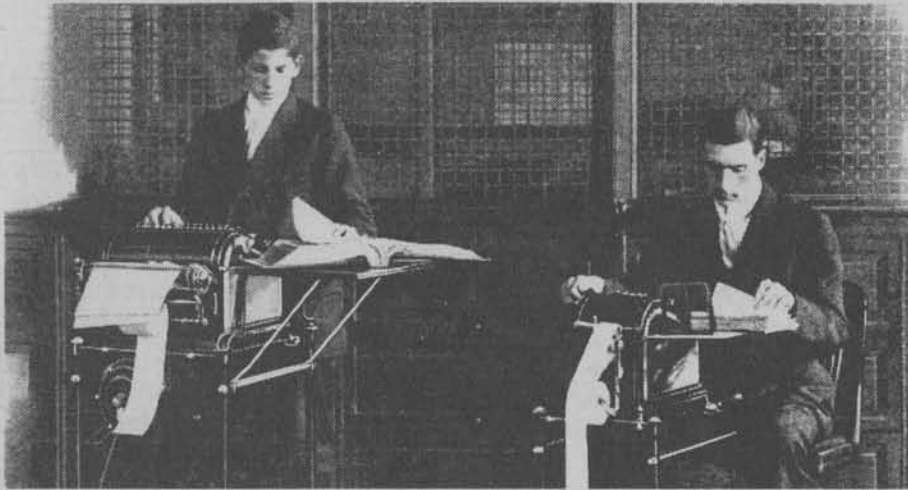


THE MEMOREX PRESS

A newspaper for Memorex employees

Volume II Number 13 April 1985



The first product of Burroughs was a listing and adding machine. Pictured are the smallest and largest models which were developed in the late 1800s.

Centennial Celebration

BGHs solves 1st quality problem

Editor's note: Beginning this month, Burroughs will celebrate its 100th year of operation. This gives us the opportunity to glimpse at some interesting anecdotes from the Burroughs past. This article, the first in a series of centennial snapshots, is a look at the company's founder, William S. Burroughs, and his first invention.

In the late 1800s, a young bank clerk named William S. Burroughs wearily turned up the wick at his desk and proceeded to spend all night trying to correct the debit side of his ledger. But no matter how careful he was, a certain number of mistakes occurred. Exhausted by the repetitious work, he finally went home and collapsed into bed.

Weakened by tuberculosis, doctors told Burroughs he must change his occupation before it killed him. But even when Burroughs got a job in a St. Louis machine shop, he still was thinking about inventing a

machine that would take the drudgery out of accountancy forever.

Burroughs wanted a machine that added with speed and complete accuracy, as well as possessed a memory. "Accuracy," he once defined, "is only truth filed to a sharp point."

To fund the turning of his design into nuts-and-bolts reality, stock was issued in the as-yet nonexistent Arithometer Company, later to become the Burroughs Adding Machine Company of Detroit. But stockholders pushed Burroughs into production before he was ready, and complaints began to pour in regarding his machine.

Locking himself in his little room, Burroughs, with his eyes burning bright with tuberculosis fever, remained for three days and nights until he had an answer to the quality problem.

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Holmes/Watson solve quality case with SPC

Instead of using a magnifying glass for this investigation, Memorex's Sherlock Holmes (**Ross Foulk**, shipping manager for communications products) and Dr. Watson (**Rob Bussel**, SPC specialist) used statistical process control (SPC) charts to solve quality problems that were occurring with communications equipment following the production process.

With the investigation underway, detective Foulk and his staff began discovering defects such as missing labels and loose parts. In order to solve the most serious problems first, Foulk and Bussel identified and quantified the defects and their causes using statistical tracking methods.

With the problems graphically laid out, the entire manufacturing team began to make a conscious effort to be more efficient and the defect curve sloped sharply downward.

Now that the curve is on the way to zero, don't be surprised if you see other 'master quality minds' around Memorex. They may not be from Baker Street or smoke a pipe, but you can bet they'll be solving quality cases.

