Move on-line provides manufacturer with up-to-date inventory information

MEDWAY, Mass. — Increased business, up-to-date inventory information and accurate work-in-progress reports were the chief goals set by Gamewell Corp. in converting from the batch processing of manufacturing data to an on-line, interactive system. Gamewell, which has been manufacturing fire protection equipment since 1852, has its offices and its plant here.

"When I came here in 1981, we had a batch processing system running on a 10-year-old computer," MIS Director Andreas B. Greuter recalled recently. "Given the size of the company, it was a very advanced system for its day. However, time has overtaken it. Our business had progressed to the point that only a complete overhaul would do."

The search to replace the existing IBM System/3 Model 10 was spurred by significantly increased business: Gamewell's sales had doubled from 1978 to 1982. On-line, up-to-date information was essential for the improvement of material management, but the old system was able only to compute costs after jobs were finished. It had no accurate ability to report exactly what the status of each job-in-progress was and what labor and material costs had been charged to it.

"With the batch system, the inventory was updated, and a report was printed weekly," Greuter said. "After a couple of days, the report was out of date and we began to lose track of the inventory until the next report was printed. Some items are critical to production, so we had to watch their actual counts closely."

Greuter and his staff considered updating the existing system, but decided against "a stopgap approach that might work for another two or three years. . . . We wanted to provide a tool for the future — perhaps something that could serve us for the next 10 years."

Most hardware vendors wanted Gamewell to use outside software houses either to develop the needed programming or to modify the vendor's programming to fit Gamewell's needs. But, Greuter said, "We wanted to deal with a company that could furnish the computer, the software and the software modifications."

The vendor's ability to modify the programs was particularly important, he added; the Gamewell DP department consists of a DP manager, his assistant and two part-time computer operators. The group had neither the time nor the programming expertise to undertake major modifications.

The system selected was NCR Corp.'s 9040 computer with NCR's Interactive Manufacturing Control System II (IMCS II) software. The computer had 1M byte of main memory and 135M bytes of disk memory. It was installed in August 1982 with 13 CRT terminals at various locations in the office and plant. Already, according to Greuter, an additional 1M byte of memory has been added to accommodate a total of 28 terminals.
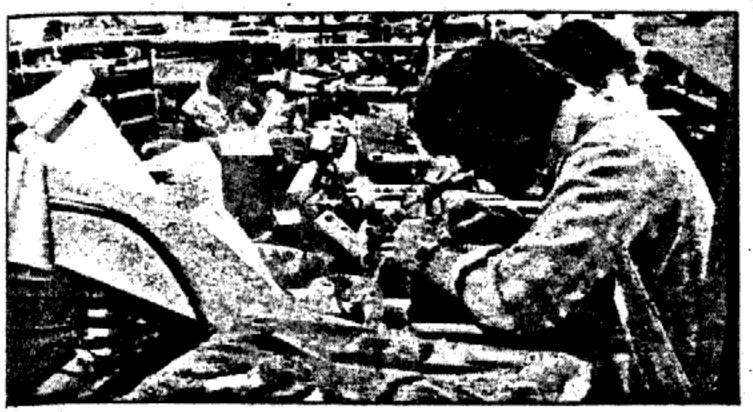
The IMCS II software

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package is modular, with up to nine application modules interacting through a common data base. As an example, the inventory data shows, in a real-time mode, the quantity put to stock within the purchasing/receiving module, the quantity a production order has been opened for in an inventory-control screen and the quantity entered as shipped against a sales order in the order processing module, which was modified to meet the company's needs. There were problems making the transition, according to Greuter, but nothing insurmountable.

In addition to maintaining the perpetual inventory, the programming makes it possible to cycle count the physical inventory and come up with increasing accuracy. Based on the results obtained so far, counting 130 different parts each week, Gamewell is confident that cycle counting will replace the annual wall-to-wall physical inventory.

Greuter feels the new system is meeting the objectives set for it. "Our bottom line with this new system was to provide our people with a tool consisting of up-to-date management information. Since we started placing terminals in the plant, we have seen a steady increase in their use. That acceptance is probably the best recommendation our people can give."

Gamewell also makes computer-based fire warning systems.