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Research Bulletin

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A Publication from INPUT's U.S. Information Services Market Analysis Program

Strategic Shifts in Product Development and Marketing Strategies Required for U.S. Software Products Vendors

There has been considerable variance in the financial performance of leading software products companies over the past year, particularly among the application software products vendors. A number of well-established application software companies* have experienced significant slowing in both revenues and earnings growth from recent historical trends.

A number of prominent applications software vendors have suffered recent earnings disappointments. Examples are plentiful (see Exhibit 1), including: System Software Associates, Inc., Walker Interactive, American Software, the mainframe-oriented computer software segment of Dun and Bradstreet, Policy Management Systems, Borland International, Symantec, Lotus Development, Software Publishing, and Frame Technology. Among the few successes in the applications software industry are relatively newer companies, such as Peoplesoft, Platinum Software, and Parametric Technology.

There appear to be multiple causes for the wide divergences in growth among the software product companies:

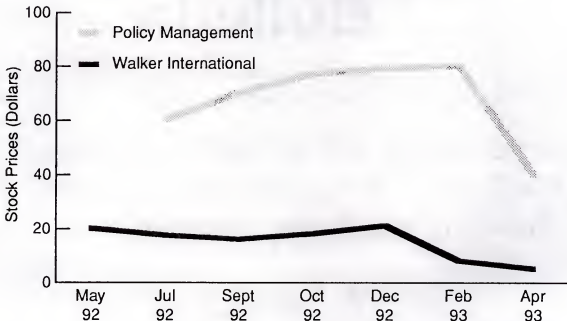
- a) Market maturity
- b) Weak global economies
- c) Vendor and client confusion on appropriate application architectures and standards for the new information systems model, based on distributed data base processing
- d) An "uneven" playing field with many small-to-midsized companies not having sufficient resources to adjust to the required rapid change to distributed applications, often based on diverse computer platforms.

Other than the weakness in worldwide economies, a unique factor impacting the applications products vendors is the structural change occurring in their market away from mainframe- and minicomputer-based solutions towards client/server or distributed applications solutions.

*As evidenced in financial reports of public companies

Exhibit 1

Stock Price Performance of Two Leading Application Software Companies, 1992-1993



Source: Portsmouth Securities

This is creating confusion among potential clients, thus causing buying plans to be deferred. In addition, the decline in mainframe hardware sales, in particular, has probably occurred at a faster rate than vendors had anticipated. Many mainframe and minicomputer application software product vendors are now in a catchup mode in moving their products to a distributed paradigm.

As a result of the shift to distributed computing, some of the traditional application software company leaders are stumbling; and younger companies who originally developed product for the distributed computing environment are emerging as the faster growth software company model for the 1990s.

To date, application software product vendors who are performing well are:

- Those that initially developed applications for a downsized, distributed computing environment, such as Peoplesoft.
- Those that represent the de facto standards in distributed processing software, such as Microsoft.
- Those companies that had the strategic foresight and sufficient financial resources to rapidly rewrite applications (oftentimes with 4GL, RDBMS, and object-oriented application development tools) for distributed architectures. Successful models include companies such as Ross Systems and SAS Institute.
- Those companies that had established a customized application development approach to solutions selling as an initial

strategic approach, which then allowed them to be more flexible in adjusting to distributed processing. This includes EDS and other companies that emphasize customized application development and systems integration.

- Companies that have developed a highly defensible niche strategy. Such a company is Information Resources, whose large, complex databases provide a major barrier to entry from potential competitors.

Systems software vendors as a whole appear to be greater beneficiaries than applications software companies from the shift to the new distributed corporate computing model. Particular success is evidenced by those supplying the application development and systems management tools required to write applications for the new distributed computing paradigm. Examples include Sybase, Oracle, and Informix (Exhibit 2).

In addition, some of the most successful vendors are those positioned as enterprise-wide de facto standards.

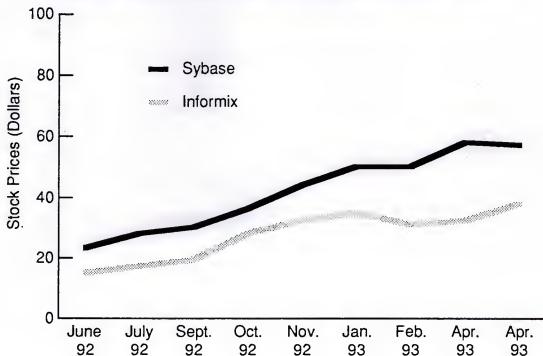
The big question for U.S. software product vendors is how to sustain their competitive product and marketing positions within the changing, distributed processing computer paradigm.

