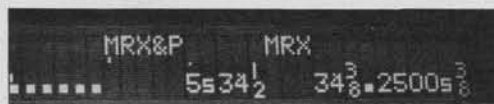


INTERCOM

A newsmagazine for Memorex people everywhere
September 1977 Volume 14 Number 5



... MEMOREX CORPORATION . . SYMBOL . . MRX .

DOW JONES IND. AVERAGE			PREVIOUS VOLUME
PREVIOUS CLOSE			5620.000
872.3			
11:00	UP	1.6	1.24 MIL
12:00	DN	3.2	7.31 "
1:00	DN	4.33	9.40 "
2:00	DN	3.63	10.96 "
	DN		.03 "

Historic comeback: 'MRX' returns to
New York Stock Exchange
See page 2

'MRX' goes back on the Big Board

At 6:58 a.m. California time, the tape started to roll: "... LISTING ... MEMOREX CORPORATION ... SYMBOL MRX ..."

That bulletin, seen in stockbrokers' offices across the country the morning of September 7, marked Memorex's return to the New York Stock Exchange.

Seconds later, the announcement had flashed off, and the opening prices of the day began rolling by, with MRX appearing routinely as it was traded. After an absence of four years, the company was back on the Big Board.

Memorex is only the second company in 20 years to earn relisting on the Exchange. Originally listed in 1968, the stock was taken off the NYSE in 1973 after the company suffered large losses.

"Returning to the New York Stock Exchange is a tribute to the dedicated and effective efforts of Memorex people throughout the world and to the support of our lenders," said President Robert Wilson.

Mr. Wilson, who was in Europe on business the day of the relisting, was represented at the opening ceremonies by Vice President of Finance Henry Montgomery, who made the first purchase of the newly listed stock. Company Treasurer Robert Coo was also on hand for the occasion.

Memorex stock will continue to be listed on the Pacific Stock Exchange, where it has been traded since July, 1975, under the symbol MRX&P.

The question of Memorex's relisting was, of course, of interest to many shareholders. Asked about relisting at the shareholders' meeting in April, President Wilson said that the company's return to positive common



Checking the ticker tape for the opening trade in Memorex stock are (l-r) William Batten, Chairman of the New York Stock Exchange; Henry Montgomery, Memorex VP of Finance; and Robert Coo, company Treasurer. The stock opened on September 7 at 34 $\frac{3}{8}$.

shareholders' equity should prove very helpful. "With continuing good performance, we expect to be relisted this year," he said.

The relisting has been noted in many newspapers, including the *Wall Street Journal*, which mentioned it as evidence of the company's "recovery" in a major piece on Memorex (August 25, page 1).

Commenting on the relisting, business writer Norm Bowman of the *San Jose Mercury* said, "Now things are bright again, very bright indeed. Anyone who bought Memorex when it had skidded down to the \$2 or \$3 a

share level has seen it climb back to the mid-\$30 share level. It's rising as the company financial outlook brightens.

"So Memorex will be back on the Board. There are plenty of employees, stockholders, investors, suppliers, and customers who are tickled pink, too."

As of September 1, there were approximately 5,600,000 Memorex common shares outstanding and approximately \$68 million in face value of the company's 5 $\frac{1}{4}$ percent convertible subordinated debentures, due 1990.

INTERCOM

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ON THE COVER:

When the New York Stock Exchange opened on September 7, brokers all over the country saw the news of Memorex's relisting. Here's how the NYSE tape looked in the company's first half hour of trading. The photos were taken at E. F. Hutton in Palo Alto and at Bateman Eichler Hill Richards in San Jose.

Come on out, join the fun at Santa Clara open house

What does a disc drive look like? How do they make computer tape? Is there really any difference between Memorex cassettes and others? What do you do at work all week?

If you're a Santa Clara employee and your family or friends have ever asked such questions, you'll want to bring them to the Memorex Open House on Saturday, September 17, from noon to 4 p.m.

A number of activities have been planned at both the San Tomas and Memorex Drive facilities, including plant tours, product displays, and an employee arts and crafts fair. Free hot dogs and soft drinks will be provided, and wandering clowns will hand out balloons and pennants to the children.

The following areas will be open all afternoon:

Building 14: The Engineering Computer Center (demonstration of Memorex equipment in operation and computer games); the model shop;

drafting area; the Communications Division.

Building 10: The equipment plant (tours of manufacturing, testing, shipping).

Building 12: Lobby (equipment and media products on display); office areas.

Tape Plant and Disc Pack: Manufacturing areas (tours and product displays).

Consumer Products: Various manufacturing and office areas (tours showing steps in production of audio tape; sound demonstrations by audio recording experts; video tapes of Memorex commercials).

Maps will be available at each building showing the areas that are open.

Employees will not be required to show identification badges during the day.



Among the many tour stops at the 1975 Open House was this exhibit explaining some of the chemical processes used in producing video tape.

Basking in the Bahamas

Refer a prospect, win a trip in sales contest

A Memorex Equipment rep had just closed an order for twenty-five 1377s at a large bank in the Midwest. As he was leaving, he noticed the construction going on next door and asked the data processing manager about it.

"Oh, that's the site of our new word processing center," said the manager. "It's scheduled for completion next month." Making note of the fact, the Equipment rep informed the Word Processing Division the next day. As it turned out, the bank hadn't yet decided on a word processing vendor, and the Memorex WP rep got the account.

It's this kind of referral that would qualify both sales reps for the chance at an all-expense-paid vacation for two in the Bahamas. That's the top prize for 20 winners in the company-wide "Leads to Revenue" contest, which began September 1 and runs through January 31.

"The objective is to increase cor-

porate revenue through a cooperative, total Memorex sales effort," said Gary Fisher, National Sales Manager for Computer Media. "If an Equipment rep knows a customer also needs disc packs, he should inform the Computer Media sales team and vice versa. It's this kind of cross pollination that will make the program — and Memorex revenues — go."

Under the rules of the contest, points will be awarded to both the referring and referred sales/service person for qualifying leads and for sales resulting from such leads. The contest is open to all Memorex sales and service people from the Equipment Products, Computer Media, and Word Processing Divisions, including CFI and BST. (Audio and Video are not included, since they are selling to different kinds of markets.)

"To qualify, the lead must be for installations that are not already customers of the referred division,"

said Fisher. "The lead must also provide new, useful information for the referred salesperson, such as the name of a new decision-maker, a description of a systems change, or a new application."

