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**PC Spreadsheet  
Software 1991  
Spreadsheet Report**

Analyst: Mary Conti Loffredo

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## Market Overview

This report takes a half-year view of the 1991 spreadsheet market for the period January through June. During this time period the spreadsheet market continued to be dominated by Lotus Development Corp. and its various versions of 1-2-3. Lotus completed the 1990 market year with 49.6% in total shipments and 66.1% in total revenue.

In 1990 Borland International moved into second-place position in the total spreadsheet market, earning 20.4% in shipments, up from 8.4% from 1989. High-volume, low-cost units earned through an aggressive upgrade program enabled Borland to capture market share and squeeze in between Lotus and Microsoft. This tactic, although lucrative in shipments and market visibility, only earned Borland 9.7% of the total revenue market.

Microsoft completed 1990 in third place with stable and consistent growth earning 11.7% and 15.3% of the total shipment and revenue markets, respectively. Microsoft ended 1990 with total unit shipments of 400,000. Of the Windows-based spreadsheets available in 1990, only Excel attracted any significant sales, giving it dominance of the Windows-based spreadsheet market for that year.

For the first six months of 1991 this ownership position reaped rewards for Microsoft. While Borland was the rags-to-riches story of 1990, Microsoft continued with its slow-and-steady-wins-the-race posture. Retail units, updates to existing customers, and OEM sales earned 755,000 units for Microsoft in the first six months of 1991, exceeding Microsoft's total unit shipments of 400,000 for all of 1990.

After six months of the market year in 1991, the spreadsheet market has indeed made some significant fluctuations. The market shares of the three leaders are reaching a closer distribution than has ever existed in the PC spreadsheet marketplace. Standings after six months show Lotus holding 39.7% of the unit shipments market share, Microsoft 28.6%, and Borland 25.0%.

The forces that allowed this positioning to occur were many and varied. Lotus suffered an erosion of its user base when Borland instituted an aggressive upgrade program. Existing Lotus users took advantage of the lull in Lotus product shipments to try the competition at the attractive \$99 price. Simultaneously, market attention was turning to the flash and dazzle of Windows 3.0. The attention focused on this "new" environment, and the shipment of Excel 3.0 in January gave spreadsheet users yet another viable product option.

Over one year after the shipment of Windows 3.0, corporate evaluation cycles of the Windows environment has at last reached the application-purchase stage. Although the acceptance of the Windows environment appeared to have happened quickly with over 4 million copies of Windows 3.0 shipped to users in 1990, only 1.8M applications were purchased to run on those systems.<sup>1</sup>

It would be far too simplistic to say Microsoft had the good fortune of being in the right place at the right time. Excel shares the characteristics of most overnight successes, having paid its dues beating on the doors of users for acceptance in a 1-2-3 world. However, for Microsoft the elements of timing, product, and market receptiveness have congealed in its favor.

Certainly, the most interesting competition for the remainder of the 1991 spreadsheet market year will be between 1-2-3 for Windows and Excel. The long-awaited Windows-based version of 1-2-3 began shipping in late August with general availability beginning in early September. With both Lotus and Microsoft in the Windows-based market, only Borland (of the dominant three players) is still without its Windows offering.

While Microsoft and Lotus will be focused on the day-to-day Windows sales battle, Borland is faced with two challenges (1) to complete its Windows-based product and (2) convert its compet-

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<sup>1</sup>See IDC bulletin *Windows Application Migration: Winter's Over, But Those Birds Aren't Heading North Yet*, IDC #5530, April 1990.

itive upgrade sales of Quattro Pro to full-priced units to increase the revenue derived from that product. While Borland is currently earning significant total shipment market share, it only earned 11.3% in total revenue for the first six months of this year. Lotus and Microsoft remain the indisputable rulers in the total revenue market; Lotus earned 48.0% in total revenue while Microsoft earned 37.1%.

Despite the public attention given to Borland, Microsoft, and Lotus, there are other vendors in the spreadsheet market. Computer Associates continues to sell its wares but has been steadily losing ground, dropping to 2.8% in total shipments for the first half of 1991. Compared with total unit shipments of 325,000 in 1989, 1991's year-to-date figure of 75,000 is meager. As a result, CA has turned its focus on internal corporate reorganization and a realignment of its product strategy. Other vendors contributing to the spreadsheet market and included in this report are WordPerfect and Informix.

This report is comprised of three parts — competitive analysis, market stratification, and market forecasts. The competitive analysis section provides a vendor-by-vendor recap of market performance for the current period profiled as well as a product strategy overview and salient company highlights. Market stratification includes market tiering by unit shipments and platform. Finally, the market forecast section provides forecasts for the periods 1991 through 1995 for the total spreadsheet market.

Market statistics provided in this report include unit shipments and revenue for the six-month period January 1991 through June 30, 1991. Data for the 1990 market year is also provided for comparative purposes.

## Findings

- The revenue of all segments of the spreadsheet market for the period January through June 1991 totaled 529.2M.
- The total number of spreadsheet packages shipped between January and June of 1991 totaled 2.6M.
- Lotus earned a first-place position with a total shipment market share for retail and OEM combined of 39.7% for all products. On a revenue basis Lotus was also first earning a total revenue market share of 48.0%.
- On an individual-product basis Excel for Windows was the number-one selling product in the spreadsheet market for the first half of 1991, earning a total retail and OEM shipment market share of 28.0%. The next product was 1-2-3 Release 2.2, 2.3 with 26.1%.
- Quattro Pro continued to move large volumes in the first half of 1991 through both OEM and retail sales. After six months of sales Quattro Pro is third in the market earning 25.0% of the combined retail and OEM markets.
- Among DOS-only-based products (exclusive of Windows-based products), Quattro Pro placed second with a market share of 35.5% of retail and OEM shipments between its 2.x and 3.x product lines.
- On an individual-product basis, 1-2-3 Release 2.2 and its upgrade 2.3 earned 26.1% of the retail and OEM shipment market placing it second in the market behind Microsoft Excel.
- In the first half of 1991 DOS-based products accounted for 70.4% of the total spreadsheet shipment market for combined retail and OEM. Windows-based spreadsheets accounted for 28.4% of total spreadsheet shipments for the first six months of 1991, while OS/2 products captured only 1.2%.

