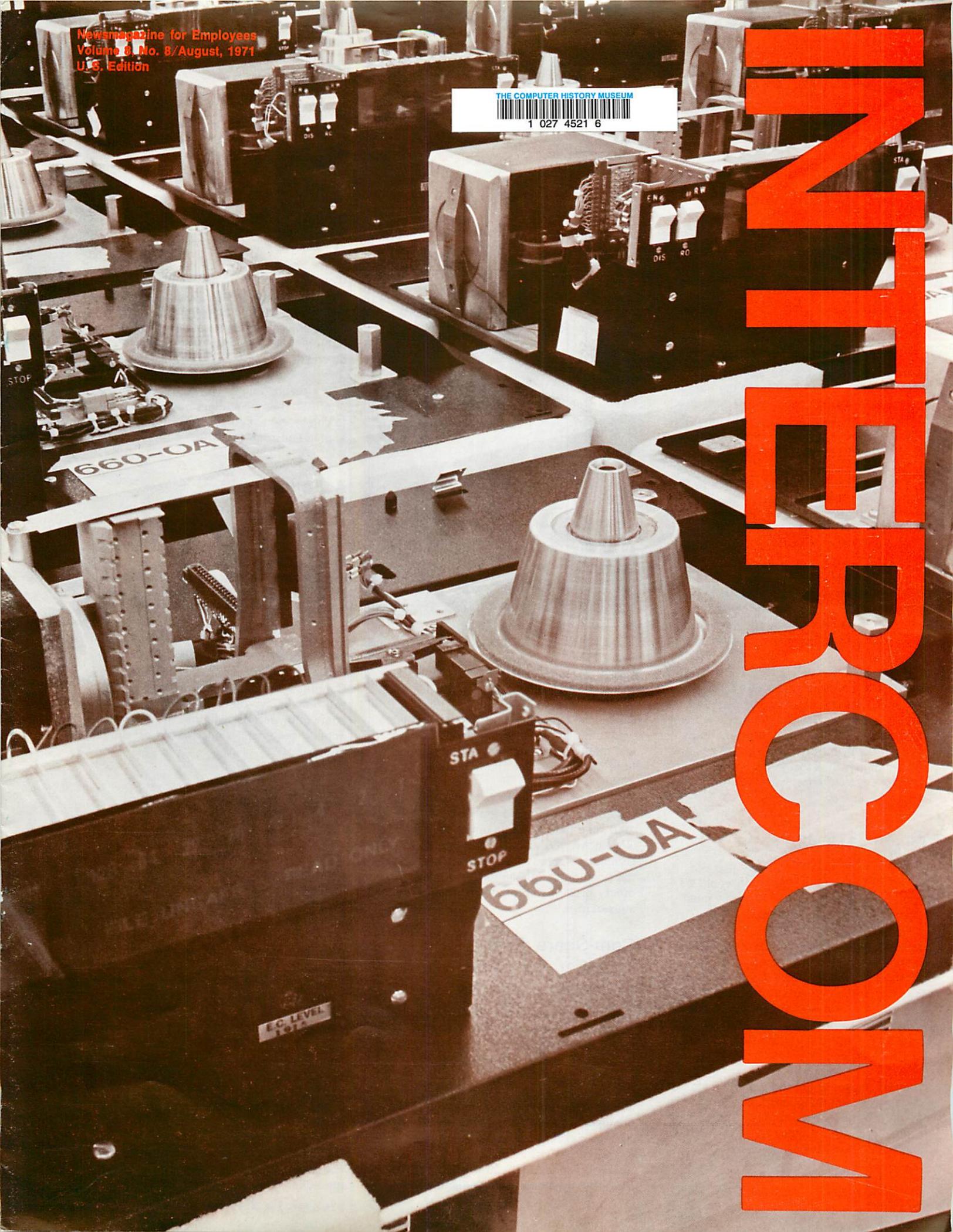


THE COMPUTER HISTORY MUSEUM



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SERVER ROOM



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News in Brief

MEG Introduces New Disc Drive

The Equipment Group introduced its new 3665 double density disc drive for the first time, at last month's MEG sales conference.

