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NATIONAL BESTSELLER

HARD DRIVE

Bill Gates
and the
Making
of the
Microsoft
Empire



JAMES WALLACE & JIM ERICKSON

"A disquieting but captivating portrait of a complex personality. *Hard Drive* spins a fascinating yarn of the extremes of admiration and hatred that such single-mindedness can inspire."
— *San Francisco Chronicle*

ROTHSON
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C. HAMMER

*To my mother and father; and to Linda Joyce Buzbee,
because a promise is, after all, a promise.*
James

To my mother, father, and to Nancy.
Jim

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Charles Simonyi, one of the architects of several Microsoft applications. (Courtesy of the Seattle Post-Intelligencer)



Above, Left. Gary Kilchall, chairman of the board of Digital Research. (Courtesy of the Seattle Post-Intelligencer)

Above, Right. Tim Paterson, who designed what became known as DOS, or Disk Operating System. (Courtesy of the Seattle Post-Intelligencer)

Below, Left. Bill Gates and Paul Allen in Microsoft offices in July 1981, a month before IBM announced its first personal computer. (Courtesy of the Seattle Post-Intelligencer)



Microsoft president Ballman left Microsoft

HITCHING A RIDE WITH BIG BLUE

When O'Rear began developing 8086 BASIC for Microsoft, no one in the industry had built a microcomputer using the new chip. O'Rear borrowed a page from the work of Gates and Allen in the Aiken computer lab at Harvard when they developed 8080 BASIC without an Altair. O'Rear simulated the 8086 chip on a DEC computer. A couple months later in the spring of 1979, O'Rear had his simulated BASIC running. However, he still didn't have an 8086 computer.

Just down the freeway in Tukwila, Washington, at a mom-and-pop computer business called Seattle Computer Products, was a man who did have an 8086 computer—Tim Paterson. An electronic hobbyist since high school, Paterson was a thin, fast-talking, bearded programming whiz with a fondness for faded jeans. He had hacked away on his first microcomputer at the University of Washington in 1976, when his roommate bought an IMSAI 8080 with a 4K memory board. Like the Altair that it imitated, the IMSAI was mostly good for fun and games. That same year, Paterson saw a notice posted in the university computer lab that the Retail Computer Store in Seattle was looking for a salesperson. Paterson applied for and got the job. He soon became friends with Rod Brock, a frequent customer who owned Seattle Computer Products. When Paterson graduated from the university in early 1978, he went to work for Brock as his chief technician and programmer. At the time, Seattle Computer Products built memory boards for microcomputers, but after Paterson attended a local seminar on Intel's just-released 8086 chip in late summer of 1978, he convinced Brock that his company should design a central processing unit, or CPU, around the new chip. The CPU is the heart of a computer. Paterson had a prototype 8086 CPU board working by May 1979, and he took his "computer" over to Microsoft. "We were helping them because Seattle Computer needed an 8086 BASIC and Microsoft was working on one," Paterson recalled. "It was a remarkable coincidence that we got our hardware working about the same time they had a BASIC simulator. But they didn't know if their

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BASIC would work, so we brought over the real computer and gave it a go."

Unlike the 8080 BASIC which ran the first time Allen fed it into the Altair at MITS in Albuquerque, the 8086 BASIC did not work the first time it was loaded into Paterson's machine. But a few minor bugs were soon eliminated, and before the end of May Microsoft had a working 8086 BASIC—just in time to show it off at the upcoming National Computer Conference in New York City, the computer industry's yearly fair. A software distribution company known as Lifeboat Associates had invited Microsoft to share its ten-by-ten foot booth at the fair, and Paul Allen had invited Paterson to come along and show Microsoft's 8086 BASIC running on Seattle Computer's machine.

"Our boards looked great sitting up there on display," said Paterson. "We had a terminal with 8086 BASIC running and you could type on it and make it do anything you wanted."

As usual when it came to industry shindigs like the NCC, Microsoft was well represented. Gates and Allen were there, as well as O'Rear, Kay Nishi, Steve Wood, and his wife Marla. Chris Larson also made the trip. He was still enrolled at Princeton, but worked summers at Microsoft.

Paterson had a cheap hotel room on the other side of town, but Gates checked his team into the plush Park Plaza, where kings and presidents usually stayed when they came to the Big Apple. Gates and Allen had adjoining rooms, which they quickly turned into the company's first "hospitality suite."

