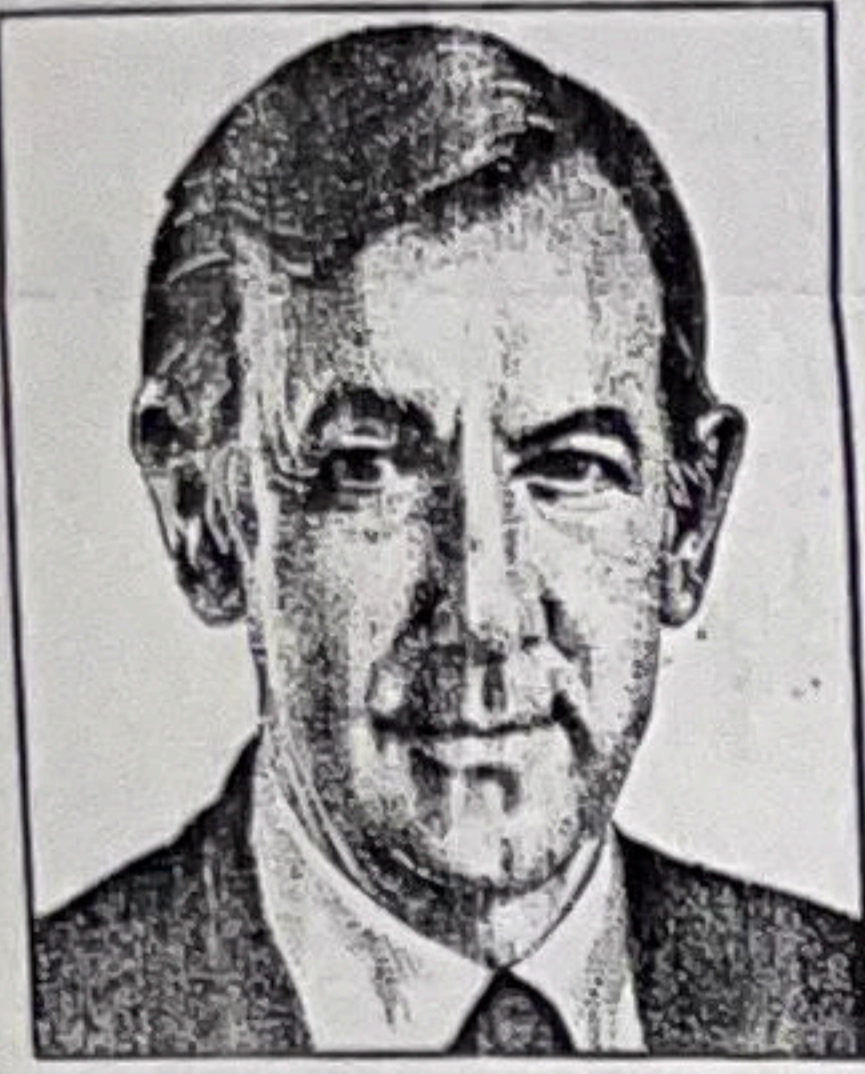


APPLIED INTELLIGENCE

Lotus Shows Strategic Targeting of Mixed Environments



JAMES MARTIN

This is the third in 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.

As a matter of practice, Lotus does not formal-

ly articulate its corporate strategy and goals. Its current strategy, therefore, may become clear only after the fact. Still, the company appears to be following several distinct initiatives to cope with the complex mix of environments, while planning for the enterprise systems of the future. These strategic directions include:

- implementing applications that can operate in a cross-platform environment;
- protecting and extending the base of Lotus 1-2-3 by offering products that provide superior access to corporate data across multiple hardware platforms, including mainframes, minicomputers, Unix workstations and personal computers;
- providing a common "look and feel" for all Lotus products;
- supporting the development of enterprisewide applications that distribute processing and data throughout a network;
- providing for integration of Lotus products through an application programming language and an application programming interface (API);
- supporting both a mixed-technology environment of DOS on older hardware, and OS/2 Presentation Manager and the new hardware required to run it;
- aiding and encouraging the migration from DOS to OS/2 and from OS/2 to Presentation Manager by providing products that work consistently under these operating systems;
- providing competitive features in spreadsheet products to meet the demands of business analysis;
- competing aggressively in the market of graphics and charting software with Freelance Plus and Graphwriter II;
- moving rapidly into personal- and group-productivity markets with products such as Agenda, Magellan and Notes;
- taking the lead in incorporating new technologies such as CD ROM and text search-and-retrieval "engines" into existing products and those under development; and
- maintaining the leadership position as a provider of financial databases on CD ROM.

