MAYHEM IN THE DISTRIBUTION TRADE

Early this month Ingram Software bought just under half the outstanding stock of pc-products distributor Micro D from founders Lorraine Mecca and Geza Czige, foiling the hopes of the two other major distributors of merging with Micro D.

All three had reason to want Micro D absorbed. All three would benefit merely from Micro D’s absence in the highly competitive micro distribution business: Three companies can probably keep prices in order, but with four or five there was always one player -- frequently but not always Micro D -- willing to price low and drag the others down with it.

Each of them -- Ingram, Softsel, First Software -- also had motives for wanting to absorb Micro D itself. All three could benefit from owning Micro D for the sheer advantages of size in a business where market share and economies of scale can add points to the thin slice between barely double-digit gross margins and breakeven. Micro D is strong in hardware and accessories (60 percent of revenues), while its three competitors are stronger in software in a business where software sales are rapidly losing ground to mail-order and direct sales. Micro D also has a state-of-the-art mainframe-based Cambar computer system that the company claims could support annual revenues of $500 million.

To top-product-short Ingram, Micro D’s rights to resell products from Lotus and Hayes Micro are particularly attractive. And either Softsel or especially cash-short First Software could have used a merger with publicly held Micro D to in effect go public itself and shore up an uncomfortably small equity base. Intensely private Ingram Software, subsidiary of Ingram Industries of Nashville, TN, could also take this route, but that seems less likely.

Even outsiders would like to see the industry consolidate. Over the past few months Lotus has dropped its list of distributors from five to three, while Hayes has reduced its list of twelve down to six. Microsoft was planning to pare its

KEEP FIGHTING, FRED!

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list of six; as things turned out, it won't have to. And as established vendors lower their distributor count, new vendors are signing exclusives with Softsel, including Ansa, PC Focus, Javelin and Symantec. In the opposite direction, First Software has signed to be the exclusive corporately sanctioned distributor to ComputerLand franchisees (i.e., so that ComputerLand stores don't in effect pay royalties plus distributor markups), as well as to MicroAge and ValCom.

Dramatis personae...

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* $300m w Micro D
** of which 100 are overseas
*** after recent layoff of 75 people
**** subject to attrition

Source: Release 1.0 estimates

So it was hardly surprising that all three software distributors (as well as Softeam, now part of Ingram) were in "talks" with Micro D. Last summer First Software and Micro D got so far as to make a public announcement of a merger which called for Micro D to issue 4 million shares of new stock, valued at about $20 million, but it was broken off at the last moment for financial/reporting reasons. Negotiations with First Software resumed more quietly in October, based around Micro D's value then of $3 per share, but never got anywhere. Meanwhile, Softsel and Micro D were getting very close, and just around Christmastime were going to meet to sign papers. That deal would have valued Softsel at about $30 million and the combined, public company at about $50 million, again based on Micro D at $3.

How close did the Softsel/Micro D deal get to happening? "Hours," says one individual involved. But when the parties assembled in Los Angeles, they learned that the founders had gone back to their home (one of several) in Dallas. They had tired of the proceedings, they had tired of the other principals, and, it turned out, they had agreed to sell their stock to Ingram -- for $2 a share, $1.9 million in cash and $4.7 million in notes.

Not so fast!

The thing to understand is that "Micro D" was not really a single entity. It consisted of: (1) the company, run by Chip Lacy, a longtime friend of the founders (perhaps not anymore), who originally helped build the company and resigned in 1982 before it got funding. He remained as a director during a stint at catalogue showroom Best Products and rejoined the company
fulltime last July after the breakdown of the First Software deal. Lacy
owns options on about 300,000 shares, or 4.5 percent. (2) the founders,
Lorraine Mecca and her husband Geza Czige, who together owned (in her name)
half the company's shares. Mecca is a former junior-high teacher who told
the 1984 PC Forum that software distribution is "not a bloodbath, but a
bubblebath!" Czige is a publicity-shy Hungarian engineer-turned-businessman
who took Wednesday afternoons off to play basketball. By last summer, says
one insider, they were "living in Hawaii but still interfering from time to
time." (3) venture capitalist Fred Adler, who funded the company before it
went public and then (presumably to his later regret) stuck around there-
after. He still owns about 10 percent of the stock, but he resigned from
the board last April. (4) other investors and small shareholders, left with
40 percent of the stock and little say in what happens -- unless they sue.

With the founders' sale of their stock, that second constituency has now
ceded to 49.99 percent-holder Ingram Software, a growing amalgamation of
formerly distinct parts. (Upon FTC approval expected shortly, they will
sell a remaining 22,785 shares to give Ingram 50.37 percent ownership.)
Based in Buffalo, NY, Ingram Software comprises the former Ingram Software,
Nashville, TN; Software Distribution Services, Buffalo; and, as of January
1, Softeam, Compton, CA. Since the purchase, Ingram has effectively taken
control of Micro D, restructuring the board so that its two representatives
-- an executive vp and director and the general counsel, respectively, of
Ingram Industries -- have veto power over any substantive action by Micro D
management, down to any transaction topping $50,000.

That's the story so far...

