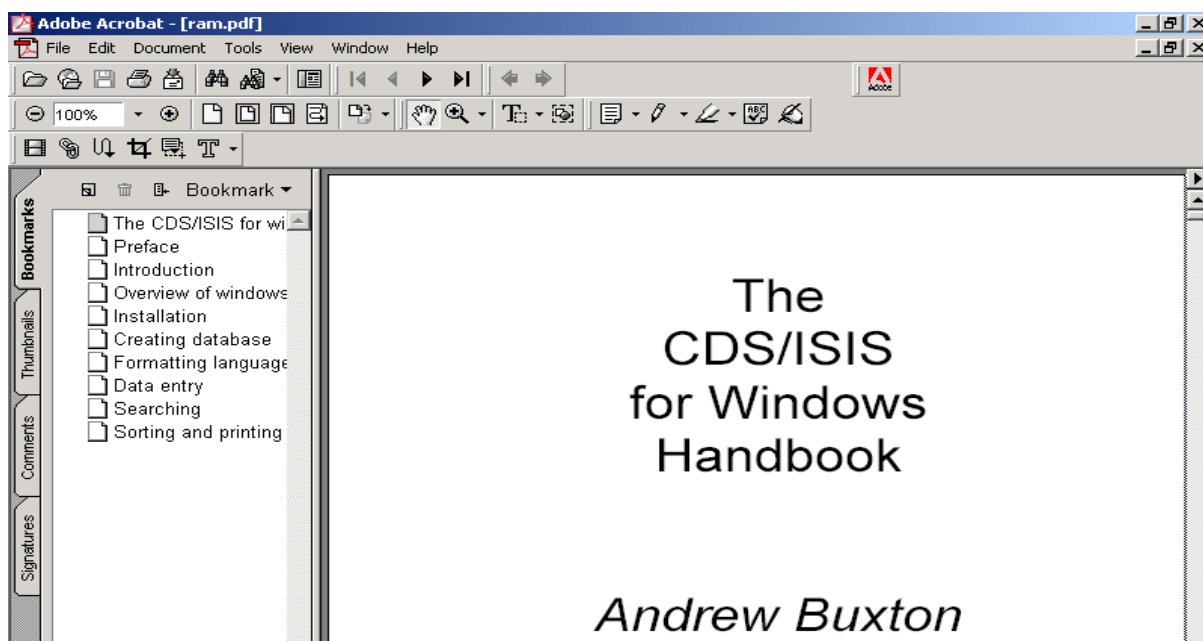
Enter all the data, save the records and then open the database. The database display will be as follows:-

**Figure 29 Database Opened**



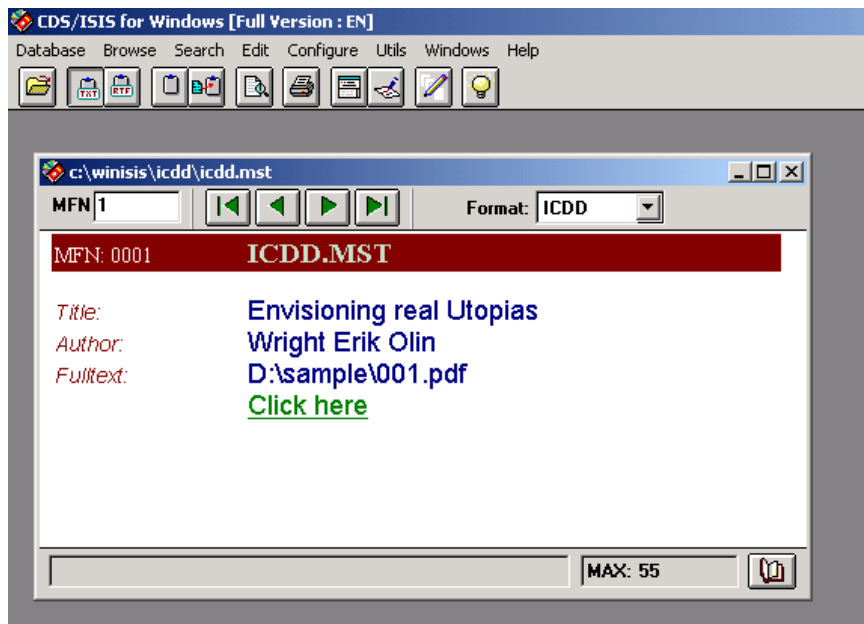
If you had provided full path of the documents in the **Fulltext** field and had place those documents in the location shown in the field, a click on the link will open the document automatically as follows:-

