ONLINE

DIGITAL EQUIPMENT CORPORATION

AUGUST 1969

DEC Rewards Ability and Initiative

Upgrading to Engineer



One of the youngest groups to tour Digital's Maynard facility, Project LOCAL elementary school pupils from Lexington, Mass., were fascinated by Programmer Rick Merrill's FOCAL demonstration during their recent visit.

PDP-14 was Product of Teamwork

Less than a year ago, the PDP-14 was only an idea. Today, production is in full swing, deliveries are being made and initial forecasts are being met.

The meeting of design, development, production, and delivery schedules was the result of a big effort by a small, but dedicated group.

Development started last fall and moved into high gear in January. In February, schedules were set and "mid-summer" was established as the target for the first deliveries. The machine was announced to the world in March. Assembly started in June and the first shipment left Maynard on July 10.

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Whenever a Digital technical employee demonstrates that he has the ability and initiative to discharge engineering responsibility, he stands a good chance of being reclassified as an engineer.

The vehicle that can help in his upgrading is the Engineering Review Board, which evaluates each technician against a set of criteria for engineering status established last year. If, upon recommendation of the man's supervisor, he is considered passable by the Board, the Board recommends his reclassification to the Operations Committee, which makes the final decision.

Since last year, the Engineering Review Board has recommended the reclassification of more than a dozen technicians to the Operations Committee.

The idea had its inception early in 1968, when Graydon Thayer, Manager of Professional Personnel, and several engineering managers recognized the need for a mechanism whereby qualified technicians could attain an engineering rating, and established the Engineering Review Board. Managers are asked to come before the Board and present the educational and work background of technicians who, in their opinion, have demonstrated the ability to discharge engineering responsibility.

Composed in part of engineering managers and in part of engineers who are concentrating in certain technical areas rather than in management, the Board is chaired by Joe St. Amour, Manager of Special Projects. Additional Board members include Graydon Thayer, Dick Best, Al Kotok, Bob Hamel, Jerry Butler, and Roger Cady.

Two of the most recent reclassifications are Herve Lavoie of the Medium Computer Engineering Group and Ed Gianetto, of Quality Control Engineering. Herve's name was submitted earlier this year by his supervisor, Jerry Butler, and Ed's by his supervisor, Jim Cudmore.

According to Jerry, Herve had been assigned project responsibility and had developed expertise in circuit design before his name was submitted. Jim Cudmore cited Ed's handling of the automatic testing projects and his many contributions to resolving circuit problems.

Herve came to Digital in 1965 after attending Gardner High School and Worcester Industrial Technical Institute, studying electronics. After starting as a

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Puerto Rico Celebrates First Anniversary

Dull, overcast skies and frequent tropical downpours failed to dampen the spirits of nearly three hundred employees and guests who spent July 19th at Aña Gorda beach at Guanica celebrating the first anniversary of Digital's module manufacturing facility in San German, Puerto Rico.

The employees worked many hours preparing the virtual mountains of food for

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With 300 employees and their guests looking on, Plant Manager Phil Wood blows out the candle symbolizing one year's growth for Digital in Puerto Rico.



FJCC Seeks EDP Art

Some 200 art works will be displayed at the Fall Joint Computer Conference (Las Vegas, November 18-20) in two categories — art about computing and art prepared by computing. Entries are desired that are in keeping with the conference theme, "Threshold of the Seventies" — projections for the next decade. Prizes will be awarded by judges to be announced. For further details, write the Special Activities Committee, '69FJCC, 1209 N. Riedel Ave., Fullerton, Calif. 92631.

At The DEC Movies!

Like most other people at Digital, Steve Kallis has outside interests. Steve works in the Public Relations Department writing technical articles and promotional stories. Every once in a while, however, Steve gets an opportunity to do his own special thing — producing and directing films. For Steve, that's where it's at! In fact, his most recent efforts have added a movie to the DEC film library.

Recently, Steve helped the Company get an information film on the use of the PDP-8/I computer in chemical laboratories. Working with Virginia Polytechnical Institute, which produced the film on a grant from Digital, Steve coordinated the VPI effort, served as a technical consultant, even shooting some of the film's footage himself, and finally had the film accepted for showing at the 1969 Western Electronic Show and Convention (WESCON).

