Marketing Forestry Research and Information on the Web: The Canadian Forest Service On-line Bookstore

S.G. Glover, A. Thomson, D. Mills, and J. Adsett

The Pacific Forestry Centre of the Canadian Forest Service produces over 100 publications every year on various aspects of forestry, and these publications are distributed locally, nationally, and internationally. Our publications can be ordered from our publications catalogs. But with publications constantly being produced and distributed, those printed catalogs can become outdated in a matter of days. To overcome this problem and to provide the clients of the Pacific Forestry Centre with access to current information about our publications, the Pacific Forestry Centre has developed an on-line "bookstore". This bookstore offers an easy, effective and up-to-date method to search for, view and order any of the thousands of Pacific Forestry Centre publications currently available.

Strategic Importance

The rate at which new knowledge is being developed and presented to potential users has accelerated. Many practitioners are overwhelmed with the volume of information and are becoming increasingly selective in their acceptance of new practices and techniques. In an era of information overload and rapidly evolving electronic technology, how we get information from the producer into the hands of the "consumer" is of critical importance. To be credible, reliable and timely, an organization needs to distribute information in an appropriate manner. It is essential that the new electronic tools be used in the most advantageous way.

The Pacific Forestry Centre's on-line bookstore is one example of applying recently developed technology to the problem of distributing forestry information. The bookstore is an effective means of providing forest research information to users through the medium of the Web. It presents information in an intuitive and obvious

The Pacific Forestry Centre on-line bookstore gives clients access to current publications via the internet.

manner (see flow diagram on page 2). The user can browse the catalog of publications, read summaries of many publications, and order those that they wish to receive. The user can link to a wide range of related information, such as image banks, spatial data, digitized maps, multimedia and disease diagnosis tools, through active URLs that can be optionally configured for each publication. Many newer publications can be viewed or downloaded in Acrobat format. This system can be modified and adapted to new requirements and new technological developments.

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Technology

The Pacific Forestry Centre bookstore uses a combination of HTML web pages and databases to create both the web site and the embedded order-processing component of the bookstore.

Some of the database tables used in the bookstore include:

- **Orders** links the customer information and the ordered items.
- **Ordered Items** contains items the customer has ordered.
- **Customers** contains general information about the customer including a customer's username and password. This information can be easily modified by the customer.
- **Products** contains data about the publications. Each new publication is added to the products database, along with related information such as whether or not an Acrobat version is available.
- **Processing** files assist the Distribution staff with processing and shipping orders.

Using the Pacific Forestry Centre Bookstore

At http://www.Bookstore.pfc.forestry.ca you will find a web site designed to be user-friendly. Each page used in the on-line bookstore has a special purpose and interacts with one or more of the database files stored on the server. Every attempt has been made to remove limitations in moving from screen to screen or from topic to topic. Comprehensive help screens that clearly explain the use of the on-line bookstore are accessible from within the bookstore (http://bookstore.pfc.forestry.ca/help.htm). The sequence of the web pages that comprise the bookstore is illustrated below.