**Figure 30 A Full-text Document in PDF with Bookmarks Opened**

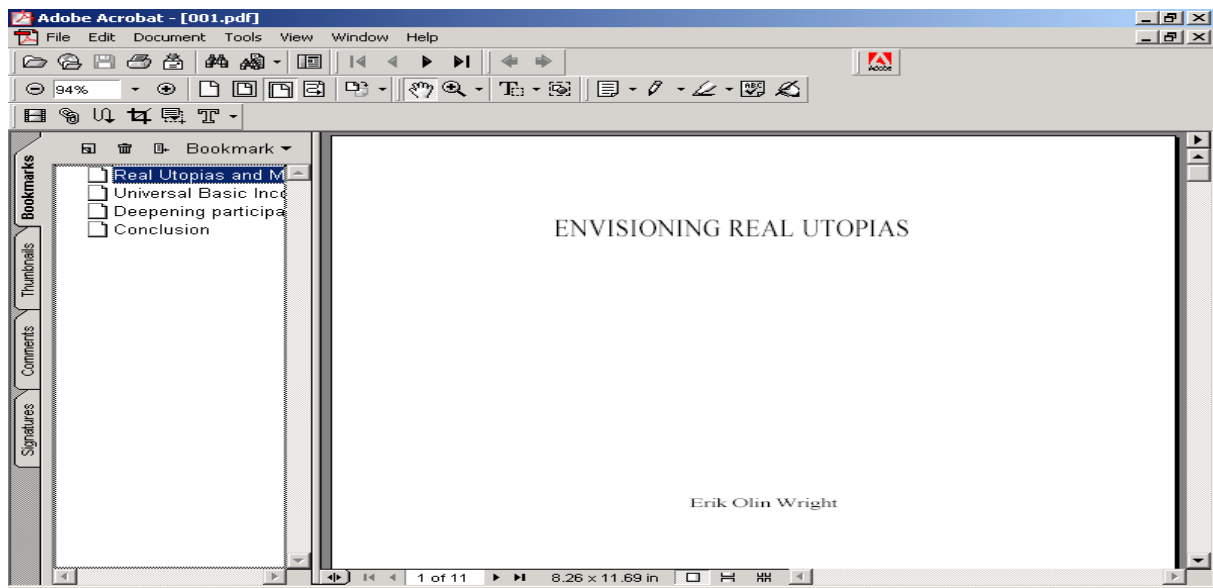


Look at another entry in the archive.

