



The Developer's Perspective

BY ROBERT HOCHBERG

For the entire quarter century that our family business has been developing software, we have been rewriting it to keep in front of changing requirements. The computers keep getting smaller, just as customer expectations keep getting larger. The last time we had to rewrite the system, we adopted SSA's CASE technology, the AS/SET application development environment.

There are many wonderful things about developing in AS/SET, but the best is that it no longer matters what our customers are downsizing to. AS/SET will take us there.

Downsizing or rightsizing encompasses a lot of concepts. It means moving to an AS/400 or UNIX from a mainframe, moving an application to a PC from a host system, moving to distributed processing, moving to a client-server architecture, and so on. Different people have different definitions, but they all have the same goal: to reduce their costs. People also want to increase functionality, improve performance, and update the systems in general whenever they change systems.

Keeping Ahead Of Changes | Numeric was founded in 1967 by my father, Alan Hochberg, expressly to automate food manufacturers and distributors. He developed a batch system originally on an IBM 1130 and later ported it to an IBM 360 and IBM 370. We used to have a courier pick up the customers' data on sales, deliveries, inventories and cash payments. We would key in the data and return the results. It was a service bureau, much like ADP's payroll processing service, except that we did daily delivery runs like our customers, the milkmen.

In the mid-'70s we developed and eventually implemented an online system, still on an IBM mainframe, a 4300 at this point. We put terminals into our client locations. They would do their own

keypunching and print out reports at their end. That was vogue back then. It gave customers better results and reduced overhead for the bureaus.

In the mid-'80s we knew we needed some kind of host system to install for clients rather than have them run on-line to us. ATGT was breaking up, everybody was nervous about phone line costs and downtime. We developed another online system, this time for a UNIX computer, and started selling host-based solutions.

In time we adapted these programs for DOS™ platforms, local area networks (LANs) and even hand-held computers. Because we used RM COBOL for all

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these platforms, there was little redevelopment work required. However, we kept on looking for a way to generate applications in the language native to each platform and with a standard, consistent user interface and function keys across platforms.

In 1991, we chose CASE to provide these benefits.

The Turning Point | Late in 1990, we demonstrated our Unix™ package to H.P. Hood & Company, a New England dairy processor and manufacturer with more than half a billion dollars in annual revenues. It's great, they said, but we are downsizing from an IBM mainframe to an AS/400. What can you do for us?

We could do one of two things: port our COBOL-based system or write a new version for the AS/400. While we were weighing this decision, QCC (Dedham, Massachusetts), an SSA Affiliate with extensive rightsizing experience, suggested we take a look at AS/SET. We liked what we saw.

AS/SET was a strategic choice for the business, with positive impact far beyond satisfying a single client. It would get us to redevelop our product in CASE, resulting in a more maintainable product. It would generate RPG code, which seemed to be the de facto requirement on the AS/400. And SSA had a



strategy to eventually introduce a Unix C generator and a C++ generator for PC and networked environments. We were committed to supporting the food industry on all these platforms. It was logical as well as exciting to work with a single CASE solution that would drive them all.

We were sold on the long-term benefits of developing the AS/400 version in CASE, and not just for Hood's benefit. We have seen so many changes during our 24 years in business, that we reasoned: We are signing up new AS/400 customers who are carrying leases. One day the lease runs out. What are they going to want to do then? Clearly if they want to continue with their current platform, that's no problem. But if not, they would be back to the old redevelopment merry-go-round and so would we.

In October 1991, four of our programmers took the AS/SET training and began using the product. Our system then consisted of about 1,000 programs, and we wanted to introduce new functionality. Through extensive client contacts, I had collected ideas for functions that would help our existing customers' business or win us new accounts.

Roughly 18 months later, the new AS/400 system is functional and accomplishes the goals we set for it. We are now completing the last modifications specifically requested by Hood.

Beyond Open Systems | AS/SET gives software developers and software users a type of hardware Independence beyond open systems. There are already at least two competing kinds of open systems: Unix open systems and client-server open systems. IBM positions the AS/400 as an open system. Many Industry analysts expect Microsoft to

establish a new open systems architecture with Windows NT™. Granted that open systems make sense, which open system do you write to?

Now AS/SET can take care of all that for you with platform-specific generators that deliver the same application design to multiple environments. If Windows NT becomes a market requirement, I will buy an NT generator from SSA instead of ramping up for yet another rewrite. I am protected and so are my customers. One of the most wonderful benefits for the user is that, even if the computing platform changes, the screen and the function keys don't. So the investment in training is protected along with the software investment.

Application training is probably the most significant investment any company ever makes. Buying the software and hardware is peanuts by comparison. By the time you have everybody understanding and liking a system, should you really upset their productivity just to move to less expensive hardware?

From a software developer's perspective, rightsizing with AS/SET means that you no longer care what hardware anyone has. You are just selling software. If your prospect has the computer already, fine-your software runs on it. If they want something new, you can make a recommendation that suits their business. If they have a bias, you are not hurt by it; in fact you are helped by it. Their bias may change in a few years.

Documentation is the same for all platforms so it has a chance to get stronger, instead of getting torn different ways on different platforms. Support is likewise consolidated.

CASE is truly a business AS/SET for us.

ABOUT THE AUTHOR

Robert Hochberg is Executive Vice President of Numeric Computer Systems, based in Baldwin, NY. Numeric invented computerized Route Accounting in 1967 and has led the way ever since. Today it provides clients in the dairy, baking, beverage and prepared foods industry with comprehensive database systems that track their products through production, warehousing and final route delivery. Hochberg can be reached at (516) 223-6644.