Each month, all point earners will be entered in a sweepstakes from which two winners will be selected for a one-week vacation for two in the Bahamas. The ten top cumulative point scorers as of January 31 will also win the Bahamas trip.

In addition, monthly awards will be given for the best individual score in each Equipment and Computer Media region, the best score for BST, CFI, or Word Processing, and the best overall regional score.

Details on the contest have been mailed to all eligible sales and service people, and kick-off meetings were held in 42 locations across the country during the first week of September.



Earhart and Valle admire SuperReel.



Stella Chavina and Esperanza Ferra work the SuperReel line.

It's stronger, it's tougher, it's SuperReel!

In the tradition of scientific breakthroughs, the same idea was taking shape in labs that were continents apart. Working independently, engineers in France and in California were zeroing in on similar designs. As they played with hubs and flanges, with machines that measured stress and speed and tension and wear, it became obvious that modifications here and there wouldn't be enough. There had to be a whole new approach.

That workhorse of data processing, the computer tape reel, had just about reached its limits. The spinning reels that appear in almost every Hollywood shot of a computer room were spinning faster than ever—at three times the speed of the early 1960s. Tape tension had also increased drastically, bringing problems for data processing users.

"We could see the day coming when computer reels as we knew them weren't going to work," recalls Howard Earhart, then General Manager of the Comdata Division.

Six thousand miles away from Comdata's Irvine, California, plant, in Genlis, France, a reel manufacturer by the name of Posso had come to a similar realization. The two manufacturers got together, and as a result, Memorex brought out one of the most innovative computer media products

in recent years: SuperReel.

SuperReel was introduced to Computer Media sales reps at their conference in San Diego in May and to the computer industry at the National Computer Conference in Dallas in June. The response from customers and other manufacturers has been "absolutely terrific," reports Ray Valle, Comdata Marketing Manager.

"Getting there first with the best" was Comdata's goal from the start; bringing it off took some doing.

It all began about two years ago. At Comdata, where all Memorex reels are manufactured, and at Computer Media headquarters in Santa Clara, engineering and marketing teams were studying reports from the field with growing concern. Conventional reels were starting to crack from the strain put on them by the new high-speed tape drives.

As data storage needs had grown over the years, information had been packed ever closer on tape—at a density of 6250 bits per inch for high-speed drives, compared to 200 bpi in the early 1960s. With that bit density, a tape drive's read/write head had to ride closer to the surface of the tape, which meant the tape had to be under greater tension. Reels were spinning faster as well—at speeds up to 250 inches per second—and rapid stops and starts were also contributing to

the strain. The reel simply hadn't kept pace with advances in equipment.

"We realized that the first company to come up with a radically different product to solve these problems would have a significant edge in the market," says Earhart. "And Memorex decided it wanted to be that company." So Comdata went to work.

Designing and testing were progressing well when the Liege Division discovered that its European reel vendor, Posso, was pursuing an almost identical course—and was further along in development. Comdata investigated the designs, was impressed, and decided to negotiate an exclusive license with Posso to manufacture and sell the reel in the U.S.

"So far as we know, no other company was taking this design approach," says Earhart. "By negotiating the agreement with Posso, we were able to enter the market with a new product probably a year earlier than we could have otherwise. Comdata's own design, SuperReel II, is at the patent office now. We want to stay ahead by having follow-on products that anticipate future needs."

For Comdata's Engineering Manager, Harry Adair, the months and months of SuperReel effort now seem worth it. He holds up a reel in his



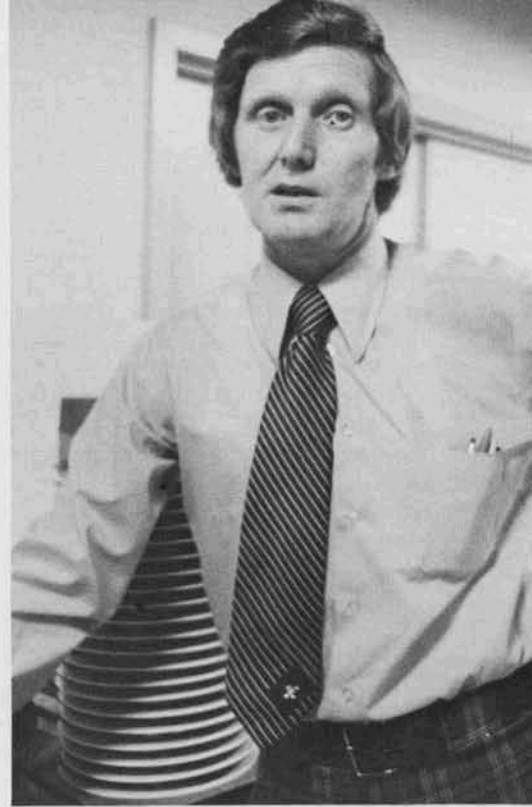
Sonic welder Marge Miller



Manufacturing Manager Charlie Crashaw



Tester Marge Jackson



Engineering Manager Harry Adair

office, squints at the edge, then says in his quiet Irish way, "I think it's going to do quite a bit for Memorex. Everybody's been looking for that Cadillac, and we've got it."

What exactly is it that SuperReel has that the others don't? In technical terms, it has a "ribbed I-beam hub construction." On conventional reels, tape is wound on a skirt protruding from the back flange. As tape tension increases and more and more pressure is exerted on the reel, the winding surface starts to deform.

"Everybody's been looking for that Cadillac, and we've got it."

This seldom happened when drives were running at about 10 ounces of tension. But an increase to 15 ounces of tension—standard on the new generation of drives—adds about 800 pounds of pressure. "Continual exposure of conventional reels to this environment will result in tape edge damage, loss of data, hub collapse, and flange warpage," says Adair.

The SuperReel solution was to create a uniquely designed separate hub. The tape is wound directly on the hub, not a skirt protruding from the flange, and the I-beam construction provides uniform support across

the winding surface. No glue or solvents are used during assembly; instead, the hub is ultrasonically welded to the flanges.

"With this design, we have fewer variables, fewer dimensional interfaces to monitor," explains Project Manager Elwain Trunec. "And that means fewer rejects."

Tests on SuperReel have shown it to be just as good as Memorex engineers dared hope. It is 90 percent stronger than conventional reels, can run at 15 ounces of tension, at speeds exceeding 220 inches per second, for a test period equivalent to 10 years of normal use. It is, as Ray Valle describes it, "virtually indestructible."