"It wasn't something a lot of industry people did back then," recalled Wood. "We decided to have a cocktail party in the suite."

Later that night around two o'clock, when, as Wood put it, "none of us were feeling any pain and the guests had cleared out," the Microkids got a bag of bottle rockets that Larson had brought along, found an empty booze bottle, opened a window in the suite, and set up a launch pad. For the next hour or so, they shot rockets out over neighboring Central Park.

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else to "clone" its computer. Microsoft faced a dilemma. Most of its programs and languages, comprising more than a quarter of a million bytes of code, had been developed for Intel's 8080 chip and the CP/M operating system of Digital Research. Programs and applications written for CP/M, which had become an industry standard, would not work on the Apple operating system. Other software companies with CP/M products were in the same fix as Microsoft.

Gates badly wanted a slice of the rapidly growing Apple software market. But it would be a major effort to translate all of Microsoft's 8080 code into 6502 code. One day, while sitting in the back of a pickup truck in the company's parking lot, Allen, brainstorming with Gates about the Apple problem, came up with an idea. Why not try a hardware solution to the software problem? His ingenious suggestion was to design an expansion card that could be plugged into the Apple to run programs and applications written for CP/M. With this card, Apple II users could run any of Microsoft's programs written for the 8080 chip and Gary Kildall's operating system.

Allen asked Tim Paterson of Seattle Computer Products to take a crack at developing what Microsoft decided to call the SoftCard. Paterson produced a prototype, but he could not get it to work properly. Allen brought in another programmer and put him on Microsoft's payroll to help finish the project. The SoftCard was released in the summer of 1980. Allen had hoped Microsoft could sell 5,000 of the cards. It sold that many in a couple of months. By the end of the year, more than 25,000 had been snatched up by Apple II owners. In all, more than 100,000 were sold. The SoftCard, with Zilog's Z80 microprocessor (a faster clone of the 8080), was teamed with CP/M, which Microsoft licensed from Digital Research, and came with a copy of Microsoft BASIC.

The SoftCard was Microsoft's first piece of hardware, produced in the company's new consumer products division headed by Vern Raburn.

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Kildall's friend who designed the disk system for their micro-computer. He now runs a computer business in Seattle. "But how much preparation did Digital have? Did they know it was IBM that was coming? Did they have time to develop a strategy? Had they already concluded it was smart to tell IBM to go jump in the lake, or did it just happen because of the personalities of the folks who were there at the time? I've never discussed that with Gary. I never wanted to rub his nose in it."

Regardless of what really happened that day, most of those in the computer industry believe Kildall's actions helped make Microsoft the software giant it is today.

Sams said he subsequently telephoned Kildall after the ill-fated trek to Digital Research. "I told him we were serious, we really did want to talk with him. I had to assume we had gotten off to a bad start and that he wouldn't arbitrarily refuse to do business with us, you know, did he have some religious opposition to us. He said 'No, no, no, we really do want to talk with you.'" But Sams said he and others at IBM could not get Kildall to agree to spend the money to develop a 16-bit version of CP/M in the tight schedule IBM required. "We tried very hard to get a commitment from Gary," Sams said. "When we couldn't, I finally told him, 'Look, we just can't go with you. We've got to have a schedule and a commitment. We can get one from Gates.'"

In a series of meetings with Microsoft after the initial rebuff from Digital Research, Sams threw the operating systems problem in Gates' lap. "This was the negotiating tactic we took with them," said Sams. "We wanted this to be their problem, to find us the right operating system, one that we could integrate successfully on our schedule."

Luck once again would shine on Bill Gates. An operating system for the 16-bit Intel chips had just been developed by Tim Paterson at Seattle Computer Products, not more than a twenty-minute drive from Microsoft.

HITCHING A RIDE WITH BIG BLUE

Tim Paterson had always wanted to design an operating system for a microcomputer. But had the "Father of DOS" realized he was going to stir up so much controversy, he might have stuck with racing cars, which he enjoyed almost as much as programming.

