NEWS IN PERSPECTIVE

STRATEGIES

MEMOREX IN THROES OF CHANGE

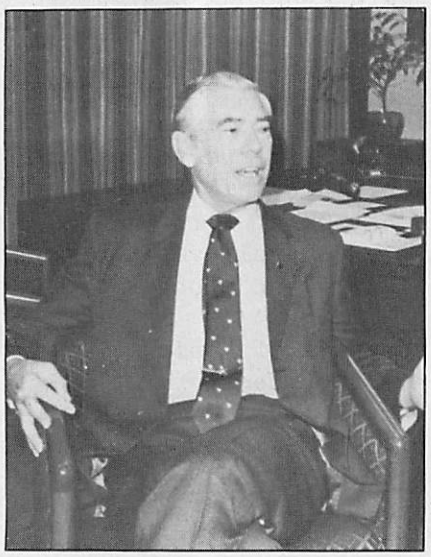
There's a sense of déjà vu in Spangle's move to Memorex at a time when merger talks run rampant.

When word was received that Clarence W. (Clancy) Spangle was assuming the reins of power at Memorex Corp., industry attention began to focus on exactly what the former Honeywell dp chief was inheriting.

Memorex headquarters is housed in a complex of light-colored stone, steel, and glass buildings in Santa Clara that first-time visitors have often compared to an IBM facility.

A recent visitor found the carefully manicured and landscaped grounds to be deceptively serene. Inside, the carpets appear to have less luster than in years past, and while the visitor was being ushered up to the executive suite, he saw a lonely wastebasket set in the middle of an aisle to catch leaking rainwater from an unusually heavy California downpour. Comments from present and former employees lend substance to the idea that this is a company caught in turmoil and even a touch of futility, based in part on a continuing stream of poor financial results.

But coming face to face with outgoing president and ceo Robert C. Wilson quickly dispels any doubts about the company's future.



ROBERT C. WILSON: "We like to say we extend and enhance, whereas IBM obsoletes in many cases."

Asked how things are going these days for the plug-compatible manufacturer, Wilson makes a careful correction, pointing out that the term is not precise: "We like to say we extend and enhance, whereas IBM obsoletes in many cases." Nevertheless, Wilson admits that everything Memorex does (in dp areas) is geared to having a better competitive stance with respect to IBM.

In this context, the Memorex chief feels encouraged by the recent IBM price hikes. The industry giant has done some rather dramatic things in a short period of time, like the low priced 4300 series, the 3880 controller, and advances in memory chips. The price increases are a sign that things have to stabilize because it is not possible for the industry to continue to absorb such high rates of change.

Does IBM create the opportunities for Memorex? Wilson replies that is like asking whether Alexander Graham Bell created opportunities for those that make telephones. Customer needs create the opportunities, Wilson insists.

What then is the major Memorex thrust these days? Upgrading rather than obsoleting, Wilson explains, is a major effort and one that has found good acceptance in the market.

He uses the IBM 3350 disk system as an example. "It is the end of the line for IBM" because it hasn't announced anything beyond it, while Memorex has announced a double density version plus an intelligent interface for that line. "We will have a high degree of parts commonality between the single and double density versions. So the user is really not dealing with a new product but only an extension of the old product. This should save the customer from going through a new startup situation," he points out.

Wilson admits there have been setbacks, like with the 3770 disk cache, which

CLARENCE W. SPANGLE: The position he'll be inheriting at Memorex is similar to the one he was given at Honeywell.

COMMUNICATIONS GROUP IS THE ONE TO WATCH

One of the most dynamic and least publicized operations at Memorex appears to be the Communications Group. Formed two years ago, the communications operation is headed by its president Richard W. Martin. In a recent interview, Martin, together with John King, strategic planner in his group, outlined some of the products being developed.

To set the scene, Martin said Memorex had installed more than 30,000 of its 1377 crt terminal, which is compatible with the IBM 3277-2. Typically the Memorex communications devices provide the customer with 10% to 15% savings over comparable IBM units while including additional operating features, he said.

This spring, Memorex plans to introduce a 3278 compatible product that will provide a separate controller. The IBM 3278 includes a built-in 3276 mini-controller that supports up to eight crts. The newly announced Memorex 2076 and 2078 are separate devices to provide increased configuration flexibility to the user.

Memorex is also planning to announce a screen printer that will attach directly to a 3270-type crt, thus avoiding the usual configuration of connecting to a subsystem controller. The screen printer will be similar to the IBM printer recently introduced for the IBM 3101 Ascii crt, and it will be a low cost device that is targeted at under $2,000, according to King.

Upgrades are also being planned for the Memorex 1380 intelligent communications controller. A major development effort is underway to add X.25 capability, and an "interim interface" which will provide this capability on a black box level will be introduced this year, Martin said. A full integrated X.25 interface for the 1380 is scheduled for 1981, he added. There are now about 125 of the controllers installed at user sites.