When Adair began working on concepts for a new reel in 1975, he knew the problems of existing reels thoroughly, had already scratched a number of design options and was well into what seemed to be *the* concept when Posso's work was discovered.

After the agreement was reached, Adair went to France to work alongside Posso engineers. Many adaptations had to be made to the Posso design to accommodate Comdata's needs and equipment. "The tolerances on SuperReel are very stringent. The precision required for this kind of project is staggering," says Adair.

In Comdata's engineering lab, Adair and Trunec have put SuperReel and competitors' reels through every

conceivable test. "And SuperReel exceeds them all," its creators tell you.

"When we run conventional reels at tensions that actually exist in the field—18-19 ounces—you can see the reel breathe like it's sighing when the pressure is released," says Trunec.

For Comdata's manufacturing team, the coming of SuperReel has meant some changes. "The assembly process is quite different from what we use on other products," explains Manufacturing Manager Charlie Crashaw. "We've installed a lot of new tooling, and for the people working on the SuperReel line, it's meant learning new processes."

Start-up headaches are pretty much behind them now, however, and the Comdata staff is turning out SuperReels at a great clip. In June they began shipping SuperReels to Santa Clara for loading at the Tape Plant. Right now, only Cubic tape is being loaded on SuperReels, but it is expected that all Memorex tapes will be offered on SuperReels by the end of the year.

"Sure, we're happy with what we've done," says Adair. "It took tremendous cooperation — from Comdata, from Santa Clara, from Liege, from Posso—but somehow we pulled it off. Memorex is one of the few tape manufacturers that also makes its own reels. Now the company really has an unbeatable product. It should solidify our position as a leading supplier of computer tape."

A&A takes sales classes to distant locales

If the students can't come to the classroom, then bring the classroom to the students. That's the idea behind a new Americas and Asia sales training program, and it can mean traveling more than 20,000 miles to do it.

The students are the sales staffs at the company's subsidiary and distributor locations in the Far East and Latin America. And the traveling teacher is Aileen Amabisca of A&A headquarters in Santa Clara.



Aileen Amabisca

"A lot of our field people haven't had the benefit of formal sales training for our products," explained Amabisca, Sales Development Specialist. "It's my job to develop a computer media program that's flexible enough to deliver on the road and then get out there and present it. The concept is simply that the more knowledge these widely scattered sales reps have about the company's products, the better they'll do representing Memorex." (Eventually, A&A will conduct similar training programs for Word Processing, Audio, and Video.)

For Amabisca, who joined the A&A staff last March, the job was perfectly suited to her interests and educational background. Fluent in both Spanish and Portuguese, she holds a bachelor's degree in bilingual education from the University of Arizona and an MBA from the University of Santa Clara. In addition to having

traveled extensively in Mexico and Brazil, she has also taught Spanish.

"It couldn't have worked out any better—finding a job that utilizes my background in language and business, and, at the same time, fulfills my desire to travel," she says.

Creating a training course required an intimate knowledge of data processing, computer media, and how to sell the company's products in a foreign market. Amabisca met the challenge head on. She took the computer media sales training program in Santa Clara and then began developing materials on her own.

She visited the manufacturing areas and buttonholed such technical experts as Ed Sutter and Phil Ricketts in Disc Pack and John Campbell in Computer Tape, talked to sales reps to find out what information was most needed in the field, and then pulled it all together.

Once Amabisca had organized her course, Marcelo Gumucio, Vice President of A&A, asked her to test it on the headquarters team. It gave A&A staffers an introduction to computer media and Amabisca a chance to fine-tune her skills. "It was a fantastic rehearsal for me," she says.

In the field, she conducts an intensive 25-hour program. It begins with the history of data processing and

goes on to the distinctive characteristics of computer tape, flexible discs, and disc packs. Slide shows are used to illustrate the material, and role playing helps dramatize sales situations.

In July, Amabisca took the program to the company's distributor and subsidiary locations in Brazil, Venezuela, and Mexico.

One thing that took Amabisca by surprise was the high degree of customer interest in her program. Not only were sales reps in attendance, but a number of their customers sat in also. "They were very impressed that the company would take the time to develop a program like this and bring it to their countries."

Amabisca barely had time to absorb her Latin American experience before she began preparing to tackle data processing in a totally different culture. On August 17, she left for four weeks in Japan, Korea, Taiwan, the Philippines, Australia and New Zealand, where she will brief sales reps on such matters as bit density and edge damage and how to close a disc pack sale.

It's a program that not only provides new knowledge to sales reps three thousand — or nine thousand — miles away, but makes their Santa Clara co-workers seem closer as well.

They loved it in Mexico

In response to a query from *Intercom* about the benefits of A&A's new training program, Rafael Gomez, Country Manager in Mexico, responded with the following note:

"No matter how high the technology available within a company or how good its products, the basic element will always be the people. Because Memorex is a company that accepts nothing less than excellence in every area, the people who present our products should be able to explain the features and benefits in logical, comprehensible language.

"Last month we had the visit of Aileen Amabisca from international headquarters in Santa Clara. She presented a training program to our sales force and management team.

Even though this was Aileen's first training session outside the USA, her spirit and dedication were extremely fruitful. We were able to obtain tips that cannot be found in any brochure or data sheet. Aileen could only get it through personal research and interviewing people from the plant and field.

"She also spoke in a beautiful Spanish which made the course easier to understand for our people and created a great attitude within the group.

"The results have been numerous and quick: our sales presentations are made with a more confident manner; greater emphasis is put on the excellence of the product itself; and more technical arguments are at hand to win out over the competition."

Passing the white glove test

At Disc Pack, an obsession with cleanliness is a virtue

CLEAN: (adj.) free from dirt or pollution; free from contamination or disease.

That's how Webster's defines the word, and under most circumstances this definition is probably good enough. But when you're talking about the kind of environment required to perform open heart surgery, to test instruments used in space missions, or assemble such sophisticated products as the new generation of disc packs and disc drives, the word takes on further significance.

These situations all require a Class 100 atmosphere. This means that there can be no more than 100 particles of dust, one-half micron in size and larger, per cubic foot of space. (One-half micron is about $\frac{1}{150}$ the diameter of a human hair.) It's about as pure an atmosphere as is humanly possible, and that's the kind of environment that exists at Disc Pack's new clean room in Santa Clara.