As a whole, these initiatives define the essence of Lotus' current product and marketing strategies.

Lotus' cross-platform strategy consists of two elements, the first of which is porting 1-2-3 core code to C language so that 1-2-3 can run on multiple platforms.

This provides a basic level of data sharing through consistent features, functions and file formats.

The second, more important part of the strategy goes beyond simple file sharing, providing enterprisewide applications with cooperative processing and distributed data.

In addition to DOS, OS/2 and OS/2 Extended Edition, current platforms for which 1-2-3 is under development include IBM S/370 MVS and VM, AS/400, NeXT, Unix, Macintosh and Sun.

An agreement between Lotus and Digital Equipment Corp. (DEC) to develop and market products for the VAX environment was announced in November

when it became clear that it did not mesh with the new strategy for 1-2-3 development across platforms.

However, there is growing evidence that 1-2-3 for the Macintosh has become a new priority within Lotus, particularly because the lack of a good spreadsheet product in the Macintosh market leaves a large hole in the Lotus cross-platform strategy.

The clear message from Lotus is that it will offer front-end tools for major platforms to access corporate data. Consistent features and functions will be available for DOS, OS/2, OS/2 Presentation Manager, MVS, VM, VMS, Unix, Sun, Macintosh and NeXT operating systems.

visibly. Lotus' strategy is geared to accomplishing this goal in organizations with mixed architectures.

A common API called Datalens has been developed to provide bidirectional access to external databases. Datalens is a key technology for all Lotus products and future applications.

Release 3 has a new menu choice, "Data External," which opens large corporate databases through the familiar 1-2-3 interface. Lotus will provide certain Datalens drivers for key databases, but will rely on database vendors to develop additional drivers.

As shown in the figure, Datalens technology will be applied to all versions of 1-2-3, including 1-2-3/G under Presentation Manager, 1-2-3/M under MVS or VM, 1-2-3 for the Macintosh, Symphony release 3.0 and Lotus/DBMS. It will also be applied to The Application Connection (T-A-C) and financial-services products such as One Source. Under 1-2-3/G, dynamic links to other applications can be created.

Lotus hopes to gain wide acceptance of Datalens technology by third-party vendors.

The reality is that there are several APIs from which to choose, each with its own language. Consequently, a de facto standard may not evolve for some time, but the strength of the installed base of Lotus users may help to establish Datalens as a standard.