Next installment

Next month, Micro D will announce its year-end figures ("earnings" might be
stretching it), Ingram will declare its intentions, and, most likely, the
remaining shareholders will sue. Ingram will probably offer to pay them the
$3 per share where it's trading now (up from a low of $1.87) or even the $4
that would match book value. But the stock went as high as $16.50 right
after it was first sold publicly in July 1983 at $16 per share in a $25-
million offering. Furthermore, those same stockholders will assert, a
merger with First Software or Softsel would have left stockholders with
shares in a newly created industry leader, worth twice as much.

A lot of them want somebody -- anybody -- to make them whole. Is Ingram
stealing the company? Did it, as one shareholder charges, foil a done deal
a la Texaco/Pennzoil? Or is Ingram's cash and paper worth more than stock
or notes of whatever stated value from a shaky combination of Micro D with a
cash-short competitor? Or were the founders to blame? What are the issues
when a company buys half of a competitor? Does it bear a fiduciary respon-
sibility to the owners of both companies? What is the stock "really" worth?
From Ingram's point of view, presumably, it's simply putting together a
viable competitor in an overcrowded field.

Capital counts

So where does this all leave the industry? Whatever happens, Micro D will
be no more as an independent. Everyone agrees, fervently, that price-
cutting will diminish. If enough people believe that -- especially the

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three big players, resisting the dealer/customers who keep egging them on -- it will come true. Right now reliable figures are hard to come by, but we doubt that any of the larger players in micro products distribution is making money on a consistent basis.

With slightly better margins, First Software and Softsel may be able to realize their long-held dreams of going public and gaining a firm financial footing. Aside from presence, account coverage, and performance -- getting the right stuff out to the dealer on the schedule promised -- success in distribution depends on capital. In essence, distributors act as financial intermediaries, extending credit and funding inventories and receivables.

What it took years for Softsel and later First Software to build, Ingram Distribution, part of a substantial family-owned firm with interests in oil, fuels, and barging, has mostly assembled from existing parts. But Ingram is no newcomer to the (broadly defined) software distribution business. It has been the leading North American distributor of trade books for years, and also sells video products and retail control systems. Ingram understands intimately the logistics of the distribution business and the importance of managing capital. For market share and knowledge of the micro products business in particular, it simply bought two and now maybe three companies.

Ingram's acquisitions of SDS and Softeam represented a careful strategy. Ingram bought SDS because the book distributor found out it needed help in cracking the computer software market. Created last summer, Ingram/SDS was strong in the East and among retail retailers; Softeam was stronger in the West, and among dealers and VARs. Ingram/SDS tended to the low-end, home software; Softeam's people sold business stuff and have a good deal of technical expertise about programming, languages, tools, and the like. Former Softeam president Mark Vidovich is now running sales for the entire company, overseeing West Coast operations, and managing its strategy and relationships at the high end of the market. But the company still lagged in the hardware end of the business -- as do Softsel and especially First Software.

Micro D knocked

The Micro D stock purchase, on the other hand, looked like a quick reaction to an opportunity that arose when the Micro D founders decided to dump Softsel. Ingram won't comment. Caught between the onus of appearing hasty and capricious on the one hand and possible legal exposure for breaking the Softsel deal on the other, it is also bound by the inscrutability of a 13D SEC filing that says it will decide what to do next only after looking at Micro D's numbers in February.

Like Apple, Micro D has gotten itself into far better shape, courtesy of Lacy, with strengthened customer relationships and tightened management. But gross margins are still hovering around 8 percent in a business where double digits are desirable. Moreover, Micro D remains slightly adrift in a market peopled with larger, more visible, more successful competitors.

Whatever the numbers, Ingram -- to whom Micro D's $5-million cash hoard and strong equity position ($28 million as of September 30) and public stock are relatively less attractive than to Softsel or First Software -- got a good price for its half at $7 million, or half book value. (Ingram also paid only about $3 million for $60-million-sales Softeam, the bulk of which went to Ashton-Tate's Hal Lashlee and Jill (Happy Birthday!) Weissman Tate.)

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The survivors

Softsel leads the industry right now in sheer presence, stability, etc., and has a good enough track record to win the requisite lines of credit -- $25 million, not all used -- from its banks. With turnover exceeding $200 million in 1985, Softsel holds an enviable lead. Aside from the need to husband its cash, its greatest vulnerability is sheer complacency. Over the past few years, Softsel has been learning about the business slowly and surely, tightening credit management and automating extensively. It has brought in a business-minded president and CEO Tom Mullaney, former COO of Dart Industries. Softsel would be outmassed by a combination of Ingram/SDS/Softeam and Micro D, but that very combination would probably lead to some settling-down in the industry that could help Softsel gain stability over the next year or two.

First Software, extremely visible, could have used some of Micro D's funds to finance its roster of flashy marketing programs, exclusives (such as Attache) and the Avis promise of doing a better job. Indeed, last fall it couldn't even pay its bills. But the company is breathing easier now with a new $25-million secured credit line from Heller Financial at 1.5 points over prime. If the stock market and the distribution market improve during the year, FS hopes to go public.

