PC Reservation & Print Management Software

By Richard W. Boss

The demand for access to PCs and for printing exceeds most libraries' resources, therefore, it is essential that there be a way of equitably allocating time on available PCs and recovering the cost of printing. A decade ago most libraries used a sign-up sheet and the honor system for collecting payments. That may involve a significant investment of staff time, time taken away from more important activities. Now that many libraries have scores of PCs and, in some cases, hundreds of PCs, it is essential that staff be relieved of the responsibility for reserving computers, monitoring time, and accepting payments. There are two types of products that achieve that: reservation/time control software and print management tools. While available separately, they are often bundled.

Access management versus access control is another issue for libraries. While some libraries may seek to direct or deny access to some Web sites by children, a larger number want to manage access, including authenticating patrons, providing links, metering of use, and compiling of reports. While access control software offered by vendors of reservation/time control and print management software is briefly discussed in this TechNote, readers who are specifically interested in a discussion about site blocking and content filtering should consult PLA's TechNote entitled "Filtering: No Easy Answer," at this site. For an objective and highly detailed evaluation of blocking and filtering products by Australia's CSIRO for NetAlert and the Australian Broadcasting Authority, see www.aba.gov.au/internet/research/filtering/filtereffectiveness.pdf].

Reservation/Time Control Software

Reservation/time control software schedules access to PCs and manages session time. Some began as time limit managers-products that did nothing more than limit the use of a PC to 30, 60 or another specified number of minutes. They evolved into products that also handle the reservation of PCs.

Most of the products are server-based, requiring not only software on each PC, but also on a server. When a system is distributed, the clients can function without communicating with the server, but a management console is required for centralized control and data gathering.

Almost all of the products are now self-service, meaning that library staffs don't need to take the reservations and enter them into the system. In fact, most allow remote reservation via a LAN or the Internet. Patrons are provided a receipt with their reservation information and are granted a grace time for late arrival before the PC is returned to the pool for reassignment.

All of the products make it possible for staff to remotely set up reservations, send message to any PC, terminate a session, extend the time for a user, restart a PC, or shut down any or all PCs.

Most of the products are queue-based, assigning each patron a position behind patrons who have already been assigned. The alternative is a time-based product, one that assigns a patron an exact beginning and ending time for the session. This eliminates the need to wait for the previous user to finish. Should a user finish early, an abbreviated session can be assigned for the remaining time until the next reservation.

Patron authentication is an important feature of reservation software because it makes it possible to deny multiple reservations by the same patron. It also makes it possible to deny access to children in an adult area, or to other users a library wishes to restrict in some way. The most common is to control access to specific applications and online reference services. In this respect these products are displacing access control software such as WinU and WinSelect, products that many libraries have used to control access to desktop applications and the Internet.

All of the major products have an on-screen clock or timer so that the patron knows how much session time remains. If a PC is inactive for a library-specified period of time, the session will be ended, but before that happens, a warning message alerts the patron that he or she must respond that further use is planned.
Another important feature is the ability to "refresh" after each user, thereby providing greater privacy. A few products include a "my library" feature, software that keeps track of a user's preferences, including favorite sites and desired level of filtering.

Most reservation software includes a SIP-based interface to the patron database of an automated library system, however, at least one product stores patron IDs as an option.

Multilingual products are only now emerging and only one allows the patron to specify the language. A convenient feature offered by only one of the products is the ability to lock the session so that the patron can briefly leave the PC.

Library Guardian uses a "smart card" on which a patron's credit balance is maintained.

Statistics on use are kept by all of the products, including time used, number of sessions per day, average session length, longest session, etc. They also report on reservations made and not used.

The typical cost for reservation products is $100 to $200 per PC, with the cost per PC going down as the number of PCs goes up. The figures do not include the hardware cost for the server that may be required, typically a low-end machine costing no more than $4,000. In some cases, patron authentication and Internet access control are separately priced options.

Six products are widely used by libraries: Comprise's SAM Reservation Manager/Time Manager, CybraryN's CybraryRSVP, Envisionware's PC Reservation, Library Guardianet's Library Guardian, Pharos' UnipriNT Site, and SRI's Library Online Computer Booking and Time Control Module. SRI is a division of TELUS Enterprise Solutions.

PC Reservation uses a distributed processing approach; the others are server based. When only a few PCs are involved, PC Reservation is the least expensive because no server is required. PC Reservation stores patron IDs in an inexpensive management module; the other products include an interface to the patron database of an automated library system. If PC Reservation is configured without a management module, patrons log in with PINs given out by staff.

PC Reservation was the first to introduce a time-based product, but other vendors appear to be modifying their products to offer this option. For example, CybraryRSVP now includes an option for patrons to schedule themselves at the next available PC or at a scheduled time. Only Library Online and PC Reservation are multilingual, and only PC Reservation allows the patron to specify the language. PC Reservation allows a patron to lock the session while temporarily away from the PC.

Access Control and Access Management

Access control recognizes patrons using patron authentication and gives or denies access to desktop applications, online reference services, specific URLs, and the Internet as a whole. The vast majority of products, including almost all of those evaluated by CSIRO, seek to block sites deemed unacceptable or to filter content. Comprise's Internet Manager and CybraryN's Internet Control share that focus, although they can be used solely for the management of access to electronic resources. This includes patron authentication, links to electronic sources of information, metering of use, and compilation of reports. EnvisionWare's Launch Command has the management of access as its primary focus.

While the access manager may be linked to the patron database on an automated library system, most of the products also store library card numbers and passwords to recognize patrons.

Comprise's product is called SAM Internet Manager, CybraryN's is called Internet Control, and EnvisionWare's is called Launch Command. SRI's online does not include this application.

Print Management

Print management is more than collecting payment; it includes the provision of privacy for patrons by verifying jobs to be printed and holding printouts at a release station until patrons are ready to pick them up.

Most print management software comes in two versions: client-only for use on individual PCs and networked print manager for multiple PCs on a network. The latter requires a network release station. Almost all offer the option to limit the number of print pages, variable charges for different printers and print sizes, and a library-specified number of free pages before payment is required.

Libraries that have purchased reservation and time control software usually purchase print management software from the same vendor. Comprise's is called SAM Print Manager, CybraryN's is called CybraryPRINT, EnvisionWare's is called LPT.One, Pharos's is called UnipriNT Light, and SRI's is call the Library Online Print Management Module. The cost ranges from under $100 to nearly $200 per PC supported.
Print management software may be interfaced with either a coin box or a debit card reader. A coin box may cost as little as $300, but it usually means that staff must make change or a relatively expensive change machine must be installed. It can also be difficult to interface a coin box with a reservation system, but at least one vendor promotes this option. Coin boxes are most commonly used when a side printer is configured with each PC.

A debit card reader typically costs between $600 and $1,200, and a debit card dispenser costs $3,500 or more. It is not difficult to interface a debit card reader with print management software, therefore, it is the most common form of payment collection when a print station serves several PCs. The Vend-a-Card systems from CCS Products are the most widely used card readers and card dispensers. There are many others that can be identified by searching "access control systems" on the Web. Some vendors of PC management software offer a turnkey system that includes the debit card readers.

PC reservation/time control, access control/access management, and print management software are changing rapidly, therefore, vendor Web sites are the best sources for current information. Journal articles dated as recently as 2001 are not good sources of current information.


PLA Tech Note by Richard W. Boss