Users can search for publications and information in a variety of ways. A search of the entire current Pacific Forestry Centre catalog can be made by title, author, year published, subject category, or publication type, or any combination thereof. The search page provides the flexibility to modify a search by using various logical operators in the text boxes. The "help" page, accessed through the navigation bar to the left of the screen, contains a list of possible operators, their meanings, and how they
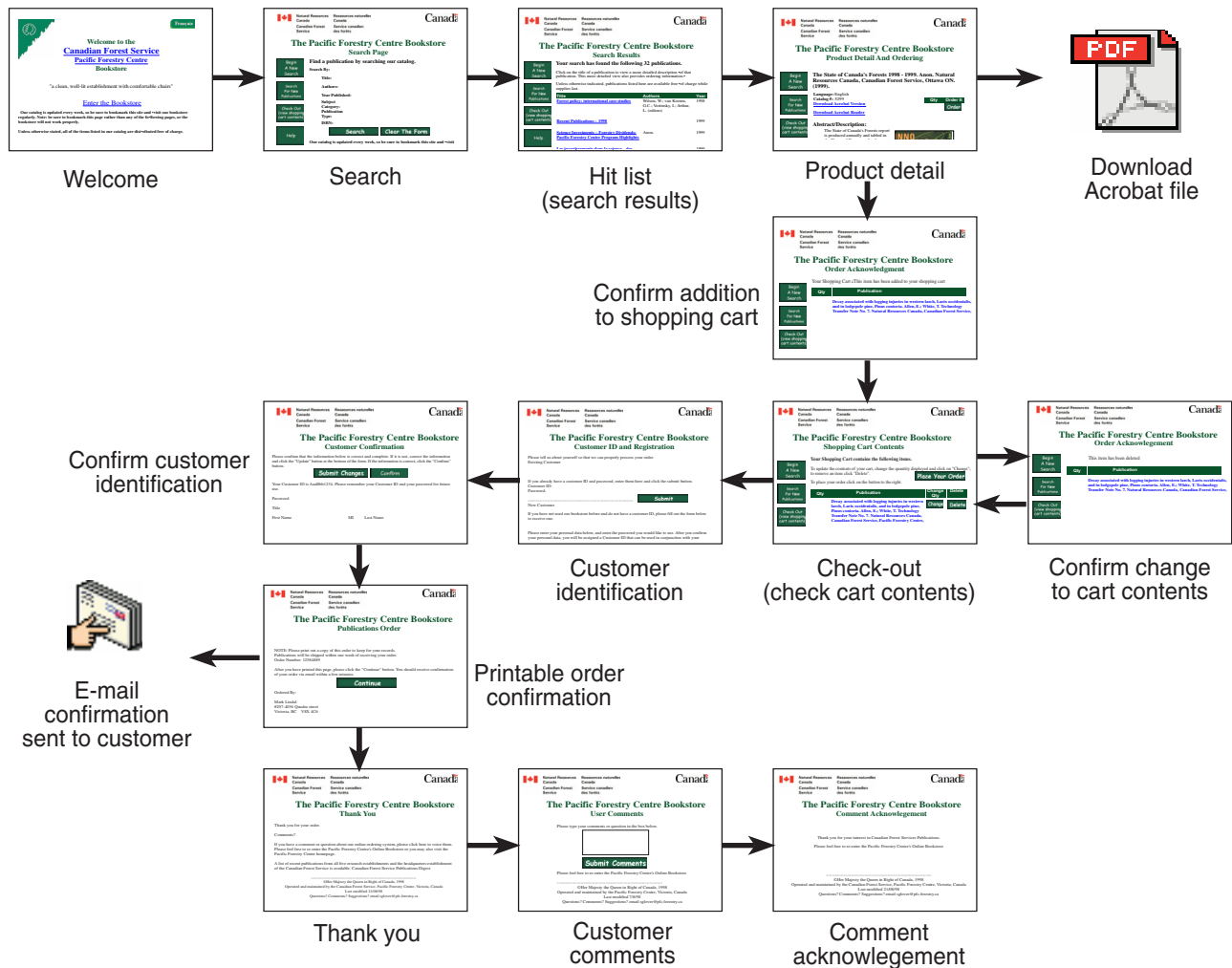
Flow diagram of the Pacific Forestry Centre on-line bookstore.
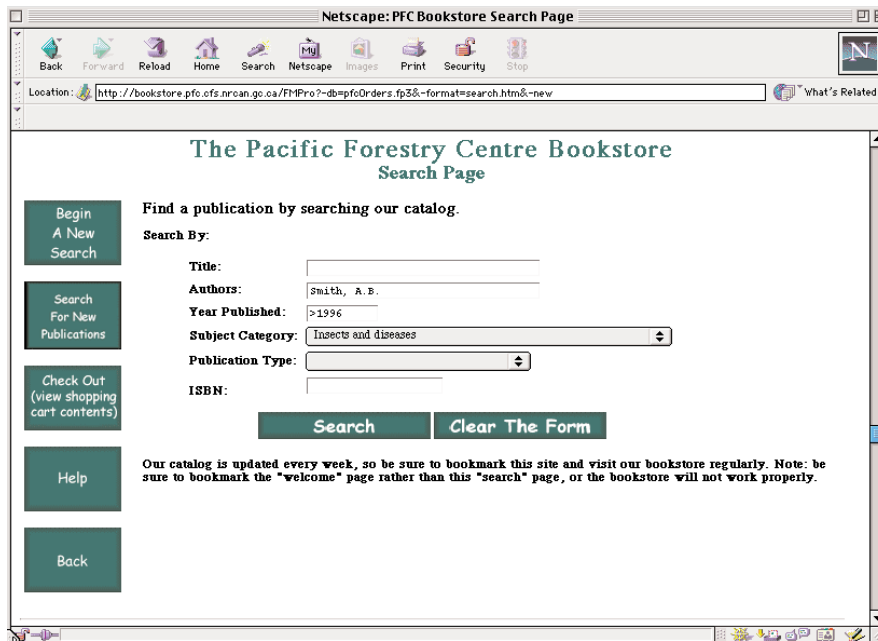
This user is about to search for all publications authored by "Smith, A.B."
on the general topic of "Insects and Diseases" that have been published since 1996.

can be used in the search fields. The illustration on page 3 provides an example of an enquiry using several fields and a logical operator.

