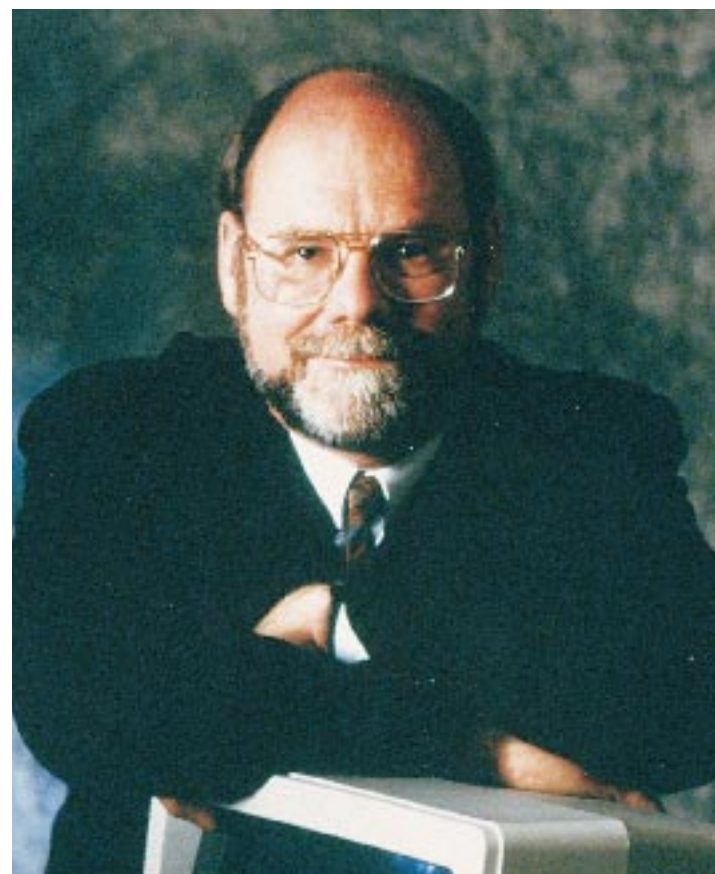The story of Gary Kildall's Great Missed Opportunity has passed into folklore. But what is the truth behind this *cause célèbre*? **Gordon Eubanks**, Symantec supremo, told **Clive Akass**.

Legend of the fall

*G*ary Kildall wrote CP/M, the first mainstream desktop operating system. He invented the concept of a Basic Input Output System (BIOS), the core logic which marries hardware to the operating system. He was a founding father of desktop computing, yet history mainly recalls his greatest mistake. He was the man who gave away the IT industry; the man who gave Bill Gates the world.

The story goes that two suits from IBM had arranged to meet him at home on a certain day in 1980. Kildall was off flying his plane, and had left his wife Dorothy to do the talking. She balked at signing an agreement to not disclose anything they told her, and showed them the door.

Nonplussed, the suits then approached a fledgling company called Microsoft about the small matter of developing an operating system for the first IBM PC.

Such is the legend, already enshrined in alt.folklore.computer. Only it wasn't quite like that, according to one man who was around at the time. Gordon Eubanks founded Symantec, one of the biggest software companies to have grown fat by plugging the gaps left by Microsoft. He knew Kildall from way back in the early seventies.

They were very different characters. Eubanks was drafted into the Navy during the Vietnam War, and stayed on to get sponsored for graduate school. He formed his first company while still a student and has

PCW **Illustration** by Nick Grant

been an aggressive, even predatory, businessman ever since.

Kildall, a specialist in compilers, was one of his tutors and a brilliant programmer, but by all accounts was out for a good and easy life. He wrote CP/M (Control Program for Microprocessors) in 1973, almost as a by-the-way, to help him develop software for the 8-bit 8080, one of Intel's first microprocessors.

Eubanks couldn't understand him. "I remember having lunch with him one day and he said to me, 'I don't know what to do with the CP/M.' So I said, 'You had better make it a business.' And he said, 'I am not sure if people will buy it.' I replied, 'Oh Gary, come on…'." It is now more than two decades later and Eubanks still shakes his head in astonishment.

Within five years of having had that conversation, hundreds of thousands of machines, using Z80 or 8080 processors, had been sold with CP/M as their operating system. Kildall had formed a company called Intergalactic Digital Research, which he later shortened to Digital Research, and became a multimillionaire.

For a time, Eubanks was in direct competition with Bill Gates, selling rival versions of Basic to run on the CP/M machines. He was still in the Navy, his mother was running his company from her home in California, and he decided it was time to get out. "Then Gary offered to buy the company at a really high price. I think he paid ten times revenue for it in Digital Research stock, which ended up

being worth a lot."

Eubanks joined Digital Research but left after two years. "It became clear to me that Digital Research did not have the will to win and they were losing opportunities. So I went off and did my own thing."

The problem was that events had been too easy on Kildall. "He felt everything was in his court, and he could do whatever he wanted. This was where Gary and I had a hard time… where we did not get on very well."

Disaster had nearly occurred some time earlier when hard disks were introduced and CP/M would only support floppies. Hardware manufacturers, tired of trying to get an upgrade out of Kildall, almost reached the point of developing a rival operating system.

"All of a sudden Gary realised that business was starting to dry up because the floppy-disk systems were not selling. People wanted hard disks and high-density disks."

Kildall finally ordered a crash program to write a CP/M upgrade. "When something like that happens… it's like when someone has a heart attack, they get a whole new view on life and start to work out… But Gary never realised how close he came to losing his business, and he did not change."

