"Future User Interfaces and the Common Command Language"
by Walt Crawford

With any luck at all, 1991 will finally see adoption of ANSI/NISO Z39.58, Common Command Language (CCL). It's been a long, difficult process to nail down a standard that can provide a common means of access across many different catalogs and online systems. But according to some people, it's too late: command languages will be irrelevant for the online catalogs of the future. These brave new catalogs will use Graphic User Interfaces (GUIs) or WIMP's (Windows, Icons, Mice, and Pull-down Menus); patrons will thus be guided painlessly and intuitively to the material they need.

Well, maybe. I'd love to see the icon for "books about Japanese baseball, published since 1980 in English." Or, more simply, the icon that will tell me whether the library has Norman Mailer's book with a title something like "Fire on the Moon" without plowing through dozens of authors and titles. (The title is "Of a Fire on the Moon," so an alphabetic browse just might take a while.) Painless? Intuitive? Plausible on a dial-up line from home at 2,400 bps (if you're really lucky)?

No, this isn't going to be a jeremiad against GUIs or an assertion that commands are the only good way to use a catalog. But I will assert that access to a command line continues to offer the fastest and most powerful way to perform complex searches (where "complex" can be defined as anything other than a one-index phrase search), and that access to direct command entry would improve the usefulness of non-command-driven catalogs for frequent users and dial-up/network users.

CCL as a Secondary Interface?

CCL, probably the most widely-implemented not-yet-adopted standard in the history of NISO and Z39, could become the universal secondary access technique, available to power users and dial-up/network users as an alternative to the user-friendly, bandwidth-intensive, hardware-dependent, slow for complex searches, GUI interface that is so much fun to use the first time around.
Probably not all of CCL; most of the set-manipulation capabilities and macro-creation capabilities are useful for professional online searchers but overkill for patrons. Instead, I'd expect to see "secondary CCL" looking more like the partial CCL implementations that have been around (in some cases) for a decade or more: the West Coast Group--BALLOTS/RLIN (the original), Melvyl, Orion, Carlyle, and the like.

Yes, you can implement the logic of CCL in a GUI with icons, buttons and dialog boxes for the inevitable search text, and it would make an interesting design; I'd love to try one out. But it makes sense to have plain old CCL available from the keyboard as well; why penalize library users who find text comfortable?

The Return of the Command Line

I find it interesting that one significant improvement in PC Tools Deluxe 6 over PC Tools Deluxe 5.5 is that Version 6, which uses a well-designed "graphic" user interface, includes a command line within the interface window. You don't ever need to use it—but when you want the speed and power of the DOS prompt, you can mouse down to it and use it. Amiga users have noted for some years that they have the best of both worlds: the Amiga user interface is GUI in the extreme, but a command line is immediately available for the times when it's the best, fastest way to get the job done.

Understand, I do use GUIs. I can't imagine using Ventura Publisher as a pure command-driven system; ditto for any painting or drawing program. When I'm revising text in Microsoft Word, the mouse does come into play—and it certainly gets used in Quattro Pro. And yes, I find PC Tools much easier and more powerful at home (with a mouse and color screen) than at work (without a mouse, and with a monochrome screen). I'm text-oriented, but I'm no bigot.

Click on the Jar, then the Anteater, then the Piano. . .

Two or three years ago, two or three of us considered designing a truly graphic online catalog interface as a joke (after you got past the icons for indexes, you'd have twenty-six icons to narrow the search: an Anteater, a Bell, a Cat, a Dog. . . .on up to a Xylophone, Yacht and Zebra). We never prepared the demo for two reasons. For one thing, back then it would have been quite a bit of work. More importantly, though, we realized that people would take it seriously—after all, words are such a nuisance when you're looking for a book!

Comments?
What do you think? Does the future really omit the command line, or will mixed environments thrive? (Tried any good touch-screen catalogs lately?)

Those aren't simply rhetorical questions. I'm gearing up for another project on patron access, and your comments might help me to broaden my narrow-minded perspectives. Please send brief comments to my e-mail address and more lengthy ones to my regular mail address.

Meanwhile, whether in its pure form or embedded within a rich graphic interface, CCL offers the best chance for common entry points to diverse online systems. I hope to see it popping up in new offerings and revisions of current offerings, old-fashioned as commands may be.

+ Page 99 +

About the Author

Walt Crawford
The Research Libraries Group, Inc.
1200 Villa Street
Mountain View, CA 94041-1100
BR.WCC@RLG.BITNET

-----------------------------------------------------------------
The Public-Acces Computer Systems Review is an electronic journal. It is sent free of charge to participants of the Public-Acces Computer Systems Forum (PACS-L), a computer conference on BITNET. To join PACS-L, send an electronic mail message to LISTSERV@UHUPVM1 that says: SUBSCRIBE PACS-L First Name Last Name.

This article is Copyright (C) 1990 by Walt Crawford. All Rights Reserved.

The Public-Acces Computer Systems Review is Copyright (C) 1990 by the University Libraries, University of Houston. All Rights Reserved.

Copying is permitted for noncommercial use by computer conferences, individual scholars, and libraries. Libraries are authorized to add the journal to their collection, in electronic or printed form, at no charge. This message must appear on all copied material. All commercial use requires permission.
-----------------------------------------------------------------