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DECEMBER 1981

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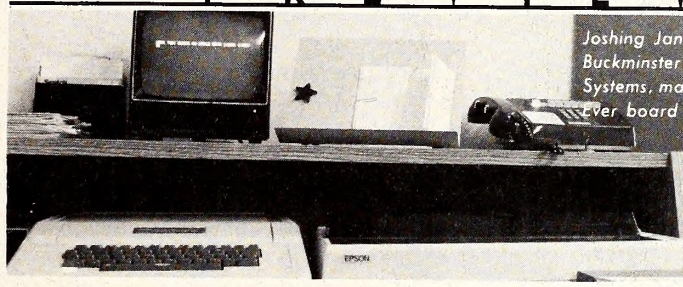
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Micro Lob's prolific purveyors of practical programs, clackwise fram the upper left: director Stan Goldberg, directar Rosolie Dixler, documentotion writer Debarah Mihm, custamer service representative Mortho Erickson, pragrammer Michael Hotlok, and programmer Curt Rostenboch.

Exec micro lab:

The year now ending has marked such growth on the part of software producers that the industry is barely recognizable. Compilers for both Applesoft and Integer Basic hit the market. Personal Software came out with *VisiCalc* in 3.3 and added several packages complementary to *VisiCalc*.

Sirius Software and Broderbund blossomed into major entertainment suppliers. On-Line Systems, which had been heavy in entertainment, branched into business and utility software. Bill Budge started his own company and immediately reached the top of the bestseller charts with his first offering.

The number of other companies, offering both software and peripherals, that have been successfully launched in the last year augurs well for the Apple industry and the community of Apple users.

Beginning with Bestsellers. Arguably, no company has been more active this year in a broader spectrum of software publishing to the benefit of Apple owners than Micro Lab, the Chicago-based publisher. Micro Lab opened the new year with two products, *Data Factory* by Bill Passauer and *Dogfight* by Bill Basham. It understates the fact to say that these were perfectly respectable products. Both were ensconced in the top fifteen of *Softalk*'s bestseller list as last year ended.

With that kind of success as a foundation for a new company, it's no wonder that Rosalie Dixler and Stan Goldberg, the codirectors of Micro Lab, have churned out a new spate of products this year. The Micro Lab catalog has expanded to twenty items, most coming in the last quarter of the year. The litany of products includes entries in the business, educational, entertainment, utility, and tax and finance areas, making Micro Lab perhaps the broadest based software company extant.

This is a most improbable occurrence, based on the genesis of the company and the original desires of the directors. In fact, there're no more unlikely pretenders to the claim of software magnates than Dixler and Goldberg. These are two folks who were looking to form a tidy little part-time enterprise to occupy their spare moments. That's not necessarily an unusual goal, but the end result is—because neither had any particular expertise in the microcomputer field that could foretell even the remotest probability of success.

An Unexpected Love Affair and a Reluctant Purchase. That's not to say that the pair had not achieved significant successes in prior businesses. Dixler was coming off a success as a travel agent and Goldberg was an executive in the garment industry. However, neither was primed for entry into the microcomputer software publishing industry. Goldberg had to explain away his purchase of an Apple to his wife, Susan, by assuring her that he would be able to make the expenditure into an investment. Dixler resisted the purchase of an Apple because she feared, as has become the case, that her interest in the machine would become all-encompassing.

It was Goldberg's purchase of an Apple that started the ball rolling inexorably toward the formation of a company. He was functioning as the vice-president of marketing for a Chicago clothing concern and traveling on a weekly basis to New York. He became so enamored of the computer that he would haul it with him on his trips, using the flight time to devour the manuals and read all the computer magazines.

Goldberg's fascination with the computer carried over to his home, where his son caught the interest and started showing the Apple to his friends, one of whom was Dixler's son: He urged his mother to buy an Apple, but she was reluctant.

Abandoned Tour. At the time, Dixler was functioning as a truly successful travel agent. Her success had almost pushed the owner of the travel agency out of his own office as she required more and more space to cater to her clientele. In fact, her clientele had grown to the point where she faced a major decision: should she strike out on her own as a full-fledged agency, or should she leave the business? The alternative of staying in business working under her curent set of conditions was not tenable.

This was not an easy decision for her to make. Dixler is a woman who enjoys the excitement of the unknown and loves to travel. This lure of the unexplored place manifested itself as early as her college days, when she attended college in Mexico City and Hawaii as well as at three mainland schools before graduating. In addition, she spent one summer, between her junior and senior years in college, touring Europe.

Clearly, Dixler had the early makings of the travel agent extraordinaire she became. But given the option of replicating her success under her own travel banner or pursuing some other line of endeavor, she opted to turn her clients over to her former boss and look for other opportunities.

She was bound to be selective in what form that other opportunity would take. Dixler had noted that most jobs open to women had the same failing: the remuneration was not sufficient for the effort expended. So when she considered new career options, she was looking for something that would provide the constant challenge of the unknown and fair compensation. She investigated parapsychology but found that, while the stimulus of changing circumstances was certainly present, the compensation was lacking. Then she turned to computers, which is where Goldberg and his Apple came in.