Special focus on award programs see inside...

Memorex to hold press conference

Memorex is hosting a national press conference in New York this month to announce several major new products. Watch for details on bulletin boards in Santa Clara and in your electronic mailbox throughout the U.S. and overseas.

Burroughs honors great performers

To recognize outstanding performance and leadership of the Memorex management team, Burroughs presents awards for Management Excellence and Functional Excellence.

Bob Berry, vice president of Customer Operations, was presented with the prestigious Burroughs Functional Excellence award for service and support. Even though the PCM market was going through drastic changes, under Berry's leadership, his service organization was able to minimize inventory and usage investment, improve productivity and meet or exceed all financial goals. Expenses were seven percent below budget and profit before tax



Berry



Ronchi

was 122 percent of the forecasted annual plan.

Under **Giorgio Ronchi**, vice president of Region 1, six countries exceeded sales

quota in 1984: France, Italy, Spain, Brazil, Puerto Rico and Venezuela.

Due to his outstanding management of this multiple country operation, Ronchi received the Burroughs Management Excellence award as the Memorex manager of the year. Ronchi credits the success to his team of professionals, who together achieved 110 percent of assigned revenue targets and 200 percent of profit targets.

Awards are as good as gold

Memorex International presents **Gold Awards** for its Quality Commitment Program. Here are recent winners of this award:

- **Flavio Santoni** (Italy) made a significant contribution to building a relationship between Memorex and the People's Republic of China.
- Tape Specialist, **Andre Lebovy** (Belgium) helped Memorex gain business by initiating an effort to include particular features in a tape product.
- **Alain Bouchard** (Canada) closed \$1 million worth of new business as a Systems Engineer, as well as developed a valuable product handbook.
- **Gordon Jeffery** (International liaison in Santa Clara) assisted visiting customers from around the world, often under tight timetables and with outstanding results.

Field employees recognized for accomplishments in 1984

Every year Memorex honors top sales and service employees throughout the world. Congratulations to those who earned awards for best performance in each category for 1984. The categories are summarized below.

U.S. Sales and Service awards:

Sales Representative	Jim Connor
Branch manager	Jerry McSpadden
Area vice president (AVP)	Greg Grodhaus
Top area	Federal
President's Cup	Bill Koenig
Top rookie	Ellen Williams
Systems Engineer (SE)	Jerry Matthews
SE manager	Paul Ellis
CE branch manager	Ken Hobbie
CE area manager	Ron Steen
Top Customer Engineers (CE):	
Fred D'Ascenzo (East)	Ralph Engel (Federal)
John Humnicky (West)	Cliff Davis (Southwest)
Chester Kiernicki (Central)	Wayne Carter (South)
Memorex Finance Company (MFC) representative	Lou Adimare

International Sales and Service awards:

President of Quota Club	Martyn Bartlett, U.K.
Region 1 — Equipment	Daniel Dugeny, France
Region 1 — Media	Joseph da la Taille, France
Region 2 — Equipment	Tony Neale, U.K.
Region 2 — Media	Kiki Baranowski/Wayne Williams, U.K.
Region 3 — Equipment	Colin Beer, Australia
Region 3 — Media	Vincent Yeo Koh, Singapore
Japan — Equipment	Shigeru Ikegami
Japan — Media	Minoru Katsumata
Country manager	Jeff Cabili, Puerto Rico

These are just some of the accomplishments Memorex sales and service employees made last year. THE MEMOREX PRESS will continue to highlight various award winners throughout the year as they demonstrate how they make quality and profitability their job.

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Memorex is a Burroughs company.

Awards given to thank employees

Burroughs and Memorex have established several awards plans to thank employees who make special contributions to the company.

The **Burroughs Achievement Awards Plan** is open to all employees. There are three types of Achievement awards: **Exemplary Action, Invention,** and **Achievement Awards for Excellence.**

The **Exemplary Action Award** is given to an employee whose performance is clearly above and beyond what is expected and results in the achievements of a specific and significant goal for the company. Winners of this award receive \$100.

