

## Internet Publishing Feature

# Publishing Textual Databases on the Web

Part 3 of this series examines Java applets and CGI/DLL programs

by Péter Jacsó

Java applets, as the name implies, are small applications written in the Java programming language. They can't be run from the operating system level but rather from within an application, such as a Java-enabled Web browser. They run on the user's side, although there are now Java servlets that run on the server side. This means that they have to be downloaded to the user's computer each time. This calls for small size, which in turn is likely to limit the capabilities of Java applets. Nevertheless, there are Java applets that can be very useful for publishing small directories and bibliographies on the Web by those who don't want to or can't afford to deal with full-blown CGI programs and/or Dynamic Link Libraries. Java applets for such purposes cost between \$30 and \$100 and are definitely worth a try.

### The Java Applet Example

Java applets have good potential for some textual database applications, especially for the directory types. They can be embedded in HTML pages, so no permission is needed from your ISP, such as for CGI software installation. They may also offer very flexible and visually appealing search interfaces to combine search criteria for filtering the results. One of the best in this category is the FindIt family of Java applets from DoubleOLogic (<http://www.doubleologic.com>). I used the FindItNow module to create a Web prototype of the print directory of the Association for Library and Information Science Education (ALISE) for my own use and for classroom demonstrations.

This print directory has the same limitations as most print directories, allowing one-dimensional searching by very few access points. The main part of the ALISE directory lists faculty members by library schools, with codes for their specializations, academic and administrative rank (if any), status (full-time, part-time, retired), phone number, e-mail address, and home-page URL. The 72 specialty codes and their text equivalents are listed in the directory. It is enhanced by a name index that includes the status of the faculty member and the school's abbreviated name to refer the reader back to

the main part. This arrangement does not lend itself to finding quickly, for example, full-time associate professors in the 57 accredited U.S. or Canadian library schools who specialize in, say, database design. Nevertheless, this is common information, needed especially by tenure track faculty who want to find their peers. Nor can you easily compile a list of either ALISE members or ALISE representatives of the schools.

The applet accepts—among others—comma and quote-delimited files where the record elements look like this: "Jacsó, Péter", "Associate Professor", "University of Hawaii", "Full-time", "Database Design or Management; Online Searching; Automation and Computerization" and the rest of the personal and affiliation data. This is a

metrics, or c) associate professors with an interest in academic libraries and collection development.

All it takes is to pull down from the appropriate search cells the window of possible values and click on one to form a Boolean AND search. The left-most cell lists the names of faculty who meet the criteria. Clicking on the name displays full information about the faculty member, as well as most of the information about the school he or she is associated with. The e-mail address and the home page (if any) of the faculty member are hotlinked, making it easy to send e-mail or go to a home page without leaving the applet. Although Java applets are yet in their infancy and cannot do taken-for-granted functions, such as

Figure 1

format that most mainstream database programs and bibliography formatting programs support, so exporting from an existing file was simple. I had to make a few changes to comply with some of the restrictions of the Java applet. FindItNow allows seven drop-down search boxes with up to 100 values in each. The width of the search cells must match the longest value for that data field. The total width of all the search cells may not exceed the screen. For this reason, I chose relatively short names for the main field of specialization. The possible values for each search cell are shown in drop-down windows. (See Figure 1.)

FindItNow creates a Boolean AND between the cells. One value per search cell can be selected. The software does not generate an index entry for each occurrence of a repeatable field (specialization in our example), so I arbitrarily assigned a main specialization as one of the primary access points. I also identified the specializations that deal with types of library, audience, and material, and made them separate access points. This somewhat alleviates the problem with repeated fields and makes it quite efficient to search by the combination of several criteria, such as a) full-time assistant professors specializing in young adult audience and A/V materials, or b) any faculty members specializing in biblio-

printing the results to a printer, they fill a niche very well for simple applications.

### CGI and DLL Options

CGI stands for the Common Gateway Interface that communicates between an application program and a server. CGI programs may be written in Perl, VisualBasic,

Java, etc. DLL stands for Dynamic Link Library, which has a collection of functions that the application programs access. From the user's point of view there is no difference. Both kinds of programs need to be installed on the server side. There are many CGI/DLL applications for more sophisticated textual information storage and retrieval functions. Perhaps the most widely known by IT readers are those from Ovid and OCLC that are very appropriate for a university or corporation. On smaller scales there are CGI and DLL applications that cost from \$150 to \$8,000, and the price is not always a good indicator. Prices change dramatically, so check them out before making up your mind.

