

What's in a name?

by Tony La Pine
Director, Quality Assurance

We chose to name this new publication *Commitment* to signify the importance of quality in the daily performance of our jobs in the Equipment Products Group. Each of us, whatever our specific duties, must be committed to providing customers with products and services deserving of the name Memorex.

Our company was founded by a few people with the idea of making and selling a product capable of "Memory Excellence." Today, 16 years later, 8,000 people are actively pursuing quality, a commitment that has brought us to a position of leadership in the information industry.

Occasionally we hear it said that a respect for quality is an old-fashioned view, gone the way of the individual craftsman. The modern corporation, goes the complaint, eliminates the opportunity for a personal commitment to excellence. At Memorex, we recognize that notion as the cop-out it really is.



La Pine

We believe that there is nothing outdated about love of quality—and love is the right word. Everyone admires a job well done, and at some time or other, dreams of accomplishing excellence in some field.

The pursuit of excellence is not just the responsibility of engineers and inspectors. Each of us, by performing to the best of our ability, by striving to attain our personal goal of excellence, contributes to the entity the world identifies as Memorex.

Our reputation for offering the highest quality products and service and conducting business with integrity is as important to us individually as it is to our organization. For as Memorex continues to provide outstanding value to customers, thanks to the excellence designed in, built in and maintained in our products, the greater are the opportunities for personal and organizational growth.

When we know our work is important and our performance exceptional, we can sense that pride which can't be measured in dollars and cents. This is the kind of personal identification that moves serious craftsmen to sign their work.

Additionally, there is that pride of association that is experienced when we tell others, "I work for Memorex," knowing that the company's good reputation ultimately comes from its people.

As EPG's "quality publication," *Commitment* intends to focus on our dedication to personal integrity in work. We welcome your reactions to the publication. If you have any story ideas or comments, please send them to the editor at MS 12-39.

The turnaround and progress at Memorex, as President Bob Wilson has shown us, was made possible by the

COMMITMENT

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THIS IS A QUALITY ATTITUDE?—There's more to packaging engineering than cardboard and tape. For story, turn to page 3.

actions of employees, motivated by the attitude that they, singly and as a team, can achieve difficult goals. The commitment to quality performance in our daily activities is the surest way we can build an even brighter future.

Also in this issue

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An Inspector talks about her career, page 3.

Meet Professor Heldt (his subject is Quality), page 4.

A puzzle to check your Quality Quotient, page 4.

Do good work? EPG wants to find you

In order to formally recognize individuals whose work reflects a high quality consciousness, the Quality Awareness organization has initiated an awards program in Santa Clara for "Outstanding Quality Performers."

Each month supervisors will nominate those employees they believe have made an extra effort, in the course of their daily activities, to assure quality products and service. A three-member board of QA personnel will review all the nominations and select five "Outstanding Quality Performers." The winners' names will be announced by the 15th of the following month.

The first five winners were announced September 26; more than 80 EPG employees were nominated for the honor.

Candidates are expected from all areas of activity, including (But not limited to): order entry, clerical work, training, assembly, drafting, and inspection.

Outstanding Quality Performers will receive certificates and personalized pen and pencil sets. Posters with their pictures and plaques engraved with their names will be displayed in all EPG Santa Clara areas. Every quarter President Robert Wilson will host a luncheon for the winners, and at the end of the first 12 months of the program, one of these winners will be named "Quality Excellent Employee" of the year.

Information on the program and supervisors' nomination forms are available from Dick Burris, ext. 1150, or Bob Erickson, ext. 2457.

Q stands for Quality and it's everyone's concern



This "Q" is the new symbol for EPG Quality Assurance. It's being used on all promotional materials for the Quality Performers Program.

New equipment speeds PCB evaluation

Memorex is getting invaluable assistance in printed circuit board testing efforts from the developments of two vendors of automated test equipment who are as committed to quality and cooperation as we are.

Faultfinders, Inc., of Latham, N.Y., has delivered a PCB test system already in operation on boards for the 550 flexible disc drive. Although it is an "in-circuit" analog tester similar to the previous Fixit machines, it offers a number of improvements.