First Software was founded on pocket money in 1982 by chairman Ken Carpenter and childhood buddy Mike Hajjar, both from the food distribution business. It has had remarkable success and shown remarkable staying power -- unlike another industry challenger, Berkeley's (and Don Kingsborough's) SKU; remember them? (Kingsborough is now behind this season's Christmas success, the Teddy Ruxpin talking bear.) First Software pays extreme attention to prompt delivery and customer satisfaction, and sends out reps rather than relying on telemarketing. But it has made its mistakes too: Last year, for example, it signed an exclusive remarketing agreement with Attache Software, which started off with a highly touted initial order of $600,000. But neither party had the cash to make the venture a success. Attache couldn't fund the advertising to make the product move, and FS couldn't sell enough of it to buy any more or even pay for what it had. As it is, FS still owes Attache over $100,000 for what is now worthless inventory -- and doesn't intend to pay, on the contention that Attache failed to deliver the promised marketing support on which the deal was based.

Three little Indians...

Long run, we expect the market to solidify down to Softsel, First Software (if it can continue to get funding), and Ingram, with or without Micro D. Softsel by now has gained critical mass and can continue to grow steadily through self-funding or perhaps a cash infusion if the stock market ever turns up -- and the distribution business itself rationalizes to the point where margins look okay. Distribution is never going to be a high-margin business, but it can look okay in terms of return on equity if a company manages its capital cleverly.

During the current market free-for-all, staying power is key. Value-added now consists of timely delivery, good credit management, overnight order processing, availability, as much as marketing programs, product selection, etc. Software vendors who want their software sold are discovering that
that's what reps are for -- with or without distributors to handle the physical distribution function.

Aggregate numbers for 1986 probably won't look very different from those of 1985, but the details will. The rich will get richer, and many of the poor will disappear -- into bankruptcy court, or into the arms of the rich. Retailers, busy selling to customers, will leave distribution to the distributors. And by the end of the year -- except for the usual year-end specials -- prices should be much more "rational." Micro D (along with First Software) was generally the industry's toughest price-cutter. Micro D is likely to lose that distinction as part of Ingram, if only because Ingram must worry about antitrust problems.

MEDALLION MANIA

Who gets to occupy which levels of a tiered distribution system? In addition to competition among distributors, there's always a certain tension between distributors and their suppliers and customers.

One of the more recent innovations in the marketplace has been First Software's so-called Corporate Access program. This involves dealers in generating large-volume orders (or, in the case of publishers who agree, site-licensing deals) that First Software will fulfill, handling all the logistics of delivering software in bulk or setting up a corporation's internal duplication and monitoring program. In return, First Software finances the deal, billing the customer directly and paying the dealer a (small) commission. Big-time publishers and high-end dealers alike, however, see First Software as overstepping the bounds; its medallion qualifies it only to be a distributor to retailers, not to sell to customers directly. If a customer is that large, the vendors reason, we can sell to him directly. And the dealers figure that First Software will establish relationships with all their best customers, and then squeeze them, the retailers, out. So by and large it seems to be the needy retailers and the less popular vendors -- the Attaches of the world, to put it bluntly -- who are rushing to sign up for Corporate Access.

Unhappy with the prices they're paying -- or more accurately, with the difference between the prices they're paying and the prices they're able to charge -- a number of retailers have floated the idea of creating their own buying consortium. Would-be participants include MBI, Inacomp, Future (now part of Computone), ComputerCraft and Computer Depot. But they are addressing the wrong problem. The mark-up that distributors charge represents a very small amount of profit, most of which goes to building facilities and the infrastructure necessary for effective distribution. A non-profit organization with no one clearly in charge (or five people in charge) is likely to add far more cost and provide poorer service than a profit-making, penny-pinching distributor sincerely dedicated to growth -- and to competing with other distributors. The only point of such an organization would be the negotiation of larger discounts from IBM -- and that's highly unlikely.
RETAIL FEVER

The invisible, inexorable hand of the market is finally beginning to catch up to a retail business ridden with uneconomic pricing, outdated allocations of margin between supplier and reseller, and a profusion of indistinguishable products. That invisible hand consists mostly of small actors making day-to-day purchase, sales, and credit decisions, but it also includes IBM -- whose market power is due mostly to the actions of those same small actors, led by advertising, salespeople, even tradition. IBM's recent moratorium on new PC outlets was inevitable; only its public announcement was a surprise. There are few markets that are not overstored with IBM resellers. Even effective retailers would do better to take over existing locations and reduce competition, than to add to the clutter by opening new stores.

IBM's move, healthy for this industry suffering from a surfeit of resellers, is also healthy for IBM. It's unlikely that additional dealers would sell any more computers for IBM; they would simply sell them at lower prices and leave customers inadequately supported. (If IBM didn't believe there is a genuine role for support, it could sell PCs mail-order, as it does its 3101 terminals.) IBM knows, as Atari does not, that there's a Laffer curve for distribution outlets (see right).

As it happens, IBM has been exceedingly generous in granting exemptions from its restrictions -- at least to established players such as ValCom, MicroAge, Businessland and the various Bell operating companies. IBM simply gave people an excuse for what the market was forcing them to do anyway: It's rarely a sensible economic proposition to open a store nowadays. ComputerLand, MicroAge and Entre and their franchisees frequently are closing or acquiring locations rather than opening new ones. CompuShop and Future have been acquired. ComputerCraft has shrunk from 62 to 31 stores, and General Micro, Computer Depot, CompCo, World of Computers and several others have filed for bankruptcy protection.

In the wake of a Christmas that was just okay, many dealers may be mortally wounded. The discounts they gave in order to take in cash mean there may not be enough money in the till when the bills for what they sold come in. So the consolidations are going to continue in 1986. Unlike a New York taxi medallion, an IBM reseller authorization cannot necessarily be resold to pay off debts.