"Up to now," said Marketing Vice President **J. Garrett Fitzgibbons**, "the only way manufacturers could double the storage capacity of a disc system was to double the number of tracks per disc." That's something like taking a two record album and running the grooves closer together to cram all the music on one record.

"Because of new recording technology," he continued, "we have been able to go another way and double the bits per track. We've doubled the data transfer rate and cut the RPM rate in half (from 2400 RPM to 1200)."

The 3665 offers significant savings to our customers. One 3665 disc drive system, used with Memorex packs, provides twice the capacity of existing drives at about half the price.

The system consists of our 661 Controller with a 665 (double density) adapter and from one to eight 665 double density drives, plus a spare. Although offering the capacity of the recently introduced IBM 330 drive at substantial savings to the customer, the Memorex system is primarily aimed at large data base users.

Found: \$15 and An Honest Man

Finding \$15 on a cafeteria floor would be accepted as a gift of providence by most people, but not **Sam Mathis**.

Sam, a building and grounds man in IMG, spotted two bills, a five and a ten, in the Memorex Drive Employee Center on a recent Friday afternoon. Instead of pocketing the money, he took it to the main guard station, where it was later claimed by **Darlene Williams**, receptionist in the San Tomas employment lobby.

"I didn't expect to get the money back, but on the way past the guard I stopped and asked about it," says Darlene. "When he handed it to me, I almost fainted. Sammy's one in a million. He's just great!"



Carl Anderson

Carl Anderson— A 10 Year Employee

Corporate Secretary **Carl Anderson** was presented with his 10 year service award last month, at a luncheon on the fourth floor of the administration building.

Carl, who is a certified public accountant, joined Memorex as controller on August 1, 1961, and held that title until 1965. In November, 1965, the Corporation Board of Directors elected him corporate secretary, the position he still holds. Carl is also an officer of 28 Memorex domestic and foreign subsidiaries.

Com-Share First To Offer Terminals At Variable Speeds

Timesharing users throughout the United States can now communicate with Com-Share Computer Service at speeds up to 60 characters per second (CPS).

Com-Share, Inc., Ann Arbor, Michigan, according to **John Duffendack**, director of communications, is the first national on-line data processing service to support the Memorex 1240 Terminal at all its variable operating speeds (10, 30, 60 CPS). "The Memorex terminal," said Duffendack, "is

ideally suited to business data processing applications."

Dave Sant, communications product manager for the Equipment Group, said, "Com-Share's ability to support our 60 CPS capability represents a major breakthrough in high speed communications network design."

"As a result," according to Duffendack, "Com-Share's customers now will be able to select the speed which best suits their application requirements."

A Follow-up On Ron Schreck

Remember **Ron Schreck**, the MEG engineer who called the White House and talked with **President Nixon**? He was to be married on June 26, but the Army wanted to draft him on the 22nd, so he obtained a delay in his induction after talking with Mr. Nixon.

Ron is now happily married and still working in the MEG Product Test Lab. It seems that the draft law expired in July, and until Congress passes a new law Ron's status will remain unsettled. "I probably won't know until October whether the Army will actually take me," sighs the almost drafted newlywed.

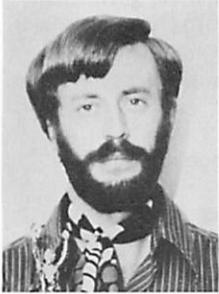
A Note About Update, Intercom

Publication of **Update**, the Santa Clara area's bi-weekly newsletter, has been suspended to assist in cost reductions. General interest news and MAG information will still be available on bulletin boards and in the **Intercom**.

Also, **Intercom** is no longer being mailed to the homes of employees. In Santa Clara, **Intercoms** will be sent to in-plant mail stops. Additional distribution points have been established in cafeterias and by main entrances to each building. The magazine will continue to be mailed to the homes of field sales and service employees outside of Santa Clara, and to subsidiary companies. Extra copies are also available in the Memorex Drive and San Tomas Personnel offices.

If you have any questions, comments or suggested articles for **Intercom**, please call the editor on extension 7-2200.