## Methodology

For the past ten years, IDC has been collecting and publishing personal computer census data. Census information is gathered year-round from industry experts in domestic and foreign PC manufacturing and remarketing organizations, which provide current and historic data on PC shipments, pricing, application segmentations, and other relevant topics.

Once the data is collected, it is repeatedly tested and checked for validity by senior IDC research staff. Current and historical PC data is cross-checked against applicable data generated by IDC research in related areas. Information is also gathered from secondary sources such as government statistical publications, annual reports, 10Ks, and vendor press releases.

Telephone inquiries were conducted with every vendor offering products in the market segments. Each inquiry focused on market share, performance, competition, trends, and strategies. Quantitative data from those inquiries were compiled and cross-checked with other IDC data.

### Definitions

**Hardware.** IDC describes a personal computer as follows:

- A microprocessor-based system that can be programmed in a high-level language and can accept peripheral devices.
- A machine primarily intended for and used by a single user.
- A system typically costing between \$700 and \$8,500.

Board-level computers are excluded from the PC category.

**Applications software.** IDC describes personal computer applications software as that which is:

- Intended for single-user functions.
- Designed for use on a microcomputer. Software designed for use on a minicomputer or mainframe computer is not included in this report.
- Distributed on 5.25" or 3.5" media.

Prices range from \$99 to \$695 per program. The average price point is \$395.

**Operating Systems.** IDC describes personal computer operating systems as software that is:

- Generally intended for single-user functions. However, as the role of the personal computer has changed in large organizations, operating systems have crossed over from larger-scale environments. This necessitates the inclusion of Unix as a PC operating system.
- Designed or optimized for use on a microcomputer.
- Usually bundled with the hardware purchase. However, as operating systems sales become less dependent on hardware sales, there will be an increase in the number of independent or retrofit operating system sales in the personal computer marketplace in the IBM and compatible arena.
- Typically priced from \$99 to \$275. However, it is difficult to determine actual revenue derived from operating systems sales, as most sales are bundled with hardware shipments in spite of the aforementioned trend to purchase operating systems independently. Pricing options vary between individual vendors.
- A program that controls the operations of a computer.
- Written in machine language that is specific to the hardware platform.

**Total shipments market.** Includes total shipments of software sold in the United States by manufacturers or resellers based in the United States and internationally through both retail and OEM agreements. Sales by offshore manufacturers are counted only if the company has a U.S.-based sales operation, or if the equipment or product is remarketed by a U.S. company.

**U.S. market.** Includes only software sold in the United States. Sales by offshore manufacturers are counted only if the company has a U.S.-based sales operation, or if the equipment or product is remarketed by a U.S. company.

**International market.** Includes figures for the sales of U.S.-based vendors to international markets. Sales by foreign manufacturers to non-U.S. markets are not included in this report.

**Unit shipments.** Refers to first-time sales of software or hardware by a U.S.-based manufacturer or remarketer.

**Revenue.** Refers to income derived from manufacturers' sales of unit shipments to U.S.- and international based customers.

**OEM.** Includes sales to other manufacturers for the purposes of resale or bundling with hardware or other software. Unit shipments and revenues for products sold in this manner are considered sales of the original vendor.

Individual product pricing is based on list price quantity one unless otherwise noted.

Note: All totals on the tables of this report may not be exact due to rounding.

## Competitive Analysis

Tables 1-3 show 1990 revenue and shipments by vendor for the U.S., international and total spreadsheet markets.

Tables 4-7 show the comparable data for the first six months of 1991.

### Borland

#### Product Line

Product	Current Version	Released	Retail Price (\$)
Quattro Pro	3.0	3/27/91	495.00
Quattro Pro SE	1.0	9/91	69.95

#### Market Statistics — January-June 1991

- Quattro Pro continued to move large volumes in the first half of 1991 through both OEM and retail sales. After six months of sales Quattro Pro is third in total shipments earning 25.0% of the combined retail and OEM markets.
- In the retail-only market Quattro Pro's market share was consistent with that of 1990. In 1990 Quattro Pro earned a total retail market share of 20.4% in terms of shipments; after six months of 1991 Quattro Pro had captured 20.2% of the total retail spreadsheet market.
- Among DOS-only-based products (exclusive of Windows) Quattro Pro placed second with a shipment market share of 35.5%, finishing between Lotus's two products 2.3 and 3.1+.
- In the total revenue market Borland performed not as strongly, earning 11.3% for the first half of 1991. This is comparable to its 1990 total shipment market position of third when it earned 9.7% in total revenue.
- In the U.S. spreadsheet market Borland earned 30.4% of shipments (retail and OEM). Associated revenue of \$39.0M earned the company a slightly higher revenue percentage of 14.6% for the first six months of 1991 than that of the total market of 11.3%.

- Internationally, Borland earned 17.6% of the total shipments market and 8.0% of the international revenue market.

#### Company and Product Overview — 1991

Borland's current product line (as of September 1991) consists of Quattro Pro version 3.0 and the recently released Quattro Pro SE. Still to be released is Quattro Pro for Windows, expected to ship in late-1991. This product line, when completed, will give Borland a low-end DOS product, SE, a high-end DOS product, QP 3.0 and a Windows-based product.

Borland currently faces two market challenges: (1) to complete its Windows-based product and (2) convert its sales of Quattro Pro to full-priced units.

Quattro Pro for Windows' delivery to the market is critical to Borland's reputation as a leading spreadsheet vendor. Borland has thus far been highly successful in capturing a portion of the spreadsheet market, and Quattro Pro has proven itself to be not only an alternative to 1-2-3, but a competitive product in its own right. Borland has consistently provided upgrades to the product in very short time frames that are not merely interim releases but offer advances in functionality.

Having built this reputation Borland cannot afford to rest and must get Quattro Pro for Windows to the market. Borland is at a critical juncture in the market where it has captured users' attention and cannot let it slip through delays with Quattro Pro for Windows. Early views of Quattro Pro for Windows suggests that this product will be highly competitive and offer corporate users a productivity and development tool in one package. The synergy between Quattro Pro for Windows and Paradox for Windows will provide a very compelling environment for custom applications. It would be unfortunate to lose that customer to the competition by missing this purchase cycle.

