

DATABASE

George Schussel explains what IBM is after with its SAA strategy

WHAT IS SAA? It is IBM's plan for providing application standards across three diverse platforms — PS/2, AS/400, System 370. Its goal is to provide a set of standards and products that allow a single application to run identically on any of these environments. In addition SAA products will allow a high level of connectivity and cooperative processing capability for applications running across these platforms.

Is there anything new here? Many of the components of SAA are rather old stuff — products like Cobol, C, DB2, CICS, REXX, etc. On the other hand, there are some important and vital new concepts in SAA:

For example, Common User Access (CUA), the "look and feel" style guide for SAA applications, will help create a commonality across all modern IBM applications and combines the advantage of diverse IBM platforms with the standard look that characterises applications that run on Apple Macintoshes.

Another critical SAA component is Distributed Data Systems Architecture. In the past the most advanced data management implied the use of relational database management systems. In the future, this capability will be available under the SAA umbrella, but with implementation over a network of computers. In other words a single logical database view will be available to applications, independent of where the data is stored. IBM calls this "single systems image". This capability will transcend all of the IBM relational DBMS (DB2, SQL/DS, OS/2EE, etc) and both SAA and IBM's Unix environment, AIX.

Underlying platform

The new SAA component that has probably received the most media attention to date is AD/Cycle. This is the IBM approach to Computer Aided Software Engineering (CASE). AD/Cycle isn't just another CASE modelling and methodology tool, however. It's far more — and less — than that.

AD/Cycle is a standard underlying platform that will allow a database approach to be applied to application development "objects". Ultimately, AD/Cycle's goal is to allow for the integration of diverse CASE tools from different vendors.

SAA hardware is expensive. AS/400s and 3090s are not cheap by today's standards. The SAA software that is available so far

New concepts, using old familiar products

(OfficeVision, AD/Cycle) is expensive for its functionality.

IBM is not really committed to commercial application environments that operate entirely in the AIX (Unix) or LAN environments. While the company supports many products on these downsized platforms, for enterprise or strategic systems development these products must be supplemented with mainframe support and systems at mainframe prices.

SAA defines "open computing" so long as all of the hardware, operating systems and DBMSes come from IBM. Support for other hardware vendor's products isn't part of SAA.

Independent software companies like Oracle and Computer Associates will offer

IBM's workstation standards are built around OS/2EE. This environment requires a large 80386 PS/2 which costs around \$10,000. Since few existing PCs have enough power to run OS/2EE, this means substantial added outlays for most potential SAA users.

Almost identical

DOS/Windows 3.0 has a graphical user interface that is almost identical to OS/2's Presentation Manager. Support for Windows 3.0 on clients would not require a migration away from DOS and would require less hardware investment.

IBM has many hardware and software products for LAN environments. IBM's leading LAN product, of course, is OS/2EE which includes a graphical user interface, an SQL DBMS and a communications capability. Instead of thinking about a complete application that can run on the PC platform, however, IBM has handicapped the DBMS by not including a

roll-forward recovery mechanism.

At this point, anyway, that pretty much limits OS/2EE to read only/decision support applications.

Object-oriented languages and tools are paying off for some software developers. Their great advantage is the cost savings associated with software reusability. IBM understands the potential of this technology because it has licensed the NeXTStep software environment from NeXT. It is expected that a version of NeXTStep will appear on IBM's RS/6000 machines. That's fine, but SAA needs this capability also.

Much of the recent public criticism of SAA has focused on the notion that three years after its announcement, few companies have committed to compliance with SAA standards.

However, such a criticism must be seen against the fact that much of SAA, such as single systems image and AD/Cycle, is innovative and ground breaking.

In recent years IBM has not often been first

'IBM has handicapped the DBMS by not including a roll-forward recovery mechanism'

software solutions that span different hardware platforms better.

There are several things that IBM could do to improve SAA. Naturally, the sooner these capabilities are available, the better the computing community's reception for SAA.

Most application development languages provided with SAA are traditional SQLs like Cobol and C. IBM's 4GL, CSP, is also supported and is the designated code generator for the AD/Cycle CASE environment. The problem is that none of these languages has defined how to build applications that execute across multiple platforms.

IBM's thinking about distributed applications so far has centred on data systems architecture and distributed SQL DBMS. While the concepts of distributed SQL are elegant and sophisticated, the delivery of these capabilities is now planned over the next five years.

Client/server SQL solutions are simpler and might be deliverable earlier. But, IBM's thinking is along the lines of true, full distributed capabilities only.

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reviews two software security packages

while at the same time allowing optional use of SQL for specific tasks and connectivity.

This notion flies in the face of proposals by companies such as Oracle, Gupta Technologies, and Sybase that only SQL technology and relational databases will be adequate for on-line transaction processing and client/server applications.

"The bottom line is, let's forget about impressions, let's forget about theories, let's talk reality," said Menachem Bazian, consultant to a New York commercial bank. He said the new Fox data access technologies shown last week, which Fox has named Rushmore, are the first to make "downsizing" of mainframe applications to PCs feasible.