**Figure 31 Another Sample Entry in the Database**



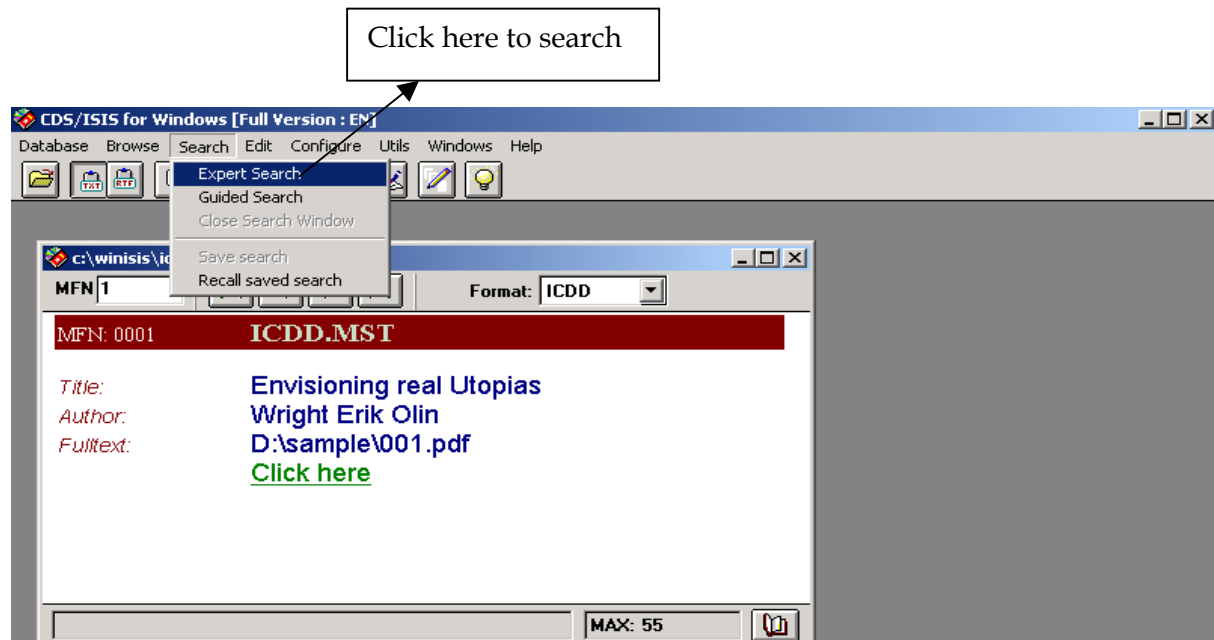
**Figure 32 The Document Opened**



## Searching the Archive

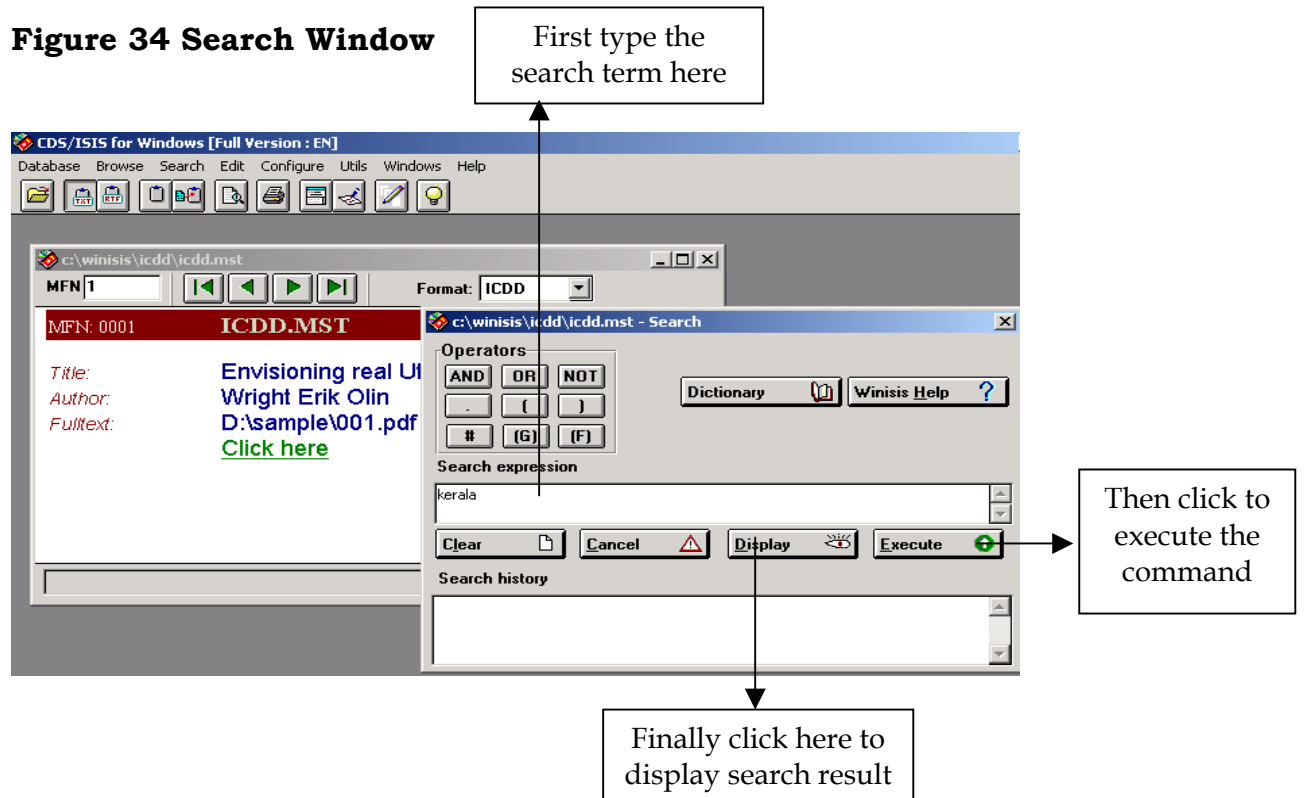
Open the Winisis database, click **Expert Search** under **Search** menu.

