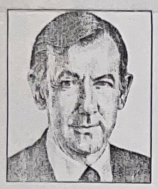
APPLIED INTELLIGENCE

Lotus' Strategies Set the Example for IS Professionals



JAMES MARTIN

This is the first of a series of articles on the strategic directions that Lotus Development Corp. is pursuing and the significance of those strategies to organizations planning for the 1990s.

The challenges to which Lotus, one of the software world's Big Three, is reacting are the same as those that face many corporations as they head into the next decade. The technologies and products being pursued by Lotus are representative of the systems that the future will require.

In planning for a dynamic computing environment in the 1990s, information-systems (IS) professionals will no doubt focus on the enterprise information system through which an organization's many machines are seamlessly connected with applications working cooperatively across machine boundaries.

The transition to this new environment presents many challenges for IS professionals, not the least of which is the critical need for new equipment and products that outweighs the desire to postpone purchases. Thus it is more important than ever for IS professionals to be aware of the technological changes on the horizon and the products that can bridge the gap to the enterprise information system.

Movement to a new operating-system environment will require advanced hardware, as shown in the figure. The 286-based machine with at least 1M byte of RAM has become the base-level machine. More powerful 386-based machines with fast hard disks for LAN servers are becoming common, but mixed environments will exist for years to come. The 386 provides multitasking today under DOS, using operating environments such as Windows/386 and extended memory. When it is released by Microsoft, Windows 3.0 will provide users of DOS with a graphical, multitasking operating-system environment that is compliant with IBM's Common User Access (CUA) user-interface standards. These are growth paths for the future that companies should consider first when making new purchases.

If OS/2 and the Presentation Manager are the target environment for distributed applications of the 1990s, then there is a wide chasm (in both software and hardware) between what will exist in the future and what is in place today. The best course is to take deliberate steps to position the organization for target environments of the future while exploiting all the power that exists in today's mixed environments.

Corporations should attempt to acquire software that fits into an architecture supportive of enterprisewide applications development. Rather than support a variety of non-cooperative products that are distributed across multiple computing environments, corporations should look at products that work well together and can be used to build integrated applications.

Many of the strategies being pursued by Lotus and by many other organizations are driven by the need to support the current mixed environment as well as the advanced environments of the future.

In its brief existence, Lotus has evolved from an entrepreneurial, single-product software vendor to a major corporation known internationally as a software powerhouse. Instead of responding to unfulfilled market demands, Lotus often is able to create and influence those demands through the setting of standards and through its market presence.

When Lotus was a young company with just one product, it was easy to comprehend the corporate strategy. To some extent, the strategy was defined by the PC software market and the enormous success of 1-2-3. Today, as a mature company among software developers, Lotus has adopted a more reserved posture. Long-range predictions of future product directions and promises for delivering specific functionality at a particular time are not made publicly. This posture is both an indication of the complexity of software development today and new discipline imposed on the entire corporation.

Market leaders cannot maintain their position by neglecting the competition. Lotus has been able to observe each competitive threat and analyze the effects. The size of the 1-2-3 customer base provides safety for the company. Rather than an immediate response to competitive threats, Lotus aims for deliberate movement that coincides with changes in the market. Flexibility is essential in the PC market, especially a market that is showing signs of maturing and slowing of growth.

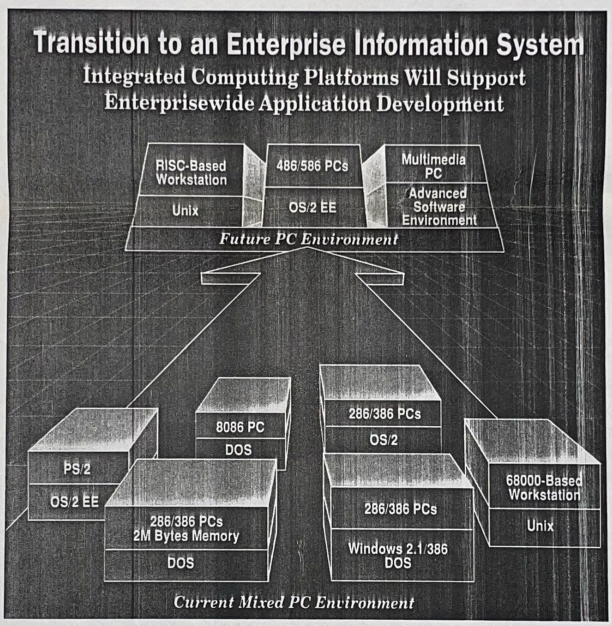
While there are many issues that will shape the computing environment of the 1990s, those with the greatest significance to IS managers pose the same questions for software vendors such as Lotus.

An estimated 18 million PCs worldwide are being connected in local area networks to form departmental systems that share data and applications. Estimates appearing in the technical press indicate that more than 50 percent of all office PCs will be networked by 1991. Issues that were once relevant only in the mainframe environment now become critically important for networked PCs: Security of data, communications, overall throughput, data integrity and sharing of information have now become pertinent to the PC.

Organizations must implement seamless access to data on mainframes and minicomputers to remain competitive. Front-end tools that offer consistent functionality and ease of use will be necessary to take advantage of the back-end database technology, generating issues of mainframe security and data integrity.

Networked environments will facilitate the implementation of enterprise-wide applications, the existence of which will be mandated by business conditions. Organizations are realizing that the gains achieved through the use of personal-productivity tools are not sufficient to remain competitive. Future applications will unite the organization with the use of common information, analyses and reporting techniques. The successful implementation of enterprise-wide applications will require the careful integration of multiple software and hardware computing platforms—both by the IS organization and by software vendors.

Common functions that work the same regardless of application become more important as systems and applications are integrated. The Presentation Manager interface of OS/2 promises to provide common functions via graphical objects. Graphical interfaces such as X Window System under Unix have the same goal.



John Avakian

In particular, strategies must be formulated to address the changes associated with the advancement of workstation technologies, operating systems and applications software.

Short- and Long-Term Solutions

DOS is not capable of properly supporting the changes required by the computerized corporation of the future. One short-term solution employed by Lotus is to use protected-mode technology such as that found in Rational Systems' 16M-byte DOS Extender. The long-term solution is to move to a multitasking operating system that can take advantage of at least 16M bytes of RAM.

The effective IS manager will recognize these trends and their implications, and develop viable business plans for managing future technological changes. In particular, strategies must be formulated to address the changes associated with the advancement of new workstation technologies, operating systems and application software.

Lotus is addressing these concerns by capitalizing on 1-2-3's strength as the best-known user interface in the world. New products such as 1-2-3 release 3, 1-2-3/G and Lotus/DBMS will provide direct access to large corporate databases through this familiar interface.

Next week, I will discuss Lotus products geared to the spreadsheet, database, text-management, graphics and word-processing markets. ■

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