Commitment to Profit Presaged Part-Time Partnership. Goldberg was feeling frustrated over the lack of quality applications software available for the Apple (this was in the pre-*VisiCalc* days) and, spurred on by his wife's periodic query as to when this mystical machine was going to transfigure itself from an expense into an asset, was giving some thought as to how to enter the personal computer industry.

He and Dixler started comparing notes and found that they were both interested in building a business that could be conducted on a part-time, twenty-hour-a-week or so, basis. The two found that they were complementary in their skills—Goldberg's creativity being conceptual and supported by great energy and enthusiasm, while Dixler's creativity found some outlets in marketing and in ensuring timely implementation of the projects under development.

So it was that they struck a partnership to build a part-time software publishing company with its base of operations in the Dixler household basement.

software with care

BY ALLAN TOMMERVIK

It should be noted here that a start in a basement in Highland Park, Illinois, is not exactly comparable to starting a computer company in a garage in Cupertino. Highland Park is definitely one of the high rent districts around Chicago. In fact, in Highland Park, rent is what you collect from others, not what you pay. In Highland Park, food stamps are U.S. Postal Service commemoratives that elevate vegetables to a place of honor. In Highland Park, you start with an expectation of success, even, as in this case, when that expectation is unwarranted by a past track record in the endeavor you set out for yourself.

How Best-Laid Plans Went Awry—for the Better. But expectations of success do not a success make, as many a would-be entrepreneur has discovered to his sorrow. So, even though a basement in Highland Park is clearly more luxurious a beginning than many companies in the personal computer industry had, it was the more common ingredients of hard work and long hours that carried the day, although it should be remembered that who we have here are two folks who had not intended to become too closely acquainted with hard work during the course of their twenty-hour-a-week part-time enterprise.

Goldberg had seen a program sold in Chicago stores called *Data Factory.* It seemed to be the best of the applications programs then out, but author Bill Passauer had no distribution outside the stores in the local area. Goldberg convinced Passauer to let the infant Micro Lab distribute the program. Passauer incorporated several enhancements suggested by the embryonic publishers and the company was on its way, releasing the revised *Data Factory* in June 1980.

Dixler believes that the success of *Data Factory* in the face of the entrenched competition from Personal Software's *CCA Data Management System* stemmed from Micro Lab's emphasis on making all their programs user friendly. Their perception that most personal computer owners are novices has led Micro Lab to stress simplicity in use.

Even in this first publishing venture, Micro Lab confronted decisions of far-ranging magnitude. The original *Data Factory* had been sold unprotected, but the question of how to handle copy protection was a burning issue among publishers by this time.

At the suggestion of a friend, Micro Lab adopted the policy they've stuck with—providing a backup disk in the original package to ensure continuity of program use in case the master disk should crash. That policy increased the cost of publishing considerably, but freed the partners to make the decision to lock the program.

Expansion Underway. Their success with *Data Factory* attracted the attention of a young Illinois physician who had just finished what was to become the first arcade game for the Apple not copied from a coin-operated machine. Bill Basham submitted *Dogfight* to Micro Lab for publishing and that program immediately joined *Data Factory* as a bestseller.

Two hits in two trips to bat is an unusually high batting average even for companies with the most cause for success. For two neophyte publishers who were also computer novices, it defied the odds.

In the first nine months of this year, several other products joined the line. In the entertainment field were *Crown of Arthain, Mad Venture,* and *Palace in Thunderland. Mini-Factory* and *Invoice Factory* joined the business product line. And *Learning System* opened up the educational area.

But the fruits of a year's labor have been showing up particularly in this last quarter of the year. *English SAT* and *U.S. Constitution* were added to the educational line. *Data Manager III,* a hard disk data base for the Apple III, was scheduled for December. *Merger,* a utility to work with *Data Factory* files, *VisiFactory,* a program that makes *Data Factory* files compatible with *VisiCalc,* and *VisiBlend,* a program that allows the merging of *VisiCalc* files, joined the business product line.

The tax and finance markets were addressed with *Tax Manager* and *Asset Manager. Tax Manager* offers the ability to use the Apple to figure your income taxes. *Asset Manager* provides a means of keeping track of net worth of an individual or business and is particularly timely because of recent changes in the law concerning how certain assets should be treated for depreciation. With *Asset Manager,* adjustments from the old methods to the new method of depreciation can be done quickly and relatively inexpensively.

Painter Power and three volumes of *Language Plus* also hit the market in the last quarter, marking Micro Lab's entry into the utility field. *Painter Power* is a graphics program. *Language Plus* is a series of amper routines that can be integrated into Basic programs to enhance their power. Written by in-house programmers Curt Rostenbach and Michael Hatlak, the programs reflect Goldberg's conviction that the compilers have not provided sufficient power for the Basic programmer and that amper routines offer a cost efficient and powerful alternative.

