

## E-Sleuths Get a Helping Hand

Iran/Contra? Whitewater? NYC-based Muller Media Conversions has "been there, done that"

BY ALAN R. EARLS

As any computer user knows, eliminating unwanted documents or electronic messages is simply a matter of deleting them, right? Not really. In fact, unless records are actually overwritten they can generally be recovered and read — if you've got format and data transfer experts on your side like Muller Media Conversions.

Founded by Chris Muller in 1978, as a word processing service bureau, his company has evolved over the years into a boutique operation that does what few others in the nation can do.

"Iran/Contra evidence such as Ollie North's c-mail records were among the materials preserved by our systems," explains Muller. "We've also retrieved Whitewater-related information," for the Rose Law Firm, explains Muller.

Muller, himself, got his start in technology as a programmer at Grumman in the late 1960s, crating software for jamming enemy radars for use in the EA6B warplane. He took those technology skills in a wholly new direction when he launched his service bureau — but they soon paid dividends. "We actually wrote our own word-processing system back then," admits Muller, since about the only commercially available units, produced for top law firms by a company called Vydec, were extremely expensive.

"This was even before Wang word-processing — and the Vydec units cost about \$18,000 per terminal," he adds. Nonetheless, many customers wanted documents delivered in Vydec format, or wanted projects they had begun on Vydec's to be completed by Muller, so, recalls Muller, "we had to develop a conversion capacity so we could work with clients."

That capacity proved to be a source of new

business too, as Wang machines — incompatible with Vydec — began to take over the office market during the next few years. "By the late 1970s we had become primarily a conversion service bureau, probably one of only three in the country," says Muller. And by 1982, conversion was the firm's main source of income.

Since then we have continued to develop new conversion capacities," says Muller, including IBM mainframes, Honeywell mainframes, and newer systems as well. Although Muller says his company does maintain a limited collection of "antique" equipment to assist in its work, including a Vydec which he insists is retained "for sentimental reasons," most of the conversion is accomplished in software using standard industry tapes. When a customer can only supply old floppies, though, it is sometimes trickier. For example, Muller notes that floppy disk drives in the Vydec spin in the opposite direction to today's machines making it mandatory to have at least one such machine available.

Although Muller says magnetic media is remarkably durable — with a life span of decades in many cases — the inevitable need to rewrite in order to preserve has led to other opportunities for the company. For instance, in 1992, the National Archives and Records Administration selected Muller to develop the complex suite of custom software and hardware used to transfer millions of the nation's most important electronic records onto more modern media. "The APS [Archival Preservation Systems] was specially designed with the ability to recover partly damaged files, maintain a catalog of all preserved data, create copies of that data on demand, and even track the movement of media by bar-code scanning," says Muller. Muller also went on to provide the National Archives with networking services, Oracle integration, and other ongoing support

In recent years, Muller has taken an

additional step: packaging their expertise in a product called Fast 'n Easy which handles Wang Conversions.

Faced with a mission-critical document update requirement — maintenance manuals on nuclear power plants — the Tennessee Valley Authority turned to Muller Media Conversions after reviewing competitive alternatives and getting Muller to add some custom features. At the time, Fast 'n Easy wasn't set up to convert Wang special symbols — a portion of the character set used extensively in the TVA manuals.

Muller partnered with TVA to develop and test the add-ons. Within a few weeks the problem was solved, allowing various organizations within TVA to convert thousands of old documents to Microsoft Word.

Muller says customers have also been impressed by how quickly Fast 'n Easy works — a characteristic Muller attributes to the tight coding habits he acquired working on the EA6B project. "Back in the early 1970s when we were delivering that, RAM was precious and you had to make every line of code really count," he adds

Although the emergence of open systems and more broadly accepted standards means that the conversion business may one day become less important, Muller and his 10 employees have their eye on the next opportunity: forensics.

After all, more and more of the "evidence" upon which important controversies and legal cases such as Whitewater are based, reside in electronic form, and recovering that evidence has the potential to be big business.

"There aren't too many firms involved in forensics," says Muller. And, he adds, "We are on the ground floor"



Chris Muller