**Figure 33 Expert Search**



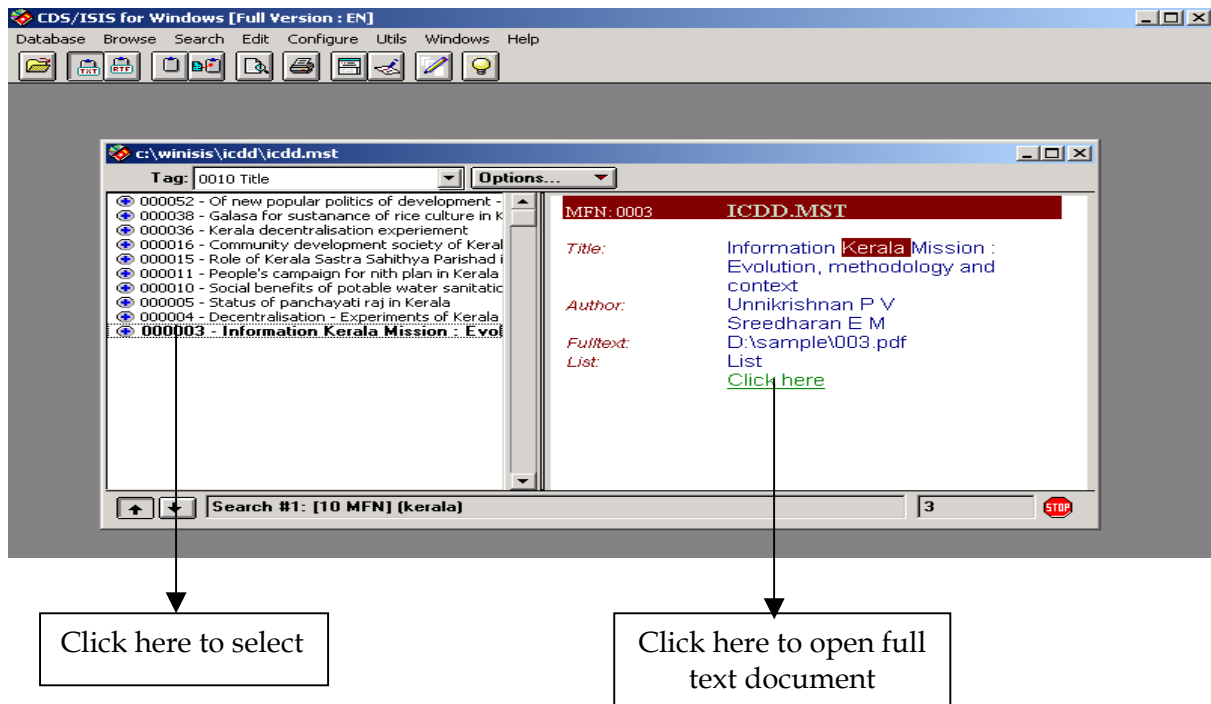
Then you will get the following search window.

**Figure 34 Search Window**



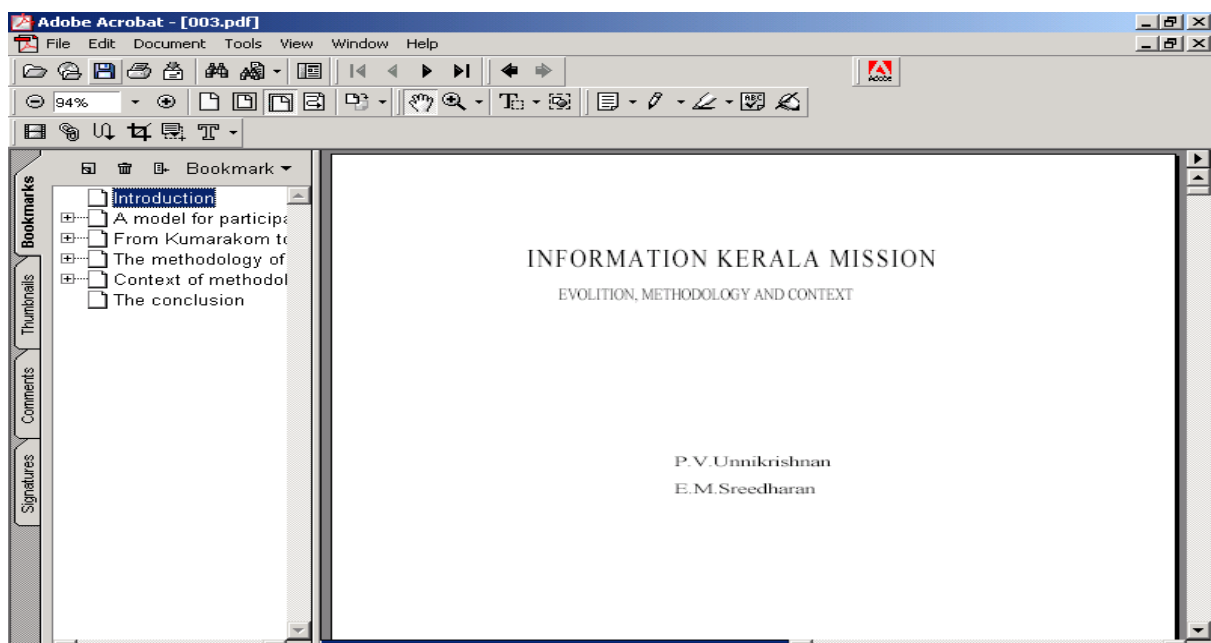
Then you will get the following search result.

