

Wandering Through the Stacks

A Means of Going Beyond Formal Course Requirements

Peter G. Raeth, Ph.D.
Senior Research Engineer

During my student days, a great deal of benefit was gained, and, in fact, still is, by wandering through a library's books. Such wandering enabled me to go beyond a course's formal requirements. For example, understanding multi-dimensional spaces was difficult for me. Then I ran across a book by a Russian mathematician that had been translated into English. His explanation and illustrations were so clear that I was able to grasp and apply the concept. This was important not only in mathematics but also in designing computer systems, especially the structure of data in memory.

BookSearch, the capability presented here, allows one to explore the "card catalog" of a large collection of open-access downloadable books. The search can be conducted without internet access. However, internet access is required to actually download a book. The idea is to make best use of internet access when that is available. This supports people who do not always have internet access, an important consideration in many parts of the world. If internet access is readily available, an online version of this application is available: <http://informationanthology.net/Open-Access-Search.html>.

In the zip file, BookSearch.zip, there is a directory, BookSearchExecutable. That directory has three files:

- BookSearch.pdf This file.
- BookSearch.exe An executable that runs on a Windows computer.
(Tested on Windows 10 and 11 laptop and floortop.)
- data (directory) Holds a database of books.
(This database is in binary, not text, form. It is not directly readable.)

BookSearch.exe starts a local webserver and provides an interface for searching the database. The About tab shows the sources used. These sources were consolidated into the application presented here.

To start BookSearch running, double-left-click on BookSearch.exe from within File Explorer, as shown in Figure 1.

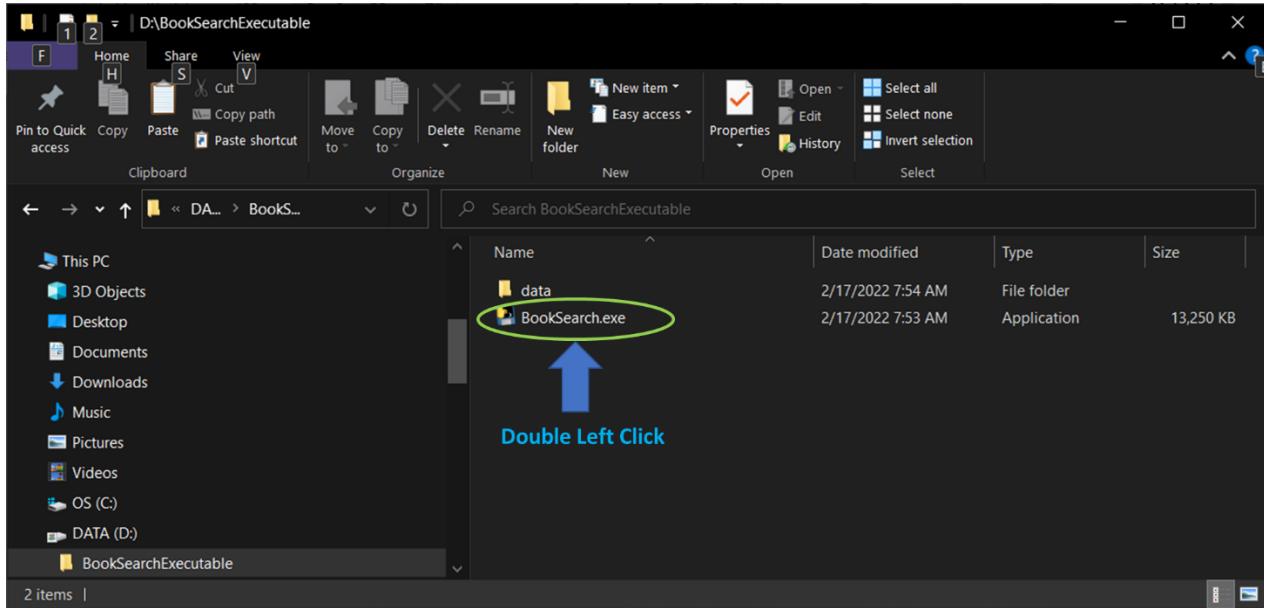


Figure 1. Double-left-click on BookSearch.exe to start the application.