Borland's second challenge, one of converting Quattro Pro's sales to full-package price sales, is critical to the revenue flow as well as saving Quattro Pro's reputation in the market. The introduction of Quattro Pro SE is the first step in this



turnaround. In this way, QP 3.0 is disassociated from the low price point and realigned with Excel and 1-2-3 v. 3.1+. The challenge will be to maintain the high volumes to which Borland is accustomed while achieving this turnaround.

### Computer Associates (CA)

Product	Current Version	Released	Retail Price (\$)
CA-SuperCalc	5.1	8/20/91	149
CA-Compete	4.2	12/89	995

#### Market Statistics — January-June 1991

- Total shipments for Computer Associates continued to fall, dropping from a year total of 275,000 for 1990 to 75,000 at the half year mark of 1991. Computer Associates remained fourth, tied with MultiPlan earning 3.1% in retail shipments.
- Computer Associates earned a slightly lower percentage of 1.4% in the total revenue market.
- In the U.S. market SuperCalc earned a low shipment percentage, 2.0%, and a meager 1.0% revenue market share.
- In the international market CA earned a 4.0% in shipments, down from 12.3% in 1990 (see Table 2). The drop in retail price of SuperCalc 5 and the drop in total shipments has caused CA to also drop in international revenue, from 7.8% in 1990 to 1.9% for the first half of 1991 in its traditionally strongest market.
- In the DOS-only spreadsheet market SuperCalc performed a small degree better earning 4.0% in shipments and 2.3% in revenue.

#### Company Overview — 1991

Computer Associates has kept a very low profile in the desktop industry in the last year as the company wrestles with internal reorganizations among the divisions as well as a realignment of its product strategy. In early 1991 the microcomputer division of Computer Associates was merged into Computer Associates proper. Treated as a separate entity, this division had been functioning without any real corporate image direction from CA. Consequently there was little synergy between CA corporate and its product line and that of the PC division.

In an attempt to communicate corporate integration of the product lines, all products were renamed using the standard naming convention of "CA-". As examples SuperCalc and ACCPAC were renamed CA-SuperCalc and CA-ACCPAC.

In addition to the organizational and corporate image changes, CA has made two significant changes to its PC-based spreadsheet line — (1) purchased a new high-end spreadsheet and (2) dropped the price of SuperCalc 5 to \$149.

In January 1991 CA acquired Compete, a multidimensional software package with a focus on financial analysis that runs in the Windows 3.0 environment. Purchased from ManageWare Inc. the product has been renamed CA-Compete.

Product strategy for CA-Compete is still unclear at this time. CA is currently working on a new release of CA-Compete and is struggling to position the product. While the product excels in financial analysis, in a check list comparison with standard spreadsheets, it lacks certain features such as graphics. However, it brings to the desktop analysis features such as true three dimensionality.

Since its purchase of CA-Compete, CA has made changes to the product to make it more competitive. Originally priced at \$1,495, CA dropped the price to \$995. Although the highest-priced product in the spreadsheet market for the DOS-based desktop, it is also the only one of its kind. It will be a test of CA's marketing ability to distinguish the product and convince users that it warrants the price.

CA's second product change occurred on February 25, 1991, when it announced an immediate price cut of SuperCalc 5 from \$495 to \$149 per single unit. This price reduction is consistent with price reductions made in January on CA-ACCPAC Bedford, an entry-level desktop accounting product. CA reduced the price of that product from \$249 (PC) and \$349 (Macintosh) to \$199 for either version. These price reductions reflect CA's corporate view that software and especially spreadsheets are commodity items. With the repositioning of CA-SuperCalc 5 to a low price point and CA-Compete, CA has offerings on both ends of the market.

An interesting side note to CA-Compete is the fact that it has Microsoft Excel's look and feel. ManageWare licensed it from Microsoft long before there were plans for it to compete in the same mar-

ket. Considering CA's ability to market product on its own, it would be wise for the company to advertise the compatibility between Excel and CA-Compete. This way CA-Compete could derive additional sales as an upgrade path for power users of Excel.

### Informix

Product	Current Version	Released	Retail Price (\$)
Wingz for Windows	1.1a	6/90	499
Wingz for OS/2	1.1a	6/90	499

#### Market Statistics — January-June 1991

- In the retail-only total shipment market Informix earned a 0.5% shipment market share and 0.4% in revenue.
- In the retail and OEM total shipment market Wingz for Windows earned only 0.4% in shipments and revenue.
- In the Windows-only spreadsheet market Wingz for Windows captured 1.5% in retail and OEM shipments and 1.0% in retail and OEM revenue (see Table 9).

#### Company and Product Overview — 1991

Informix's main business is not the IBM PC-compatible spreadsheet market. As such this component of its business has not received many marketing dollars or a great deal of attention. Informix Wingz for OS/2 and Windows rounds out its cross-platform strategy. Informix earns a majority of its revenue from the Unix database market and to a lesser extent the Unix spreadsheet market. For Informix, having Wingz available for Windows, OS/2, and Macintosh enables it to provide a cross-corporate, cross-platform integrated solution to its customers.

Wingz is currently shipped to the IBM-compatible market with both Windows and OS/2 in the same box. With the general lack of enthusiasm over OS/2 products in the market, Informix is rethinking this packaging strategy. Despite the relatively low unit shipments that both the Windows and OS/2 versions of Wingz have derived for Informix, the company plans to continue to develop the products and plans an early 1992 upgrade.

### Lotus

Product	Current Version	Released	Retail Price (\$)
1-2-3 for DOS	2.3	6/91	495
	3.1+	7/91	595
1-2-3 for Windows	1.0	8/91	595
1-2-3 for OS/2	1.0	3/90	695

#### Market Statistics — January-June 1991

- In the retail-only shipment market Lotus's market share for all products dropped from 49.6% in 1990 to 41.7% after six months of sales in 1991. Revenue market share also dropped for retail only from 66.1% at the end of 1990 to 48.1%.
- In the retail and OEM total shipment market Lotus dropped slightly lower to 39.7% in unit shipments.
- In the U.S. Lotus's market standings were comparable to its total market results, earning 41.3% in shipments (both retail and OEM) for all products and a revenue market share of 50.5%.
- In the international market Lotus earned 37.6% in shipments for all products and 45.4% in revenue.
- On an individual-product basis, 1-2-3 Releases 2.2 and 2.3 earned 26.1% of the total retail and OEM shipment market, placing it second in the market behind Microsoft Excel.
- In the DOS-only spreadsheet market, Releases 2.2 and 2.3 were first, earning 37.1% of that shipment market, both retail and OEM, while the 3.x line placed third behind Quattro Pro earning 18.5%.
- 1-2-3/G continued to fight the OS/2 spreadsheet battle almost entirely alone, splitting the OS/2 spreadsheet market with Excel for OS/2 (see Table 10). 1-2-3/G earned 0.6% in the total shipments market for the first six months in 1991.