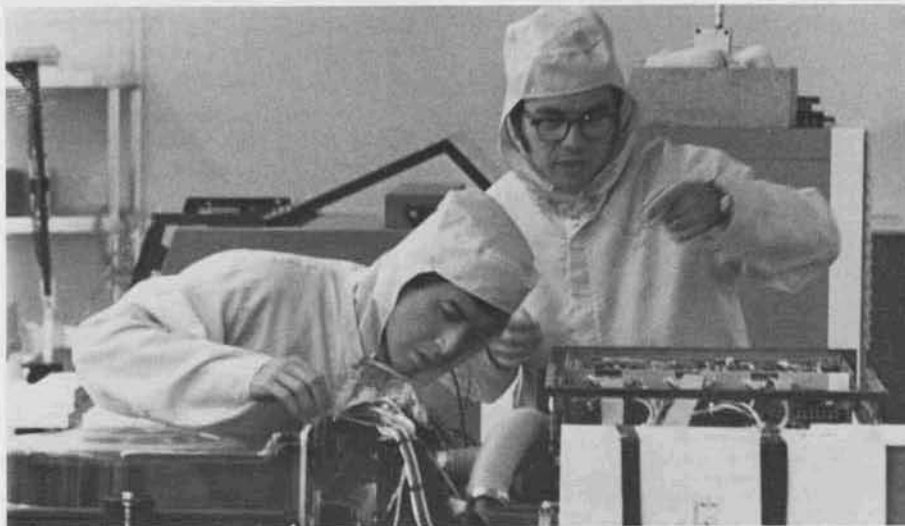
Class 100 clean rooms became necessary at Memorex in 1975 with the introduction of the Data Mark 70 module. Unlike conventional disc packs, the Data Mark combined a number of drive components (such as the head, spindle, and associated circuitry) with the discs into a sealed unit. With this precise technology, tolerances shrank drastically; there was no allowance for contamination. "One microscopic piece of dust lodged between the head and disc will

degrade performance, or worse, can cause a catastrophic head crash," said Warren Kisling, Disc Pack's Manager of Manufacturing. "It was obvious that HDAs (head/disc assemblies) had to be put together under exceptionally clean conditions."

The introduction of the 3650, which utilizes technology similar to that of the Data Mark, required a major expansion of Disc Pack's facilities, including a new Class 100 clean room designed to filter out minute particles of dust and debris. Construction began in February, and the first units rolled off the new clean room's assembly lines in July.

"We gained a tremendous amount of knowledge from our previous experience with this type of clean room," said John Scott, Manager of Research and Engineering. "As a result, we were able to build in several cost and quality efficiencies that make this one of the most advanced clean rooms in the industry."

For instance, instead of building two separate rooms for each product, there will be one large room with a partition down the center. One side will be used to assemble the head/disc unit on the 3650 and the other to assemble the deck plate unit for the 601 disc drive. "This design reduces the cost of the room and prevents cross contamination. In effect, we have two clean rooms within a clean room," said Kisling.



Al Lem and Vel Hogan of Disc Pack work on product in new clean room.



Clean room staffer Minerva Flores.

Keeping two 1,500-square-foot areas completely free of contamination isn't easy, and one of the most important features of the new clean room is its air conditioning system. After air is forced through the central handling system, it goes through a specially designed maze of ducts and filters before entering the room. Each side of the room is equipped with an air-return vent capable of producing more than 200 air changes per hour. "By the time it goes through this system two or three times, it's 99.9 percent pure," said Kisling.

As a further precaution, the air handling system produces a positive pressure which prevents any outside debris from getting in.

While elaborate systems such as these are critical in maintaining a Class 100 atmosphere, they can't do the job alone. Before being brought into the clean room, all materials are washed in an ultrasonic degreaser. The people who will be working there must wear lint-free garments, including hats, gowns, gloves, and overshoes. Once they have this attire on, they go through a high-pressure air shower that blows off any debris which might still be on their clothing.

As a Quality Control Technician, Oscar Perez has worked around clean rooms a lot, but according to him, the new Class 100 room is something special. "This is by far the most sophisticated clean room I've ever worked in," he says. "Everything in it, from the test equipment to the various safeguards, helps make my job easier."

(continued on page 11)

BST gives company 'two feet in door' with small systems

If it were a sports team rather than a business, BST would be the darling of the newscasters: a Cinderella crew that came from nowhere to the national playoffs. The writers would call it "gutsy" and "tough"—a team with "brains and hustle."

It would be easy to understand why. There's a competitive, go-go spirit around the Santa Ana headquarters of Business Systems Technology that a visitor senses almost immediately.

When BST began selling data storage and communications equipment for small System/3 computers five years ago, its only competition was IBM. It took nerve and determination to invade the territory—and stay there.

"This is a fast-moving business," admits BST founder Del Elder. "You've got to have the right instincts at the right time. I don't think you ever reach a point when you can sit back and say, 'Well, now we've made it.' You have to keep changing."

For BST, which celebrates its fifth anniversary October 1, that true grit has paid off. It has grown from 12 employees to 175, from five customers to nearly 1,500. It offers a complete small systems data storage and communications line, with sales offices in 33 cities in the U.S. and Canada.

In July, BST officially became part

of Memorex's Small Systems Division. To SSD General Manager A. Keith Plant, the acquisition of BST gives Memorex "a real boost in the small systems market."

Memorex already had a strong OEM business in small systems, and acquiring BST gave the company an instant end-user outlet—"a ready-made sales force with an excellent reputation," says Plant. "With BST, we've already got two feet in the door." Prior to the merger, there were only half a dozen Memorex reps selling to small systems OEM customers. Now there's a team of 50 selling to both OEMs and end-users.

BST and Memorex were not strangers when the first exploratory merger talks got under way. Since 1974, BST has been an OEM customer for the 660 disc drive, and Memorex, in turn, has been a customer of BST, buying its disc controller, core memory, and printers for sale abroad. Memorex has also helped service BST equipment in the U.S. and has sold the BST line in Canada.

Plant says he was impressed with BST from the time the young firm first became a Memorex OEM customer. "Here was a company that saw the incredible potential of the System/3 early on. These people knew what the small businessman wanted, and they



catered to his needs."

Perhaps that is because Del Elder is an independent businessman himself. In 1972, he left Varian Data Machines, where he was director of engineering, to found his own company. (He had put in 23 years in the computer industry, much of it at IBM.)

With co-founder Les Menigoz, Elder went after small businesses that were installing their first computer systems. BST capitalized on the natural identification: "We're small, you're small. We understand your problems. We'll take care of you when the big guys won't."