After showing off Seattle Computer's 8086 CPU boards at the National Computer Conference in the spring of 1979, Paterson had returned to Seattle to perfect the boards so they could be sold commercially. During this time, he was contacted by Digital Research, which wanted one of the CPU boards in order to develop a 16-bit version of CP/M. But Seattle Computer did not have any boards to spare. Paterson asked when Digital expected to have its new version of CP/M ready. By December, he was told.

Seattle Computer began shipping its first 8086 CPU boards to customers in November of 1979. Microsoft's Stand-alone BASIC was offered as an option. These first customers were mostly software developers. By April of 1980, Digital Research had still not designed CP/M-86. Paterson decided to wait no longer; he would develop his own operating system.

"Here we had something that would work, but we were waiting and waiting for Digital to come out with their version of the operating system for the 8086," said Rod Brock, owner of Seattle Computer Products. "They kept telling us any day now we will have it. This delay was really costing us sales. It's hard to sell a product without an operating system. We were probably selling five to ten boards a month, but figured there were a lot more sales out there than that. We needed an operating system to get them."

Five months later in September, around the time Jack Sams was being stonewalled by Dorothy McEwen and the lawyer at Digital Research, Paterson had his operating system up and running for the first time. He called it 86-QDOS, which stood for quick and dirty operating system.

Seattle Computer began shipping Paterson's 86-QDOS to customers. "This was a real product," said Paterson. "Everyone

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always thinks IBM was the first to have it. That's crap. We shipped it a year before they did. It was used on our computer. We were selling a computer that was more than twice as fast as the one IBM was going to come out with." (The reason for the difference in speed was that the IBM PC used the slower 8088 chip.)

Just as Gary Kildall has had to read over the years how he lost the IBM deal because he was off flying in the clouds, Paterson has had to read how he ripped off CP/M in developing an operating system that became the industry standard. Typical is this comment from an unidentified Digital employee who was quoted in a 1990 *Business Month* article that depicted Gates as a silicon bully: "We never tried to patent CP/M. Nobody was patenting software then; it was almost unethical. But if we had, Microsoft probably couldn't have developed MS DOS because parts of the original source code looked a lot like CP/M's. How else did Paterson and Gates come up with that nice new operating system overnight?"

At one point, Kildall telephoned Paterson and accused him of "ripping off" CP/M.

"At the time," said Paterson, "I told him I didn't copy anything. I just took his printed documentation and did something that did the same thing. That's not by any stretch violating any kind of intellectual property laws. Making the recipe in the book does not violate the copyright on the recipe. I'd be happy to debate this in front of anybody, any judge."

Although Paterson's operating system mimicked some CP/M functions, there were significant improvements. QDOS stored data on disk in a completely different way than CP/M did, and it also organized files differently. Paterson's goal was to make it as easy as possible for software developers to be able to translate what had become a huge body of 8080 programs that ran on the popular CP/M so they could run on his operating system. He first obtained Intel's manual for its 8086 chip, which had detailed rules for translating 8080 instructions into 8086

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instructions. Paterson wrote a translator that followed Intel's guide. He then got Digital's CP/M manual, and for each 8080 function he wrote a corresponding 8086 function.

"Once you translated these programs, my operating system would take the CP/M function after translation and it would respond in the same way," said Paterson. "To do this did not require ever having CP/M. It only required taking Digital's manual and writing my operating system. And that's exactly what I did. I never looked at Kildall's code, just his manual."

Once Paterson had 86-QDOS working, he contacted Paul Allen and asked him if Microsoft wanted to adapt any of its software for Seattle Computer's new operating system. "That's when they found out we had it," said Paterson.

Up until then, Microsoft had been unsure what it was going to do about obtaining an operating system. Digital Research was out of the picture. IBM did not have time to develop an operating system within the 12-month deadline set by its corporate brass. Neither did Microsoft, at least not if it had to start from scratch. Without an operating system, the entire PC project appeared to be in jeopardy. "The feeling was if we couldn't solve it, the project couldn't go forward," said Bob O'Rear, the Microsoft programmer who would soon be given technical responsibility for the operating system. "We'd have no languages to sell on the IBM PC. It was of paramount importance that we engineer a solution to the operating system equation. . . . We had to do something so that this project could go forward."

In late September, Allen contacted Rod Brock and told him that Microsoft had a potential OEM customer who might be interested in Seattle Computer's new operating system. Allen, who could not reveal the identity of the customer, wanted to know if Microsoft could act as the licensing agent. Brock said yes.