Outward bound...

In response to this gloomy situation, and to the highly visible successes of Businessland and a few other tony retailers -- pardon us, dealers -- such as Microsource/MBI and Morris Decision Systems, many retailers are looking to become salesforces anchored in a storefront. OnLine Computers Plus, which is closing five of its 20 owned stores, intends to become strictly a salesforce operating out of store locations, while other retailers are aiming to reverse a typical 65/35 ratio of in-store to outbound sales, to 35/65.
Street Photo has started holding training classes and group sales demos in specially equipped classrooms; one for Lotus's Signal drew 80 people and one for dBASE III Plus drew 140 people recently.

Hastening this shift is the advent of ever more complex products. No, you can no longer just plug them in. The software has to work on the network, the printer has to work with the graphics package, the database has to provide files to the mass-mailing on the word processor, and so on. Customers are no longer willing to install and support products themselves; those who do are probably buying mail-order or direct from vendors.

So, the dealers are segmenting, much as the market is, into low-end/home and business. High-end dealers are becoming third-party sales organizations, carrying a few lines they can support in depth, actually selling products and installing them rather than just offering an array.

...into the fire

But just as aspirin taken to cure a childhood fever may lead to Reyes syndrome later, so may the antidote to retail maladies prove as dangerous as the disease. The resellers rushing to build outbound salesforces forget Computerworks, recently absorbed by Morris. They forget the problems of several Entre franchisees, all focused on the high-end market. And they ignore all the other dealers who are moving in the same direction, inevitably creating a market as overcrowded as retail now is.

Yes, some may prove spectacularly successful, but outward-bound salesforces are no more than a good concept. As with retail stores, implementation matters more than strategy. Witness the singular success of Victor Alhadef's Egghead Discount Software chain in a market -- software stores -- that has felled many a contender. Salespeople don't automatically become more productive once they leave a store's premises. Indeed, outbound sales forces generally have to be better salespeople, and better-informed, than your typical store salesperson. They're competing with IBM's supermen and a host of other trained salespeople from well established direct-sale vendors as well as with their direct competitors from Businessland and all the others adopting this year's fad.

The economic dynamics of outbound selling are the exact opposite of those of retail. Newly outward-bound dealers squeezed by inventory carrying costs will discover that they now have to fund accounts receivable instead. How long is it worth it to carry a customer in order to retain its business? Fortune 1000 accounts may be easy to get credit against, but factors (firms such as Heller that finance receivables) typically charge well over prime and take a lien on your assets. Meanwhile, those ostensibly lucrative corporate customers expect whopping discounts -- far more than when they wander into a store to buy in ones and twos.

Ultimately, those retailers remaining in the business by choice or default may discover a pleasanter world with less competition -- and more rational competitors. Corporate customers will realize once again that retail purchasing at its best offers genuine, traditional advantages -- immediate availability, variety of products, and limited paperwork.

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People frequently show us their new software products, and a couple of the latest, not directly competitive, set us to thinking. Both implicitly express a vision of business life -- one as a world of personalities and interpersonal relations; the other as a matter of allocating quantities of resources and strategic planning.

Stripped bare

Acumen, the "personality" product, comes from Human Factors Advanced Technology Group of San Rafael, CA. Director of R&D Ron Warren, a PhD in human development, started the company in 1984 after leaving Human Edge Software (you remember, the Sales Edge, Negotiating Edge, MindProber, etc. folks, who are now also reselling Expert-Ease and Expert Edge). For presence, funds and market knowledge, he teamed up with Human Factors Inc., a management training and consulting company, and Human Synergistics, a personnel testing and assessment company in Plymouth, MI.

Warren stresses that Acumen relies on quantitative research, while the Human Edge products are basically distillations and amalgamations of textbooks and research papers. Acumen is based on Human Synergistics' data base of profiles of 250,000 managers from more than 6000 corporations. It may be about mushy things, but it has a strong grounding in observed facts.

The user starts by going through battery of 124 questions, followed by a few more for calibration. Then he can check out the results, a detailed summary of management style by categories such as managing tasks, managing people, handling conflict, organizing. We found the program's assessment singularly accurate (and not totally flattering), as did a friend who confessed it "stripped me bare." At this point, you can assess yourself further, compare yourself to other managers, describe other people you deal with and dissect those relationships, or go through exercises to attack your weaknesses.

For large customers, the product could also be customized to compare the user with the norm within a company. After all, maybe you shouldn't be too well-adjusted to succeed at Computer Confusion Inc.; their model is tough, mean and abrasive, but gets the job done. Be that as it may, the text output is normative, instructing people to be more supportive managers, avoid milquetoastism, encourage employee feedback, and so on.

Human Factors Advanced Technology Group sells Acumen through a limited number of resellers in the management training business, and positions its product against books on the one hand -- private, cheap and convenient, but neither specific to the user nor interactive -- and personalized training on the other -- time-consuming, expensive, and difficult to administer to high-level executives. Happy users include Bechtel, duPont, Wells Fargo, AT&T. A basic single-user system costs $595, plus $195 for each additional user.