Once a customer has completed a search and found a list of publications, more specific details about each publication are available. By clicking on a publication's title on the "hitlist" page, a descriptive "detail" page is opened, showing an abstract or description, the publication language, the catalog number, and whether or not an Acrobat version of that publication is available. Links to related information are often included on this detail page. It is on the detail page that a user can choose to put a publication in their shopping cart.

On each page there is a navigation bar to the left of the screen. A user may begin a new search at any time, obtain a listing of our most recent publications, view or change the contents of their shopping cart, go through the "check out", or get help.

The user may order one or many publications, and can keep track of their order by checking the "view shopping cart contents" page. This page presents a list of the items that are currently in the user's shopping cart, and users can delete items from the shopping cart if they so desire.

Ordering publications is simple. Once a customer has selected publications and placed them in the shopping cart, that customer is guided through the bookstore check out and asked to complete a customer identification form. The Bookstore defines a customer using information entered on the customer identification page. Customer information is protected by using a password; on subsequent visits to the bookstore, the user can recall their customer information by entering their password

and their user name, and customers can modify their information as required.

Once a customer has entered and confirmed the order data, an order confirmation is displayed on the screen, and a confirming email is sent to the customer by the system. (At present, all of the publications that can be ordered on the Pacific Forestry Centre bookstore are distributed free of charge. There are some priced publications listed in the on-line catalog, but they cannot be ordered through the bookstore; contact information in provided so that users can obtain priced publications through commercial distributors.)

After the ordering process has been completed, users can submit comments on the bookstore, re-enter the bookstore, or go to the main Pacific Forestry Centre web site.

Customized links to specific data in the Pacific Forestry Centre Bookstore

Recent comments by Barbara Quint, quoted in an article by Stephen Manes in *Forbes* Magazine, highlight two general issues of on-line databases that relate to the Pacific Forestry Centre bookstore. Firstly, the dataspace is not stored in catalogued web pages, so is not found through normal web searches. Secondly, the site's own software must be used to obtain information; so, how does someone know to go there?

We approach these issues by having a suite of customized programs that can link the bookstore to standard web HTML links. The bookstore section of the Pacific Forestry Centre

main page (http://www.pfc.cfs.nrcan.gc.ca/main/index.html) illustrates one such link, to "New publications", while the First Nations Forestry Program section on the programs page (http://www.pfc.cfs.nrcan.gc.ca/main/index2.html#programs) illustrates the other two types of link:

Building Strength - FNFP Success Stories
The Bridge, Issue IV - Newsletter of the FNFP

Each link does three things:

a) it lets you know something is there;
b) it provides words that will be indexed and found in normal web searches; and
c) it provides a context for the information by virtue of the other information on the page.

Behind these three links there is HTML code as follows:

<a href="http://www.pfc.forestry.ca/cgi-bin/utils/newpubs.pl">New Publications<a>

The Bridge

 Building Strength

These links point to scripts written in the Perl language residing in the cgi-bin section of the Pacific Forestry Centre web server. The Perl scripts in turn link to Java programs, which interface with the bookstore's catalog database. The "New publications" link activates an existing feature of the bookstore (a search for publications tagged in the database as "new"). The Perl script "catalog.pl" permits a web page author to link directly to any publication for which the catalog number is known (this information is displayed on the "detail" page on the bookstore), while the script "searchpubs.pl" permits a customized search on appropriate unique combinations of words.

These small programs may be considered "value added" knowledge components of the bookstore that address the general issues associated with on-line databases.

Interactivity

A useful feature of the Bookstore is its capacity for interactivity. Users can find and order the publications they need and at the same time send feedback. A separate database is used to store comments, questions, complaints, and suggestions related to the on-line Bookstore. Feedback from users of the bookstore will be useful in adapting and improving the bookstore and other services to fulfill the information needs of our clients.

Over the years, our audience has expanded geographically and broadened the scope of their search for information. In addition, electronic publishing on the web makes it possible to reach people who were perhaps not traditional clients. This system can provide a record of how those clients respond to what they see. The ability of a system to collect and transmit feedback to the site manager and ultimately, to the research managers, is important in maintaining credibility, timeliness and functionality. It also gives the Pacific Forestry Centre the means to offer packages of associated publications or services. In other words, audience's needs can be more accurately gauged and more efficiently met.

References

Manes, S. 1999. When it's not on the web. Forbes Magazine, September 20, 1999. (Web page viewed March 2000: http://www.forbes.com/forbes/99/0920/6407210a.htm).

Contacts

Steve Glover
Canadian Forest Service
Pacific Forestry Centre
506 West Burnside Rd.
Victoria, BC V8Z 1M5
(250) 363-0626
Email: sglover@pfc.forestry.ca

For additional information on the Canadian Forest Service and these studies visit our web site at:
http://www.pfc.cfs.nrcan.gc.ca

Cette publication est aussi disponible en français.