

Technology

N. R. Kleinfield

Software Patent Issue Is Murky

It has long been a murky question as to whether computer software, the programs that tell computers how to do what they do, can be patented. And when the Supreme Court ruled last week that an employee of the Atlantic Richfield Company could not patent some software he had developed, the issue did not become any clearer.

But a lot of people in the fast-growing software industry see the ruling as having positive implications for them. For one thing, there was dissent. This was the third Supreme Court ruling on computer software — all of them striking down patent applications — and it was the first in which there was dissent. Three of the nine Justices opposed the ruling.

What's more, the majority opinion made it clear that the ruling was not meant to apply broadly to computer programs. It said instead that Congress should decide what material is suitable for patent protection. Meanwhile, though, there is no telling how the Patent Office will choose to interpret the Court's ruling. "The case itself doesn't clear anything up," says one software expert.

Ten years ago Martin Goetz got the first patent on software. At that time the Patent Office had no real policy on computer programs. "I was a fluke," Mr. Goetz says. By 1970, however, the Patent Office warmed to the idea of patents for software. More than a hundred were granted until the Patent Office, in 1972, quit handing them out. Its rationale has been that checking out software is time-consuming and costly.

There are millions of computer programs. (Any college student taking a programming course whips up a couple of new ones.) But not many programs, according to industry consensus, are patentable. "If the Patent Office were to become receptive to giving



Last week's Supreme Court ruling on patenting computer programs failed to clear things up.

out patents on software, I doubt that there would be more than a few hundred applications a year," says Mr. Goetz.

Computer hardware, the actual machinery and electronic circuitry, has always been recognized as patentable material — a fact that grates on software companies. They note that the patent law was created to protect "any new and useful process, machine, manufacture or composition of matter."

None of the computer programs that came before the Supreme Court is regarded by the software industry as a good example of high-level programming. In 1972 a program was denied a patent on the ground that it contained nothing more unusual than a mathematical algorithm, a problem-solving formula, that was held to be "like a law of nature." In 1975, another program was turned down, also because it was not deemed novel enough. In last week's case, dealing with a method to update the limits at which alarms

should go off on certain monitoring equipment, the Court also concluded that the software's only distinctive aspect was an algorithm.

"It would seem that most programs that our members market are not like these," says Robert Goldstein, staff attorney for the Association of Data Processing Service Organizations, the major trade group of software concerns.

Theft of programs themselves is not regarded as a serious problem in the computer field. Last summer the data-processing association queried 116 computer companies to find out how they protected software. About 35 percent of the companies said they relied on trade-secret law, 33 percent mentioned copyright law and only 6 percent said they used patent law. Twenty-two percent said they gave customers software only in a form that a computer could "read," thus making it pointless for humans to steal.

Only patent law, however, would truly protect the ideas behind a program, software people contend. "We ought to have the same sort of protection that the hardware companies have," says Mr. Goetz, who is senior vice president of Applied Data Research.

For many years nobody did much to improve the sorting of data, one of the things a computer does often. Whitlow Computer Systems, a software company in Fort Lee, N.J., came up with software that, it says, cut sorting time in half. Five years ago Whitlow applied for a patent, but the application was rejected. No appeal was filed; the company waited to see what happened with other software appeals.

Since then, Whitlow says, several other companies have adopted parts of its software. Their action might be patent infringement if a patent existed. Whitlow hopes to file an appeal soon.

"Mostly we're small companies in this industry," says Stan Rintel, vice president of Whitlow. "You're not going to spend the time and money and develop something new and better if you know the 'big guy across the street is going to look at what you've got and copy it. We've got the Japanese coming into this market as well, and we don't have the protection."