

# What's hot and what's not

By Denise A. Troll

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## *A look at the automation vendor exhibits at Midwinter*

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I spent six hours visiting the booths of library automation vendors in the exhibit hall at the ALA Midwinter Meeting in Philadelphia. In most cases, a vendor representative was available to talk so I introduced myself as a reporter for *C&RL News*, showed my yellow press ribbon, and asked a leading hypothetical question: If I were a customer, why should I buy your product instead of the competition's? After the conference, I reviewed my notes and the handouts and press kits that I gathered from the vendors. This article reports on the adventure that ensued. It is presented not in chronological order, but categorically, the events described in terms of what's hot and what's not in the commercial world of library automation.

### **What's hot**

Six trends emerged as I navigated the busy aisles of the exhibit hall and reviewed the marketing literature:

**1. Library management software.** Many vendors are automating library staff functions and technical services. Like cars, the products range from the inexpensive compact model to the expensive four-door sedan. Vendors like Nichols Advanced Technologies, Inc., and the Library Corporation address the needs of the small library by automating one or more functions, typically circulation and cataloging. Brodart TIPS software automates collection analysis and development functions. Other vendors, targeting larger budgets, are building sophisticated systems that integrate staff and public (OPAC) access to library databases and services. Integrated system software is modular in de-

sign and sales. The requisite modules of a fully integrated system appear to be circulation, cataloging, acquisitions, serials control and the OPAC. Many vendors—including Ameritech, CARL, DRA, Endeavor, Gaylord, Innovative Interfaces, Sirsi, and VTLS—have these modules now. Other vendors have one or more of the key modules in development (e.g., Mandarin and Tapestry). The modules typically include transaction logging and reporting. Some vendors have additional modules in production or under construction, including data conversion, authority control, and media booking. The trend is toward client-server architecture and relational database management. There also seems to be a trend to migrate to Unix although there are exceptions, and different strategies are being used to build systems—e.g., RDBMs versus traditional keyword/boolean engines like BRS.

**2. The World Wide Web (WWW) and other Internet services.** If anything stuck out as new in the automation exhibits at ALA, it was the number of vendors advertising URLs as access points to their real or sample data or to information about their products and services. SilverPlatter, the Library of Congress, and many of the fully integrated system vendors noted above provided promotional handouts that described their use of the WWW. Faxon put its URL on the buttons it was giving away. Mosaic and Netscape were the prevalent clients. The most striking applications of this technology—Sirsi's WebCat and OCLC's WebZ—integrate WWW and Z39.50 services. WebCat dynamically creates "pages" from Sirsi's proprietary server or any compliant Z39.50 server database.

In addition to WWW access, software vendors are providing gateways to other Internet services, e.g., telnet, ftp, gopher, WAIS, and electronic mail. The presentation of the gate-

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way varies and with it the user's access route to information. When the gateway is integrated with the OPAC, users simply follow links in retrieved information. When Internet services are packaged separately, users must select either a service or a destination prior to searching for information. For example, HSLC's NetSelect software provides connection to the Internet, menu-driven access to Internet services, and a feature that enables users to monitor Internet discussion lists without subscribing to them. Sirsi's VIZION software organizes Internet services in a desktop portfolio of over a thousand Internet destinations that can be searched, sorted, and filtered. For sites without local expertise, the Global Library Connection Program from C.L.A.S.S. will design the network, configure the machines and popular Internet service software, write the necessary scripts, and even customize the home page on the WWW.

**3. Enhanced OPAC features.** In addition to integrating OPAC and Internet services, enhanced OPACs provide access to local and remote databases online or on CD-ROM. Again, the architecture is client-server with software modules sold separately. For example, Sirsi and Ameritech sell integrated OPAC and library management system software separately from their system software for locally mounted reference databases and indexes. Gaylord provides gateways to IAC and RLG databases. VTLS sells a gateway module to CD-ROM databases.