#### Company and Product Overview — 1991

As of August of 1991 Lotus began offering a complete desktop product line from command-

based DOS to OS/2. The final product to join the ranks of the 1-2-3 spreadsheet versions was 1-2-3 for Windows which shipped in August 1991.

Lotus has configured its product offerings by platform in the following manner — 1-2-3 for DOS, 1-2-3 for Windows, and 1-2-3 OS/2. This strategy gets confusing in the 1-2-3 for DOS area as Lotus offers two distinct versions of its spreadsheet: releases 2.3 and 3.1+. Release 2.3 is geared toward the everyday 1-2-3 user while 3.1+ is for more hardware-intensive applications requiring speed and larger-capacity spreadsheets. Over time IDC expects that the 2x series will become the DOS offering with 3x users migrating to Windows.

Everybody's favorite target in the market, Lotus has come out of the box fighting with its introduction of 1-2-3 for Windows. Lotus has no intention of allowing any more of its installed base to even consider moving to the competition. Now that the product is shipping, Lotus is following up its high preannouncement orders with an aggressive marketing campaign. So far Lotus's marketing scheme has revealed four tactics: (1) marketing to the installed base, (2) marketing to new hardware purchasers, (3) high-profile demonstrations, and (4) bundling with other Lotus products.

## Microsoft

Product	Current Version	Released	Retail Price (\$)
Excel for Windows	3.0	1/91	495
Excel for OS/2	1.0	10/89	495
MultiPlan	4.2	5/89	195

### Market Statistics — January-June 1991

- In the total retail-only shipment market Microsoft increased its market share from 11.7% in 1990 to 30.0% for Excel for Windows in the first half of 1991.
- Revenues for Excel for Windows constituted 36.3% of the total retail and OEM revenue market. In the retail and OEM shipment market Excel for Windows earned a marginally lower market share of 28.0%.

- On an individual-product basis Excel for Windows was the number-one selling product in the spreadsheet market for the first half of 1991, earning a retail and OEM shipment market share of 28.0%. The next closest product was 1-2-3 Release 2.2, 2.3 with 26.1%
- In the U.S. alone Excel for Windows earned 24.4% in shipments and 32.3% in revenues. Both figures are up from its shares of 9.6% and 12.4%, respectively at the end of 1990.
- Internationally the product also performed well, raising its international shipment market share from 14.9% in 1990 to 32.9%, and its international revenue market share from 20.1% to 40.3%.
- Excel for Windows continued to dominate the Windows-based spreadsheet market, sharing it with Wingz for Windows and CA-Compete. However, the product did capture the lion's share of that market with a 98.4% in total shipments.
- MultiPlan continued to perform well for Microsoft doing a majority of its business internationally. While the product only earned a U.S. shipment percentage of 0.2%, it earned a 6.3% in international shipments. The product earned an international revenue market share of 3.0%.

### Company and Product Overview — 1991

Microsoft currently offers three products to the IBM-compatible spreadsheet market — Excel for Windows, Excel for OS/2, and MultiPlan. Of these three products, Excel for Windows has made substantial progress in the last year. Moving from 400,000 units in 1990 to 740,000 in the first six months of 1991, the product has catapulted Microsoft from a 11.7% total shipment market share to 28.0% for all markets for Excel for Windows.

Since the release of Windows 3.0, Excel for Windows has come into its own. In competition with Lotus for some time, Microsoft is currently devoted to convincing 1-2-3 users to try Excel, being the best Windows-based spreadsheet and owning the Windows-based application market.

Bundling of its products in an "Office" solution offering Word for Windows, Powerpoint and Excel in one nice neat package, Microsoft was successful at providing a complete desktop solution to its user base.

Microsoft's other business, MultiPlan, gets little to no acknowledgment in the U.S., but continues to earn Microsoft some extra income internationally — all the units and revenue from this product are derived from this market. Microsoft is satisfied with this lucrative side of its business and has no plans to upgrade the product.

### WordPerfect

Product	Current Version	Released	Retail Price (\$)
PlanPerfect	4.0	8/89	249

#### Market Statistics — January-June 1991

- WordPerfect's total shipments of PlanPerfect were 15,000 for the first half of 1991. The product earned WordPerfect a total shipments market share, both retail and OEM, of 0.6% and a total revenue market share of 0.3%. These same figures are comparable to those for

1990 when PlanPerfect earned 1.0% in total shipments and 0.4% in total revenue.

- In the U.S. alone PlanPerfect earned 0.7% in shipments and 0.3% in revenue. In the international market PlanPerfect's shares were again low capturing 0.5% in shipments and 0.2% in revenue.
- In the DOS-only spreadsheet market PlanPerfect earned a small shipment market share of 0.9% and 0.4% in revenues.

#### Company and Product Overview — 1991

PlanPerfect maintained sales comparable to those of 1990 in the first half of 1991. Although the product takes a back seat to WordPerfect's main business, WordPerfect has no current plans to discontinue it and is developing an upgrade to it. Slated for release in early 1992, WordPerfect considers the changes made to the product an upgrade and not an interim release.