It is a theme on which Elder readily expounds. "Small systems users are different. With a big guy, his disc drives can fail, and he'll have a spare. His keypunch goes, he's got others. Same with the tape drives. Maybe he can still get by with a little down memory. Not so with the System/3 user. If something dies, that man is out of business."

To the small systems user on a tight budget, it boils down to price, performance, service, and availability. "Small systems people are relatively independent and are willing to try something new," says Elder. "They

Keith Plant and Del Elder discuss small systems strategy.



"We're small, you're small. We understand your problems. We'll take care of you when the big guys won't."



Del Elder founded BST in 1972, after more than 20 years on the engineering side of the computer business.

regard the computer as a tool, and we design our equipment so that customers can diagnose many problems themselves."

BST conveys the "we can do it better, try us" idea in hard-hitting ads that have become, to the small systems audience, almost as much of an institution as the Volkswagen or Avis campaigns. One recent ad shows a "System/3" sheriff dozing in his patrol car underneath the headline, "How to exceed the speed limit without paying for it." The copy goes on to tell just how BST line printers outstrip the competition in performance and economy.

Having clearly superior products has been the goal from the beginning. Engineer Elder designed BST's first product, the core memory, himself. Since then, BST has assembled a line that includes disc drives, line printers, a core memory, controllers, a "stop watch" (an alarm which signals when the system has halted), and BST's newest product, a floppy disc data entry device called the BST 41. "BST now offers one-stop shopping," says Plant.

As manufacturing organizations go, BST is small. Its strength is not in

making hardware, but in putting together a package that would be difficult for any competitor to equal. "It's what we do with a printer or disc drive after we get it that counts," says Elder.

"We're developing a lot of systems smarts. BST is the first peripherals company that's been able to attach four disc drives to a System/3, Model 10 computer. We've written a whole Mod 10 operating system, as well as a spooling program that has increased systems throughput as much as 50 percent."

Those software talents will, in Elder's view, continue to give BST an edge. "The area of software is where the business is going to be decided over the next five years."

Since price is crucial to small businesses, BST has also done what it can to make its financial arrangements attractive. Under the direction of finance chief Dion Cairns, BST last year negotiated a limited partnership with Girard Leasing Corporation of Philadelphia to make equipment financing readily available to BST customers.

But performance and price can't do it alone. Service is the real reason BST has survived, says Elder. "We've paid a lot of attention to supporting customers, and that's the difference between us and other companies."

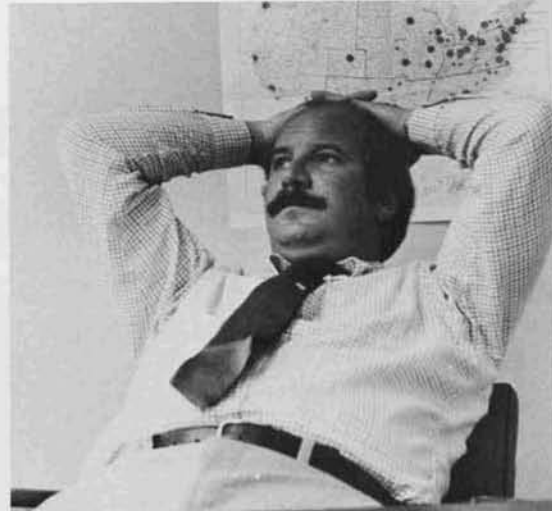
Bob Grote, who heads the Marketing team, agrees. "Our flexibility and respect for the needs of the individual customer is the key to our success. Pleasing present customers is just as important as going after new

"The area of software is where the business is going to be decided over the next five years."

accounts." *Business Week*, in a major story last fall, reported that BST customers often get overnight deliveries. With competitors, noted one customer, "you just get on a delivery schedule and wait a month."

From an upstart company with a dream, BST has grown to be a leading supplier of on-line data storage and communications equipment for System/3. It's been an exciting period for those who have participated in that growth. "When I started, there were only five salespeople," recalls Grote, "and only 40 employees in the whole company. Today, everyone in

(continued on page 10)



Marketing chief Bob Grote



Manufacturing head Buzz Peters



Secretary Bonnie Johnson



Finance executive Dion Cairns



Hard at work on BST products (clockwise from upper left): Brenda Pyatt with printer controller; Benny Campos with power supply; Joyce Watterston with PCB; Dave Mosakewicz in engineering development lab; Jim Provencher in printer refurbishing area.

(continued from page 9)

the System/3 community knows BST. I'm sometimes amazed at how much identification we have—all over the country."

Western Regional Sales Manager Bill MacKay, a former computer media rep for Memorex, has been with BST for two years. The company's growth still surprises him. "I understand we're now outselling the competition in the San Francisco area four to one," he says, shaking his head.

Bob Lehman, who heads the Eastern Region, is another Memorex alumnus. Since the acquisition, six Memorex salespeople have joined the BST small systems team, and one BST person has transferred to EPG's large systems group. Bill Wells is bringing his experience as BST's former vice president of international sales to Santa Clara, where he will handle small systems sales for the Americas & Asia Group.

There will no doubt be a few more transfers in this post-acquisition settling stage. "As with any merger, it's required some adjustments on

everyone's part," says Plant. "But we now have the responsibilities of each sales and service organization clearly delineated."

Basically, the breakdown is that the BST sales team, headed by Grote, will sell all Memorex and BST equipment for System/3 and other small systems users, and the EPG sales force will sell large systems peripherals.

Two products—the 3640 disc drive and the 1377 display station—are being offered by both sales forces. When the 3640 or the 1377 is marketed for small systems use, it carries the BST logo; when it goes to System/370 customers, it's a Memorex product.

In another spinoff from the acquisition, BST will be taking on the manufacture of the semiconductor memory formerly produced by CFI in Anaheim.

For the past few months, Plant and Gene Meyer, Small Systems Finance Manager, have made regular Thursday trips to BST to work out the procedures and plans necessary in any such transition. Recently, Tom

Edwards, National Field Service Manager, has joined them for the weekly sessions to determine the most effective maintenance strategy with BST Field Operations Manager Bob VanDelinder.

And what of BST's future? Well, it certainly won't be limited to System/3. It will (and already does) include products compatible with other small systems, including minicomputers. "We're diversifying so as not to be at the mercy of any one system," says Elder. "We want to be able to go in several directions."

Plant points out that the small systems area is the most rapidly growing segment of the information processing field. "Installations are increasing at a rate of 30-35 percent a year. We're getting in on the beginning of a tremendous boom. And the combined Memorex-BST team is ready to move."

