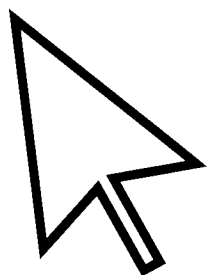


## Program Manager

File Options Window Help



# Point-and-Click at the Reference Desk

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**Before this project, librarians stood in line with patrons to access... automated tools**

**N**etworked CD-ROM workstations, online catalog terminals, serials system terminals and OCLC public access terminals were all electronic tools in the University of Toledo's Carlson Library reference area. Like many reference librarians, Carlson Library's reference staff was confronted with a proliferation of workstations and terminals, each dedicated to one library system or function.

In response to this problem of electronic clutter, we developed two integrated workstations for use by staff at the reference desk. The result was two Windows-based, networked microcomputers that provide ready access to *all* automated library resources, including the online catalog, CD-ROM databases and Internet resources. Here's their story.

### GOALS

In early 1992, the Coordinator of Library Automation began investigating how to combine most of the automated public services functions into two workstations using graphical user interfaces. Integration's promising benefits included:

- Reducing confusion and barriers created by multiple terminals and workstations
- Regulating communications cost by using the Internet instead of dial-up access to remote databases
- Regulating database subscription cost by providing Internet access to OhioLINK databases and the union catalog
- Reducing the purchase and maintenance cost of equipment dedicated to single functions

Ideally, these workstations would operate on the library's Novell NetWare 3.11 LAN and would access the NOTIS online catalog, networked CD-ROM databases, various Internet resources, and commercial services, including OCLC's EPIC.

### A NEEDED CHANGE

Before this project, librarians stood in line *with* patrons to access the following automated tools:

- NOTIS online catalog terminals
- Innovacq serials terminals
- Networked and standalone CD-ROM workstations

- An OCLC public access terminal

The reference librarians also had another computer for dialing in to DIALOG, BRS and the local county-wide public library system. Thus they had to use up to five workstations and terminals to deliver related services!

### LIMITATIONS TO DEVELOPMENT

Integrating multiple electronic tools into a single workstation was limited by several constraints. Foremost were financial limitations, since no funds were allocated for integrated workstations. We were limited to low-end 386SX microcomputers purchased for the library's CD-ROM network. Also, the workstations had to be installed and maintained by library systems staff (1.5 FTE at the time), and in-house expertise was primarily in the DOS/Windows environment. The software had to be off-the-shelf products with scripting or macro-writing capabilities to provide easy access to various resources.

### PROTOCOLS AND AN OPERATING SYSTEM

One of the challenges in developing these workstations was our need to run multiple protocols simultaneously on a single token-ring network adapter. These protocols included IPX to connect to the CD-ROM databases on the Novell network, TCP/IP telnet for Internet connections, and TCP/IP TN3270 to connect to the NOTIS IBM mainframe-based system.

Fortunately, Novell NetWare 3.11 provides protocol integration drivers called ODI (Open Data-Link Interface). Through ODI, multiple protocols can share the same network board simultaneously.

We selected Microsoft Windows as the most appropriate operating environment because it:

- Moves easily from application to application
- Provides good memory management

- Operates well on a Novell NetWare LAN
- Is bundled with the microcomputers and is therefore free

### INTEGRATED WORKSTATION CONFIGURATION

The hardware used for the two workstations were IBM PS/2 55SX microcomputers. They are based on the 16MHz 386SX processor and have a 60MB hard drive, 6MB of memory, a VGA monitor and a mouse. While these are very low-end specs by today's standards, they have proven adequate for us.

The software installed on the workstations is Windows-compatible and the communications software offers scripting or macro-writing capabilities. This enables the reference librarians to log into each application simply by clicking an icon. Aside from the initial login password when the PCs are booted, the librarians don't need to remember user IDs, Internet nodes or passwords for the various remote services.

### WORKSTATION SECURITY

The two workstations are located at a reference desk not staffed all hours the library is open. For this reason, and also because there are scripted logins to various services, including some fee-based commercial services, we had to ensure security. This was taken care of with a power-on password to the workstations (setting up power-on passwords is a standard feature of IBM PS/2s and is also available with DOS 6.0) plus a required password for the initial login to the library's local area network. In addition to these precautions, the mice are removed from the workstations when the reference desk is not staffed.

Besides preventing unauthorized use, we needed a stable Windows environment that could not be altered inadvertently. To ensure this, the Windows .INI files and Rumba .DSP configuration files are copied from a

network directory when the workstations are booted. If the menu setup is corrupted through changing window sizes, colors or other tampering, the setup is restored every time the workstation is rebooted.

A security alternative for these workstations is the possibility of modifying the PROGMAN.INI file to prevent alterations to Windows program groups or items. This method is documented in the July 1993 issue of *PC World* (pp. 117, 120).

### TRAINING

After the first workstation was up and running, we held a training session for the reference librarians. Some were unfamiliar with Microsoft Windows, so we included an introduction to Windows as well as detailed descriptions of the electronic resources. After training, one of the workstations was placed in the reference office area for two weeks so the librarians could get to know the computer and its software.