Meet the MAG Officers at Midwest Systems



David Fleischhaker
President



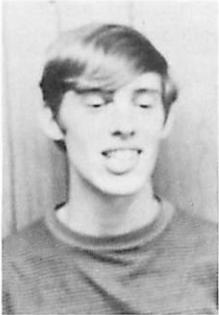
Betty Larson
Vice Pres.



Judy McFadden
Secretary



Bonnie Edwards
Treasurer



Mark Burgess
Director



Stella Hase
Director



Kathy Olson
Director



Sherry Ruppelt
Director

Self Threading Computer Tape Cartridge Introduced

The Company has a new self-threading computer tape cartridge, which is 100% compatible with IBM 2420/3420 tape drives.

The tightly-sealed cartridge can be mounted in seconds and offers increased reliability and operating efficiency to our customers. Human hands never touch the computer tape because threading is completely automatic. As a result, the tape is protected from airborne particles or debris except when in use. In addition, edge damage and other error-causing debris are drastically reduced.

A unique protective rim on the sealed cartridge prevents the user from damaging

both tape and reel and eliminates flange pinching and tape spills—problems frequently caused by mishandling. For added tape protection, the cartridge remains fastened on the reel during handling and storage.

The product is available with or without Memorex computer tape. Those with tape have pre-trimmed ends for fast automatic threading.

The cartridge holds standard 10½-inch reels and fits into the same storage racks that hold thin-line canisters for optimum storage and ease of handling.

Memorex Foundation Serves the Community

The mailman drops hundreds of requests for donations in the Company mailbox every year, and they all receive replies. Processing the requests and seeing that they are evaluated fairly is the job of the Memorex Foundation.

The Foundation was organized in late 1966 as a non-profit corporation, to handle all Memorex Corporation donations to charity. Since that time more than \$1 million in cash, tape and used equipment has been donated to worthy charities through the Foundation.

Many of the donations go to charities like City of Hope, Opportunities Industrialization Center, Friends of the Severely Retarded, Santa Clara County United Fund, and KQED Auction. And many times, the Foundation's gifts evoke responses of thanks like the following:

"We are so grateful to you folks from Memorex for your concern for the teenagers of our valley. Right now, there are 72 Young Life clubs in the greater Bay Area with well over 5,000 young people exposed to the very basic concepts of the Christian faith . . .

During the month of March and the first week-end in April we had five successive week-end camps with a total of 2,500 kids. When you see that many kids gathered together and being confronted with the love of Christ it gives you an entirely new perspective in life . . .

There are many good causes in our Valley, but I am convinced that unless the heart of man is changed from within, there really is no hope for changing the world. Thanks for your continued concern. Yours is an investment in faith, freedom, and in the future of our country."

Sincerely,
Phil Schilperroot
Young Life

Intercom

A monthly publication for employees of Memorex Corporation
Santa Clara, California 95052
Editor: Gary Williams

ABOUT THE COVER

This month's cover salutes MEG Manufacturing which recently shipped its 10,000th disc drive. The photo shows a row of newly completed units (minus their top covers), symbolic of the hundreds of drives built and shipped from Santa Clara each month.

Equipment Group Promotes Three to Vice President

Jack Kelly has been promoted to vice president of field support in the Equipment Group. Mr. Kelly is responsible for directing more than 500 engineers in 45 branch offices and 20 additional remote service locations across the United States.

Mr. Kelly is a graduate of Newark College of Engineering, Newark, New Jersey, and has worked in the data processing industry since 1947, when computer technology was in its early development stages.

David Wheeler and **Rusty Nagakura** have been named vice presidents in the Equipment Group.

Mr. Wheeler moves from director to vice president of systems, responsible for the development of computer systems. He



Kelly



Nagakura



Wheeler

joined Memorex in September, 1970, after more than 15 years with IBM, where he held management positions in the technology development and small scientific systems areas.

He attended Marist College in Poughkeepsie, New York.

Mr. Nagakura is vice president and general manager of storage systems development. He too was a 15 year man at IBM, working in the product development area. He came to Memorex in July, 1969, and was serving as general manager of storage systems development before his promotion.

He holds a degree in Electrical Engineering from Milwaukee School of Engineering.