Despite this positioning, Acumen could be extremely helpful to the lone buyer -- the person who is his own and others' boss and is unlikely to get feedback or training on the job. As a product, it should sell well on the narcissistic fascination of all such packages: "It talks about me!" The few people who won't be intrigued by it are probably those who can't face the truth about themselves. Even so, Acumen should provoke less resistance than the friend who hands a colleague "30 Days to a Pleasant Personality."

Release 1.0

28 January 1986
By the numbers

Business Simulator, by contrast, was a neat idea until we saw the implementation. The title is a clever take-off on Microsoft's Flight Simulator; the package gives an impressionistic view of a path up an organization chart. It models a start-up business in competition against a number of giants, and requires the user to make strategic decisions concerning marketing, budgeting, capital spending, and the like. Business Simulator was developed by Reality Development Corp., a subsidiary of Strategic Management Group, a Philadelphia consulting firm.

In action the product reminded us uncomfortably of Knoware (remember, a venture capital darling ($3 million) in 1983; a bankrupt in 1984). Like Knoware, Business Simulator at $100 is a low-priced computer game for executives, conceptually clever. Where Knoware taught people to use computers, Business Simulator uses computers to teach people about business. But it's slow, and tedious after a couple of run-throughs, despite random economic scenarios and unpredictable actions by competitors (a depth Knoware lacked). As in life, there are enough new mistakes to make that you don't have to repeat old ones.

But it's disconcerting to make five decisions, have the product "process" for what seems like minutes, and come back to tell you a year has passed; would you like to see your annual report? In one sense it's too slow; in another, it's too fast. Decisions are not made year by year. (Even consultants talk to their clients more than that.) There's little of the sense of navigation found in Flight Simulator -- perhaps a graph where you could watch your sales rise month by month, then taper off. How many months do you let them sag before you try to find out why? Do you drop prices? Does the rise in units offset the price cut? No businessperson would wait for the annual report to find out.

Any businessperson worth his salt knows that management is not reading memos and making decisions, but keeping the troops inspired in the face of obstacles, hard-working in the face of exhaustion, honest in the face of temptation, team-spirited in the face of rivalry, etc. It's not whether to raise money at 12 percent from a bank or 11 percent in the bond market, but how to convince either that you're a good risk. It's not whether to launch a new product, but whether to pick Juan or Alice to manage the effort.

But Business Simulator has none of that. Our business simulation would have events such as these: "Sorry, computer down. Marketing report erased." "Chief software designer defects to rival. Delay launch by 3 months," followed by, "Documentation not ready. Delay launch another 3 months." "Six new entrants in biowidget market. Cut prices to unload inventory?" "West Coast sales manager has drug problem. Cut sales forecast by 20 percent; plan a trip for Tuesday." "Two-million ad campaign fails to pull. Decide on new campaign -- or new agency."

The company's developers argue, legitimately, that their product is targeted at planners, not at managers. But it suffers from the next-workbench syndrome, whereby people assume the whole world is made in their image, and develop products for themselves. Traditionally, engineers do it; recently journalists have suffered from the same misapprehension, and still predict a booming market for laptop portables.

Release 1.0

28 January 1986
Meaningful numbers

The basic problem with Reality Development's Business Simulator is bloodlessness: It reflects an MBA's vision of the world -- not reality at all. Even the industry-specific versions Reality Development plans won't change the essential nature of the product.

But we have to admit that not everyone agrees with us. Reality has already sold 2500 copies at $350 in an executive training version to the likes of Apple Computer, Northern Telecom, Hyatt Hotels, PaineWebber, and Bain & Co., a management consulting firm.

Best-seller 1-2-3 may be bloodless too, but there's a difference: Most people use 1-2-3 to model reality -- their own businesses. Those cold, hard spreadsheet numbers speak volumes, reflecting underlying trends and situations familiar to the manager who models them. Is there anything sadder than a graph that droops towards the right?

Enough about my company, let's talk about my finances

All this brought to mind a third product, one considerably easier to use than 1-2-3, that models the business nearest and dearest to everyone's heart -- his own personal finances. From the perspective of the casual user, the problem with 1-2-3 as opposed to, say, Business Simulator, is that it's too much work -- even if you can figure out how to build the models.

Managing Your Money, from Micro Education Corporation of America in Westport, CT, provides precisely the sort of pre-built model the naive user wants. All you have to do is give it the data; it knows all about how debits and credits are balanced, how to allocate a given portion of monthly payment to interest and the rest to principal, and to take the appropriate deduction; how to divide a yearly salary into months; how to offset short-term and long-term capital gains and losses.

We prevailed upon MECA's Jerry Rubin to show us the product, and could hardly keep our hands off it. This was far more exciting than modeling a non-existent business selling widgets. Once we put in our salary, we could watch the impact of Reagan's tax cuts, assess the results of raising the rent we charge on our second apartment from $1400 to $1500 -- or more likely, dropping it to $1300. What's the after-tax internal rate of return if we fix it up to the tune of $3000 and sell it for a $20,000 capital gain? What happens if our kid gets a scholarship instead of going to Harvard?