Gates would later say that obtaining Seattle Computer's operating system saved Microsoft about one year of work.

IBM had told Gates it wanted a final proposal from Microsoft in October, and time was running out. Gates faced a critical

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Microsoft's first priority was getting the operating system up and running on the Acorn. This responsibility fell to Bob O'Rear. Other software being developed for the PC had to run on top of the operating system, and if O'Rear couldn't adapt Seattle Computer's 86-DOS to the prototype, the entire project was doomed.

"If I was awake, I was thinking about the project," said O'Rear, who worked throughout December without even taking Christmas or New Year's Day off just like many of the others at Microsoft who were on the project.

Though Seattle Computer had furnished Microsoft a copy of 86-DOS back in September, when Microsoft informed the company it had a possible OEM customer for the operating system, no licensing agreement had been signed by the end of 1980. That didn't seem to worry anyone. "We had no hesitation to let them try it out," said Tim Paterson. Six days into the new year, Microsoft and Seattle Computer finally signed an agreement giving Microsoft a nonexclusive right to market 86-DOS. This meant Seattle Computer could continue to license its operating system to other customers. The negotiations were handled by Paul Allen and Rod Brock, the owner of Seattle Computer. Although the agreement was signed by Gates, he and Brock never met or even talked. For each sublicense of 86-DOS, Microsoft agreed to pay Seattle Computer \$10,000, plus an additional \$5,000 if the source code were part of the sublicense. Seattle Computer also received \$10,000 for signing the agreement.

"We came to an agreement fairly easily," said Paterson, vice-president of Seattle Computer. "We even called Digital Research to see what they sold their stuff for. We got a feel for what the prices were like."

Of course, no one at Seattle Computer knew that Microsoft's unnamed customer for the operating system was IBM, with revenues approaching nearly thirty billion dollars.

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One important clause in the contract stated: "Nothing in this licensing agreement shall require Microsoft to identify its customer to Seattle Computer Products."

Recalled Brock: "That seemed strange to us, but we agreed to go along."

Microsoft ended up paying Seattle Computer a total of \$25,000 under terms of the agreement, because it turned around and sublicensed 86-DOS and the source code to only one customer, IBM.

A source at Microsoft who was privy to the negotiations with IBM for the operating system said Microsoft licensed the first version of DOS to Big Blue for only \$15,000. Microsoft also received royalties as part of the license, although the royalty arrangement has always been a closely guarded secret at IBM and Microsoft. "We were an aggressive company," the Microsoft employee said. "Our strategy was, we would make our money on the languages. Remember, we already had the deal for all the languages, and Digital Research was supposed to have the deal for CP/M. And when it looked like we might lose the language deal because IBM didn't have an operating system, we simply were going to solve the problem. And we solved that problem for about \$15,000. But I can assure you it cost us more than that to make the delivery. And I can also assure you we made money on the BASIC. We made money on the licenses we already had, and we made sure that we got the operating system deal. Not so much to make money, and not so much to set the world standard, but simply because we couldn't close our language deals without it."

For a while, O'Rear wondered if he would ever get 86-DOS running on the hardware he was using in the small, stuffy, windowless room at Microsoft. The technical problems with both the software and hardware seemed endless. The prototype machines delivered to Microsoft just after Thanksgiving were just that—rough drafts. They didn't work very well. O'Rear continuously fired off memos to his contacts in Boca Raton about equip-

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ment problems, complaining about the difficulty of meeting the January 12 date for the delivery of DOS and the BASIC due to breakdowns in the hardware IBM had provided.

Microsoft didn't make the January 12 deadline. It was not until February that O'Rear finally got 86-DOS to run on the prototype. He still vividly remembers the moment. "It was like the middle of the night. It was one of the most joyous moments of my life, to finally after all the preparation and work, and back and forth, to have that operating system boot up and tell you that it's ready to accept a command. That was an exciting moment."

The IBM team in Boca Raton wanted several changes in the operating system, and Allen asked Paterson to help with these. The changes were all fairly minor. For example, IBM wanted one feature that remains on DOS today—the date and time stamp. Another change involved the so-called prompt that DOS left on the screen when the system came up. The prompt that Paterson had designed for 86-DOS was the drive letter followed by a colon. Neat and simple. But IBM wanted the CP/M prompt, which was the drive letter followed by a colon followed by the "greater than" sign used in mathematics.