**Table 1**  
**Total IBM-Compatible Spreadsheet Software Unit Shipments and Revenue, 1990**

Vendor	Product	Shipments	Ships %	Revenue	Revenue %
Lotus	1-2-3 R, 2.2, 3.0	1,700,000	49.6	475,000,000	66.1
Borland	Quattro, Quattro Pro	700,000	20.4	70,000,000	9.7
Microsoft	Excel	400,000	11.7	110,000,000	15.3
Computer Associates	SuperCalc	275,000	8.0	35,750,000	5.0
Microsoft	Multiplan	250,000	7.3	20,000,000	2.8
WordPerfect	PlanPerfect	34,000	1.0	3,000,000	0.4
Other		65,000	1.9	5,000,000	0.7
<b>Total</b>		<b>3,424,000</b>	<b>100.0</b>	<b>718,750,000</b>	<b>100.0</b>

Source: International Data Corp., 1992

**Table 2**  
**U.S. IBM-Compatible Spreadsheet Software Unit Shipments and Revenue, 1990**

Vendor	Product	Shipments	Share (%)	Revenue	Share (%)
Lotus	1-2-3 R, 2.2, 3.0	1,200,000	57.7	320,000,000	71.9
Borland	Quattro, Quattro Pro	490,000	23.6	49,000,000	11.0
Microsoft	Excel	200,000	9.6	55,000,000	12.4
Computer Associates	SuperCalc	110,000	5.3	14,300,000	3.2
Microsoft	Multiplan	25,000	1.2	2,000,000	0.4
WordPerfect	PlanPerfect	22,440	1.1	1,980,000	0.4
Other		32,500	1.6	2,500,000	0.6
<b>Total</b>		<b>2,079,940</b>	<b>100.0</b>	<b>444,780,000</b>	<b>100.0</b>

Source: International Data Corp., 1992

**Table 3**  
**International IBM-Compatible Spreadsheet Software Unit Shipments and Revenue, 1990**

Vendor	Product	Shipments	Share (%)	Revenue	Share (%)
Lotus	1-2-3 R, 2.2, 3.0	500,000	37.2	155,000,000	56.6
Borland	Quattro, Quattro Pro	210,000	15.6	21,000,000	7.7
Microsoft	Excel	200,000	14.9	55,000,000	20.1
Computer Associates	SuperCalc	165,000	12.3	21,450,000	7.8
Microsoft	Multiplan	225,000	16.7	18,000,000	6.6
WordPerfect	PlanPerfect	11,560	0.9	1,020,000	0.4
Other		32,500	2.4	2,500,000	0.9
<b>Total</b>		<b>1,344,060</b>	<b>100.0</b>	<b>273,970,000</b>	<b>100.0</b>

Source: International Data Corp., 1992

**Table 4**  
**IBM-Compatible Spreadsheet Software Retail Shipments, January-June 1991**

Vendor	Product	Retail-Only Shipments	Retail-Only Ship Mkt %	Retail-Only Revenue	Retail-Only Rev Mkt %
Lotus	2.2,2.3	665,000	27.7	166,250,000	32.0
	3.0, 3.1, 3.1+	320,000	13.3	80,000,000	15.4
	1-2-3/G	15,000	0.6	3,750,000	0.7
<b>Total Lotus</b>		<b>1,000,000</b>	<b>41.7</b>	<b>250,000,000</b>	<b>48.1</b>
Microsoft	Excel for Windows	720,000	30.0	190,000,000	36.6
	Excel for OS/2	15,000	0.6	4,200,000	0.8
<b>Total Microsoft</b>		<b>735,000</b>	<b>30.6</b>	<b>194,200,000</b>	<b>37.4</b>
Borland	Quattro Pro	485,000	20.2	56,000,000	10.8
Computer Associates	SuperCalc 5.0	75,000	3.1	7,500,000	1.4
Microsoft	MultiPlan	75,000	3.1	8,250,000	1.6
WordPerfect	PlanPerfect	15,000	0.6	1,400,000	0.3
Informix	Wingz for Windows	11,400	0.5	1,995,000	0.4
Other		2,000	0.1	100,000	-
<b>Total/average</b>		<b>2,398,400</b>	<b>100.0</b>	<b>519,445,000</b>	<b>100.0</b>

Source: International Data Corp., 1992

**Table 5**  
**Total IBM-Compatible Spreadsheet Software Retail and OEM**  
**Shipments, January-June 1991**

Vendor	Product	Retail & OEM Shipments	Retail & OEM Ship Mkt %	Retail & OEM Revenue	Retail & OEM Rev Mkt %
Lotus	2.2,2.3	690,000	26.1	168,125,000	31.8
	3.0, 3.1, 3.1+	345,000	13.1	81,875,000	15.5
	1-2-3/G	15,000	0.6	3,750,000	0.7
Total Lotus		1,050,000	39.7	253,750,000	48.0
Microsoft	Excel for Windows	740,000	28.0	192,000,000	36.3
	Excel for OS/2	15,000	0.6	4,200,000	0.8
Total Microsoft		755,000	28.6	196,200,000	37.1
Borland	Quattro Pro	660,000	25.0	60,000,000	11.3
Computer Associates	SuperCalc 5.0	75,000	2.8	7,500,000	1.4
Microsoft	MultiPlan	75,000	2.8	8,250,000	1.6
WordPerfect	PlanPerfect	15,000	0.6	1,400,000	0.3
Informix	Wingz for Windows	11,400	0.4	1,995,000	0.4
Other		2,000	0.1	100,000	-
Total/average		2,643,400	100.0	529,195,000	100.0

Source: International Data Corp., 1992

**Table 6**  
**U.S. IBM-Compatible Spreadsheet Software Retail and OEM**  
**Shipments and Revenue, January-June 1991**

Company	Product	Shipments	Ships %	Revenue	Revenue %
Lotus	2.2,2.3	395,000	26.0	84,925,000	31.8
	3.0, 3.1, 3.1+	222,500	14.7	47,837,500	17.9
	1-2-3/G	9,000	0.6	2,062,500	0.8
Total Lotus		626,500	41.3	134,825,000	50.5
Microsoft	Excel for Windows	370,000	24.4	86,400,000	32.3
	Excel for OS/2	7,500	0.5	1,890,000	0.7
Total Microsoft		377,500	24.9	88,290,000	33.0
Borland	Quattro Pro	462,000	30.4	39,000,000	14.6
Computer Associates	SuperCalc 5.0	30,000	2.0	2,625,000	1.0
Microsoft	MultiPlan	3,750	0.2	330,000	0.1
WordPerfect	PlanPerfect	9,900	0.7	854,000	0.3
Informix	Wingz for Windows	7,524	0.5	1,216,950	0.5
Other		1,000	0.1	45,000	-
Total/average		1,518,174	100.0	267,185,950	100.0

Source: International Data Corp., 1992

**Table 7**  
**International IBM-Compatible Spreadsheet Software Retail and  
 OEM Shipments and Revenue, January-June 1991**