These are fascinating questions, but not fascinating enough to model in 1-2-3 (for most of us, anyway). Managing Your Money makes it painless, even though the answers take a little while to come up. This is a product that's both useful and educational, informative, what-iffy, all those wonderful things. And it does what software should do -- all the work and modeling that could apply to anyone, leaving only the specifics up to the user.
IBM chose the week after Apple's long-awaited announcement of enhancements to the Mac, and the week of Sun Microsystems' filing to go public, to make its own announcement. IBM's was a little more surprising and newsworthy -- and left people wondering what had happened to the much-rumored laptop PC. The basic RT (RISC Technology) PC, a major thrust into the "technical professional" market, is priced in the low teens, but software, memory, monitor, and disk storage get you up into the twenties or thirties quickly. The system is positioned squarely against DEC's MicroVAX and all those workstations from the likes of Sun and Apollo.

IBM has never held a very strong position in the technical/scientific marketplace, virtually ceding it to Sperry, Control Data and Cray at the high end, and DEC and HP at the lower end. While we firmly expect the RT PC to be a commercial success, the IBM name does not carry the same weight with technical/scientific customers (long nourished by PDPs and VAXes) as it does in the commercial world. IBM's 9000 UNIX system, targeted at the same market, has had such low acceptance that production was discontinued just before the announcement of the RT PC. On the other hand, the PC family itself has done well in certain technical markets, attracting software from a host of dedicated CAD software firms and even such systems vendors as Daisy and Computervision.

IBM offered support, security, reliability and standards, but not innovation, competitors could easily charge. The RT PC counters that image, and IBM will make the most of it. Company officials took pains to stress that RISC technology, the underlying basis of the RT PC, grew out of work at IBM over the past 10 years, and in private pointed out that HP's Joel Birnbaum, master of its Spectrum project, left IBM for HP five years ago. (Two of MIPS's principals also started out on IBM turf.) Several of IBM's senior scientists were on display at the press and consultants' briefings that heralded the announcement.

Something old, something new

But IBM has carefully clothed its proprietary innovation in a standard: The system's basic operating system -- AIX, for Advanced Interactive Executive -- is an enhanced version of UNIX System V -- proving conclusively that standards belong to the marketplace and not to their licensors. AT&T will earn some fees for IBM's UNIX -- but IBM will get the customers. The original PC, for example, owes its success to a brand name as much as to innate superiority -- and the fact that it was the most appealing 16-bit system around for software developers to write for. We expect much of the same thing will happen with the RT PC: It will be the most visible technical workstation around -- although the MicroVAX will be a strong runner-up.

Bang the drums loudly

The 9000 was launched virtually without great fanfare in 1982 and relaunched in 1984 with UNIX, probably because IBM wasn't sure how to position that 68000-based system against the PC. This time, with a more distinctive prod-
uct, IBM is being bolder, soliciting third-party support from all quarters, and offering the system to some 150 retail outlets (with more to follow).

Although the RT PC does use the UNIX V "standard," about half the code in that operating system consists of IBM enhancements. Among them are virtual memory for data as well as for programs, which gives the user what amounts to unlimited memory capacity for most practical purposes; software PC/AT emulation as well as support for a PC AT coprocessor operating concurrently; multiple windows; PC Network but not yet Token-Ring or Ethernet support (coming soon); and several user interfaces, including one that responds to PC-DOS commands and one that is driven by menus; and a menu-driven interface. You can bet that software vendors will take advantage of them -- and, eventually, that other vendors will offer their own look-alikes, playing the role Microsoft's MS-DOS plays opposite PC-DOS. But in this case the look-alike is likely to be "AIS" -- Los Angeles-based UNIX vendor Interactive Systems did much of the work on IBM's AIX. Interactive has worked with IBM before; it's the developer of PC-IX, sold out of Austin.

The RT PC also comes from IBM's Austin-based Engineering Systems Products operation -- an entity entirely distinct from IBM's Entry Systems Division, which makes the rest of the PC family. Both are IBUs (independent business units), operations that start life out of IBM's mainstream only to become increasingly integrated into the corporation and its marketing strategies as (if) their products prove successful. Such success and the attendant growing pains, of course, are behind the recent move of the Entry Systems Division from Boca Raton to Montvale, NJ, right next to IBM headquarters.

Supporting cast

Announced with the RT PC was a slew of IBM and third-party software, including substantial graphics, statistics, circuit-design, and CAD/CAM offerings, and FORTRAN 77 and Pascal compilers, in addition to Assembler and C compilers bundled with the operating system. (Also included were some regular office-type packages, but not enough to threaten the revival of the System/36, for which enhancements were also announced.)

IBM has rounded up a cast of supporting vendors, including Interleaf (electronic publishing software), Applix (office automation), Samna (word processing), Graphic Software Systems (graphics), TLB (the Solomon accounting package), Oracle (a relational dbms based on the SQL (Structured Language), another IBM standard). Interestingly, those products that have PC equivalents tend to be priced about twice as high...

Positioning of the RT PC wasn't clear until just before the announcement -- which itself had been deferred two or three times. As a RISC machine, the PC RT is basically means a no-frills computer engine that depends on compilers and surrounding hardware to give it character. So far, with UNIX/AIX, the system looks vaguely scientific/technical, but it has a reasonable complement of commercial-style software too. While we doubt office workers will move wholesale to adopt the RT PC given that they're happy with the PC and its software, the RT PC will hasten the world's move towards acceptance of and ultimately demand for higher-resolution, more graphics-oriented interfaces even for text-based functions.