Or as Bob Grote puts it, "I think everyone here is looking forward to our new business cards: 'BST: a division of Memorex Corporation.' There's a nice ring to it."

New VP to integrate, guide efforts of manufacturing units

In the 28 years since he graduated from the University of Minnesota, Charles Dickinson, like many business executives, has traveled throughout the United States. His career has led him to assignments in Oklahoma, Massachusetts, New Jersey, California, and Indiana. Yet, while many people dread the thought of moving to an unfamiliar city, buying a new home, and getting settled all over again, Dickinson sees it positively.

"We've never felt married to any particular geographic location," he says. "There have been so many good things about every city we've lived in, that it's really been an enjoyable as well as educational experience for the entire family."

He has always liked the challenge of taking on a new position with different and more demanding responsibilities. So it was not surprising that when he was offered the job of Vice President of Manufacturing (a newly created corporate post at Memorex), he decided to accept.

"When I started looking into Memorex, I was primarily attracted by two things," he remembers. "It was a company that exhibited a strong desire to succeed, and it had the capabilities to do it."

In his new job, Dickinson will be bringing a corporate overview to

manufacturing operations in Equipment, Computer Media, and Consumer & Business Media. His role is to integrate the efforts of these groups, to establish measures and procedures, and offer support and assistance, particularly in long-range planning. He will report to the Office of the President and will serve on the Corporate Operating Committee.

In Dickinson's view, "The key to our success will be developing a working relationship with each operating group. We'd like to be regarded as a resource for all manufacturing activities. By assisting each group in the development of strategies, plans, and standards, we'll be able to optimize our manufacturing effort, which will keep us in a strong position."

Making sure the company's manufacturing expertise is being used to best advantage is another of Dickinson's responsibilities. "We want to be sure that Memorex groups are sharing their knowledge with each other," he said. "We'll be staying abreast of the latest developments in the industry and bringing them into use in each manufacturing unit."

Working in management in the electronics industry is not new to Dickinson. His most recent position prior to Memorex was as vice president and general manager of operations for Magnetic Peripherals, Inc., a subsidiary of Control Data Corporation, in Oklahoma City.

Before Control Data, he held various engineering and manufacturing assignments at RCA. He received his electrical engineering degree from the University of Minnesota in 1949 and completed his MBA there in 1950.

Having now had the chance to get to know a little about the company, Dickinson is particularly impressed with the attitude of Memorex employees. "The desire and enthusiasm to be the best at what we do permeates the entire organization," he says. "It's this attribute that sets Memorex apart from other companies."

Dickinson said that one of the immediate priorities for Corporate Manufacturing was developing a worldwide facilities plan to accommodate the company's rapid growth.



Charles Dickinson

"Memorex has great opportunities for growth, and we want to make certain our production capability permits us to take full advantage of these opportunities."

'Kind of clean room you dream about'

(continued from page 7)

It's the kind of clean room a quality specialist dreams about."

The actual assembly work in the new clean room has also been improved. Since each HDA weighs about 50 pounds, it is assembled on carriages with rollers for easy movement down the line. Once assembled, the unit is tested on computers located in a separate room within the clean room. The two rooms are separated by a sliding glass window which is opened during testing; because of the positive air pressure, any contaminants are kept out. After testing and final inspection, the sealed HDA is sent to Equipment Products for insertion into a disc drive.

From EPG, 3650s are shipped to customer sites. "It takes a lot of work before they ever get to that stage," says Kisling, "but it's certainly reassuring for a customer to know that these products have been assembled under some of the most stringent conditions in the industry."

Hal Krauter named head of memory products

Hal Krauter, Director of Finance for EPG, has been appointed General Manager for the company's add-on memory line. He will head Semiconductor Memory Products, a new product section within EPG, and will report to James Dobbie, Executive Vice President, Equipment.

According to Dobbie, the new section was established "to provide focus and professional leadership for these products. Direct sales and service will be provided by the appropriate Equipment Products and International organizations." Memorex currently markets four add-on memories.

In addition to his new job, Krauter will continue to serve as Director of Finance for EPG.

Need a fact or two? Check your local library

Librarians get asked the strangest things.

When the phone rings, it could be: "What's the population of Peking?" "Can you tell me how to convert inches to microns?" "I'm trying to find a 1969 patent that..." "Is the last issue of *Cryptologia* available?" "How do you get from Eau Claire to Oshkosh?"

Fielding such questions is a challenge. And Monica Ertel, the company's new engineering librarian, says she loves it. What's more, she's even enjoying the task of putting together a library from scratch.

Ertel was hired six months ago to "revive and revitalize" the company's engineering library, which officially folded in 1971 and has only existed in small, scattered collections since.

Now there are two branches with about 2,000 books and 100 periodical subscriptions between them, pleasant

reading areas decorated with plants and pictures, and the kind of customized reference service few public libraries can afford. For engineers in both San Tomas and Memorex Drive offices, the library is almost as close as the coffee machine.

Building 14's engineering library (located where the Small Systems Division used to be) emphasizes materials on computer technology and equipment. The Memorex Drive branch, on the second floor of the Tape Plant, should be open for business by the end of September; it

dicals and books, the library offers a number of important services. These include ordering reference materials, conducting patent searches, compiling bibliographies, and using Bay Area libraries and computerized indexes to obtain material not available at Memorex.

Because Memorex participates in a reciprocal lending agreement with about 6,000 libraries worldwide, Ertel said she couldn't think of any kind of standard reference work she wouldn't be able to obtain. "We can even borrow from the Library of Congress if necessary."

Employees urged to curtail energy use

"Energy conservation is something we have to practice all year long. We've been very successful at it in the past, but lately we've been falling back into our old habits," said Santa Clara Facilities Engineer Jerry Cook.

According to Cook, the company's utility bills have been rising steadily over the past several months, and although the increase is partly caused by a greater reliance on air conditioning during the summer, the major reason is simply forgetting to turn off the lights.

"People have to realize that the energy problem isn't going to vanish," said Cook. "We'd like to reach at least a 15 percent reduction in our energy use and that's going to require an extra effort from each of us. If you're working late or on weekends, be sure to flip the light switch when you leave. We can also save energy by turning off machinery, coffee pots, or electric typewriters when not in use."