The new computerized system is faster, easier to operate, and offers more flexibility than the older models, according to John Bado, Test Engineering Manager for Automated PCB Testing. "The Fixit required a punched tape program that could only handle one test at a time, but the new system with its special software, allows us to access test programs and locate faults much faster. It also has a unique limited digital test capability designed to Memorex Test Engineering specifications."

A second PCB tester, manufactured by Computer Automation, Inc. (CAI) of Irvine, California, will be installed soon. Bado says this large-capacity system "uses a computer program to simulate a perfect PCB and to develop fault isolation diagnostics that direct the operator in probing the PCB to locate the fault."

Both of the new testers are, in Bado's view, state-of-the-art systems. They feature minicomputer control, disc drive program loading and storage, and human-engineered panels and controls. In addition, the software is designed to minimize operator intervention during testing and debugging.

They also utilize "bed of nails" test fixtures, so called because of the multiple spring-loaded pins used to contact

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Test engineers Jim McGill, Larry McCracken, and Jim Carson examine the new 3650 head tester they developed.

Imaginative technology for 3650

Test engineers make science fiction a fact

Working on testing systems for the 3650 program must sometimes feel like being part of a science fiction story. The difference is that, while such stories are unabashed fantasy, the systems being developed by enterprising Memorex test engineers are very real indeed.

Vince Carter, Manager, Test Equipment, can't keep his excitement contained over the new head tester masterminded by three of his engineering staff. "This new tester is probably more advanced than any other in the entire field, at any company," he says.

It took Jim McGill, Jim Carson, and Larry McCracken eight months from their first idea for the new head tester to design and build it. In contrast to the machines it is replacing, it is fully automatic. The operator simply mounts the head assembly on the test fixture, presses the start button, and the head moves into position. An internal self test then takes place and a message is printed out, telling the operator to enter the serial number, date, and arm type. Thereafter, the test is run on its own, and test data is printed out for each head, along with applicable pass/fail information.

"This way," says Larry McCracken, "it's impossible to find out, a month too late, that the calibration has been off all that time. Because of the self-text print-out, if a problem occurs, maintenance knows exactly what's malfunctioning and can get to it right away."

"We've taken every possible failure into account," Larry adds. "Whenever something went wrong with our plans, we added another error message to the system. Nothing can happen without the tester telling us why."

According to Carter, all the old head testers were "far more subjective. The operator had to enter the readout in a log and compute the test data on a calculator." The old machines also had to be constantly calibrated.

"This tester is fast, and it has a short down time," McCracken adds. "This means improved quality, not just in

terms of the heads being tested, but in throughput as well."

The team has planned a data reduction system in which all the testers will input data to a floppy disc to determine their yields and evaluate the entire test process.

Now that this tester has been fully developed, the same technology can be applied to other systems. "We know what was wrong with this one," says Carter, "and hopefully we'll know what's wrong with the others." So McCracken, Carson and McGill are splitting up to work on other projects.

Dimitri Scherlizin, another enterprising test engineer, has developed a new flying height tester to measure slider clearance (flying height) for both the 3650 and 601 system. Like the head tester, this new system is fully automatic.

It operates on the basis of Newton's color rings, a principle heretofore used only in R&D situations. White light passing through different mediums (in this case, glass and air) breaks up into bands of different colors. This is the same thing that happens when an oil slick on a wet road reflects varied hues.

"It used to be that the test operator had to measure widths of stripes relayed by the machine," Vince Carter explains, "but the new color band system never varies. All that has to be done now is match up the colors reflected by the disc to a pre-set value—so much for pink, so much for orange, etc."

"Another disadvantage of the old testers is that they only measured to 40-50 microinches. But the error factor on this new machine is only one microinch!"

Scherlizin's new tester not only measures height, it also describes the attitude, or angle, of the slider or head. "The reflected color bands are either perpendicular or diagonal," Dimitri explains, "and the degree of the diagonal reveals the attitude of the slider."

Vince Carter expresses pride in his group of young engineers. "The mix of

expertise from the old-timers and innovation from the new has been very productive," he says. "The cooperation we've had from manufacturing and R&D personnel has given these energetic young men an opportunity to conceptualize, design, and take responsibility for their work."

And that is another important aspect of Memorex quality. Working together to make what once seemed to be "science fiction" part of an ordinary working day reflects an attitude about quality that is special to our products and services.



Dimitri Scherlizin directs demonstration of his flying height tester.