Mike Walker of Accounts Payable and **Diane Druding** of the Memorex Finance Company are examples of recent winners of this award.

Walker received an Exemplary Award for volunteering to coordinate the department's statistical process control (SPC) team. His positive attitude helped to generate involvement in SPC. Druding received the award for her contribution in developing critical financial reports. These reports eliminated the need to manually process several thousand forms monthly for equipment status changes.

Invention Awards are given to employees for inventions of unusual importance to Burroughs for which patent applications are filed and issued. Employees receive \$250 when their patent applications are filed and an additional \$250 if their patents are issued.

Up to three employees can each receive these amounts for one patent. If more than three employees are involved, \$750 is shared between team members for the patent application and another \$750 if the patent is issued.

Three points also are credited for each patent application. If the employee receives 12 points, he/she is awarded an additional \$1,000 and a plaque.

Since January of 1984, 14 Memorex inventors have filed for patents and five Memorex employees have reached the 12-point plateau: **Thomas Idleman, Andrew Rose, Frank Morris, Jesse Stamness** and **Michael Verdone.**

The U.S. Patent and Trademark Department recently issued **Eugenio Berti** two patents — one for servomechanisms and another for motor control of data disk rotating systems. **Frank Ebey** also was issued a patent for his latch-and-handle

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Mike Wageman, head disk assembly lead operator in LDDD, works in his "bunny suit" much the same way a surgeon operates in his scrub gown. Before entering the clean room, Wageman takes an air shower.

No anthem singing in clean rooms

Editor's note: Memorex recently received notoriety for its clean room operations. The following excerpt is from a story appearing in the San Francisco Examiner last month.

"People are awfully dirty. They're just full of contaminants," said Dick Dryden, founder of a company that helps high-technology firms keep their work places ultra clean.

Dryden said a person sitting perfectly still will shed 100,000 microscopic particles per minute. If the person walks at a normal pace, the number shoots up to five million particles per minute.

A smoke particle or fingerprint smudge in the wrong place can easily ruin a 70-pound disk-drive unit, according to **Laura Gunion**, Memorex's day-shift supervisor for head disk assembly in LDDD.

Memorex thin-film heads ride above magnetic disks at a speed of 140 mph and a height of 12 one-millionths of an inch, which is roughly equivalent to a 747 flying at an altitude of less than half an inch.

On that scale, a fingerprint smudge would loom as large as a 20-story building and a human hair twice as high as the Empire State Building. An encounter with either would cause what's known as a head crash.

At Memorex, employees must undergo two weeks of training on procedures before setting foot in the clean room.

Before entering, they don "bunny suits," which look more suitable for cleaning up Three Mile Island than for handing out Easter Eggs. The difference, though, is that the suits

protect the work place from the workers, rather than vice versa.

Bunny suits consist of a jumpsuit, hood, face mask, boots and two layers of gloves. The suits are made of 100 percent polyester, specially treated to prevent the little fabric balls that plague leisure suits.

Once inside their suits, workers take an "air shower" between the dressing room and the clean room itself. With a jet of air blasting them, they raise their hands over their heads and rotate twice — a maneuver that looks remarkably like a step from the "Hokey Pokey" dance.

Now the workers can enter the inner sanctum of the clean room. From this point on, there is no eating, drinking or smoking. Jewelry, portable radios and pocket knives are verboten.

The rarefied air in the clean room can contain no more than 100 particles of 3 microns in size per cubic foot. A typical hospital operating room is filthy by comparison, with 10,000 to 100,000 particles per square foot.

Even excessive talking is frowned upon, because in conversation people expel thousands of microscopic bits of saliva known as Flugge's droplets.

The Wall Street Journal reported recently that researchers in France took the trouble to find out that the average Frenchman emits 15,000 to 20,000 Flugge's droplets while singing "La Marseillaise."