The 16mm, DEC-sponsored film was shown to an estimated audience of 50,000 at the 1969 WESCON Science Film Theater on August 19-22 in San Francisco's Cow Palace. In being chosen for viewing, the film was judged for technical excellence and suitability by pro-

fessional members of the Information Film Producers of America, a professional association for the advancement of communications through the film medium.

An active member of the Information Film Producers of America and the Society of Motion Picture and Television Engineers, Steve not only keeps up with the "state of the art," but contributes to it regularly. Somewhat of an authority in the motion picture field, he has written five technical and professional articles that have appeared in journals and magazines. Steve's most recent movie techniques article appeared in the May (1969) issue of AMERICAN CINEMATOGRAPHER, entitled "Sorry Bout That."

Steve also has been doing articles on PDP-8 based film animation stand systems. These systems allow the production of sophisticated animation films in a fraction of the time formerly necessary. Steve notes that a film that used to take two days to do now takes about five minutes to shoot with the computer animation technique.

Upgrading

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Module Test Technician, he was promoted, in 1966, to Supervisor of Module Test. In 1968, he was transferred to the Medium Computer Group, where he is presently working. Meanwhile, Herve is working toward his B.S. in electrical engineering by taking night courses at Lowell Technical Institute.

Ed Gianetto graduated from Coyle High School in 1956 and then studied radar maintenance at an Air Force Technical School. After doing radar field service for G.E., Ed received an Associate Degree in Electrical Engineering from Wentworth Institute in 1963 and came to Digital as a technician, working on automatic module tester development and automatic module tester software development. He designed the automatic integrated circuit tester for testing all the IC's Digital buys. Ed has been Supervisor of Module Testing, Subassembly Testing, and Power Supply Testing for three years.

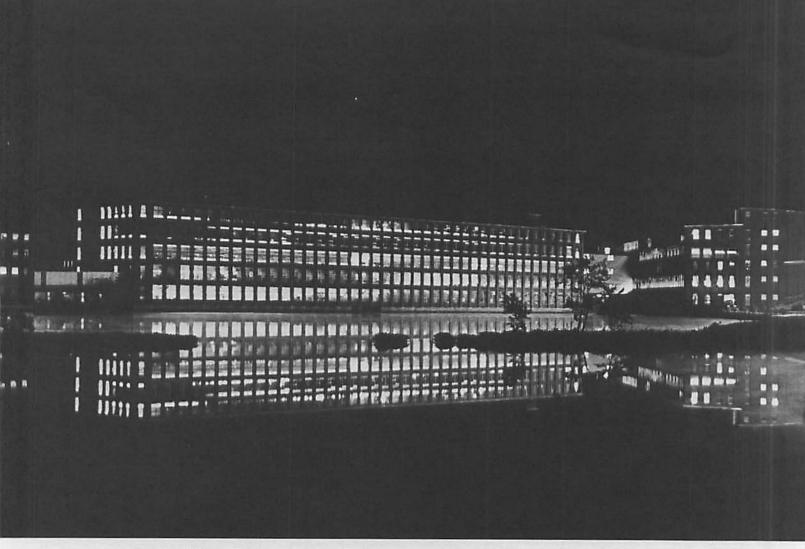
The criteria set up by the Board also help potential engineers by telling them the areas in which they must concentrate in order to be reclassified. Many take advantage of Digital's Tuition Refund Plan, and the Training Department's classes to fill in the gaps. At Digital, where there's a will there's a way!



Ed Gianetto



Herve Lavoie



"Building 1 Illuminated," Yu Hata's prize-winning entry in Digital's Photo Contest, was taken with a Pentax camera set for a 2 second exposure at 5.6f stop.

Yu Hata Wins Photo Contest with "Building 1 Illuminated"



Yu Hata at work in his photography laboratory.

Special Systems Project Engineer Yu Hata was recognized for many hours of painstaking photographic work when his picture of the Maynard Mills at night was selected as the best in ON LINE's photography contest.

The winning picture, showing Building One illuminated and perfectly reflected in the Mill Pond, was taken at approximately 9:30 p.m. with a Pentax using a two-second exposure and a 5.6f stop.

Yu spent an hour on each of three consecutive nights experimenting with various lenses and settings, and then many hours in his darkroom to produce the winning picture. Amateur photography is only a hobby for Yu, although his artistry is quite professional. His pictures have won contests and have appeared in Japanese magazines and advertisements.

Yu built his first darkroom and started processing his own black and white photographs when he was only 10 years old. He's even invented his own formula for film developer, which allows him to make huge enlargements from 35mm negatives with exceptionally fine grain.