A major shift in product development and distribution strategies for many independent vendors will be required to effectively address the needs of the integrated, enterprise-wide corporate information systems model of the future.

Reality today is that software vendors are having to significantly expand the number of operating systems and platform architectures supported by their product, to be effective competitors in an integrated client/server computer systems environment.

Exhibit 2

Stock Price Performance of Two Leading System Software Products Companies, 1992-1993



Source: Portsmouth Securities

In addition, as the complexity of the product increases, support/service requirements also rapidly increase.

What Should the Independent Software Vendor Do to Remain Competitive and Also Achieve Acceptable Levels of Profitability?

- Develop collaborative alliances with the large computer systems companies that address the enterprise-wide model with scalable architectures, and that have the market share, quality and integrity of product and service to establish an enterprise-wide de facto standard.

In other words, the company has to provide an important product element for a total enterprise-wide solution within a partnership of companies, each of which concentrates its resources on development within its core technological competence. For applications and systems software companies, at least at the server level, commitment to the Common Operating System Environment (COSE) should be considered. This initiative among six UNIX vendors to produce a common look and feel across their platforms, to adhere to common application programming interfaces and to comply with the Open Software Foundation's Distributed Computing Environment (DCE) could significantly reduce the product development risk and cost for the independent software company in placing an early bet on the de facto standards of the future.

- As a software partner with a complementary product niche within the information partnership, utilize the marketing and distribution resources of the other partners. For example, leverage the vendors with large direct corporate sales forces to resell your product and to help support the product. This

reduces the overhead cost of large, direct sales forces and also allows you to concentrate your financial resources on developing competitive products.

- Make your product highly customizable (by developing with 4GL and object-oriented development tools) to penetrate the large corporate IS departments that traditionally have not purchased packaged solutions. Success with this strategy is evident in the process manufacturing sector, a unique industry environment.
- Software companies that originally developed applications based on a client/server model have a significant time advantage to market versus those companies which have to rewrite their applications. However, for those companies in the process of rewriting, one way to gain advantage is to make a strategic "bet" on the longer-term "winners" among the DBMS companies and develop a new generation of products with their tools. Partnering with providers of de facto standards in RDBMS and cross-platform application development tools will become increasingly important for independent application software companies in developing client/server applications that fit into the enterprise-wide model.
- Systems software companies should also seek out vendors that can leverage their sales base with complementary management tools. Examples include companies that provide additional product suites of systems management products to address heterogeneous computing environments; RDBMS companies that reference sell systems management solutions; and computer systems companies with complementary "middleware" software solutions, including distributed computer systems architectures.

Exhibit 3

Recommendations for Independent Software Vendors

- Develop alliances with key computer manufacturers
 - Utilize marketing and distribution resources of larger partners
 - Make products customizable with 4GL and object-oriented tools
 - Develop for client/server architectures
 - Select likely "winners" from DBMS products, for alliance/development
 - Add complementary systems management tools (systems software providers)
 - Use cross-platform development tools for less costly porting
- In developing client/server solutions, use emerging cross-platform development tools to enable less costly porting of applications across multiple desktop operating systems/ GUIs, where several de facto standards will exist for the next several years. These include leading edge RDBMS companies with cross-platform development tool technology, 4GL and integrated CASE/object-oriented Windows development tools.

Exhibit 3 summarizes the key recommendations for independent software vendors.

Ultimately, enterprisewide computing applications will require much tighter integration among vendors supplying products in this context. An individual company, by developing a network of complementary partners, can address the enterprise requirements with a total solution. It is extremely important for the longer term viability of many software vendors that they meet the demands of this model. Enterprisewide solutions will represent the largest available market for computer equipment and software vendors in the 1990s.

This Research Bulletin is issued as part of INPUT's Information Services Market Analysis Program. If you have questions or comments on this bulletin, please call your local INPUT organization or Bob Goodwin at INPUT, 1280 Villa Street, Mountain View, CA 94041-1194 (415) 961-3300

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