**Figure 35 Search Result for the Term Kerala**



Choose the appropriate title from the left pane and click the link on the right pane to open the document. See the opened document below.

**Figure 36 A Full-text Document Opened**

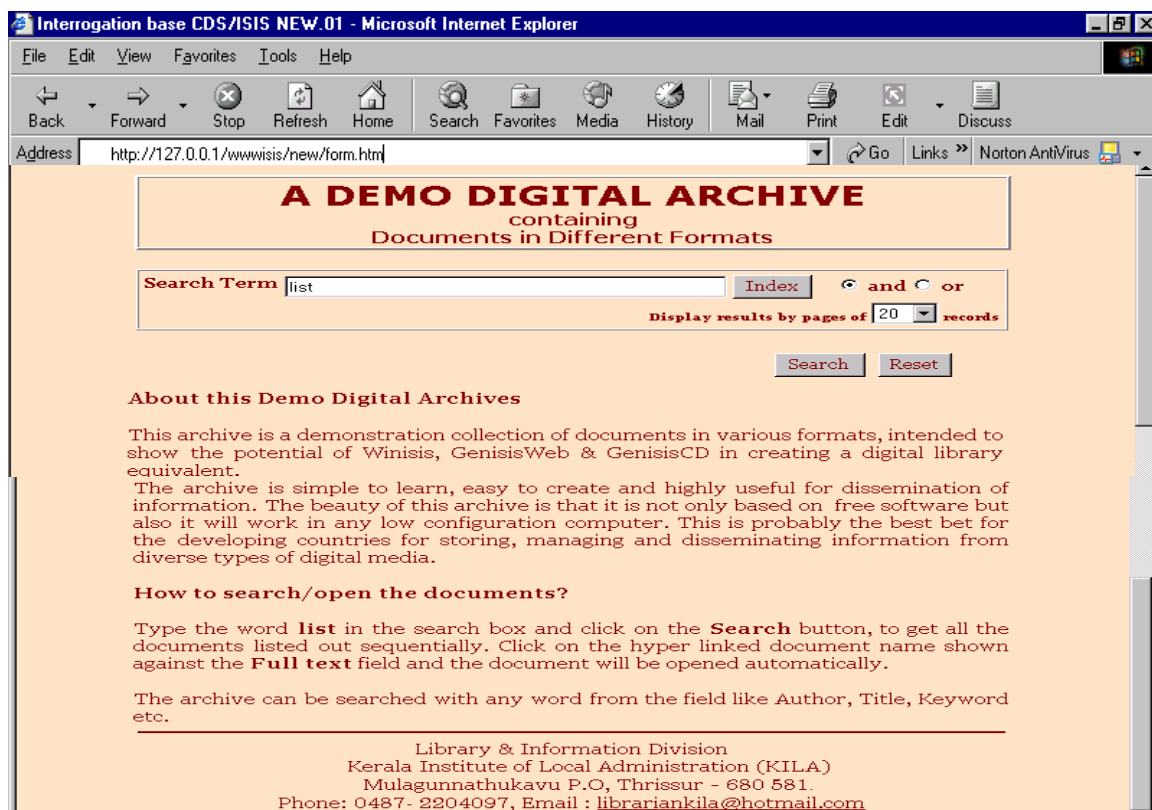


## Converting the Archive into a Web-based Application

The digital document archive with Winisis can be converted into a web-based application with **GenisisWeb** software, for which detailed documentation is available in the World Wide Web. If you create a front-end with **GenisisWeb**, your archive will be accessible over your local network with http address. You can upload it in the Internet as a website too.