When Yu arrived at Digital in Maynard, he lost no time in setting up a dark-room in the basement of his rented house. He enjoys photographing anything, and his eight-month-old son is currently "a good subject." One novel project he recently completed was a 360° view of Provincetown, Mass. taken from the Provincetown Tower. The picture was actually taken in 13 sections which were later painstakingly assembled.

Yu joined Digital in January and expects to spend about a year in Maynard before returning to Japan to work at Digital Equipment Corporation International, our Japanese subsidiary.

First Man In Canada

Denny Doyle was Digital's first employee in Canada. He joined the Company in February of 1963 as a Sales Engineer — the only one in Canada at that time. He is now Regional Manager of the Canadian Subsidiary, a Company employing more than 200 persons and currently undergoing substantial expansion of its manufacturing facilities. It is no wonder, then, that Denny looks back on his early years with Digital with pride.



Denzil J. Doyle (Denny), General Manager of Digital Equipment of Canada, Ltd.

An Electrical Engineer, Denny was born in Quebec, but took his college education at Queen's University in Kingston, Ontario, where he received a Bachelor of Science Degree (honors) in 1956. He held two jobs before joining Digital, the first with Computing Devices of Canada, the second with the Canadian Defense Research Board.

While at D.R.B., Denny used DEC modules for Digital communications systems for research in severe ionospheric disturbances. His group quickly became DEC's largest Canadian modules customer.

In 1963, Denny joined Digital to take charge of the Ottawa Office (then in the planning stages). It was Digital's first office outside the U.S. and was soon incorporated as a subsidiary company. When its doors opened for business on May 1, 1963, many people were intrigued to find that it was not called Digital Equipment Corporation, but rather Digital Equipment of Canada Limited. This marked the beginning of a new era for DEC. During the following years, a number of subsidiaries were established in other countries around the world; some, like Canada, involving manufacturing as well as sales and service.

Denny recalls the early days of the Canadian operation as exciting and challenging. He had taken on his initial sales assignment at the urging of Stan Olsen and the encouragement of his associates who kept telling him that he would make a good salesman. Denny enjoyed selling so much that he once remarked "I must have been a real misfit in the Research World."

In his first summer, Denny traveled from coast to coast in Canada, visiting research establishments and educational institutions. His efforts were rewarded with success, both in the short- and long-run. Much of DEC's current business in Canada can still be traced back to this early missionary selling. For example, Denny tells of visiting an east coast laboratory three weeks after it opened and discussing with the staff, ways of automating some of their experiments. That particular laboratory now has six DEC computers in use.

What started out as a sales engineer's job quickly expanded as Denny assumed the role of a Subsidiary Company Manager.

But in spite of his more recent accomplishments as a General Manager, Denny still looks back to his early days with Digital as the most satisfying of his life.

PDP-14 (continued from page 1)

PDP-14 Engineering Manager Don Chace feels the successful ingredient was "team effort" on the part of the staff. "Back in January we decided to approach the project as a group," he said. "This approach has worked well, We've respected each other's opinions and every problem was solved by the group."



Don Chace, John Holzer, and Ed Steinberger (l. to r.) watch as Tom Bowman of DEC Field Service accepts a PDP-14 system involving 7 input boxes, 11 output boxes, 2 storage boxes, and an accessory box. The system was shipped to W.F. and John Barnes, a builder of metalworking transfer machines.



When it comes to stockroom shelves, six-foot-seven Jan Scherpenhuizen, Field Service Engineer, Holland, visiting Maynard for training, has a definite advantage over Field Service Stockroom supervisor Ralph O'Leary, five-feet-four.

The development group, headed by Product Manager, John Holzer, includes: Engineering Manager, Don Chace; Applications Supervisor, Jim Melvin; Design Engineer, Alan Ricketts; and technicians, Larry Fahey, Dick Mickalak, and Vinnie Indurato. Stan Znamierowski contributed his mechanical engineering talents.

"Alan should get most of the design credit," according to Don. "Jim contributed production tested designs. Larry provided maximum assistance in developing new modules and testing the first engineering prototype. Dick and Vinnie contributed most of the bench work and Stan handled the mechanical engineering aspects. We also got some good help from Walter Miller and Serge Shammas who were loaned to us from Production."

Due to the outstanding effort by all concerned, the group was able to complete two complex customer demonstration systems in an extremely short time in addition to solving the myriad of problems involved in starting production.