Company	Product	Shipments	Ships %	Revenue	Revenue %
Lotus	2.2.2.3	295,000	26.2	83,200,000	31.8
	3.0, 3.1, 3.1+	122,500	10.9	34,037,500	13.0
	1-2-3/G	6,000	0.5	1,687,500	0.6
<b>Total Lotus</b>		<b>423,500</b>	<b>37.6</b>	<b>118,925,000</b>	<b>45.4</b>
Microsoft	Excel for Windows	370,000	32.9	105,600,000	40.3
	Excel for OS/2	7,500	0.7	2,310,000	0.9
<b>Total Microsoft</b>		<b>377,500</b>	<b>33.5</b>	<b>107,910,000</b>	<b>41.2</b>
Borland	Quattro Pro	198,000	17.6	21,000,000	8.0
Computer Associates	SuperCalc 5.0	45,000	4.0	4,875,000	1.9
Microsoft	MultiPlan	71,250	6.3	7,920,000	3.0
WordPerfect	PlanPerfect	5,100	0.5	546,000	0.2
Informix	Wingz for Windows	3,876	0.3	778,050	0.3
Other		1,000	0.1	55,000	-
<b>Total/average</b>		<b>1,125,226</b>	<b>100.0</b>	<b>262,009,050</b>	<b>100.0</b>

Source: International Data Corp., 1992



## Market Stratification

This section contains stratification of the spreadsheet market by four criteria: (1) channel, (2) total unit shipments, (3) retail price, and (4) platform.

### Channel

New to PC Software reports is a breakdown of product sales by method of distribution. This first attempt to distinguish between distribution methods will be restricted to two groupings — retail and OEM sales. Retail sales will include all sales of retail units, updates, and competitive upgrades. OEM units will include software either bundled on or with another manufacturer's hardware, or software bundled with another manufacturer's software.

In the first half of 1991 Borland proved how significant OEM sales can be. Table 1 lists the shipment market shares for all vendors for both retail only and retail and OEM combined. Due to an OEM arrangement made in the first quarter, Quattro Pro's market share jumped from the 19.7% share for retail only to 20.2% when all units to all channels are counted.

When the spreadsheet market is viewed in terms of all shipments to all markets regardless of distribution, the margins between the three market leaders are even further decreased. From the total unit shipment standpoint for retail and OEM combined, Lotus holds 39.7%, Microsoft 28.6%, and Borland 25.0%.

The other manufacturers in this market also engaged in similar arrangements but with less of a resultant spike to market share. IDC has decided to represent both market shares in anticipation of alternative distribution channels playing increasingly more important roles in the spreadsheet market.

### Unit Tiering

For the last several years the spreadsheet market has been three tiered in terms of unit shipments and revenue with Lotus the undisputed leader. After the first six months of 1991 the gap between Lotus Development Corp. and its competitors has been significantly narrowed.

As a result of this narrowing the spreadsheet market has collapsed into two tiers in terms of shipments. The first is now comprised of Lotus, Microsoft, and Borland. Together these three vendors control 93.3% of the shipment market.

This is the first period that both SuperCalc and Multiplan have dropped out of the second tier moving down to comprise the third tier along with PlanPerfect.

In revenue, however, the market remains in its three-tier configuration largely due to Borland. Microsoft and Lotus remain closely matched in revenue performance. Together these two companies control 85.1% of the revenue market and comprise the first tier.

Borland constitutes the sole vendor contributing to the second tier. It dramatically outdistances MultiPlan at 8.2M, but it does not compare to the above-mentioned revenues earned by Lotus and Microsoft.

The final revenue tier is comprised of SuperCalc, MultiPlan, PlanPerfect, and Wingz for Windows which together hold 3.7% of the revenue market.

### Price Segmentation — the Reemerging Low End

Segmentation based on price is emerging once more in the spreadsheet market. Prior to the demise of Paperback Software and Mosaic, there were more vendors offering products at a low price point (under \$300) than were available in 1990. In 1990, of the products counted by IDC, only PlanPerfect and MultiPlan had significant enough unit shares to be counted in this market. However, in 1991 with the drop in SuperCalc's price to \$149 and the introduction of Quattro Pro SE at \$69.95, the low-end market is again expanding. Although not sized in this half-year look the market sizing for calendar year 1991 will include a low-end market breakdown.

Tables 8-10 show total units and revenue for the DOS, Windows, and OS/2 spreadsheet markets.

### Tiering by Platform: DOS, Windows, and OS/2

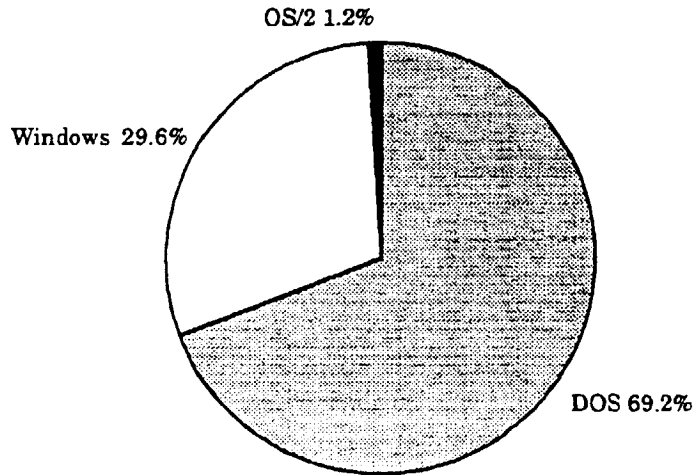
Tiering by platform is also beginning to emerge in the spreadsheet market. DOS-based products continue to hold the lion's share of the shipments in 1991 with Windows beginning to grab share. In the first half of 1991, DOS-based product accounted for 69.2% of the total spreadsheet shipment market for combined retail and OEM.

Windows-based spreadsheets accounted for 29.6% of the spreadsheet market. Among Windows-based spreadsheets Excel continued to dominate as it did in 1991. Its only competition for the period through June came from minor forces in the mar-

ket, CA-Compete and Wingz. Excel gave up a combined 1.5% of the Windows-based market to these products. With the addition of 1-2-3 for Windows to the market in August, Microsoft will encounter its first true competitor in this market.

