

# THE WALL STREET

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## TECHNOLOGY

### Texas Instruments Is Trying To Keep Control of Software

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**D**ETERMINED TO PROTECT its profits on programs for its 99/4A home computer, Texas Instruments Inc. is preparing a secret weapon that could enable it to do what other computer makers have only dreamed of—keep control of the most important software for its most popular product. Using the weapon, however, could jeopardize the future of the 99/4A.

The weapon is an electronic circuit known as a GROM, or graphics read only memory. Program cartridges for the 99/4A have always contained GROMs, although they weren't always needed. Now Texas Instruments is altering the computer so that cartridges without GROMs won't work.

The company, which won't license its GROM technology, is insisting that those who want to publish cartridge programs for the 99/4A must give it all rights to make and sell the cartridges. The company will, in turn, pay the program authors a royalty.



In the book and recording industries, few writers and musicians think twice about such publishing agreements, but some programmers are upset with Texas Instruments because that's not the way business usually is done in the computer industry. Ordinarily, a computer-maker's profits come from the machines. Manufacturers encourage others to publish, and sometimes become rich from programs in the belief that more and better software for any brand of machines will sell more of those machines.

**U**NLIKE MOST computer-makers, however, Texas Instruments is almost giving away its machine for \$149 after a \$100 rebate in the hope that once enough computers are in use, it will enjoy years of earnings from owners who keep coming back for attachments and, most important, for programs.

Such a strategy could give Texas Instruments a major advantage over other home-computer companies such as Atari, Commodore, Tandy and Timex, by enabling it to undersell the competition and gain market share without sacrificing earnings. But for such a plan to succeed, Texas Instruments must avoid the fate of Atari, which created the video-game market only to have to share its richest segment, software, with latecomers who devised cartridges that could be played in Atari machines. That's where the GROMs come in.

If the strategy fails, then home computers could go the way calculators did a few years ago, with competitors cutting prices until profits vanish for everyone.

Some large companies are betting that Texas Instruments has the right idea. Milton Bradley, Scott Foresman and Walt Disney Productions have agreed to develop cartridge programs for the 99/4A that Texas Instruments will make and market.

"They see that we're a publisher who understands how to take software to the market," says William J. Turner, president of the consumer group at Texas Instruments.

**A**NY PROGRAM AUTHOR who examines the cost of distributing software will conclude that "I'm offering the best deal in town," Mr. Turner says. "We intend to earn our money from the authors, not just take it away from them." The GROMs, he insists, are only part of a long-held plan to focus on profits in the aftermarket.

Using a counting technique, GROMs move electronic images from the program cartridge to an extra memory within the 99/4A computer, enabling the computer to draw far more pictures on the video screen, and to run more complex programs, than would otherwise be possible. Originally, GROMs were devised merely as a way to enable Texas Instruments to use inexpensive memory circuits in the program cartridges, the company says. Others, however, aren't so sure.

"TI is trying to corner the software market for their computer," says Paul Zuzelo, president of Creative Software of Mountain View, Calif. Creative, the largest maker of program cartridges for Commodore's VIC-20 home computer, hopes to find a way to design around the GROMs but isn't sure the effort will be worth it. "Why should a little company like ours take on a giant like TI?" Mr. Zuzelo asks.

**A**S A RESULT of the Texas Instruments royalty plan, some companies that planned to enter the Texas Instruments software market are having second thoughts. And some industry people think this could be a sign of trouble for the 99/4A.

CBS Software says it is "less than enthusiastic" about the policy. Imagic, a Los Gatos, Calif., program publisher, says a royalty plan "isn't in keeping with our approach to the business." Spinnaker Software, Cambridge, Mass., has postponed indefinitely its plans to write programs for the Texas Instruments machine. And, for some of the same reasons, Activision of Mountain View, Calif., is understood to be placing almost all of its development efforts into programs for the Atari and Commodore home computers.

"It's ironic, considering Texas Instruments' efforts to encourage third-party software developers before their home computer became a hot product," says Ted Carter, vice president of Funware, a Richardson, Texas, software company.

"It's sad," says Charles LaFara, president of a 70,000-member group of Texas Instruments home-computer owners. "TI hasn't given us enough quality software itself, and now it is stifling the efforts of other people." And, he warns, "Software authors could get so discouraged that they switch their efforts to the VIC-20, and ultimately, that would help Commodore win out over TI."