The PDP-14 is designed for the control of mass production machinery, and, as such it represents an advance in the state of the art over relay control systems. It combines the basic features of a general-purpose computer with the high noise immunity of K series modules, making it ideally suited to this market.

Module Production Group Leaders Stress Versatility

The thirteen group leaders in Maynard's Module Production Department were all promoted from within. Most of them started in Subassembly, doing soldering and other manual tasks, graduated to the assembly line, where speed and accuracy are mandatory, and showed enough efficiency and leadership to qualify them for positions as group leaders.

According to Gloria Porazzo, Supervisor of Module Production, each girl is a "working supervisor," and thus must be versatile. She must know the intricacies of each task so that she can explain it to her group, and she must be able, often on short notice, to take over another group doing an entirely different job, if the need arises.

Group Leader Linda Brown, a DEC employee for 11 years and a group leader for the last 8, finds her job a challenge: "It's never dull," she said. "There's always a new problem to solve, a new girl to teach, or a new process to learn." Linda and Barbara Stebbins taugh Digital's module production techniques to the women in the Puerto Rican manufacturing plant.

When many of the Group Leaders first came to DEC, all the assembly was done by hand on systems boards, and each board was produced separately. With the introduction of the FLIP CHIP®, circuit modules are produced four at a time or two at a time. Tools have changed, too, they recall. Now the girls can do in seconds with an air gun what it formerly took much longer to do by hand.

Group leaders must be able to handle a group ranging in size from 10 to 30: pass out the work, teach them how to do it, make sure that everyone is occupied, meet their deadlines, and keep attendance, quality, and production records. In their "spare time," they work on the modules and subassemblies themselves.

All this is no small chore when there are approximately 200 women in the Department, turning out 90,000 modules per month, as well as a quantity of sub-assemblies. Most of the work involves the production of FLIP CHIP modules and the busing and wiring of logic panels. Judging by the Module Department's production and the low failure rate, Department Manager Cy Kendrick has a lot to be proud of.





Peter Howarth, Field Service, Bristol, U.K., is an avid soccer buff. So much so that he spends most of his Saturday afternoons and many evenings as a referee.

A two-month tour in Maynard for training temporarily halted his refereeing activities, but not for long. Peter discovered that a group of Digital employees had formed a couple of teams so he was soon back on the turf with his whistle.

When the British aircraft carrier H.M.S. Eagle arrived for a courtesy call in Boston in mid-July, Peter agreed to referee a game between the Eagle eleven and

the Benfica Club, a Hudson, Mass., soccer club which lends its field to DEC's soccer players.

Peter Court, another U.K. field service engineer also in Maynard for training, served as linesman for the match, which ended in a 3-2 win for Benfica.

"It was just about the best match I've ever refereed," commented Howarth, "the standard of football was such that either side could have won. It was a 'thrill-a-minute' type of game."

Back in Bristol, Howarth referees for all the local amateur leagues and Gloucestershire F.A. cup matches.



Bob McHugh loading for shipments to Canada.

\$8.00'11 Get Ya \$35,000.

A good deal? For eight dollars worth of cardboard, Ray Michel and his Traffic Group send \$35,000 worth of computer across the country without the slightest damage. Using the packaging industry's latest technical advances and some of the Traffic Department's ingenuity in packaging computers for shipment, DEC computers arrive at customer sites in good condition.

Every precaution imaginable is taken to guard against damage in shipment. "When a carton is opened in a customer's plant, we want that machine to be in the same condition as when it left here. Customer satisfaction is our first concern," states Ray.

Computers are prone to malfunction when jarred excessively. They're one of the hardest items to protect with any type of packaging. Molded polystyrene foam, metal bands, heavy cardboard, soft padding, foam rubber, large staples, nails, plastic bags, plywood, skids, string, nylon tape, plus 25 years of combined shipping experience make this department the last link in our production chain.

With cooperation from the Mechanical Engineering Department, Traffic has created a steel rack which aids shipment of PDP-8/I's. The rack was created to cope with the problem of transporting separate components. "With the rack, it's possible to include all components as one secure package," says Wally Mason, Group Leader.

When a PDP-8/L is ready to be shipped, it's taken to a work bench and enclosed in a plastic bag. Polystyrene caps are placed on the ends of the computer to "suspend" it within its box. At no time does the machine come closer than two inches to any side of the box.