A Cross-Platform Barrage

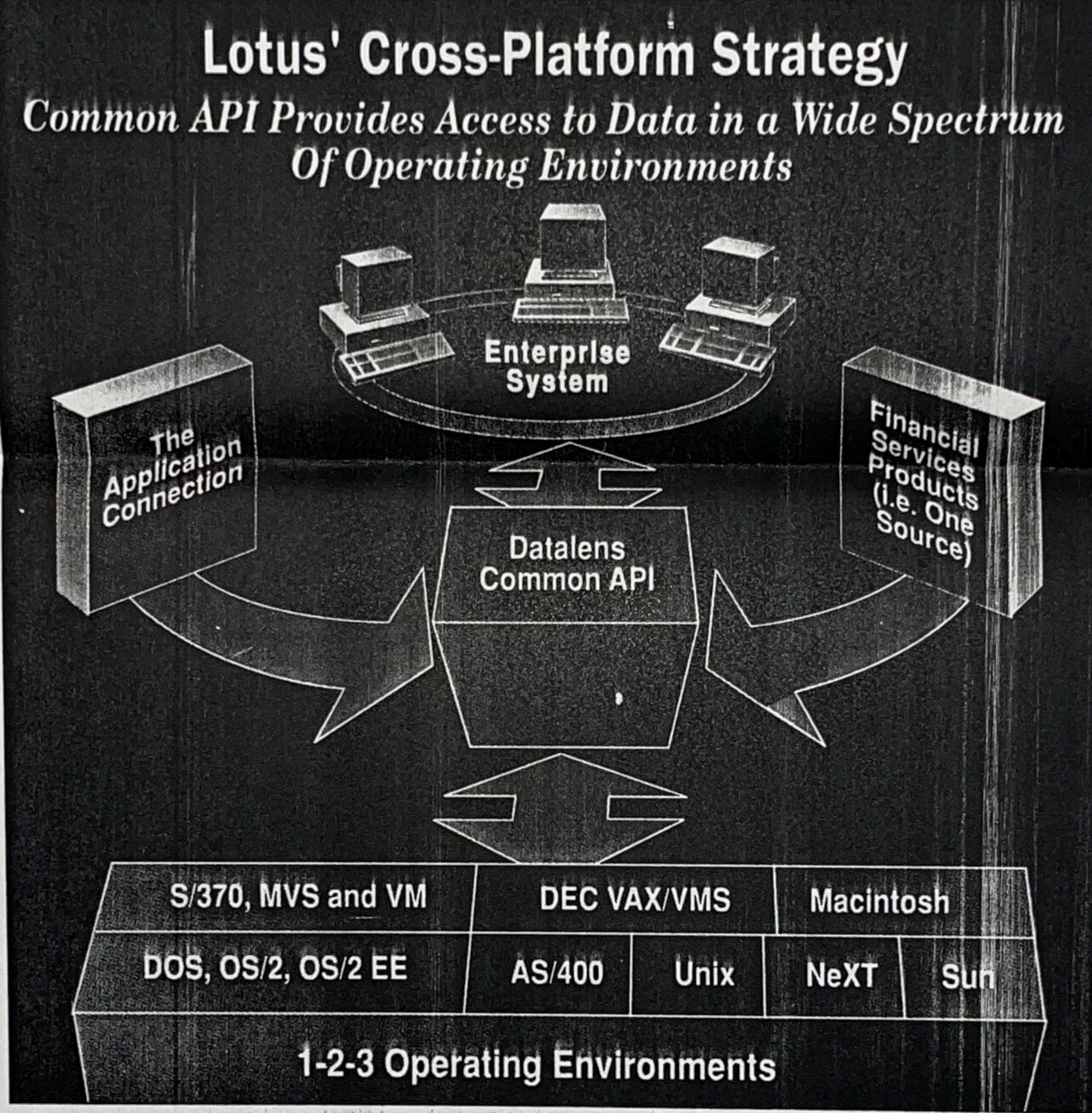
Within the next 18 months, there should be a significant number of new products formally announced and marketed by Lotus for cross-platform availability. The following are soon to be completed and released: 1-2-3/G, Lotus/DBMS, Notes, 1-2-3/M and 1-2-3 for VAX/VMS.

The delay of 1-2-3 release 3 has backed up products such as 1-2-3/M, Lotus' mainframe spreadsheet, and 1-2-3/G, a graphical spreadsheet for OS/2 Presentation Manager.

Undoubtedly, additional OS/2-based products will be introduced. Lotus has nearly 100 developers involved with applications for OS/2.

Network versions of both 1-2-3 release 2.2 and release 3 are now available along with the standard version. Three versions are offered: the Standard Edition for most single-user applications; a Server Edition that contains a license, network-administration software and documentation; and a license/documentation-only Node Edition.

Next week, I will discuss the issues involved in making a transition from DOS to OS/2 and from OS/2 to the Presentation Manager. ■



John Avakian

Lotus appears to be following several distinct initiatives to cope with a complex mix of environments, while planning to support the enterprisewide applications of the future.

1988. Although not explicitly stated, 1-2-3 is most likely the first product under development.

The VAX is an important departmental computing platform that allows spreadsheets to be consolidated. The agreement also makes very good sense from a marketing standpoint. Lotus has 45 people devoted to marketing and sales, while DEC has approximately 9,000.

Attempts to gain a significant share of the Macintosh market have not been successful.

Jazz, an integrated product, did not compete well with other Macintosh products. Modern Jazz was canceled

Mixed computing environments and mixed levels of users characterize many organizations today. Users are also demanding new functions of spreadsheets. In an enterprise application, spreadsheets connect to a large, emerging cooperative process where they are architecturally more closely integrated to large systems.

With a well-designed enterprise application, the user is unaware of the data's source. Other than knowing that data is accurate and secure, the source should be immaterial.

Operator intervention should not be required to call up data, and two-way data-format conversion should occur in-

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