When the application starts, you will see a console window, Figure 2. Notice at the bottom the address you should use in your browser. The console window is not necessary for using the application but it facilitates ending the application. Just enter ^C into the console. Just enter ^C into the console.

A screenshot of a terminal window titled "D:\BookSearchExecutable\BookSearch.exe". The window displays the following log output:

```
* Serving Flask app 'main' (lazy loading)
* Environment: development
* Debug mode: on
* Restarting with stat
* Debugger is active!
* Debugger PIN: 902-864-579
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

Annotations are present: a blue arrow points down to the line "http://127.0.0.1:5000/" with the text "Use Browser Go to this Address"; another blue arrow points down to the text "(Press CTRL+C to quit)" with the text "Enter ^C into the console to stop the application".

Figure 2. Use http://127.0.0.1:5000 in browser. ^C to quit.

After pointing your browser to <http://127.0.0.1:5000>, enter space-separated keywords and then left-click on the Search button, Figure 3. (If you want two or more keywords to appear together, put an underscore between them.) The search will insert AND between the keywords and then search in the titles and abstracts. If all keywords appear in either, the book is included in the search results.

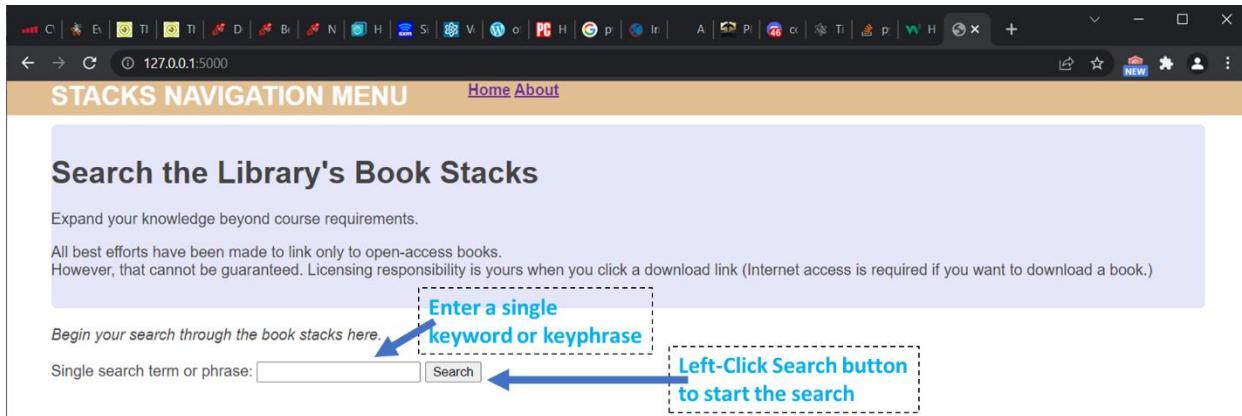


Figure 3. Enter single keyword or keyphrase. Press Search button to search titles.

Let's say we search on `technical_writing`. We would get a list of books with that in their titles, Figure 4.

Open Access Material		Commercial Material
Design Discourse: Composing and Revising Programs in Professional and Technical Writing		not populated in offline version
<p>Design Discourse: Composing and Revising Programs in Professional and Technical Writing/ edited by David Franke/ Alex Reid/ and Anthony Di Renzo/ addresses the complexities of developing professional and technical writing programs. The essays in the collection offer reflections on efforts to bridge two cultures — what the editors characterize as the "art and science of writing" — often by addressing explicitly the tensions between them. Design Discourse offers insights into the high-stakes decisions made by program designers as they seek to "function at the intersection of the practical and the abstract/ the human and the technical."</p> <p>Technical Writing</p> <p>This open textbook offers students of technical writing an introduction to the processes and products involved in professional/ workplace/ and technical writing. The text is broken up into sections reflecting key components of researching/ developing/ and producing a technical report. Readers will also learn about other professional communication/ designing documents/ and creating and integrating graphics. Written especially for an academic setting/ this book provides readers with guidance on information literacy and documenting sources. This book was collected/ adapted/ and edited from multiple openly licensed sources.</p>		

Figure 4. Partial result of searching on: `technical writing`.

Enter ^C into the console to end the application. I use this application to help find quality material while developing college courses for various organizations that provide learning opportunities. I hope you also gain good benefit.