The OS/2 application market continues to be small. Table 9 lists the products available for this platform. As is true of other application segments, the phenomenon of Windows 3.0 has diverted the market from OS/2-based applications. Small pockets of OS/2 users have emerged from among vertical markets, but have not as yet made any significant impact on the broader market. For the first half of 1991 OS/2 products captured only 1.2% of the total spreadsheet market.

**Figure 1**  
**Total IBM-Compatible Spreadsheet Market Segmentation by Platform, January-June 1991**



Total = 2,643,400

Source: International Data Corp., 1992

**Table 8**  
**Total DOS Spreadsheet Retail & OEM Shipments and Revenue, January-June 1991**

Vendor	Product	Retail			Retail & OEM			Retail & OEM		
		Shipments	Share (%)	Revenue	Shipments	Share (%)	Revenue	Shipments	Share (%)	Revenue
Lotus	2.2, 2.3	665,000	40.6	166,250,000	690,000	37.1	168,125,000	61.4		
Borland	Quattro Pro	485,000	29.6	56,000,000	660,000	35.5	60,000,000	18.3		
Lotus	3.0, 3.1, 3.1+	320,000	19.6	80,000,000	345,000	18.5	81,875,000	25.0		
Computer Associates	SuperCalc 5.0	75,000	4.6	7,500,000	75,000	4.0	7,500,000	2.3		
Microsoft	MultiPlan	75,000	4.6	8,250,000	75,000	4.0	8,250,000	2.5		
WordPerfect	PlanPerfect	15,000	0.9	1,400,000	15,000	0.8	1,400,000	0.4		
Other		1,000	0.1	50,000	1,000	0.1	50,000	-		
<b>Total</b>		<b>1,636,000</b>	<b>100.0</b>	<b>319,450,000</b>	<b>1,861,000</b>	<b>100.0</b>	<b>327,200,000</b>	<b>100.0</b>		

Source: International Data Corp., 1992

**Table 9**  
**Total Windows Spreadsheet Retail and OEM Shipments and Revenue, January-June 1991**

Vendor	Product	Retail Shipments	Share (%)	Retail Revenue	Share (%)	Retail & OEM Shipments	Share (%)	Retail & OEM Revenue	Share (%)
Microsoft	Excel for Windows	720,000	98.4	190,000,000	98.9	740,000	98.4	192,000,000	99.0
Informix	Wingz for Windows	11,400	1.6	1,995,000	1.0	11,400	1.5	1,995,000	1.0
Other		600	0.1	30,000	-	600	0.1	30,000	-
<b>Total</b>		<b>732,000</b>	<b>100.0</b>	<b>192,025,000</b>	<b>100.0</b>	<b>752,000</b>	<b>100.0</b>	<b>194,025,000</b>	<b>100.0</b>

Source: International Data Corp., 1992

**Table 10**  
**Total OS/2 Spreadsheet Retail & OEM Shipments and Revenue, January-June 1991**

Vendor	Product	Retail Shipments	Share (%)	Retail Revenue	Share (%)	Retail & OEM Shipments	Share (%)	Retail & OEM Revenue	Share (%)
Lotus	1-2-3G	15,000	49.3	3,750,000	47.1	15,000	49.3	3,750,000	47.1
Microsoft	Excel for OS/2	15,000	49.3	4,200,000	52.7	15,000	49.3	4,200,000	52.7
Other		400	1.3	20,000	0.3	400	1.3	20,000	0.3
<b>Total</b>		<b>30,400</b>	<b>100.0</b>	<b>7,970,000</b>	<b>100.0</b>	<b>30,400</b>	<b>100.0</b>	<b>7,970,000</b>	<b>100.0</b>

Source: International Data Corp., 1992

## Installed Base

The installed base at the half-year mark continued to be dominated by the veterans in the category. Lotus held the largest number of installed licenses for the first half of 1991 with 52.5% (see Table 11). With the decline in SuperCalc and Multiplan sales

in the broader PC market and the significant increase in Quattro Pro and Excel sales, installed base figures are beginning to shift. Both Quattro Pro and Excel have increased their respective installed base figures to 7.7% and 7.1%.

**Table 11**  
**Total IBM-Compatible Spreadsheet Market Installed Base,**  
**January-June 1991**

Vendor	Product	1991 I.B.	Share (%)
Lotus	Combined DOS	8,735,000	52.5
Microsoft	MultiPlan	1,900,000	11.4
Computer Associates	SuperCalc 5.0	1,775,000	10.7
Microsoft	Excel for Windows	1,285,000	7.7
Borland	Quattro Pro	1,185,000	7.1
WordPerfect	PlanPerfect	143,000	0.9
Lotus	1-2-3/G	45,000	0.3
Informix	Wingz for Windows	43,400	0.3
Microsoft	Excel for OS/2	15,000	0.1
Other		1,502,000	9.0
Total/average		16,628,400	100.0

Source: International Data Corp., 1992

## Market Forecast

Table 12 shows market forecast data for the U.S. personal computer spreadsheet market for 1991-1995 as well as a review of 1988-1990.

### Forecast Assumptions

- The influence of Windows 3.0-based products has begun to be felt in the U.S. market beginning in early 1991 and will extend to mid-1992.
- Windows-based products will continue to be priced consistently with the current crop of high-end spreadsheet products. IDC expects the \$495-to-\$695 price range to remain constant for this product category with a concentration on the \$495 price point.
- However, most of the major players are currently fighting a price war in order to gain unit share, which will keep revenue down. The Windows boom will be accompanied by attractive upgrade prices, that will cause revenue growth to trail shipment growth.
- The 1992 to 1994 time frame will see the advent of the second generation of spreadsheet products that fully utilize the OS/2 Presentation Manager environment as well as second-generation Windows 3.0 applications. Modular software that integrates image, text, and audio will differentiate offerings for Windows-based systems from OS/2 products.
- OS/2 PM products are expected to remain in the \$495 to \$695 category but will migrate to and cluster around the \$695 price point with second-generation offerings.
- Unit shipment forecasts are based upon IDC hardware, DOS, and Windows 3.0 growth forecasts for the period 1990-1995.