Such small measures may seem insignificant, but Cook points out that a 15 percent cutback is enough to supply the energy needs of 2,000 homes per month, or pay the salaries of 20-25 employees. "All those little savings do add up," he said. "If any employees have suggestions on areas where energy could be conserved, we'd like to hear from them."



Monica Ertel in Building 14's new engineering library

will concentrate on chemistry and physics. Books will float between the two collections, however, and there will be duplicate card catalogs.

Although the libraries were initially established to serve the engineering staff, any Memorex employee can use them. In addition to the technical works, there are a number of general-purpose references, such as almanacs and atlases, an unabridged dictionary, the Dun & Bradstreet Directory, annual reports from about 200 data processing companies, back issues of *Intercom*, and, most popular so far, telephone books for major U.S. cities.

"Eventually, we'll have many more things of general interest—catalogs from Bay Area colleges, a map file, and a variety of business publications," said Ertel. "But right now we're concentrating on materials for engineers, since they have the most urgent need."

Along with providing a place for employees to peruse technical perio-

The library, in her view, is a service and thus should have as few restrictions as possible. "The purpose of the library is to help the people who use it, not to keep books in perfect order on the shelves." In line with that philosophy, the libraries will be open to engineers evenings and weekends; and due dates on books are flexible—"it all depends on the project involved."

Ertel, who holds a master's degree in library science from San Jose State, worked in two technical libraries before coming to Memorex. To her, a company setting has a lot of advantages.

"In a public library, you don't get to know your patrons that well. People come in and ask, 'Where are the books on horses?' or 'How do you use the card catalog?' and that may be the last you ever see of them. In a specialized library, you can build up a relationship of trust with people, since you often work right along with them on projects. It's a good place to be."

She's dusting off the skates and rolling to the top

"Keep your right arm down. The judges will kill you for that. Don't say you can't do it, try it again. Get your skates closer together. That's it, Dawn. Beautiful!"

With those words of encouragement from her teaching pro, Dawn Kubiak begins another year of training. Her sport is roller skating, and her quest is to become national champion.

"I've always been a competitive person," says Kubiak, an Accounting Clerk for the Audio Division in Santa Clara. "But I'm also a working mother, and until recently there wasn't enough time to do everything."

The opportunity to do more came last year, when Kubiak was looking for a sport that her six-year-old daughter might enjoy. Roller skating seemed natural, since it was something that Kubiak herself had been involved in when she was younger.

"After signing my daughter up for lessons, I learned that the National RSROA (Roller Skating Rink Operators' Association) had formed a special competitive division for peo-



Dawn Kubiak

ple over 30," said Kubiak, who started skating 12 years ago. "So I figured, why not? Even if I wasn't good enough to compete, it would be a great way to stay in shape."

In her Esquires division, skaters must do figures similar to the compulsories in ice skating. They are judged on their ability to "trace" a series of three circles both forwards and backwards, one foot at a time. Poise and appearance are also important factors in the judging.

After watching her in just four lessons, Kubiak's instructor decided she was ready for competition. He was right. Although she hadn't skated competitively in eight years, she

finished seventh out of 14 skaters in her first try. "That's when I got the bug," she says. "I knew then that I wanted to keep going."

Training 10 to 15 hours a week and staying on a high protein diet to maintain her stamina, Kubiak quickly advanced through the local competitions. Although slowed earlier in the year by a broken arm suffered during training, she finished first in several Bay Area events and took a second at the Sacramento Invitational, a competition that included skaters from California, Oregon and Washington.

In July, she went to the regional championships in Bakersfield, and placed third out of 43 entrants representing three states. It was good enough to qualify her for the National Championships in Fort Worth, Texas.

Last month, at the Nationals, Kubiak continued to impress the judges. She finished 12th in a competition that included 24 of the top Esquire skaters in the country.

"It's very unusual to find someone who does this well after only one year of competitive skating," says Kubiak's coach, Jack Berberich, who competed for a number of years himself before becoming a teaching pro. "If her performance last year is any indication, she could easily wind up at the top."

Southland picnic rated 'fantastic'



"It was a perfect day, a perfect place. Everybody had fun." That's how Ron Julius of CFI described the combined Comdata-CFI picnic last month. A crowd of 600 turned out for the all-day event at the Flying 'B' Ranch in the Santa Ana Mountains. Activities included volleyball, an egg toss, the judging of a beard-growing contest, and an "hourly vs. management" softball game, which the non-managers won, 14-9. The kids enjoyed races and pony rides and all the popcorn and ice cream they could eat. By the end of the day, reported Julius, employees of the two Orange County divisions were pairing up on the same teams. "It was a great way for all of us to get acquainted."



News**makers**

What's the message behind those "ZD" t-shirts? At Consumer Products in Santa Clara, ZD stands for "zero downtime," a program designed to meet the increased demand for audio tape.

"Until our new coating line is in operation, the present line has to meet our growing audio tape orders," said **Gary Williams**, Production Shift Manager for Audio. "We simply can't afford very many line stoppages. The purpose of the ZD campaign is to coordinate the efforts of everyone in production, maintenance, quality control, and process control so there will be as little lost time as possible."

With coating line operators and lead people wearing ZD t-shirts as a reminder of the 90 percent "uptime" goal, the results have been significant. By the end of August, the seven-day-a-week effort had put the division more than 1.2 million feet ahead of schedule.

Video tape is becoming a widely accepted tool in law enforcement, and for the past several months, the Education Center in Santa Clara has been the site of a series of workshops designed to acquaint industrial security personnel with the theory and application of video recording.

Sponsored by the San Jose Community College District, the all-day workshops have been attended by Memorex Security people as well as those from other companies in the area. **John Blackburn**, Memorex Supervisor of Security, was one of the workshop speakers.

When baseball's Thoroughbred World Series opened in San Jose in August, **Bess Nicosia** of Flexy Disc was a guest of honor. She was on hand to receive recognition for the work done by her late husband, John, a long-time worker and organizer in boys' baseball. Thoroughbred officials spoke of his outstanding contribution to the league, and the national series was dedicated to him.

Limited to boys 17-21, the Thoroughbred league began four years ago, with John Nicosia as its western regional director. "He was always involved in baseball. It was his thing. And he loved working with kids," recalls Bess. "It was pretty exciting being at the series and seeing boys from all over the country enjoying the league."

"It just doesn't seem like it's been that long. Time really flies." That was **Gloria Pitta's** comment on August 3, the day she reached 15 years of service with the company. To commemorate the occasion, Gloria was presented with an engraved silver tray during a small celebration at Consumer Products.