MEG Sales Force Holds Meeting in San Francisco



The Equipment Group held its second annual national sales conference at the Fairmont Hotel in San Francisco, from July 15-18.

For three fast-paced days, 273 MEG sales people attended a series of meetings designed to update them on the latest equipment products and sales techniques. They also heard the first announcement of our new Model 3665 double density disc storage system (see page 2).

Keynote speakers at the conference included Laurence Spitters, company president; James Guzy, executive vice president and general manager of the Equipment Group; and Garrett Fitzgibbons, vice president of MEG Marketing. The sales rally was emceed by William Emmons, vice president of sales in MEG.

A number of awards were made during the conference in recognition of outstanding sales performances. Recipients were: Gordon Brunzell, Chicago; Morton Vittum, Boston; John Robbins, Sacramento; Dale Westlake, Columbus, Ohio; Knute Anderson, Atlanta; Brant Doell, Los Angeles; Bill Spitznagle, Milwaukee; Bob Farmery, Philadelphia; Phil Norton, Richmond, Virginia; and Joe McAluney, Philadelphia. Another special presentation went to Janet Jagusch, a systems engineer from Detroit.

Manufacturing Ships 10,000th Disc Drive

Members of the Disc Drive Test Department gather around the 10,000th unit for a "family" portrait, prior to passing it on to Shipping.

The two-year-old Equipment Group shipped its 10,000th disc drive on June 30—just one year from the date the Company shipped its first 3660 disc drive system.

In comparison, another well known disc drive supplier recently celebrated the shipment of its 1,000th unit, a total the Equipment Group has exceeded in one month.

The first Memorex drive (the Model 630) was designed and manufactured by Peripheral Systems, the subsidiary which formed the foundation for establishing MEG.

At one time, manufacturing operations for the Group's products were distributed among 19 locations in the Santa Clara-Sunnyvale area. They are now consolidated under one roof at the three-quarter million square foot San Tomas facility.

Memorex is now reported to be the largest independent producer of disc drives in the United States.



Foster Parents Needed for New Program

Tommy is a nine-year-old who believes no one cares whether he lives or dies. The county social workers who have tried to help Tommy and his family say the boy apparently has never experienced love. He wouldn't know how to respond, at least not immediately, if he were treated with affection.

The social workers can't tell you whether Tommy was unloved from birth or whether something in his personality won't let him accept affection. For most of his life he has alternated between his own home, a broken one, and foster homes. To Tommy it has always seemed that it was him against the world.

The social workers at the County Department of Social Services say they would be concerned if they had just one "Tommy" to deal with. Unfortunately they are seeing more and more unloved, unloving and disturbed children, according to Bernard Farkas, supervisor in the foster home bureau.

Farkas and his staff are deeply concerned both because of the mixed up young lives and the prospect that the children will be-

come permanent county wards. If the children are placed in special institutions, up to now the only way to handle many of them, the cost can run up to \$850 monthly for the county taxpayers.

Farkas is trying a pilot program which he hopes will provide far better care at a more reasonable cost. With the younger children he is trying to find couples who will take one child into their home for special care. With the adolescent girls, he is attempting to establish a group home for six of them.

Couples who wish to be foster parents for either type of child will be enrolled in a training program by the Social Services staff. This will consist of 16 hours of class time in the first two weeks, with further schooling later on a continuing basis. Because of greater problems which these foster parents must face, a somewhat higher fee schedule will be paid by the county for the care of these youngsters. Foster parents for this program will have to be extremely sensitive, tolerant and highly skilled.

Anyone interested in attempting such a task should contact Robert Battig or Tom O'Brien at 299-2761 or 299-2764, in San Jose.

Consumer Products Celebrates Production Of 1,000,000th Cassette

The Consumer Products Division closed out July with a celebration—and for good reason. Sales orders for the month set a record, production reached an all-time high, and on July 13 the division manufactured its one millionth cassette.

Company President Laurence Spitters, Division Vice President and General Manager Robert Jaunich, and most of the division's employees met to celebrate the young organization's progress. Mr. Jaunich noted that Consumer Products was rapidly approaching another milestone—the production of its 200,000th reel-to-reel tape.