After internal packaging is complete, Crating's Frank Hebert, Bill Columbo, or Earle Struble place the suspended unit in a heavy cardboard box, all seams are sealed with shipping tape and the top is stapled shut. Then shipping instructions are applied, warning handlers of the delicate components.

"With larger computers, packaging is quite different," says **Dick Cote**, a Shipper and Crater. "They are perma-

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Earle Struble packs a PDP-8/L computer with tender care after he has padded it with styrofoam and cardboard.

"Refer A Friend!"



Does this advertisement look familiar?

It appears on wall posters, pencils, and in ON-LINE — epitomizing Digital's continuing need for qualified job applicants.

To hire enough qualified people to maintain the Company's rapid growth in the expanding and highly competitive computer industry, help is needed. Referrals by our own employees continue to be the single most valued source of job applicants. Employee referrals each year produce more hirings than do newspaper ads or employment agencies.

The "Refer a Friend" program, highly successful in the past, is due for a boost. At the end of July, the Personnel Department began publishing a biweekly bulletin of openings and posting job requisitions in a rack outside their office in building 5. In addition, the Maynard bulletin boards have "Refer a Friend" posters and the racks below each poster contain application forms and specially tinted referral envelopes. Personnel will give your recommendations special attention when they arrive.

If you learn of a job opening and know someone you believe would be able to fill the position, simply obtain an application blank and give it to your friend to fill out.

You will be kept posted on his progress and, if hired, will have the satisfaction of knowing that you not only did your friend a favor, but that it helped Digital grow as well.

"Refer a Friend!"

Promotions and Appointments



Steve Adrian

Steve Adrian was recently appointed Field Service Manager for the Cambridge District. He came to Digital in 1967 as a field service engineer from the Bunker-Ramo Corporation in Stamford, Conn.



Bill Segal

Bill Segal has been named Manager of the Biomedical Group, replacing Mort Ruderman who has left to form his own company in the field of medical services. Previously, as Manager of Software Support, Bill successfully organized and led Digital's drive to acquire a staff of programmers who provide worldwide customer support. Bill holds a B.A. in math from Amherst and an M.S. from Rensselaer Polytechnic Institute. He came to Digital in 1964 and has served in various managerial capacities in the Programming Department.



Dave Cioni

Dave Cioni has been appointed manager of Digital's St. Louis office. He previously was a sales engineer covering the St. Louis and Kansas City areas from the Chicago office. Before joining Digital, Dave was a sales engineer for Cutler Hammer in Chicago. He is an electrical engineering graduate of Iowa State University.



Cliff Clarke

Cliff Clarke has been appointed Manager of Field Service Administration in Maynard. The responsibilities of Cliff's group include logistics, inventory control and distribution, processing of field service reports, the ECO system, and field service contract marketing, pricing and policies, Cliff holds an A.B. in history from the University of New Hampshire and an MBA from Boston University. He was previously employed by H. K. Porter, Inc., Somerville, Mass.



Ken Larsen

Ken Larsen, Manager of the Physics Applications Group, will return to Palo Alto to become Western Regional PDP-10 Sales Support Manager. Ken was a key man in Digital's Western Sales organization for seven years and has had a long association with the large computer program.

Ken Kinchla

Ken Kinchla has been appointed Field Service Manager for the Northeast Region. He joined Digital in 1966 as a field service engineer in the Cambridge District and later became District Field Service Manager. Ken previously served with Anelex Corporation and the RCA Service Co.

Fred Barla

Fred Barla, formerly Anaheim branch manager, has been named Southern California District Manager. He joined Digital in 1966 as a sales engineer after serving as display systems sales manager with Telemetrics, Inc. Fred is a business administration graduate of the University of Kentucky. Digital has over 225 installations in the Southern California area.

Geneva Headquarters Open

The new European Headquarters in Geneva, Switzerland, has opened.

The new office will be responsible for the coordination of sales and service activities for Digital's seven European subsidiaries, in addition to centralizing the management of such activities as personnel, advertising and sales promotion, software support, field service, and product marketing.

The facility will be known as Digital Equipment Corporation International.

"Moving our headquarters to continental Europe is another example of our long-range commitment to Europe."

Jean Claude Peterschmitt, Regional Manager for Europe, stated. "It will enable us to provide important support for both our subsidiaries and customers, and will allow us to pay close attention to developing strategies which take into effect the individual requirements of each country."

