Different by Choice

by Martha Cichelli, PhD, co-owner of SCS

A recent article in *The Seybold Report* describing an advertising system said, "The new system would be based on an SQL database and the Windows® operating system, of course." But why say "of course?" Windows and SQL may be the popular and trendy choices these days, and we can deliver applications using them, but we and our customers often make other choices, very much on purpose, to provide systems that are efficient, fast, stable, open and "Microsoft-free."

For our applications, desktop workstations may be PCs running Windows, but they don't have to be (they can be Macs running OS X or PCs running Linux®), and the servers are likely to be running Linux or Unix.

We work very hard at maintaining platform-independence, and we have a long history of this. Years ago, we delivered systems on DEC equipment running RSX, RSTS and VMS; HP equipment running MPE; and IBM equipment running MVS. During the last 30 years, we have supported at least 39 different platform types and versions. More recently, we have delivered systems running under SCO Unix® and Linux. We have ported the advertising applications to Windows as well, but no one has asked for anything but Layout-8000 and Newsprint Inventory to be installed on that platform. Our editorial and digital asset management products are Windows applications, although, even there, the image and story files may be archived on a Linux server.

Why do we remain platform-independent? Most of the advertising front-end systems in the 1980s were completely bound to specific hardware and operating systems, and they paid the price when new options became available. Can you imagine rewriting an entire application written in DEC assembly language and tuned to a specific DEC operating system? It just didn't happen!

Systems written specifically for Tandem machines, IBM AS400s and HP3000s are dying too. And - here's the lesson in all of this - systems written specifically and exclusively for Windows and Oracle® will someday go too. It's not that any of these environments were or are intrinsically bad (although some have been better than others); it's just that they come in and out of favor. Why bind your applications so tightly to any one of them?

How do we stay platform-independent? In the early history of our company, we did it by using the standard subsets of high-level languages (e.g. Pascal) rather than anybody's assembly language or non-standard extensions to high-level languages. Then all we had to do was find a compiler for the language on a new platform and, perhaps, translate some control scripts. This seems so obvious now, but there were people who claimed that only with assembly language could you get the performance required for a large multi-user system. We always felt that the right algorithms and database design were much more important for good performance than any tweaking at the machine level, and we have never had performance issues.

Over time we became convinced that the best way to keep ourselves platform independent was to create the set of development tools that we use now for all of the applications we build ourselves (i.e., the entire advertising system suite). Only the tools need to be ported to new platforms; every application written with the tools then moves without recoding. Not only platform changes but changes to the look and feel of every application are implemented by enhancements to the tools. Our WIMPS interface (windows, icons, menus, pointers and scroll bars) is now as pretty as anyone's.

What are these tools? We call them, collectively, Spice (the Dune books and movie were a big hit when a name was being chosen). They include our screen designer, relational database manager, text editor, composition engine, dialog manager, help manager, application code/formula language, XML processor, report writer and charting package. Back when this was a buzzword, we called Spice

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a 4th generation[1] language. The term is used to refer to non-procedural (or declarative) high-level languages built around database systems. SQL, for example, is a 4th generation language.

What is the underlying database? We use a record manager called C-tree (developed by Faircom, www.faircom.com). We are free to modify the source code, and we have made some enhancements over the years. It provides an ODBC-compliant (Open Data Base Connectivity) interface to our databases, which allows any report writer or query language that is ODBC-compliant to access our Spice databases directly and independently. Crystal Reports® and Visual Basic®, for example, can access Spice's ODBC-compliant databases. Spice also supports mirroring its databases with others like PostgreSQL.

Our Spice report writer (SpiceRAQ) can give you access to all the data in a Spice database - as a printed report, a screen display or an exported text file. (This is in addition to all the standard and user-customizable reports that come with each application.)

No one wants to feel that his or her enterprise data - an extremely valuable resource - could ever be held hostage by a vendor who uses a "proprietary" database package. Our customers have never been in this position. We have customers who send data to a "data warehouse" or interface to or from applications from other vendors; sometimes they create these interfaces themselves using the report writer tool and sometimes they ask us to help them do it. Our ODBC-compliant database interface tool makes data access easy for Crystal Reports experts.

What platform(s) do we use ourselves? Linux is our primary development platform here at SCS. Some of us also have Windows PCs and/or Macs on our desks, but many of us get along just fine with a Linux desktop. We all have access to Linux servers to develop and/or test the SCS applications and to use some of our own inhouse databases. We don't feel the need to go completely "Microsoft-free," but it would be possible. We have some customers who have made that a goal, and our applications will help bring it about.

Why do we like Linux so much? Well, first of all, it's free. Secondly, it is extremely reliable and stable; among other things, there are no virus security issues. Third, it is open source[2] and supported by an army of dedicated volunteer developers all over the world who love and cherish Linux; it is constantly being enhanced and improved, and any bugs which are discovered are promptly stamped out. We used to hear occasionally, "Aren't you afraid not to have a big company like Microsoft providing support?" When's the last time you felt you could report a bug to Microsoft and have it fixed within a day or less? Have you ever even tried to report a bug to Microsoft? With Linux, if we can't fix the very occasional problem ourselves, a post to a bulletin board brings several speedy responses. And, finally, we don't like the idea of a large monopolistic company holding everyone hostage; it's time for there to be other viable players.

Why should you feel comfortable doing business with SCS even if we are "different"? For one thing, we've been serving the newspaper business for a long time (for our company's history, read "About SCS" on our web site, www.newspapersystems.com). In fact, we've outlasted most of the newspaper vendors that were around when we started, even the industry leaders. I like to think that's because we have been doing things right. (As a sidenote, we were founded one year before Oracle and just one year after Microsoft.) We're not going away anytime soon, and even if we did, we have our application source code in escrow for our customers.

We're committed to the best algorithms that computer science, newspaper expertise and brainpower can provide. We have skilled programmers implementing these algorithms. Customers praise our support staff as the best anywhere. Our long-term technological vision, our dedicated and intelligent staff, our extensive experience in both computers and newspapers and our reliable support are just a few of the reasons to get your newspaper systems from SCS.

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[1] The first generation was machine language. The second was assembly language. The third included high level procedural languages like Pascal or C.

[2] "Open source" is software that is distributed with the source code, that can be freely redistributed as is or in a modified form, that can not be sold or licensed (although a modest media fee may be charged). For a more complete definition and explanation, refer to: http://www.opensource.org/docs/definition.php.