"I am very encouraged by your ability to compliment the success of marketing," Mr. Spitters told those meeting in the divisions manufacturing area. "Uncommon people are those who have a tremendous pride in their work . . . and you are all uncommon people."

Consumer Products National Sales Manager Barry Berghorn said, "We are clearly the number one selling tape in the nation's audio stores, and this is significant because the word will spread." He related that a shareholder called from Long Island, New York, to say his favorite hi-fi store stocked only Memorex audio tapes, since "Memorex is the best and to sell anything else would be cheating my customers."

The plant where last month's celebration took place is a specially designed multi-million dollar facility, at the west end of Memorex Drive (formerly Shulman Avenue). It houses Consumer Products Manufacturing and Manufacturing Administration. The Division also has offices in the Administration Building on San Tomas, and temporary labs on De La Cruz Boulevard in Santa Clara.

Consumer Products has nearly 200 people working on three shifts. "We have an automated production process, all the way from

A—Laurence Spitters (left), company president, hands the one million and first cassette produced in Consumer Products to Robert Jaunich, the division vice president and general manager. The presentation came as a surprise to Mr. Jaunich, who had just awarded the one millionth cassette to Mr. Spitters.



A



D



B



E



C



F

B—Showing off a cake commemorating the millionth cassette are (from left) Juanita Garcia, Mary Paynter and Roxie Gates.

C—You'll find these displays and products in stores across the United States.

D—Production of our cassettes and reel-to-reel tapes starts in the Mix Department, where the coating is prepared. Here, Z. Stefanini checks the console which controls the mix process.

E—The coating is applied to the polyester base film by custom designed equipment; then the newly coated tape goes to slitting machines like the one being operated by Billy Cochran.



G



H



I

F—Slit into narrower widths, it is then wound onto cassettes or open reels. These machines—operated by (from right) Leola Phippen, Marcella Varela and Gloria Pitta—wind tape on cassettes.

G—Marg Brown splices a leader to a reel-to-reel product.

the mix area to packaging," explains Greg Lynch, director of manufacturing. "The mix department is where we prepare our coating formulations. It's a continuous operation, run from a control room by one man on each shift." "The key," adds Plant Manager Bill Christie, "is to provide a high volume of mix with a minimum of manpower."

The mix flows through pipes into custom designed equipment which cleans the polyester base film, applies the coating, and surface treats the newly cured tape—all in one continuous operation. Cleanliness, as in computer tape production, is extremely important, but no clean room is needed because a clean environment is created by enclosing the equipment.

There are also other differences between the equipment which produces our computer, video and consumer tapes, since the products themselves are quite different. For instance, computer tape uses a polyester base film with a thickness of either 1 or 1.5 mils (a mil is 1/1000th of an inch). Cassettes use a thickness of .50 mils, .30 mils, or .24 mils, depending on the playing time of the cassette. The thinner base films are used on the longer playing cassettes, so there will be room in the cassette for the required length of tape.

These thin polyester films are difficult to work with and they place great demands on the equipment. Control of tension on the polyester during production and the thickness of the coating applied to it are especially important, as is the thickness of the coating applied to it. Coating variations cause distortions, while variations in tension effect coating and can tear or stretch the base film.

Rolls of coated tape (webs) go to slitting machines where they are cut to widths of .150 (approximately 1/7th of an inch) for cassettes and .250 inches (1/4 inch) for reel-to-reel tapes. From slitting, "pancakes" of tape go to rewind machines where they are wound on open reels or cassettes.

Blank reels and cassettes are purchased from Comdata, a Memorex subsidiary, and other vendors, under the direction of Bill Mello's materials department. The cassettes come in pieces and are assembled automatically by machines designed and built under the guidance of Art Tollkuhn.

H—Al Sniatowski brings supplies to Lucy Avelar, who is operating a labeling machine.

I—Stan Robinson checks the adjustment of this cassette overwrap machine, adapted from the type used to apply the wrapping to cigarette packages.

The Division's strategy is to make the highest quality cassettes on the market, so sophisticated quality control systems and procedures were developed by QC Manager Bob Reif to ensure that the high standards are consistently maintained. Besides offering quality and prices which are competitive with other premium quality blank recording tapes, our tapes offer important advantages in the areas of fidelity and reliability.