The need for interoperability with remote catalogs and databases foregrounds the use of standards. The popular retrieval standard is Z39.50. Many vendors in the exhibit hall demonstrated Z39.50 clients interoperating with Z39.50 servers at different sites. DRA's Z39.50 client (DRA Find) can search multiple databases at multiple sites simultaneously and retrieve local holdings information from the sites that support this service using Z39.50. Ameritech, CARL, and TRW recently announced efforts to provide Z39.50 interoperability with SilverPlatter databases. (IAC and UMI databases will soon be available from SilverPlatter.) Note that Z39.50 implementations do not necessarily talk to one another and libraries need to be aware of the "real" versus "theoretical" compatibility. Even when systems are compatible, databases on remote servers may not have all the indexes that are available in local databases, so retrieval may not meet the user's expectations. An additional standard being applied for interoperability

among vendors is EDI, electronic data interchange.

The newest enhancements to OPAC technology provide patron self-service features. Depending on whether the features are configured to be mediated or not, patrons can either submit requests for or actually check out books, put them on hold or reserve, renew or recall them, and inquire about overdue books and fines. Many vendors use the 3M software for self check-out services. A new development is the provision of these services over the phone. CARL advertises Phone Circ and Phone Notices; VTLS has Phone Works. Several integrated systems—e.g., Best-Seller and Sirsi—also provide e-mail services so that users can send questions, comments, or bug reports to library staff.

Multilingual user interfaces are available but not widespread. For example, Nichols offers an OPAC in English and Spanish; Winnebago offers an OPAC in English, Spanish, and French.

**4. More data, faster updates.** Another trend in the exhibit hall was the proliferation of data and data formats available online, on CD-ROM, or on magnetic tape, and comments about timely updates and distribution procedures. The focus is on full-text news, business information, government documents, scholarly and literary works, and hard-to-find publications. Target markets range from K-12 through scholars and professionals. A product called Broadcast News provides searchable full-text transcripts from over 80 television news programs. Softline Information, Inc., is keying in the full text of ethnic materials that have limited distribution and are therefore often inaccessible. The pinnacle of current data delivery is OCLC's PRISM PromptCat service that enables users to retrieve MARC records of new materials prior to publication.

**5. Clients and color.** Character-based clients are available, but the trend is conspicuously toward graphical user interfaces. The most popular graphical client is for a PC running Microsoft Windows. The second most popular platform is the Macintosh. H.W. Wilson introduced "the first Macintosh-based CD-ROM product." IAC offers InfoTrac databases for the Macintosh. Several integrated system vendors (e.g., DRA, Sirsi, and OCLC) will have Macintosh clients in 1995. Character-based clients on PCs and Macs typically have a bright blue screen with red and yellow highlights. The graphical user interfaces use the same primary colors or an entire palette of bright colors. Motif (UNIX)

clients are rare and use more subtle colors or gray scale displays.

### **6. Document delivery and multimedia.**

More and more vendors are handling or planning to handle full-text documents in ASCII and image formats. Access to image documents is typically provided through links to database records or browsers that enable users to navigate hierarchies of documents—e.g., selecting a journal title, then a volume, issue, and article. Some clients, like UMI's ProQuest and RLG's Ariel for Windows, can display and print the documents. Others enable users to request interlibrary loan or fax or mail delivery (e.g., Ei's Article Express International). Image and ASCII documents are being provided by publishers, information brokers, or the local site. OCLC's FirstSearch enables users to specify the delivery method and document supplier. OCLC's SiteSearch Image Extension module, RLG's Ariel, and other products enable sites to build image collections (including electronic reserves) for desktop delivery.

Nichols' Athena software provides facilities for linking color photographs to patron records in their circulation systems. Audio and full-motion video are becoming more prevalent. GEAC and DRA demonstrated sounds linked to database records. The newest applications of sound technology are the telephone self-service modules (described above).

### **What's not hot**

In the course of my discussions with the vendors, I had the opportunity to ask follow-up questions. It was here that I learned what was not hot in library automation, an observation that was confirmed by my review of the promotional literature.