"Each of our subsidiaries is organized to function as a fully self-sufficient entity in servicing the needs of its customers," he said. "The new headquarters will provide us with a better means of monitoring these needs from a total standpoint and allow us to take advantage of the expertise developed in each European country."

"In selecting Geneva as the central point from which to conduct our European activities, we feel we have chosen a city which lends itself ideally to the total scope of the local office functions. It is recognized throughout the world as an international business center and offers facilities and services in keeping with this reputation."

Puerto Rico

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the outing . . . including various rice dishes, salads, roast pork, baked ham, a delicious Puerto Rican treat called "pasteles," and other tasty edibles.

Highlighting the meal itself was a six foot layer cake with white icing, trimmed in Digital blue, and topped with a single birthday candle.

The birthday party was termed a great success after the plant manager, **Phil Wood**, and the module manufacturing supervisor, **Iris Rivera**, had both been dunked into the Carribean — fully clothed.

Since the first person in Puerto Rico was hired on July 16, 1968, the module manufacturing operation there has grown rapidly to over three hundred employees in a year. To keep up with this growth, a 58,000 square foot module manufacturing plant is in construction and is scheduled for completion in January, 1970.

\$8.00'll Get Ya...

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nently fastened to an assembly skid, which is used as the base for all packaging." Corner pieces protect the edges and a wooden frame encircles the entire system. Finally the computer and packaging are strapped down with steel bands to prevent the computer from moving. Bob McHugh, "driver of the long haul," says that "being strapped down sure saves a lot of equipment on those rough roads."

Some computers are covered with a large box that is stapled to a skid. Running one of the Department's many compressed air staplers is no easy job. One staple or nail in the wrong place can cause expensive damage and hold shipping up for days.

Twelve people are at work constantly packaging, crating, and loading the 1200 shipments a week that go out to Digital customers throughout the world.

Rounding out the department are Bill Columbo, Mike Campbell, Barry Williams, Art Bartlett, Bruce Allen, Harry Manuel, Bill Worrell and Larry Lawn.

With the Company's constant expansion, Traffic is expanding too. A new tractor-trailer and an armada of freight-moving equipment and accessories are part of it. "Preparing for the full brunt of Digital's increased production and future growth is our main job right now," concludes Ray.

Keep It Clean!

"Salvage pick-up Building 1, Floor 4 in the 8/I-8/L Section . . . Pick up full boxes from Library . . . Replace light bulb . . . Move three desks . . .

These daily requests are part of a normal day's activity for **John Culkins** and his custodial staff. It is John's staff that keeps the Maynard plant from being inundated by a tidal wave of refuse material, dirt, and dust.

"On any given day, we remove more than 100 cubic yards of refuse materials. In order to dispose of this much refuse every day, we have certain central areas throughout the plant where we gather garbage for truck removal," noted John.

John's staff includes about 70 people, about ten of whom are high school students from the local area working here during their summer vacation.



Matti Paananen (l.) and Charlie LaValley are responsible for keeping floors 5-2 and 5-3 clean.



John Culkins, Supervisor of Maintenance (seated) shows Yrjo Kousmanen, janitor for floor 5-1, a new product.

"Our work is done in a systematic way. We assign individuals to certain floors in the plant and vary their day to day activities. This makes them familiar with a particular floor and its problems as well as having a variety of responsibilities," noted John.

"We have two wonderful matrons on our staff, Irene Blomiley and Hilda Raymond," added John, "They keep the ladies rooms properly cleaned and supplied."

There is also a group that is responsible for materials handling. They distribute production materials from the receiving areas throughout the plant. They also move computer equipment throughout the plant as well as items from Direct Mail and other locations.

AUGUST ANNIVERSARIES

10 Years

Arthur Clockedile Gertrude Loynd

9 Years

Mary Delago Katherine Fagan Edward Mayall

8 Years

Alice Johnson Lawrence Conley Donald Desrosiers Richard Dreslinski John Duffy

7 Years

Mary Baum Paul Daigneault Robert Korsman Pauline Molle George Silva 6 Years

Don Busiek
Earl Cain
Mary Colombo
Constance George
Jennie O'Clair
Frances Piecewicz
Loretta Piecewicz
Winifred Rakiey
Barbara Stebbins
Anna Tatarunas
Edith Wilson

5 Years

Paul DiMouro
Dave Edwards
Jean Haynes
Richard Lewis
Sarah Mele
Dorothea Palaima
Walter Spittle
Lorna Wright
Robert Yurick
Robert Ziman