"It made me want to throw up," said Paterson of the request for CP/M prompts. But he obliged. Paterson was working blind as he made the requested changes in his operating system. He did not have a prototype computer. He did not even know one existed.

Seattle Computer picked up an occasional hint that Microsoft's unnamed customer might be IBM. One day in early spring of 1981, Brock received a call from someone who said he was with IBM, and he had a question about the operating system. Brock knew his company had not licensed 86-DOS to IBM, so he asked the caller where he was located. The caller immediately hung up. Brock later mentioned to a sales rep who called on Seattle Computer from time to time that Microsoft was dealing with an OEM who did not want to be identified. The com-

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Simonyi was not working on Project Chess. He had recently been hired to take over development of Microsoft's applications. Although much of the company's attention was focused on the IBM project, Microsoft could not neglect its other business. Deals with OEM customers in this country and in Japan continued. Programmers like Simonyi worked on various applications. In dealing with these other customers, Microsoft took advantage of its inside knowledge that IBM was going to introduce its own personal computer based on Intel's 8088 chip, according to a manager who was working for Microsoft at that time. "We would highly advise some of our customers to chose the 16-bit processor," he said. "Nobody really knew that we were working on the IBM contract."

On May 1, Tim Paterson went to work for Microsoft, where he learned for the first time who the customer for his operating system was. He had asked Allen about a job a few weeks earlier. Paterson decided to leave Seattle Computer because Brock could not make up his mind whether to sell the company's products by mail order or through dealers. Brock was thinking of going back to a mail-order business, and Paterson did not want to work for what he figured would soon be a mom-and-pop operation. At Microsoft, Paterson joined O'Rear on the operating system. By the end of June, DOS was pretty much finished.

The company was growing rapidly, in part because of so many new employees hired to help with the IBM project. By June, the number of Microsoft employees had more than doubled from the previous year, to about 70.

One programmer hired in June, Richard Leeds, thought he was joining Microsoft to work on something else until he came to work the first morning, signed the nondisclosure agreement, and was told he would be helping with Project Chess. Each Microsoft employee on the project had to sign the document. Leeds was surprised when he got his first look at the PC. It had a clear plastic keyboard, and he could see right through the keys into the workings underneath. "We called IBM the typewriter

HARD DRIVE

of the Datamaster. "The capacity of International Business Machines Corp. to surprise competitors and other IBM watchers remains unimpaired," the magazine said. "IBM was expected to introduce a low-cost personal computer to compete with popular models made by Apple Computer Inc., and Tandy Corp.'s Radio Shack Division."

The day before IBM cleverly threw the press off the scent of its new PC by announcing the Datamaster, Gates signed what would prove to be the key financial agreement that made him a billionaire and many of those working for him millionaires.

For only \$50,000, Gates bought all rights to 86-DOS previously owned by Seattle Computer Products. It was the bargain of the century. Once again, Gates had proved he was a master businessman.

How Gates came by the deal begins with an old friend from Gates' days at MITS, Eddie Curry.

After Pertec bought out MITS in 1977, Curry worked at Pertec for nearly four years, waiting to be fully vested with generous stock options he had received from the company. In June 1981, he joined LifeBoat Associates, the software distributor. LifeBoat had recently been approached by Datapoint (the company that Steve Wood was now working for), which wanted to know if LifeBoat could get CP/M working on its new 16-bit computer. Curry's first assignment at LifeBoat was to go to Digital Research and negotiate a license for the 16-bit version of CP/M that could be used on Datapoint's machine. When he was unable to get an agreement, Curry headed up the West Coast to Seattle Computer, which he knew was marketing a 16-bit operating system known as 86-DOS. Curry offered Brock a quarter of a million dollars for the rights to DOS.

While he was in Seattle, Curry made one other visit, to Microsoft. He told Gates why he was in town.

"There was no reason not to tell him because I couldn't, in good faith, do the deal with Brock and have Bill find out about it," Curry said. "LifeBoat had business relationships with Bill

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and I would have had to tell him something that wasn't true. Plus, I had a personal relationship with Bill. So I told him about the offer."