It is fairly easy to convert a desktop database to a Web database once you get the application installed on the server. Some applications, such as Reference WebPoster from Research Information Systems (<http://www.risinc.com>), at the low end of the price range (\$149) with decent search options, immediately recognize a desktop database. Others necessitate some adjustments in the desktop version first, such as DB/Text WebPublisher from Inmagic (<http://www.inmagic.com>) at the high end of the price range (around \$7,000), with advanced search features but very modest output layout control. For about the same price, Insight from Enigma, Inc. (<http://www.enigmainc.com>) shines in every regard, from file import capabilities to forms design to search capabilities to output layout control; it also handles SGML files.

These applications are not restricted to files with highly structured records. For example, askSam Web Publisher (<http://www.asksam.com>) does an impressive job with free-form files (such as Word or WordPerfect document collections, e-mail files, HTML page collections) and offers power search functions at the reasonable price of \$1,500. FindSuite Start from Best-Seller, Inc. (<http://www.bestseller.com>) is offered for free to libraries. I assume there are many librarians reading this column who may be strapped for money but yearn to have a powerful and free Web database publishing tool, so I have illustrated this article with a few screenshots from this software.

The database definition and customization are simple tasks (see Figure 2a), al-

(continued on page 36)

Figure 2a

“  
These Web database  
publishing tools keep  
improving, and their  
prices keep falling  
at a fast pace ...  
”

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lowing the designer to look at the input record while defining the fields. It can handle a variety of input formats, including

MARC records. Although you may search only one index at a time (i.e., subject or title or author), within that index you may use Boolean operators (see Figure 2b), and you may browse any of the indexes (see Figure 2c). Search results in short (see Fig-

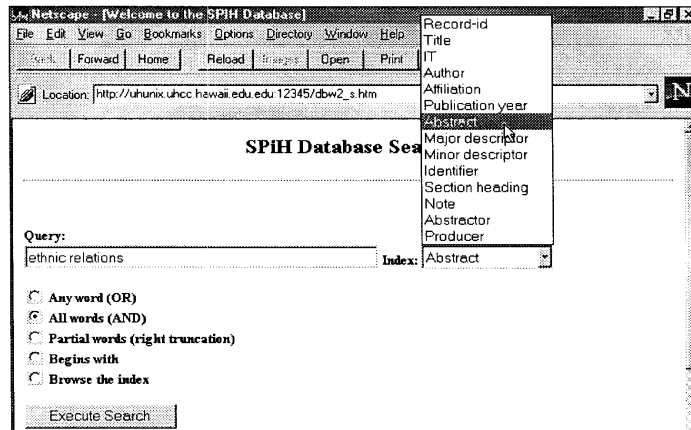


Figure 2b

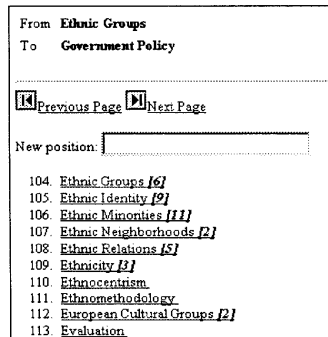


Figure 2c

ure 2d) and long formats are appropriate and intuitively offer hotlinks from fields of the records as selected by the designer. Creating an impressive Web database from a desktop database or from just a master file of public domain MARC records cannot get easier than this.

These Web database publishing tools keep improving, and their prices keep falling at a fast pace, ensuring that many

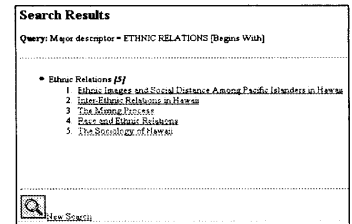


Figure 2d

valuable print bibliographies, directories, abstracting/indexing, and perhaps even full-text databases will be published by librarians and information specialists on the Web to let users benefit from it world wide.

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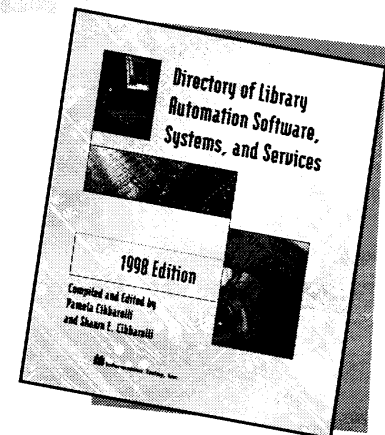
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Compiled and edited by Pamela Cibbarelli & Shawn E. Cibbarelli

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