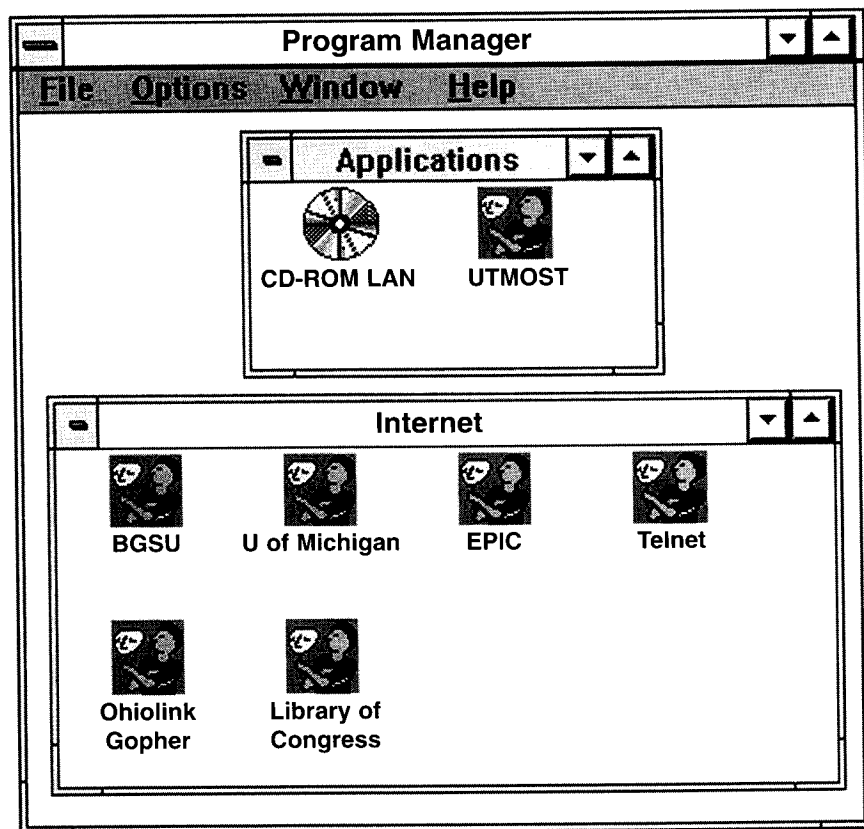
Besides the initial training session, ongoing training has been provided as new applications are added. One such session introduced the OhioLINK gopher service, while another provided training in searching by "staff mode" in the Innovative Interfaces acquisitions/serials system. Training has become more convenient since networked workstations have been installed in all the librarians' offices. When we add access to a new service to the reference desk workstation, we also add it to each office workstation. This has not only helped librarians get acquainted with network tools available at the reference desk but has also provided easy access to important research tools useful for their off-desk responsibilities.

### USING THE WORKSTATIONS

After logging into the workstations, reference librarians load Windows and view an array of icons (Figure 1). The most heavily used resource is the



FIGURE 1  
Main Windows Screen for Reference Desk Workstation



library's online catalog (UTMOST). In addition to the local catalog, reference librarians access other OPACs in the region (those within a reasonable driving distance, for example) to help with the interlibrary loan process.

#### CD-ROM Databases

Accessing the networked CD-ROM databases is also an important use. Having access to these databases enables librarians to answer phone reference queries easily. Before these networked databases were available at the reference desk, it was impractical for librarians to compete with patrons for the public workstations simply to answer phone queries. The workstations have proved efficient for enhancing phone services, eliminating the need for many call-backs. More importantly, database access at the reference desk allows librarians to demonstrate CD-ROM search strategies to patrons before they use the public CD-ROM workstations.

#### Online Services

Reference librarians also connect to several other resources from the

workstations. One is OCLC's EPIC service. EPIC is used to search the OCLC union catalog to answer interlibrary loan questions or to verify citations. EPIC also provides access to many bibliographic databases, at costs far less than DIALOG. Accessed Internet resources include the Library of Congress online catalog (LOCIS) and other gopher servers.

#### OhioLINK

Currently, Ohio has an initiative to link the state university and community college libraries to form a statewide information system called OhioLINK. OhioLINK runs on the Innovative Interfaces software, with a UNIX-based Innovative OPAC installed at each participating institution. In addition to local OPACs, OhioLINK provides a statewide union catalog used for patron-initiated interlibrary loan and document delivery. OhioLINK also provides member institutions with access to bibliographic databases, which currently include ABI/INFORM, Periodical Abstracts, Newspaper Abstracts, Dissertation Abstracts, AIDSLine,

Anthropological Literature, Applied Science & Technology Index, Art Index, Avery Index to Architectural Periodicals, Biography Index, Biological & Agricultural Index, Book Review Digest, CancerLit, Cumulative Book Index, Education Index, Essay and General Literature Index, Handbook of Latin American Studies, Health Planning & Administration, Hispanic American Periodicals Index, History of Science & Technology, Index to Legal Periodicals, Library Literature, MEDLINE, Nursing & Allied Health, PsycINFO and OCLC's WorldCat. Reference desk access to OhioLINK via the integrated workstations is obviously essential for reference staff.

#### CHANGING WITH THE FUTURE

We are constantly revising our workstations to accommodate new resources both locally and on the Internet. As new or useful resources are identified, icons are created for the initial menu screen to offer easy access. Future enhancements will include an upgrade from Windows to either Windows 95 or OS/2, plus an upgrade of the microcomputer platform. We will also add a Web browser to provide better access to Internet resources.

Our multifunction workstations at the reference desk have been all we hoped for. They have relieved reference librarians from competing with patrons for single-function workstations and terminals, and are invaluable for delivering efficient reference services. They have also proved cost-effective, reducing the number of workstations needed for separate functions and lowering telecommunications costs through connections via the Internet.

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