



Bookshelf--A Network Online Reference Tool

Indexing

by Linda B. Merims

1. Indexing

The Bookshelf plan so far only considers the problem of indexing *within a single volume*. Such provision as might be made for indexing across volumes probably lies in keywords on catalog cards.

Indexing through a book is a function of the browser. The scheme employed is basically that used in the VS100 help browser. An index entry shows up in **boldface** type in the text. If you point to an index entry and press a button, you'll hop to that page. You can always retrace your steps.

- The table of contents of a document is an index.
- Bold words within the text are index entries.
- Words in a book's index are index entries.

The primary idea in the Bookshelf indexing scheme is that it is *not* necessary to write an indexing program that will go through text, find flagged words, and create the index file. There is a program that is already doing most of this work for its own purposes: the formatting program.

Virtually all modern formatters produce tables of contents and indexes. They keep track of page numbers as they build the output file. However, their only interest in the data they have collected is to get the right ink on the output page. The data is then discarded. I do not believe it would be too difficult to modify a formatter to produce page offset information that could be used by a browser to index through a file.

If we could settle upon a common index format, anybody could modify their formatter to produce an index file that could be used by the Bookshelf browser.



Bookshelf--A Network Online Reference Tool

Memex--The Union Catalog

by Linda B. Merims

1. The Catalog Card

The *catalog card* is the basic data unit in the Bookshelf schema. The other programs that represent higher aggregates of information: the bookshelf, the backroom, and potentially the union catalog and library; all use collections of catalog cards to represent the volumes on their shelves. When you copy a book from a shelf, you are copying the catalog card from one shelflist to another.

2. Fields

Title	What to display on the spine. Or, in the title window that appears when you pass the mouseover it.
Filename	<p>The file that contains the document. There are two issues:</p> <ol style="list-style-type: none">1. Should this be a filename or just an abstract string that will be resolved by the name server?2. What form can the filename take? This is really asking: what filesystems do we support. This can't be resolved certainly until Athena itself makes up its mind. The possibilities are:<ul style="list-style-type: none">• local filename--definitely• RVD file? If it is an RVD file, then we must also include all information necessary to spin it up, or to access the nameserver for this information.• NFS filename?• RFS filename? <p>It would be best if responsibility for correctly retrieving these various types of files were left to the operating system.</p>
File Type	Text, Postscript, Scrapbook, Binder, Video, nroff/troff, program. You care about the type of volume because you may wish to call different viewing programs depending upon type.
Program to call + Parameter List	<p>The universal hook. Many sorts of viewing programs are being written, many already exist.</p> <ul style="list-style-type: none">• S. Wertheim, video neuroanatomy glossary• J. Anderson, video architecture plans and drawings• Info--Emacs manual

- Xman
- cref
- Ingres databases

It is note wise to restrict the types of books that can be puton a shelf to the type that our browser can read. This way, anybody, and--frankly, *anything* can play, too.

Backroom, for example, is implemented this way.

Number of Pages So that shelf displayers can give the impression of size. Perhaps the browser will use this to give an impression of thickness.

Spinebinding One of several types and colors to control appearance.

Owned vs Borrowed

To affect display, or send appropriate messages. You "own" a book when it's stored in your filespace. You've "borrowed" a book when you've copied only its reference to your self.

And

If this may turn into a real catalog, it may be wise to include data such as author, owner, keywords, synopsis, display size, date, and union catalog accession number.

3. Form

The catalog card will be an abstract, what form it is found in depends upon the need of the applications. In little applications like bookshelf, it may ben othing but text. As applications get bigger, it may turn into a database record.

4. Generality

We're speaking of documents, and things that with a stretch of terms can be thought of as documents. Put a binder and a box around a floppy with paper and you have something that looks like a book on a shelf.