The cassettes utilize an improved low-noise, high-output ferric oxide formulation developed by Bill Christie, Fred Sischa, Joe Nussbaum, and Klaus Naumann. "The new formula extends the high frequency response (three to five db advantage in high frequency response compared to three leading competitors), increases the dynamic range of recording and minimizes tape hiss," reports Technical Director Eric Daniel. "Unlike other cassettes, ours contains an exclusive five-sided 'bathtub' shield to block out unwanted electronic noise from the recorder.

And the housing of our cassette has been designed to make it extremely reliable. The cassette runs smooth, quietly and is virtually jam-free."

Cassettes with ferric oxide coating are available in standard 30, 60, 90, and 120-minute lengths. We also produce a line of cassettes with an advanced chromium dioxide formulation in 60 and 90-minute lengths. Chromium dioxide cassettes feature these major advantages: high frequency response is improved; undistorted output at low frequencies is one to three db better; print-through is four to eight db less, and stability of high frequency signals is insured.

Our blank open reel tapes features an advanced chemical formulation similar to that used in the cassettes. They are available in eight configurations—600, 900, and 1200 feet on 5-inch reels; 1200, 1800, and 2400 feet on 7-inch reels; and 2500 and 3600 feet on 10½-inch reels.

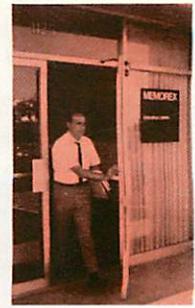
Unique album packages for both cassettes and open reel tapes are made of durable plastic to provide long-term protection for recordings and ease of handling and storage. They are color-coded as to time or length for ease of identification and sealed in cellophane wrappers for added protection.

PACE

Personal Action for Career Enrichment



Information concerning Memorex workshops and courses, educational counseling, and tuition reimbursement will be found in your PACE catalog or may be obtained by calling Manpower Development, 987-3337 or 987-3369.



FIRST NOTICE--FALL '71 EDUCATIONAL PROGRAM

CONTINUING EDUCATION COURSES

COURSE	CONDUCTED BY	LOCATION	DATE	TIME
SUPERVISORY MANAGEMENT, 1A	M.A.E.P.†	Memorex Ed. Center	9/15/71	12:30 - 3:30 p.m.
MOTIVATION TECHNIQUES	M.A.E.P.	Memorex Ed. Center	9/15/71	7:00 - 10:00 p.m.
HUMAN RELATIONS	M.A.E.P.	Memorex Ed. Center	9/15/71	7:00 - 10:00 p.m.
SUPERVISORY MANAGEMENT PROGRAM*	Memorex	Memorex Ed. Center	To Be Announced	
MANAGEMENT DEVELOPMENT PROGRAM*	Memorex	Memorex Ed. Center	To Be Announced	
MICROELECTRONICS - MOS DESIGN	U. C. Santa Cruz	Memorex Ed. Center	10/4/71	6:00 - 8:30 p.m.
LOGIC DESIGN, A & B	Memorex	Memorex Ed. Center	To Be Announced	
ALLOCATION OF PRODUCTION RESOURCES	Foothill College	Memorex Ed. Center	9/16/71	5:30 - 7:30 p.m.
PLANNING FOR PRODUCTION	Foothill College	Memorex Ed. Center	9/21/71	5:30 - 7:30 p.m.

WORKSHOPS AND SEMINARS: (All sessions to be announced)

EFFECTIVE READING
EFFECTIVE LISTENING
MANAGEMENT BY OBJECTIVES
PERFORMANCE APPRAISAL
MANAGEMENT DISCUSSION SKILLS

SKILLS COURSES: (Given upon departmental request)

SOLDERING
ELECTRONIC COMPONENT IDENTIFICATION
FORKLIFT DRIVER SAFETY
BASIC ELECTRONICS A & B
DIMENSIONING AND TRUE POSITION TOLERANCING

For additional enrollment information, complete the card attached on the inside of INTERCOM and forward to Manpower Development, MS 12-22.

† Metropolitan Adult Education Program

* Requires nomination by manager