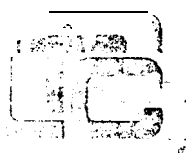


News from
Cumma
Technology
Corporation



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CUMMA INTRODUCES METAWRITER:
A SOFTWARE PROGRAM VENDING MACHINE
AT CONSUMER ELECTRONICS SHOW

Sunnyvale, CA. — Cumma Technology Corporation introduces the MetaWriter™, an electronic treasure chest of video games and home computer software. Designed to provide a low cost method of retailing software, the MetaWriter eliminates the inventory risks which have tossed the video game business onto a runaway roller coaster. With the touch of a button, a consumer can select any one of several hundred programs in the MetaWriter's library, preview that program on the video screen, and instantaneously load that program onto a specially designed, reusable cartridge manufactured by Cumma and called a MetaCart™.

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Rugged enough to be located in a wide variety of retail establishments, the MetaWriter is a free-standing, self-sufficient vending machine, not merely a computer terminal. In contrast to other electronic software distribution systems entering the market, Cumma's MetaWriter is operated entirely by the consumer, without the need for assistance of a clerk or salesperson.

Internally, the MetaWriter contains a micro-computer with a disk drive which is capable of storing up to several hundred program titles. The MetaWriter also includes software capable of displaying an attract sequence, directions for using the system, a fifteen-second preview of each game, and instructions for each software title. The system utilizes a very powerful graphics system to present graphic images of the software available on the machine and to provide advertising space for the location.

The MetaWriter loads programs on reusable MetaCarts that are compatible with the game playing machines and personal computers of the leading manufacturers. On the face of the MetaWriter there are several different cartridge slots, each of which will accept a different type of MetaCartTM. Presently, the MetaWriter will accept cartridges designed for the Atari VCS, the Commodore VIC-20, the Commodore 64, and ColecoVision.

The MetaWriter system is expandable, and Cumma plans to add more cartridge slots, including the IBM PCjr.

In its memory, the MetaWriter currently has over fifty software titles from several leading software distributors. The range of programs ultimately available to the consumer will include games, educational programs, and programs for general use in the home. Licensing arrangements are being made with other program authors and distributors on an ongoing basis.

Using the MetaWriter system, software authors and distributors will be able to get their programs to the consumer within two weeks without a costly commitment to cartridge inventory. Cumma projects that the volume of program sales from the MetaWriter system will be much greater than revenues obtainable through other retailing methods. Program writers and distributors who license their software on the MetaWriter system will receive a royalty based on each program sold. These licensees need not give Cumma an exclusive distribution right; they will be free to distribute their products through other methods of their choice.

The outstanding news for the consumer comes in the form of lower prices for software programs and video games. Prices will range from \$1.00 to \$15.00 per program, with the average price projected at \$7.00 per title. Thanks to the reusable MetaCart, video games and other programmed cartridges need never sit on the shelf collecting dust, nor will they need to be thrown away. With the MetaWriter, a consumer can load a program onto a MetaCart and use that programmed MetaCart indefinitely, or he can

return to the MetaWriter again and again to load that same MetaCart with another program. The MetaWriter system of programming reusable cartridges is less expensive than buying indelibly etched, dedicated cartridges that too often end up in the closet.

Like software authors and distributors, retailers will also receive a royalty on each program loaded by a MetaWriter -- in exchange for about six square feet of floor space and an electrical outlet. No rental fee will be assessed; no outright purchase will be required.

After an initial market test in selected Northern California sites, Cumma will place the MetaWriters in retail outlets throughout the country. By Christmas of 1984, Cumma will have installed about 3,000 of these software vending machines in a variety of high traffic locations, like convenience stores, drug stores, department stores, as well as computer retail outlets.

"Electronic retailing of video games and computer software is an idea that is wayoverdue," says Cumma's president, Thomas Cracraft. "It is the inevitable path this industry must follow, if we are going to offer software at competitive prices without taking huge inventory risks."

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USING THE METAWRITER

Purchasing a program with the MetaWriter is simple.