RICHARD W. MARTIN says Memorex is committed to continued enhancements for non-SNA networks.

JOHN KING reveals that Memorex will soon announce a screen printer that will attach directly to a 3270-type crt.

The earlier Memorex 1270 controller is also still going strong even though it has been around since 1971. King said an intelligent line adapter will soon be unveiled that will add microprocessor-controlled functions to the line side of the unit. This ILA will provide protocol conversion, speed conversion, error detection, and an X.25 capability to the 1270, King said. However, the controller will remain basically an IBM 2701-compatible device and while providing major upgrades for this binary synchronous environment, it will not support SNA network applications, King explained.

Martin explained that Memorex is committed to continued enhancements for non-SNA network users. Binary synchronous networks will be around for many years and the need will grow to provide X.25 features, he added, although the latter has developed faster overseas than in the U.S.

Within the range of communications devices that are offered, Memorex also supplies customized equipment on an RPQ basis. About 15% of the communications equipment is tailored to meet specific customer needs and users are willing to pay in advance for the engineering design work that is often required, King commented.

Memorex will continue to enhance its communications devices to provide continuing compatibility for users. As proof of this approach, Martin said the nine-year-old 1270 is still in production and new orders continue to be met. Some of the controllers operating in the field have never had a service call.

Not many other dp or communications products in the field can make the same claim, he implied.

—R.A.F.

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was touted as the first of its kind. The decision to use charge coupled devices (CCDs) for this product was wrong because "we found we could not get them." Then the design was converted to RAM and there were some beta test site problems, but shipments will begin some time in 1980, he vowed.

Why does Memorex have a relatively low profile in the communications area? Wilson responds that this group is only two years old. He concedes that the 1380 controller is really a computer and that the 3270-compatible display terminals are microprocessor controlled. These products are getting smarter and performing a wider variety of functions, Wilson points out, implying that they deserve greater attention.

Will Spangle provide an opportunity for Memorex to become more heavily involved in the computer area? Wilson agrees that Spangle, in his new duties, will give the company a better perspective to evaluate such a shift, but he adds that sometimes it is just as important to make a negative decision as a positive one.

"Memorex has found a corporate executive who can keep the company running until the missing part is found. If that means the Memorex name has to go, Clancy will not hesitate."

Wilson said he will not try to second-guess Spangle. But he does not look for any dramatic changes during 1980 since the corporate business plan for the year is already in place. For the immediate future Wilson will retain the post of chairman and will give Spangle his "best thinking" on problems facing the company. But everyone has his own management style and approach, and while he will discuss organizational alternatives with Spangle, Wilson's goal is to relinquish active control of the company, including the remaining post of chairman, by the end of 1980.

One associate who knows the Spangle approach first-hand is Robert Henderson, who worked for almost 10 years on the top management team at Honeywell Information Systems until leaving five years ago to assume his present post as president of Itek Corp. "He engineered the GE merger and acquisition—a real coup," Henderson said. The Honeywell/GE merger doubled the company's dp role, and integration of the two product lines came off smoothly despite the problems of working in a high technology industry, he said.

Donald Brosnan, president of MSI Data Corp., worked for Spangle as his managing director in the U.K. for three years. "He did a fine job of pulling together the Honeywell dp business after the acquisition of GE and Xerox under trying circumstances," Brosnan said.

Another former Spangle associate saw the GE merger as an indication of what Clancy will do at Memorex. "His position when he came to Honeywell was similar to Memorex today. He engineered compromises that made Honeywell a survivor in the difficult dp business. The whole GE 600 series has been the basis for Honeywell's success ever since the merger," the former HIS manager said.

"Spangle was able to evaluate that Honeywell could not survive by itself, that the two companies could survive, and he was prepared to merge the two operations regardless of who the remaining company was to be. He was prepared to give away the Honeywell name and the technology if that had been necessary to form a viable dp competitor."

"Memorex has found a corporate executive who can keep the company running until the missing part is found," Clancy's former associate concluded. "If that means the Memorex name has to go, Clancy will not hesitate."