During her 15 years at Memorex, Gloria has worked in several different operations. She was one of the first certifier operators at the Tape Plant, where she worked five years. Then she went to Disc Pack as a finishing operator and is now a cassette loader for Audio.

"There were only about 50

employees when I joined Memorex," says Gloria. "Now the company is growing so fast that whenever I come back from a vacation I know there will be plenty of new faces."

It had the makings of a tension-packed drama: two determined comeback teams facing each other for the title. Neither team had looked like championship material at the beginning of the season; both started out by dropping several games. But both had incredible drive and spirit.

When the International Affairs (composed primarily of Americas & Asia staffers) and the Bionic Babes made it to the play-offs of the Memorex women's softball league, their enthusiastic fans could hardly contain themselves.

In the first game of the series, a hot International Affairs team clobbered their opponents, 12-2. In the second, the Bionic Babes squeaked out a 9-8 thriller. With that boost, the Babes went on to win the final, 6-2, and become the new Memorex champions.

Looking back on the season, Bionic coach **Rich Stehn** (by day, a program analyst in EPG) said, "At the beginning, I thought we needed a lot of help, a lot of coaching. But we peaked at the right time. In the second half of the season, I felt we were good enough to defeat anyone, and we did."



Recording a simulated crime scene on video tape was one assignment in the industrial security workshops. Memorex participants included Bob Carpenter (second from left) and Frank Bua (with camera).



Gloria Pitta



The champs: Santa Clara's Bionic Babes



Bionic pitcher Jan MacKanin surrounded by her triumphant teammates.

While some people displayed their athletic abilities close to home, others traveled thousands of miles in quest of strenuous activities. Randy Thompson, a financial analyst for EPG, spent three weeks touring Australia and New Zealand, while playing the very physical sport called rugby.

Thompson and 30 of his teammates on the San Jose Sea Hawks were invited to play a series against teams from the two countries. Although the American contingent finished the tour with a 2-3 record, Thompson, who has played rugby for five years, was satisfied. "Rugby is the national sport in those countries, so our finish

wasn't that bad," he said. "We also gained a lot of experience from the tour, and it's going to help us when our league begins here."

Another Memorex employee, Mary Hummel, of EPG, was represented on the tour by her three sons, Doug, Gary and Gerry, also members of the Sea Hawks.

New assignments

(Because of space limitations, we list only organizational promotions, not transfers, in *Intercom*. Industrial Relations defines the organizational promotion as "characterized by an immediate, significant change in an individual's assigned job duties." The appointments are in Santa Clara unless otherwise noted.)

COMPUTER MEDIA

Dawn Atkinson to Material Handler
David Chess to Maintenance Technician II
Heather Feack to Material Handler
David Jeglum to Maintenance Technician Trainee
Tim Lovewell to Engineering Specialist
Marie Marchese to Telephone Sales Rep, King of Prussia, Pa.
Anthony Mauro to General Manager, Comdata, Irvine
Jane Menchaca to Secretary B, Comdata, Irvine
Lucian Pombo to Machine Operator
Ray Ruiz to Receiving Inspector B
Carol Slifka to Regional Sales Specialist

CONSUMER AND BUSINESS MEDIA

Mitchell Anderson to Manager, Customer Service
Grover Black, Jr. to Drafter Trainee
Alice Boros to Production Control Planner/Scheduler
Joe Carver to Sr. Mechanical Technician
Theodore Cutler to Vice President
Charles Groat to Manufacturing Manager, Word Processing
Donald Mausling to Mgr., Prod. Sched., Word Processing
Stephen McDorman to Manager, Zone Sales, Richmond, Va.
Lorraine Scofield to Executive Secretary
Frederick Sischa to Manager, Audio Development
James Swift to Associate Engineer
Tom Turnipseed to Coating Operator

CORPORATE

Robert Church to Regional Distribution Center Manager, Chicago
Carla Dunham to Supervisor, Word Processing
Robert Hamilton to Data Processing Technical Analyst

Terry Hostek to Senior Advertising & Sales Promotion Specialist
Rick Klain to Senior Advertising & Sales Promotion Specialist
Diane Lutfy to Customer Service Rep, Detroit
Betty Weiss to Senior Field Order Administrator, Baltimore

EQUIPMENT

Henry Almeida to Engineering Specialist
Mel Ashdown to Manager, Product Support
Thomas Attanse to Associate Field Support Rep, New York City
David Benjamin to Production Control Expeditor
Lyle Davis to Territory Supervisor, Indianapolis
Robert Domzalski to Inventory Analyst, Philadelphia
James Epp to Receiving Inspector C
David Fisher to Supervisor, Equipment Manufacturing, Eau Claire
Lester Gentle to Inventory Control Clerk A, New York City
Susan Gray to Accounting Clerk A
Tony Grigg to Associate Technical Instructor, Philadelphia
Gloria Hilar to Process Control Analyst
Jeanette Humphreys to Associate Marketing Systems Analyst
Eloise Jiskra to Dept. Technician, QA/QC, Eau Claire
Gregory Jordan to Engineer I, Test
Robert Lloyd to Manager, General Engineering
Richard Moon to Field Support Engineer
Paula Moore to Secretary B
Gene Ousterling to Manager, Special Production Operations
Nicholes Peterson to Manager, Budgets and Measures
Michael Rebmman to Mgr., Communications Systems Architecture
Peggy Rodebaugh to Receiving Inspector C
Donald Ross to Manager, Field Support, Washington, D.C.
James Seay III to Product Sales Manager
Ramona Suggs to Inprocess Inspector C
Carida Tamayo to Associate Accountant
Gordon Thomas to Machine Operator I, Eau Claire
Judy Willden to Packaging Specialist
Kenneth Wilson to Sr. Financial Analyst
Michael Wojnar to Dept. Technician, Technical Manufacturing
Ruel Yarnell to Manufacturing Dispatcher
Etsuo Yoshida to Engineer II, QC
Lucille Zielie to Production Control Expeditor, Eau Claire

Memorex socks it to 'em!

The booters from Memorex are on their way to becoming a power in the San Jose adult soccer league. In their fourth season of play, the two Memorex teams took second and third in their respective divisions. "We had some tough opponents this year," said Manager Jim Stimson, "and a few times some of our guys played 180 minutes—two games back to back. We've got a lot of enthusiasm and are really starting to work well together." There's no doubt about their energy, as these pictures show (they were taken by Jim Cristiano of EPG Drafting).