The same thing happened all over again when Kildall was slow to bring out a CP/M upgrade to run Intel's new 16-bit 8088 and 8086 chips. Tim Patterson, an 8088 boardmaker at Seattle Computer Products, got so tired of waiting that he wrote his own operating system, called QDOS. "Tim got frustrated, as did a lot of people, about Gary's attitude to this kind of thing," Eubanks recalls.

IBM had been slow, too. It was still stuck in the age where a computer filled a room and could be used to milk its owners of millions. IBM did not want to know about desktop computers and didn't want anyone else to know either.

By the end of the seventies, the microcomputer business had become too big to ignore. IBM decided it had to get in on the act. It could not afford the time to

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develop its own model from scratch, so the decision was taken to build a machine from off-the-shelf hardware components and bought-in software.

Kildall's Digital Research was the obvious place to go for an operating system, hence the famous visit to the Kildall home. Eubanks says: "I've told this story to lots of people and they just won't get it. All they want to get is that IBM showed up and Gary was off flying his aeroplane. The problem is that this is very wrong."

For one thing, Kildall never dealt directly with hardware manufacturers. He left that to his wife Dorothy. "Gary was very laid-back. He didn't care that much. Dorothy ran the business and he ran the technical side and they did not get on." And who could have known that the IBM PC was going to be important? "IBM was just one of dozens of companies who were in the [microcomputer] business."

Dorothy was talking to some people from Hewlett-Packard, Digital Research's biggest customer at the time, when the

IBM representatives showed up on the doorstep. She was in the throes of preparing to go on holiday the next day. "That was what really caused the problem," says Eubanks.

That, and the contrasting characters of Gates and Kildall. "The real issue wasn't that Gary refused to talk to IBM. The real issue was that Microsoft had a much better vision for the business. Gary was very laid-back. He did not care that much. And Bill was extremely focused and driven."

Gates did not even have an operating system at that stage. After IBM called, he promptly bought Patterson's QDOS for $50,000. It was little short of a CP/M clone, but it was to become MSDOS and run nine out of ten of the world's desktop computers.

News of the deal spread quickly. Patterson rang Eubanks, warning him to port his Basic to the new operating system. "I said, 'Jeez, Tim, why is that?' And he said, 'I can't tell you, but a big Seattle company has just licensed it, and licensed it on to a hardware company that's bigger than anyone you can think of.' I said, 'Let me get this right. You are telling me that IBM licensed it from Microsoft.' Tim said, 'I didn't say that but you should definitely support it'."

Digital Research pioneered

pre-emptive multitasking, and its GEM graphical operating system was more successful than early versions of Windows. But the company never regained the pre-eminence it had in the seventies, and was bought by Novell in 1991. Kildall died in 1994 at the age of 52, from head injuries received during a night out in Monterey, California.

These days, Eubanks regularly pauses in London to brief journalists about the latest products from Symantec, a company he bought in 1982 from the proceeds of his early business ventures. Gates' move in buying up QDOS seems to have provided something of a model, because Symantec has grown by a series of similar strategic acquisitions, including Central Point Software, Peter Norton Computing and, most recently, Delrina.

As Eubanks puts it, "[Symantec's] strategy is to focus on businesses with good growth prospects and the opportunity to become market leader… We use acquisitions to accelerate entry into key markets."

About his early success, he says: "I was lucky. I was in the right places at the right times." His last word on Kildall is: "Gary could have owned this business if he had made the right strategic decisions."

Eubanks on Microsoft, Java and NCs

Symantec has always remained close to Microsoft, specialising in niche applications with which the bigger company does not bother. It was there at the start of Windows 95, simultaneously launching a 32-bit utilities suite and Norton Navigator, an enhanced version of the '95 Explorer. Eubanks confesses to have been disappointed by Windows 95 sales and consequent Symantec sales, and says that if he had known 18 months ago what he knows now, he would have concentrated more on the internet and Windows NT, the preferred operating system of large corporates.

"Windows 95 is quickly becoming the dominant operating system for the home and small business. Our investment in that technology was a smart investment. We have had three straight quarters of record revenues. But we expected bigger records than we achieved." He still believed Windows 95 was a good OS. "But it is not going to be the dominant operating system in either Europe or the US. It'll be present in all companies but NT is going to be dominant. OS/2 is history."

Symantec is giving all its products net savvy, including a Live Update feature that makes fixes and upgrades continuously

available. It has just launched Symantec Café 1.2, the latest version of its Java development environment.

Eubanks is surprisingly downbeat about Java. He describes it as a well thought out attempt to reap the benefits of object-orientated programming, without the organisational problems of C++, and says the concept of the Java Virtual Machine is peculiarly suited to the multiplatform web. But he believes the industry has a tendency to raise expectations too high. "It is a combination of the public wanting to get excited about these things, and the industry trying to get excited to rise above the noise level… We are providing very high-quality Java development tools. We believe that Java is a really important language that people will be using and adding value to. But do I think it is over-hyped? Absolutely. Do we over-hype it? Probably."

He believes the importance of the network computer has been overstated, not least because PC prices are likely to fall to the $500-$800 mark slated for the NC. Eubanks says: "To me, the most exciting thing is to take personal computers and integrate them to very high-bandwidth network access."

"…But do I think it [Java] is over-hyped? Absolutely. Do we overhype it? Probably."