—Ronald A. Frank

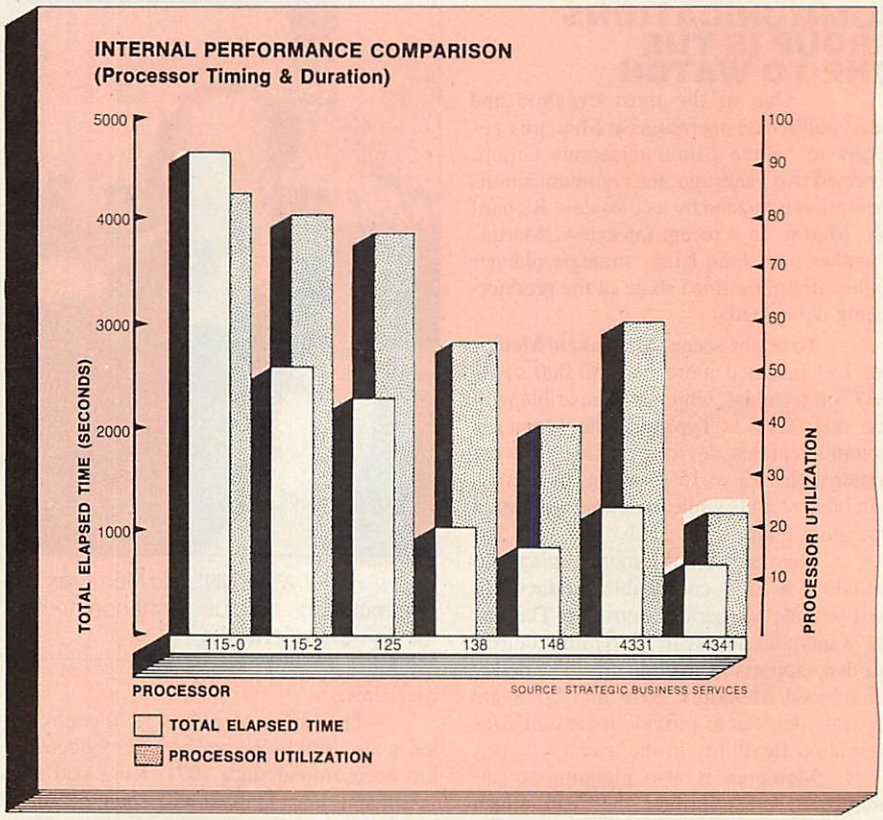
MAINFRAMES

HOW THE 4300s STACK UP

Strategic Business Services pits 4300s against 370s in its analysis of benchmark tests.

Benchmark tests of the IBM 4300 processors indicate that the new machines show up better in horsepower comparisons than in their abilities to process commercial job mixes. One such comparison, for example, shows that the 4341 has a cpu performance of 22 to 34 times that of the IBM 370/115-0, but in elapsed time the advantage is cut to 6.8 to 10.7 times.

This is one of the findings in a study released last month by Strategic Business Services Inc., San Jose, Calif. The tests were conducted by IBM, although none of the data has previously been available publicly. Much of the performance data was generated internally by IBM, using benchmark tests devised and agreed upon by its Systems Product Div., Data Processing Div., and other marketing divisions. The analysis is by SBS.



INTERNAL PERFORMANCE COMPARISON: Five S/370 processors are compared to the 4300s in batch processing benchmark tests, DOS/VS R.34 being used on the 370s and a prerelease version of DOS/VSE on the 4300s running in their native (ECPS:VSE) mode. Total Elapsed Time is the wall clock duration of the entire batch workload, while Processor Utilization is the ratio of total processor busy time to the total elapsed time. The latter is an indication of how busy the cpu is in executing the given workload.

With all the test results in, the bottom line is seen in this way:

- In the batch environment, under DOS/VS, the 4331 performs about like a 370/138, doing some jobs faster, some slower. The 4341, by contrast, is two to three times more powerful than a 148.
- In the CICS mode, the 4331 handled more than 80 messages a minute, while the 4341 did more than 160 per minute.
- Supporting up to 20 VM users, the 4331 provided a response time of 4.4 seconds, compared with the 4341's average 0.26 seconds.

A standard set of benchmarks, called a Standard Intermediate Workload, was used on more than 100 runs on the 4300s, as well as the 370/115-0, 115-2, the 125-2, 138, and 148. This workload consisted of seven batch jobs that were used to determine the internal performance of each processor. Along with this set of jobs was a transaction-oriented, CICS-based benchmark that tested the on-line performance. And an interactive benchmark simulated users working under VM and doing a variety of different jobs; the latter showed how many interactive terminals could be supported by a processor.

The amount of memory and disk configurations varied among processors, but the comparisons are said to be based on setups thought to be typical configurations, hopefully achieving apple-with-apple comparisons. Main memory sizes range from 192K on the 115-0 to 2 MB on the 4341 and the 148.

In the batch benchmarks—which consist of payroll job, billing, inventory, DL/1 batch, sort, COBOL compile, and a FORTRAN execution—the 4331 was found to perform most tasks a bit slower than the 138. The 4341, in contrast, was not only more powerful than a 148 but in some jobs was close to a 158. And in terms of cpu power, it is said, the 4341 is three to six times more powerful than a 4331. In those tests, DOS/VS Release 34 was used on the 370s, while a prerelease version of DOS/VSE

The 4300s' performance improvements over the 370s stem from the use of new hardware, new operating system versions, and from new architecture (ECPS:VSE).