Allen, who had dealt with Seattle Computer in the past, wrote Brock a letter asking that Microsoft be given an exclusive license to sell 86-DOS. Allen said Microsoft wanted to compete directly against Digital Research.

"I felt Paul out on the phone and we arrived at a halfway decent agreement, I thought," said Brock. "They would come up with fifty grand and give us beneficial terms on buying all the high-level languages Microsoft offered."

But when Brock received the agreement drawn up by Microsoft's lawyer, it had changed from what Allen had told him over the phone. It was now a sales agreement. Microsoft wanted to buy the operating system outright. It would then relicense DOS back to Seattle Computer.

An attorney who saw the original agreement said Gates personally went through the document and in his own handwriting changed key language to specify a sale of DOS instead of an exclusive license. "That was just a brilliant master stroke on his part," the lawyer said. "Microsoft, not Seattle Computer, would have ownership of DOS."

Said Brock: "I called Paul on it. He said Microsoft's attorney thought it would work out better this way. Well, I wasn't fully convinced, but I could see the fifty thousand bucks on the other hand and we certainly needed capital at that point."

Brock didn't take Curry's offer of five times that much because Microsoft agreed to provide Seattle Computer with updated versions of DOS. Brock figured this would be of great benefit to Seattle Computer since Tim Paterson was no longer around to work on the operating system.

"Microsoft must have been getting antsy," said Brock, "because they sent Steve Ballmer over. He tried to get us to hurry up and agree to the thing and sign it. I met with him personally. He basically told me how it was a good deal, how it would not

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about it," Sculley told his interviewer. "We have all learned a lot."

The IBM PC soon eclipsed the Apple II and every other machine on the market, thanks in part to a clever television ad campaign featuring Charlie Chaplin's adorable "Little Tramp" typing away on one of the ivory-colored machines. The Tramp, with his ever-present red rose, made the PC seem like a friendly and easy-to-use machine. The market targeted for the PC was not the home but the work place, where IBM had long established its reputation. As it turned out, the company underestimated preliminary sales by as much as 800 percent. Its Boca Raton facility could not turn out PCs fast enough to meet the market demand, and this resulted in a huge backlog of orders. From August through December of 1981, IBM sold 13,533 personal computers, which accounted for \$43 million in revenues. By the end of 1983, it had sold more than a half million PCs.

Toward the end of 1981, Microsoft went to work on an updated version of its new operating system. Tim Paterson did all the coding for this first upgrade, which was called DOS 1.1. It allowed information to be written on both sides of a diskette, thus doubling the disk capacity of the IBM machine from 160K to 320K.

When the DOS 1.1 upgrade was finished in March of 1982, Gates and Paterson went on the road to show off Microsoft's operating system running on the PC. Presentations to hardware companies and individuals on both coasts were usually made in hotel rooms. It was reminiscent of the song-and-dance trip Gates made in the MITS-mobile back in 1975 to demonstrate BASIC running on the Altair.

Although the road show was a success, Paterson quit Microsoft at the end of March and went back to work for Rod Brock at Seattle Computer Products. Thanks to the deal with Gates that allowed Brock to package DOS and Microsoft's programming languages with Seattle Computer's hardware, Seattle Computer would have its best year in 1982, reaping more than a million dollars in profit on about \$4 million in revenues.

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ock decided gone under. e he had re-to DOS for The license with its com-

puter hardware. And Microsoft also had agreed to provide Seattle Computer with updated versions of the operating system. Since Brock did not have to pay any royalties to Microsoft for DOS, which was now an industry standard, the perpetual license could be worth millions to a company with computers to sell.

Brock planned to offer the license to the highest bidder. He had in mind someone like the Tandy Corporation. But first, he gave Microsoft an opportunity to buy back the license. In a letter to Gates, he wrote that he had decided to sell Seattle Computer, and that as Seattle Computer's agreement with Microsoft constituted its largest asset, it would likely have "significant value" to manufacturers of computers based on the MS-DOS operating system. "We believe the value of Seattle Computer to be approximately \$20 million. Before making presentations to potential buyers, we want to see if you might have an interest in purchasing Seattle Computer."

Brock did not have to wait long for a response. Jon Shirley fired off a reply the day he received the letter, claiming to be shocked at Seattle Computer's "exaggerated interpretation" of the agreement.