A typical purchase of a video game from a MetaWriter would be something like this: With a MetaCart in hand, the consumer inserts the cartridge into the appropriate slot and presses a button. Operating instructions appear on the video screen, replacing the constantly changing video displays of sample software on the system.

Following the directions provided, the consumer presses a button to produce a directory of titles available for purchase. This directory includes the titles of the games, the cartridge type required, the name of the program licensor, and the purchase price. When the consumer selects a specific title, a brief video sequence offers a preview of the game under consideration.

When the consumer decides to buy a specific title, he presses a button and, following instructions, inserts the appropriate amount of cash, for example, a five dollar bill and two ones. The MetaWriter receives and verifies the funds; then it instantly loads the selection into the memory of the MetaCart. Concurrently, a receipt of purchase and instructions for operating the program are printed. The transaction is now complete. The consumer folds and tucks the instructions and receipt into the slot conveniently located on the back of the MetaCart, which is now programmed for use with a home VCS or personal computer.

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CUMMA TECHNOLOGY CORPORATION

Drawing upon the combined expertise of several industry leaders, Cumma (koo -mah) is a start-up company headed by Thomas Cracraft, president, and Allan Alcorn, vice president of engineering.

Mr. Cracraft brings to Cumma twenty years of experience in the management of software development and distribution, most recently as executive vice president and chief operating officer of TDC, a major independent retailer of computer programs for a variety of applications. Mr. Alcorn, a founder of Atari, co-designed (with Nolan Bushnell) the first video game, "Pang." He was the vice president of engineering at Atari.

Instrumental in the founding of Cumma were Nolan Bushnell (the founder and former chief executive officer of Atari), and Joseph Keenan (the former president of Atari), who are making available their vast experience in the coin-operated world and the video game industry to assure the success of Cumma.

Cumma plans to install 3,000 MetaWriters in retail outlets nationwide by Christmas 1984. To secure international distribution, Cumma has also entered a joint technology agreement with RoseTech a European company which will manufacture similar machines in PAL and SECAM television system countries.

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MANAGEMENT of CUMMA TECHNOLOGY COHPOHATION

Joseph F. Keenan, Chairman of the Board.

Mr. Keenan was the co-founder and President of Kee Games, Inc. and operated that company until its merger with Atari in 1974. Following the merger, Mr. Keenan became President of Atari, and, in November 1978, became Chairman of the Board. In September 1979, Mr. Keenan resigned as Chairman of Atari (where he continues to serve as a consultant) to become President and Chief Operating Officer of Pizza Time Theatre, Inc. Mr. Keenan subsequently left Pizza Time Theatre in October 1983, and has become Chairman of the Board of Cumma Technology Corporation.

Thomas M. Cracraft, Director and President. Mr.

Cracraft has been in the software business for twenty years; the last 15 in the position of Chief Operating Officer of independent software companies. Mr. Cracraft was Founder and President of Applied Digital Systems (ADS) (Newport Beach, California) from 1968 to 1971. ADS specialized in low cost accounting package programs for small businesses. In 1971, Mr. Cracraft left ADS and joined Technology Development of California (TDC) as Executive Vice President and Chief Operating Officer. TDC grew from a start-up to over twenty million dollars in revenues by 1983, when Mr. Cracraft left the firm to join

Cumma. TDC's principal product was large volume test programs for automatic test equipment. Mr. Cracraft received his B.S. degree from the University of Minnesota and his J.D. degree from the University of Santa Clara.

Allan E. Alcorn, Director and Vice President Engineering. Mr. Alcorn was a founder of Atari along with Nolan Bushnell. Mr. Alcorn was responsible for the design of Pong, and the direction of all engineering at Atari.

Currently, Mr. Alcorn is Vice President, Engineering of Cumma Technology Corporation. He is in charge of the design of MetaWrtierTM, an electronic software distribution machine.

Mr. Alcorn attended the University of California at Berkeley where he received his Bachelor of Science degree in Electronic Engineering and Computer Science in 1971.

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