The more sedate "Star-Spangled Banner" is probably somewhat drier. Nevertheless, there is no anthem-singing in clean rooms.



At a recent vendor awards ceremony, **Charlie Kimball** (left), vice president and general manager of the Computer Tape Division, presented Hercules representatives with a "ship-to-stock" status award.

MRX honors quality vendors

"About a year ago the Computer Tape Division's Quality Assurance and Purchasing organizations jointly began putting together a program to identify potential 'ship-to-stock' suppliers," said **Robert Durose**, Computer Tape Staff Quality Engineer. "If these vendors could prove to us that their products were consistently equal to our quality and procurement standards then we would be able to put their products directly into our production process. The program not only optimizes our own product quality, but also reduces inventory and inspection costs and purchase prices."

Potential vendors are required to conduct and submit an audit of their production and

quality systems. Following these steps, Memorex conducts an on-site survey.

"With each order, these suppliers must provide us with statistical evidence of their quality processes, as well as a certificate of conformance to our standards and an analysis of their inspection procedures," Durose said. "Vendors are continually rated by Quality and Purchasing to determine whether they meet our 'ship-to-stock' standards or not. This way we monitor the controls each vendor has in place. If they begin to slip, we start inspecting orders ourselves and may look for an alternate vendor."

In the News

- Due to its confidence in Memorex Customer Engineer (CE) **Kevin Wilson**, a major East Coast public service company purchased 3650s, 3680s and other disk drives to add to their selection of Memorex tape drives. The customer said that "Kevin is a shining light and a key reason why Memorex service is far superior to IBM."
- Memorex Japan's **Challenge 20** program has established challenging objectives for the unit to meet by its 20th anniversary in 1988. The program already has generated 148 employee suggestions for improvement since it was initiated last year.
- More than 250 employees in the printed circuit board (PCB) area completed introductory development courses in statistical process control (SPC) in less than

six months. The courses were conducted by **Lou Martin**, SPC project manager for PCB, and **Lisa Pierce** and **Jim Pierce**, both SPC specialists in PCB. The courses may be expanded to include other employees in LDDD.

- Teamwork has paid off for sales rep **Harrison Harrison** and CEs **Jim Brown** and **John Tansy** in Florida. Because the CEs have done such a responsive job in maintaining older generation products for the Jacksonville customer, Harrison was able to obtain an order for 450 new Memorex communications devices. Another team player, **Carmen Bell**, branch secretary, helped out by clarifying the customer's paperwork and organizing their orders.

BGHs solves 1st quality problem

Continued from page 1

The old machines were recalled and placed in storage until Burroughs found them years later. He could still hear a whining voice saying, "Sir, I tried to list four figures yesterday and your machine showed a row of zeros."

Opening the office window, Burroughs hurled each defective machine one by one into the street. As the sound of clanging metal echoed through the town, Burroughs said with a sign of relief, "I have ended the last of my troubles."

Burroughs Corporation went on to sell reliable adding machines, which started the company on its path toward becoming the \$5 billion entity it is now.

MRX achievers

Continued from page 3

assembly for disk cartridges.

The third Achievement award is the **Achievement Award for Excellence**. This award is presented quarterly at the local unit or operating level and annually at group and corporate levels to employees with outstanding technical innovations or professional accomplishments. Their results must materially improve the company's products or services or directly help an operating unit meet its objectives or generate a major economic benefit to the company.

At the unit level, employees are awarded up to \$1,000. Employees who receive this maximum amount will be nominated for group awards.

Group award nominees are top unit award winners and other employees who have enabled the company to make major advances. These employees are presented with awards of up to \$5,000 and maximum amount winners are nominated for corporate awards.

Corporate achievement award winners travel with a guest to a special annual awards event at the company's expense. They are awarded an additional \$5,000 which is approved by the Burroughs Executive Office. Nominees can be previous unit or group award winners or other select individuals.

Employees are not limited in the number of times they can participate in any of these award categories.