**1. Awareness of the competition.** The first thing I learned that is not hot is competitive awareness: library automation vendors often don't know what the competition is doing. It was alarming how many vendors admitted that they couldn't tell me what features or functionality they offered that the competition did not. Only one vendor pulled up a chair, invited me to sit down, introduced herself as "David in a sea of Goliaths," and talked to me at length about the philosophy of customer service as problem-solving that sets Best-Seller apart from the competition. Since most vendors couldn't answer my question, they rattled off a grocery list of buzz words: client-server, standards, Internet, graphical user interface, parameteriza-

tion. I heard again and again that their product was "fully functional," but no one I asked could specify a function that they had that their competition did not. In one case, a vendor mistakenly cited a feature as new and unavailable from anyone else; the feature has been available from competitors for years.

**2. Awareness of the customer.** The second thing I learned was that many vendor representatives know little if anything past the marketing hype. No one I asked could tell me what version of Z39.50 they were running, though they assured me that it was the newest one. Sometimes the representatives I talked with openly admitted that they were unfamiliar with the software and could not adequately demonstrate or describe its features or underlying architecture. Other times they tried to muddle through, not necessarily to the advantage of the product. I suspected that many of the vendors underestimate the knowledge and sophistication of their customers. During my two breaks from chatting with vendors, I asked people who had been in the exhibit hall their impression of the vendors' discourse, the way they were pitching their products and answering questions. The people I asked had the same impression I did and a feeling of disappointment. They're looking for professional products, product literature, and vendor representatives who know and can demonstrate or describe how the products work from the perspective of the user, the system administrator, and the software architect. Budgets are tight and libraries must shop wisely. Many of us are leery of canned demos, weary of media hype, and would prefer an intelligent conversation.

**3. Awareness of human factors research.** Vendors also apparently know little if anything about human factors and interface design. A simple review of the published research would have prevented some of the atrocious interfaces demonstrated in the exhibit hall and pictured in the promotional materials. The examples I'll cite here pertain to the use of color, but I could just as easily have picked examples that pertain to readability research. Many vendors demonstrated PC windows interfaces where the window frame (menu bar, scroll bars, and rows of icons) danced in various vibrant colors. One vendor demonstrated an interface in which each field in a database record appeared in a different color. Another vendor demonstrated lime green database records with red letters. I asked this vendor if he knew what

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these records would look like to the color blind and what percentage of the population was color blind with red and green. He responded that the colors were customizable, and proceeded to demonstrate unsuccessfully how to change the color of the many components.

During the attempted demo, my mind wandered to Edward Tufte's work on graphical design. Tufte describes the best user interface as conveying the maximum amount of information in the smallest, simplest (least busy or distracting) space. A good design will foreground the information contained within the window, not the window frame; the two will not compete for the user's attention. Tufte cites the cartographer's work as the best example of color interface design. The implication is that a user friendly graphical user interface will look more like a good surface map than a rainbow. The use of bright primary and secondary colors in dancing rows of menus, icons, and text indicates that vendors are not applying relevant human factors research. SIRSI is an example of a vendor undertaking testing with users based on HCI. This is the best approach to client design and development.

**4. Client development.** I also learned that the client business itself is not hot. Two com-

ments were quite telling. One vendor told me that a few years from now the client will be whatever Mosaic evolves into. Another vendor told me that the client will be whatever Bill Gates wants it to be. What is striking about these comments is that the vendors see themselves as being out of the client business in the near future—which may explain why so many of them are exploiting Mosaic instead of conducting or applying human factors research.

**5. Technology for access not ownership.** The final observation I made that falls into the "not hot" category is that many of the CD-ROM vendors are reluctant to change media. I categorize this as "not hot" because it indicates that vendors have not yet adopted the philosophy that has been the library mantra for years: access not ownership. Selling stand-alone systems whose performances severely limit simultaneous use under a banner that proclaims to take the library into the 21st century somehow strikes a dissonant chord in the context of the libraries' harmonious vision of future interoperability and possibility. As the cost of magnetic disk storage decreases and the number of successfully interoperable systems increases, one can only hope that vendors will follow suit. ■