When Shirley informed Brock his license to sell DOS was nontransferable, Brock sued. Brock was represented by the firm of Bogle & Gates (no relation), one of Seattle's largest and most prestigious law offices. Microsoft's legal counterattack was led by David McDonald, a fluent computer programmer and Harvard Law School graduate, and a partner in Shidler McBroom Gates & Lucas.

Seattle Computer was the only company left with a royalty-free license from Microsoft to sell its money-making DOS product. In a strategic move earlier in the year, Gates had reclaimed a similar license given to Tim Paterson, the author of DOS. After leaving Microsoft in 1982, Paterson had gone back to work for Seattle Computer for only a short while before forming his own computer company, Falcon Technology. As payment for some programming work Paterson did for Microsoft, Paul Allen gave

HARD DRIVE

him a license to package DOS with Falcon hardware products. By 1986, however, Falcon was failing, and Paterson was considering an offer from a group of foreign businessmen who wanted to buy Falcon just to get their hands on the invaluable DOS license. Paterson met with Gates, who was irate. After some tense negotiating, Microsoft bought Falcon's assets for \$1 million, and Paterson returned to work for Microsoft, where he remains today.

The trial with Seattle Computer lasted three weeks. Gates was at the court room for much of the time, usually accompanied by his mother. Both he and Paul Allen had to testify. In the end, an out-of-court settlement was reached while the jury was deliberating. Microsoft paid Seattle Computer \$925,000 and reclaimed the critical license for DOS. Brock's lawyers later took a straw poll of the jury and found it leaning 8-4 in his favor. Two jurors said their minds could have been changed by the majority had the deliberations lasted longer. All Brock needed was a 10-2 vote to win his suit.

As part of the settlement, attorneys for both sides agreed not to discuss details of their eleventh-hour negotiations to end the dispute. But Brock had been willing to settle all along for about a half-million dollars. Gates, however, refused. He told Microsoft's lawyer he had paid for DOS once; he was not going to pay for it again.

During the trial, Microsoft did offer Brock \$50,000 to settle an offer that was quickly rejected. Once the jury was sequestered for deliberations, the offer went up about \$100,000 every couple of hours. Corr was surprised that Gates did not try to cut his losses and settle sooner before trial. "I used to sit there in court and say to myself, 'Why's this guy [Gates] in trial here wasting his time everyday? His time is so much more valuable. If he could buy Brock out for a half-million, it would be money well spent. . . . I wasn't sure if he was just trying to squash Brock on the principal of the thing or what. . . . These guys [Microsoft] play hardball. They grind people. It almost doesn't make good business sense.'"

KING OF THE HILL

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the applications building, said he didn't expect to see any useful products out of the alliance before he retired. Then he corrected himself. "No, I don't expect to see any products before *you* retire."

Tim Paterson, the programmer who developed DOS, expressed what others at Microsoft felt—that it was good to be rid of IBM, which had become a millstone around Microsoft's neck. Perhaps some of that so-called Blue Magic would now rub off on Apple. "Look at the three biggest bombs Microsoft has had—Windows 1.0, DOS 4.0 and OS/2. And who was our partner on two of those? IBM. Have we ever done anything with IBM that wasn't a bomb? No."

Many Apple employees, particularly software engineers, shared Gates' sentiment that the company had given away its birthright in joining IBM. An early meeting between about 100 IBM people and 50 Apple employees reportedly went badly because of the cultural differences. Jokes were soon making the rounds on both sides of the country. At Apple the grim question was, "What do you get when you cross Apple and IBM?" Answer: "IBM."

It was not until early October that Apple and IBM finally signed the papers officially creating their historic alliance. More than 500 people attended the news conference in San Francisco, where the two companies spelled out details of their technology-sharing agreement. They announced they would work with Motorola in developing RISC chip technology to be used in future Apple and IBM personal computers. But the big news was that IBM and Apple were establishing two joint venture companies, one called Taligent and the other Kaleida. Taligent was to develop an advanced operating system based on the Pink project Apple had been working on. Kaleida was to create multimedia computers that combine sound, text, and video on the screen.

Sculley predicted at the news conference that the joint venture would make the heyday of the personal computer revolution in the 1980s seem tame by comparison. The alliance, he said, "will launch a renaissance in technical innovation."

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