**Table 12**  
**U.S. IBM-Compatible Spreadsheet Software Unit Shipments and Revenue, 1988-1995**

	Shipments	Growth (%)	Revenue (\$M)	Growth (%)
1988	1,349,717	-	299.6	-
1989	1,456,790	7.9	289.4	-3.4
1990	2,079,940	42.8	444.8	53.7
1991	3,000,000	44.2	600.0	34.9
1992	3,700,000	23.3	795.5	32.6
1993	4,300,000	16.2	928.8	16.8
1994	4,800,000	11.6	1,080.0	16.3
1995	5,500,000	14.6	1,375.0	27.3
CAGR (%) 1990-95		21.5		25.3

Source: International Data Corp., 1992

## IDC Americas

**Corporate Headquarters**  
5 Speen Street  
Framingham, MA 01701  
(508) 872-8200

### IDC West

2083 Landings Drive  
Mountain View, CA 94043  
(415) 691-0500

### IDC Irvine

18008 Sky Park Circle, Suite 145  
Irvine, CA 92714  
(714) 250-1960

### IDC New Jersey

120 Wood Ave., South, Suite 300  
Iselin, NJ 08830  
(201) 632-9222

### IDC Texas

6034 W. Courtyard Dr., Suite 305  
Shepard Mtn. Executive Suites  
Austin, TX 78730  
(512) 338-2404

### IDC Virginia

8300 Boone Blvd., Suite 500  
Vienna, VA 22182  
(703) 848-9217

### IDC Canada

7 King St., East, Suite 1000  
Toronto, Ontario  
Canada M5C 1A2  
(416) 369-0033

### IDC Argentina

CW Comunicaciones S/A  
Av. Belgrano 406 - Piso 9  
CP 1092 Buenos Aires  
Argentina  
011-54-134-5583

### IDC Brazil

Computerworld do Brasil Ltda.  
Praça Fioriano 19, 26 andar  
20.031 Rio de Janeiro,  
Brazil  
011-55-21-240-8225

### IDC Mexico

Select, S.A. de C.V.  
Av. Nuevo León No. 54 Desp. 501  
Col. Hipodromo Condasa  
C.P. 06100 Mexico, D.F.  
011-525-256-0981

### IDC Venezuela

IDG Comunicaciones, C.A.  
Torre Maracaibo  
Piso 10, Oficina H  
Av. Libertador  
Caracas, Venezuela  
011-58-2-72-76-30

## IDC Europe

### IDC Nederland

A Fokkerweg  
1059 CM Amsterdam  
The Netherlands  
011-31-20-6692721

### IDC Deutschland

Westerbachstrasse 23  
D-6242 Kronberg 1  
Germany  
011-49-6173-70980

### IDC France

12, Avenue George V  
75008 Paris, France  
011-33-1-4-7250021

### IDC Italia

Via R. Pirelli 110  
20134 Milano  
Italy  
011-39-2-58011660

### IDC Scandinavia A/S

Alderstrøge 3A  
DK-2100 Copenhagen  
Denmark  
011-45-31-186344

### IDC Finland

John Stenbergin Kanta 2  
SF-00530 Helsinki  
Finland  
011-358-0-701-6377

### IDC Poland

PROMARKET  
ul. Długa 16  
00-238 Warsaw  
011-(48) 2-6359434

### IDC Soviet Union

ICE Information Computer Enterprise  
Prospekt Mira, VDNH  
Pav. 4, Room 105-107  
129223 Moscow, USSR  
011-709-5-187-9889

### IDC Oesterreich

Liesel, Spiel, Zach  
Maverthogasse 6  
A-1040 Wien, Austria  
011-43-222-5050900

### IDC Hungary

H-1053 Budapest  
Genocian H 1.2 Hungary  
P.O.B. 55  
1364 Budapest, Hungary  
011-361-122-8458

### IDC United Kingdom

2 Barb Road  
London  
W4 1LN, United Kingdom  
011-44-81-993-8082

### IDC Norge

Bærumveien 385  
Postboks 171  
N-1346 Gjetun  
Norway  
011-47-2-547141

### IDC Switzerland

Rhypark, Rheinweg 4  
Postfach 368  
CH-8201 Schatthausen  
Switzerland  
011-41-53-242123

### IDC Spain

Rafael Calvo 18 20B  
28010 Madrid  
011-34-1-410-4282

### IDC Sweden

Torsnäsgratan 4, Box 1096  
164 21 Kista  
Sweden  
011-46-8-751-0415

### IDC Greece

Strategic International Ltd.  
8 Iliadou Street  
106 74 Athens, Greece  
011-301-7229571

## IDC Pacific

### IDC Thailand

c/o A.R. Business Consultant  
CCT Building, 8th Floor  
109 Surawong Road  
Bangkok, 10500, Thailand  
011-662-236-2902

### IDC China/Hong Kong Ltd.

12/F, Seabird House  
22 Wyndham Street  
Central, Hong Kong  
011-852-845-6588

### IDC Beijing

c/o IDG High Tech Co.  
15 Fuxing Road - Room S21  
Beijing 100038  
China  
011-861-801-5544

### IDC Australia

56 Berry Street  
North Sydney, NSW 2060  
Australia  
011-61-2-922-5300

### IDC Japan

4-7-1-Chome, Kudankita  
Chiyoda-Ku, Tokyo 102  
Japan  
011-81-3-3264-3179

### IDC Asia/Singapore

420 North Bridge Road  
#03-20 North Bridge Centre  
Singapore 0715  
011-65-338-3066

### IDC Korea, Inc.

3/F Shin Bong Building  
835-6 Yeuksam-Dong  
Kangnam-Ku, Seoul, Korea  
011-82-2-555-6030

### IDC Malaysia

6/F Secondary Tower Block  
Wisma MCIS, Jalan Barat  
46200 Petaling Jaya  
Selangor, Malaysia  
011-60-3-756-5552

### IDC India

CYBER MEDIA LTD.  
D-74 Panchsheel Enclave  
New Delhi - 110017  
India  
011-91-11-643-5999

### IDC Taiwan

3F-5 No. 201 Fu Hsin N. Rd.  
Taipei, Taiwan, R.O.C.  
011-886-2-7170868

### IDC New Zealand

31 Ganges Rd.  
Khandallah, Wellington  
New Zealand  
011-64-4-791-989



**INTERNATIONAL DATA CORPORATION**  
An IDG Company: The World's Leader in Information  
Services on Information Technology  
5 Speen Street, Framingham, MA 01701  
(508) 872-8200

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