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Inference, IntelliCorp and Teknowledge have all announced that they will develop RT versions of their expert system development environments, but details were sparse. Although no agreement was formally announced, we believe Lucid Corp. of Menlo Park will be supplying a LISP compiler for the RT PC. For the moment, IBM is downplaying the system's potential for delivery of AI-based systems, which would pit it squarely against Xerox's recently announced 6085 and also against the Sun systems. That discretion seems reasonable enough, since the market doesn't really exist yet. By the time that white-collar workers are eager -- and the software is ready -- to run "artificially intelligent" software on their desktop PCs, IBM will be there with the RT PC.

MAC'S MID-LIFE KICKER

While IBM innovated, Apple enhanced. As expected, Apple gave the Macintosh a mid-life kicker, announcing the Macintosh Plus, a new hard drive, lower prices, trade-ins for the Lisa/Mac XL, and so forth. These things all fit into the necessary-but-not-sufficient category. They are what Apple should have been able to offer with the original Mac or soon thereafter.

To be sure, the RT PC, the Sun workstation, and other such systems cost several times as much as the Mac, but they're gaining. Sun has just launched a 4MB, 68020-based system, complete with 19-inch monitor, Ethernet connections, and software, for $7900. Apple's lead in electronic publishing, in particular, looks tenuous -- especially when you consider the Sun machine and the RT PC, which can support up to eight users at terminals.

Apple's announcement of strategic alliances with 3Com, Dow Jones, MCI, and Northern Telecom -- and a mysterious half-announcement of certain ties with Prime Computer -- were hardly the kind of bombshell the market has been whispering about -- a merger with Wang or AT&T, for example. But they're precisely the kind of manageable, nondisruptive relationships that may eventually grow into genuinely fruitful partnerships. Apple can't win all in one day; it has to -- yes -- earn respect the hard way. The company's traditional (and enjoyable) "event marketing" is giving way to a maturer systems marketing -- servicing customers with the products they want and the support they need.

Apple's more significant moves will become visible later this year, when it announces an "open" Mac receptive to third-party add-ons. On the basis of price alone, the Mac should do better with these improvements, but the noncorporate markets that Apple is damning with faint interest are the most promising target. With luck they and the Macintosh will find each other.
SELECTED PHONE NUMBERS

Chip Lacy, Micro D, (714) 540-4781
Frank Barry, Ingram, (716) 874-1874
Dave Wagman, Softsel, (213) 412-1700
Ken Carpenter, First Software, (617) 869-0077
Ron Warren, Human Factors, (415) 492-9190
Mark Goldstein, Reality Development, (215) 387-4000
Jerry Rubin, MECA, (203) 222-1000
Scott McNealy, Sun Microsystems, (415) 960-1300

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28 January 1986
THE 1986 ANNUAL PERSONAL COMPUTER FORUM: EXPLOITING THE STANDARDS
Phoenix, February 16 to 19

Speakers and panelists:
Marty Alpert
Danielle Barr
K.C. Branscomb
Janelle Bedke
Bob Berland
John Boyd
Rod Canion
Bob Carberry
Doug Carlston
Steve Dow
Paul Ely
Ed Esber
Gordon Eubanks
Ed Faber
Rob Firmin
Bill Gates
Alan Hald
Bill Hewitt
Alex Jacobson
Philippe Kahn
Mitch Kapor
Gary Kildall
Frank King
Bill Krause
Gene Kromer
Billy Ladin
Dave Norman
Tom O'Leary
Bob Orbach
Jim Porter
Al Ries
Wally Rhines
Ben Rosen
Mort Rosenthal
John Sculley
Beau Sheil
Eric Vogt
Dave Wagman
John Warnock
Ira Weise
Carl Wolf
Cyril Yansouni

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Reboul, MacMurray, Hewitt et al.
Inference Corp.
Borland International
Lotus Development
Activenture
IBM Austin
3Com/Convergent
IntelliCorp
ComputerCraft
Businessland
North American Philips
47th Street Photo
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Trout & Ries Advertising
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Sevin Rosen
Corporate Software Inc.
Apple Computer
Xerox
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Softsel
Adobe Systems
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Tandy
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Lucid
Intelligent Sys.
Personal Touch
Chips & Techs
Telebit
Info. Appliance