Rushmore speeds up both record-oriented and set-oriented operations in Foxpro 2.0. Thus, even SQL users will benefit, because of Foxpro 2.0's support of SQL select commands,

Old products, new concepts

(From page 29)

to market with new software capabilities, but when delivered, IBM products are frequently solidly engineered and appropriate for "industry strength" applications.

Important software developments can take the better part of a decade to have major impact. For example, no one would say that IBM's SNA is a paper tiger, yet it took almost a decade to become a communications standard.

Likewise the OS/2 operating system has taken six years so far just to make it to the point where it should be considered seriously as an implementation platform.

By the time OS/2 becomes a widely used standard, the better part of a decade will have passed.

Similar guidelines

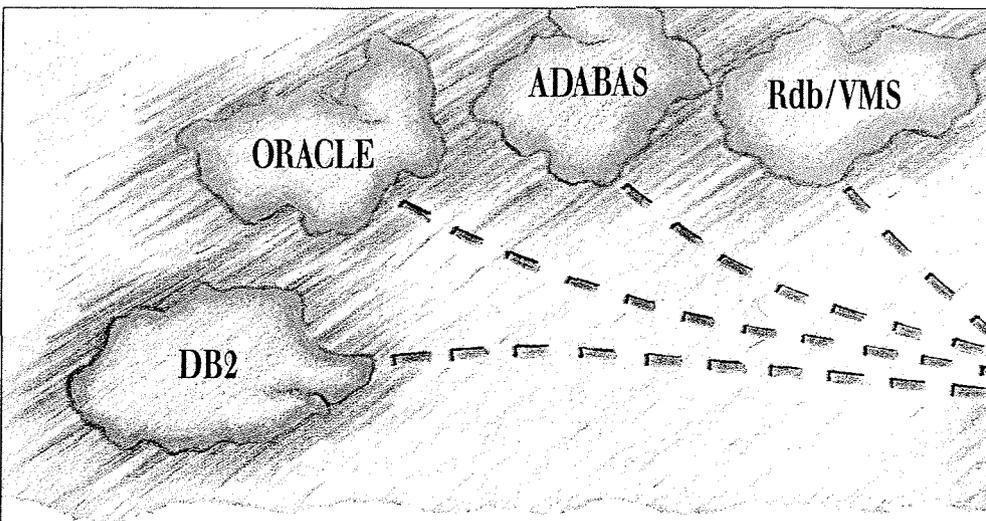
SAA should be evaluated within similar time-frame guidelines. Before SAA is considered to be widely successful, IBM's distributed database and CASE environments will have to have achieved some level of maturity.

In addition, OS/2EE will have to be widely installed as a basis for CUA. Tune in around 1992/93 and the public's perception of SAA is likely to be improved.

SAA must be successful if IBM is to maintain its lead in computer systems in the 1990s. As a result you can bet that IBM will make whatever investments it takes to ensure the success of SAA.

Unquestionably, SAA will be widely adopted in large companies like the Fortune 1000. But, as a high price computing strategy, its adoption in smaller companies may lag considerably.

The real impact of the SAA standards is not likely to be felt until after the turn of the century. Those companies that wish to use IBM products extensively would be wise to lay their plans for dealing with SAA.



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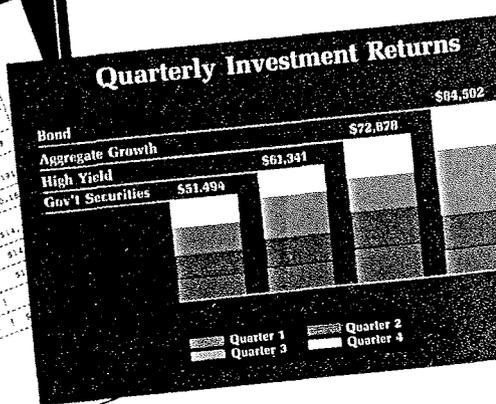
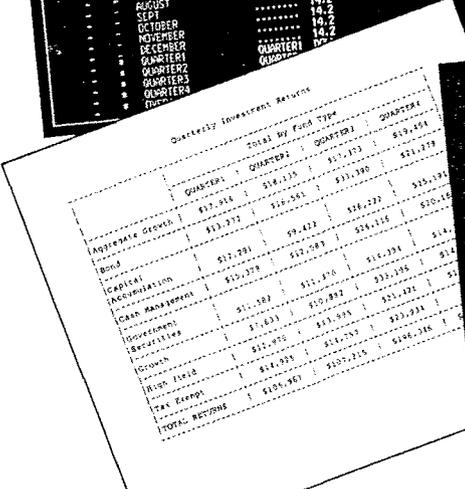
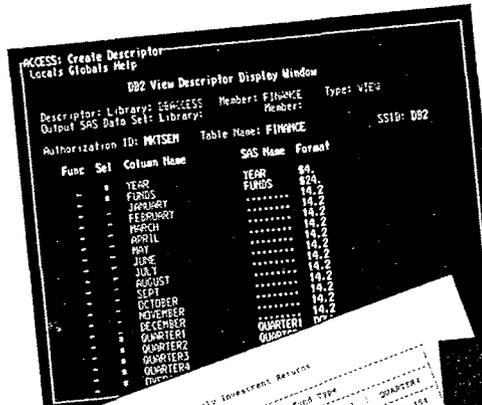
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