The homepage<sup>3</sup> of GenisisWeb application created thus would look as follows:-

**Figure 37 Homepage of Demo Digital Archive**



If you type the word **list** - a term you provided as a search term in all the entries- **Search Term** box and click on the **Search** button, you will get all

<sup>3</sup> The homepage and search-result page can be modified to your taste with suitable color, embedded images, text etc.

the documents listed out sequentially. The search -result page of the archive would look as follows:-

**Fig 38 Search Result Page**

The screenshot shows a web browser window titled "Demo Digital Archive". At the top, it displays "12 Result(s) for : (All fields=list)". Below this, there is a list of 12 search results, each with a numbered entry (1) through (12). Each entry contains the following fields: Document format, Title, Author, Keywords, and Fulltext. The Fulltext field contains a blue hyperlink to the document. An arrow points from a callout box on the right to the "manual.pdf" link in the first result.

| Entry | Document format         | Title                                                                                             | Author                             | Keywords         | Fulltext                             |
|-------|-------------------------|---------------------------------------------------------------------------------------------------|------------------------------------|------------------|--------------------------------------|
| (1)   | PDF Document            | The CDS/ISIS for windows - Handbook                                                               | Buxton Andrew; Hopkinson Alan      | Computer manual  | <a href="#">manual.pdf</a>           |
| (2)   | Word Document           | Creation of digital archives with Winisis, GenisisWeb and GenisisCD - A self-instructional manual | Rajasekharan K                     | Computer manual  | <a href="#">genisis manual.doc</a>   |
| (3)   | Excel Document          | Address list of grama panchayats in Kerala                                                        |                                    | Panchayat List   | <a href="#">panchayat.xls</a>        |
| (4)   | PowerPoint Presentation | Decentralisation in Kerala - Moving ahead                                                         | Vijayanand S M                     | Decentralisation | <a href="#">smv.ppt</a>              |
| (5)   | PowerPoint Show         | To achieve your dreams, remember A to Z                                                           |                                    |                  | <a href="#">a2z.pps</a>              |
| (6)   | HTML Document           | Kerala : Radical reforms ad development in an Indian state                                        | Franke Richard W; Chasin Barbara H | Kerala reforms   | <a href="#">kerala.htm</a>           |
| (7)   | Picutre Document        | Kerala - A land view                                                                              |                                    |                  | <a href="#">picture.jpg</a>          |
| (8)   | Audio Document          | A Talk on Kerala decentralisation                                                                 | Vijayanand S M                     | Decentralisation | <a href="#">smv.mp3</a>              |
| (9)   | Video Document          | Kerala - Land and resources                                                                       |                                    |                  | <a href="#">kerala.mpg</a>           |
| (10)  | E-mail Message          | LIS-Forum mail message                                                                            |                                    |                  | <a href="#">LIS-Forum Digest.eml</a> |
| (11)  | A website in Internet   | A website in Kerala State Planning Board                                                          | Kerala State Planning Board        |                  | <a href="#">keralam.html</a>         |
| (12)  | Access Database         | Address list of Grama Panchayats in Kerala                                                        |                                    | Panchayat List   | <a href="#">Address.mdb</a>          |

If you click on the hyperlink appearing against the **Fulltext** field, the document will be opened automatically.



## **Conclusion**

Winisis, which we have been passively ignoring as a mere cataloguing software, is emerging as a software tool for creation of digital archive containing text, pdf, audio, video excel or similar types of documents. Anyone can create searchable archive of full text digital documents so easily with Winisis and can manage it conveniently for effective information services. The write-up provides the basic steps to create an archive of full text documents easily. We can treat such a digital document archive as a proto-type digital library.

The archive thus created can be provided with a web-based front-end/html homepage for search, with *GenesisWeb* software, so as to make it a web-application. The use of Winisis for digital archiving in our libraries can help in transforming our libraries into knowledge centers and the librarians into knowledge managers.

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