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## RELEASE 1.0 CALENDAR

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<th>Event Details</th>
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<tr>
<td>February 4-5</td>
<td>Microsoft Windows Conference for Developers - Seattle, WA. Call Tracy Beiers at (206) 828-8080.</td>
</tr>
<tr>
<td>February 4-7</td>
<td>UniForum - Anaheim. Call Lizabeth Reilly at /usr/group, (408) 986-8840.</td>
</tr>
<tr>
<td>February 16-19</td>
<td>1986 PC Forum - Phoenix. See opposite. For more information, call Sylvia Franklin at (212) 503-5517.</td>
</tr>
<tr>
<td>March 3-6</td>
<td>Comdex/Japan - Tokyo. Contact: Pete Young at The Interface Group, (800) 325-3330 or (617) 449-6600.</td>
</tr>
<tr>
<td>March 4-7</td>
<td>Microsoft's CD ROM Conference - Seattle, WA. Contact: Min Yee or Steve Lambert, (206) 828-8080.</td>
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<tr>
<td>March 5</td>
<td>Annual Software &amp; Computer Services Conference - New York. Investment seminar sponsored by PaineWebber, with Curt Monash, Esther Dyson, and a host of industry speakers. Contact: Bob Therrien at (212) 713-4921.</td>
</tr>
<tr>
<td>March 8-9</td>
<td>Softeach - Atlanta. Sponsored by Softsel. Call Kim Kays at (800) 325-9189 or (in Missouri) (314) 225-1724.</td>
</tr>
<tr>
<td>March 12-19</td>
<td>Hannover Fair - Hannover, West Germany. Contact: Donna Hyland at Hannover Fairs, USA, (609) 987-1202.</td>
</tr>
<tr>
<td>March 23-26</td>
<td>AEA Spring Conference - Miami. For public companies with less than $75 million in annual revenues. Contact: Flo Lewis at AEA, (415) 857-9300.</td>
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<tr>
<td>Date Range</td>
<td>Event Description</td>
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<tr>
<td>March 24-26</td>
<td><strong>Interface '86</strong> - Atlanta. With a keynote speech by James Olson, president and COO of AT&amp;T. Contact: Linda Yogel at the Interface Group, (800) 325-3330.</td>
</tr>
<tr>
<td>April 1-3</td>
<td><strong>Comdex Winter</strong> - Los Angeles. Contact: Linda Yogel at the Interface Group, (800) 325-3330.</td>
</tr>
<tr>
<td>April 1-4</td>
<td><strong>First International Conference on Expert Database Systems</strong> - Charleston, SC. Sponsored by IEEE et al. Call Cathie Hughes, (803) 777-5766, or L. Kerschberg, (803) 777-7159.</td>
</tr>
<tr>
<td>April 6-7</td>
<td><strong>Softeach</strong> - Boston. Sponsored by Softsel. Call Kim Kays at (800) 325-9189 or (in Missouri) (314) 225-1724.</td>
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<tr>
<td>April 6-9</td>
<td><strong>ADAPSO Spring Management Conference</strong> - Houston. Call Tom Farewell at ADAPSO, (703) 522-5055.</td>
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<tr>
<td>April 9-11</td>
<td><strong>Corporate Electronic Publishing Systems Show and Conference</strong> - Los Angeles. Call Toni Wiseman or Susan LeDonne at Cahners Exposition Group, (203) 964-0000.</td>
</tr>
<tr>
<td>April 19-20</td>
<td><strong>Softeach</strong> - Chicago. Sponsored by Softsel. Call Kim Kays at (800) 325-9189 or, in Missouri, (314) 225-1724.</td>
</tr>
<tr>
<td>April 22-23</td>
<td><strong>Telecommunications Conference</strong> - Boston. Investment seminar sponsored by Alex. Brown &amp; Sons. Call Barbara Murphy at (301) 727-1700.</td>
</tr>
<tr>
<td>April 28-May 1</td>
<td><strong>Comdex Spring</strong> - Atlanta. Contact: Linda Yogel at the Interface Group, (800) 325-3330.</td>
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<tr>
<td>April 29-May 1</td>
<td><strong>AI '86</strong> - Long Beach, CA. Contact: Norma Ashman at Tower Conference Management, (312) 668-8100.</td>
</tr>
<tr>
<td>May 5-6</td>
<td><strong>AI Conference</strong> - Stamford, CT. Organized by K. C. Branscomb, (415) 851-4735, in conjunction with the Gartner Group. For registration information call Ashley Pearce at the Gartner Group, (203) 967-6757.</td>
</tr>
<tr>
<td>May 6-8</td>
<td><strong>National Online Meeting</strong> - New York City. Contact: Joanne Loreti at Learned Information, (609) 654-6266.</td>
</tr>
<tr>
<td>May 6-8</td>
<td><strong>Videotex '86</strong> - Dallas. Contact: Regina Kreisger at Online Conferences, (212) 279-8890.</td>
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<tr>
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<tbody>
<tr>
<td>May 14-16</td>
<td>Info Show - Los Angeles. Contact: R. Waitzman at Cahners Exposition Group, (203) 964-0000.</td>
</tr>
<tr>
<td>May 17</td>
<td>Vern &amp; Dottie - A wedding at last! Congratulations!</td>
</tr>
<tr>
<td>June 8-11</td>
<td>World Computing Services Industry Congress - Toronto. Call Phyllis Cockerham at ADAPSO, (703) 522-5055. (The number given in our previous issue was incorrect.)</td>
</tr>
<tr>
<td>June 10-12</td>
<td>Comdex International - Nice, France. Contact: Pete Young at Interface Group, (800) 325-3330, or Charles Vervoord, Amsterdam, (31) 20-6219 41.</td>
</tr>
<tr>
<td>July 9-11</td>
<td>PC Expo - New York City. Contact: Steve Gross at PC Expo, (800) 922-0324 or (201) 569-8542.</td>
</tr>
<tr>
<td>August 11-15</td>
<td>AAAI-86 - Philadelphia. Call Claudia Mazzetti, American Association for Artificial Intelligence, (415) 328-3123.</td>
</tr>
<tr>
<td>September 2-5</td>
<td>Comdex/Australia - Sydney. Yet another Comdex. Call Linda Yogel at the Interface Group, (800) 325-3330.</td>
</tr>
<tr>
<td>September 8-10</td>
<td>NCC Telecommunications '86 - Philadelphia. Sponsored by AFIPS. Contact: (800) NCC-1986.</td>
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-- Laurin Henchey

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