Spare-Time Dabbling Can Take All Day. If there is any one salient implication of this spate of activity, it's that such a catalog cannot be built by two folks working in a part-time business. Dixler observes, with at least a trace of regret, that she can't remember any week when either of the directors put in as few as twenty hours. Rather than being a venture that served to while away a few otherwise unproductive hours, it's been from the start a consuming task.

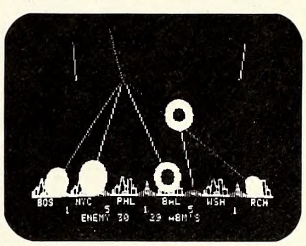
In Dixler's view, that's the nature of the beast. She observes that the marketplace is now so competitive that when a publisher presents a new and dramatically more powerful program, the lead they gain is only temporary. Soon other publishers will be matching and exceeding the capabilities of the original program with their competing products.

Keeping even or ahead of the market has entailed seven-day workweeks and long hours, including many overnights, for both directors. The sheer volume of the catalog gives an indication of the work that's gone into building the company. But that ignores what Dixler and Goldberg believe is one of their major strengths—they listen to their users.

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a Christmas present for you

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Diarmuid McCarthy teaches computer science at the College of Marketing and Design, a third level school in Dublin. In the course of using the Apple II in his classes, McCarthy developed an Applesoft tutorial on disk for use by his students.

Typical of a spirit that seems to have almost disappeared from the Apple community, McCarthy has offered his tutorial to all Apple owners with the specific proviso that no publisher or disseminator of the disk do so for a profit and that the software be considered in the public domain.

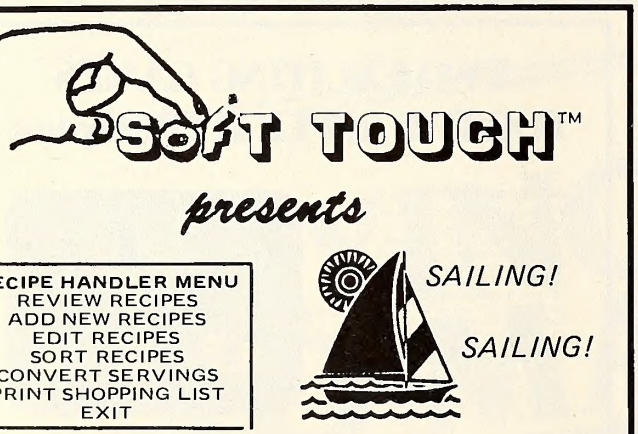
Stan Goldberg and Rosalie Dixler, codirectors of Micro Lab, accepted the burden of handling the logistics for getting the program into the hands of American Apple owners.

According to Goldberg, the program consists of two beginner lessons on the Apple and its keyboard, zooming in on the use of the edit keys. Two introductory chapters and two chapters introducing Basic follow. The major body of the work consists of two instruction blocks of twelve lessons each.

An Applesoft reference section contains sixty-six commands with explanations as to their use.

Goldberg was high in his praise for the programming techniques used in developing the tutorial. According to him, the software is strongly error-trapped.

Apparently the program is a suitable gift for beginner or intermediate programmers, and Micro Lab is providing the disk for a $7 charge that includes the cost of the disk, the cost of duplication, and the cost of postage. Inquiries and orders may be directed to them at 2310 Skokie Valley Road, Highland Park, IL 60035. The program requires 48K and DOS 3.3. ◨



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Users Come First—and First Again. Listening to the users results in updates to products already on the market to make them more responsive to the uses to which the program is being put. The final result of that policy has been two updates to *Data Factory* and one update to *Invoice Factory*. An improved version of *Dogfight* also was published during this same period.

The policy of updating the programs, as well as the policy of locking the programs, has caused Goldberg and Dixler to construct a user-support program that they believe has contributed significantly to their success. In addition to providing the backup disk with the original package in applications programs, they offer an extended warranty that permits users to upgrade to improved versions of the product at little expense. Micro Lab has always designed their updates in such a fashion that files of data developed under previous versions of a program will be compatible with the new version.

Although Goldberg, a former industrial engineer before he turned to marketing, has not been able to fit in the hours of tennis and recreation that he foresaw resulting from his part-time business, he's found sufficient other rewards in Micro Lab.

For him, the fun has been in the creative process of conceiving of an idea, getting other persons excited and involved with a new concept, and nurturing that concept through to completion. "Where else," Goldberg asks rhetorically, "other than when you parent a child, do you have the freedom for that degree of molding and shaping?"

Goldberg has definitive ideas about the shape a product should take, but that doesn't foreclose accepting input from the rest of the Micro Lab staff. Generally, the development process encourages contributions from everyone involved in a project and the end product is the result of the suggestions of many contributors.

But uppermost in Goldberg's considerations is that each offering has to be credible in its own right. "Our best public relations is the catalog of programs that we've published. We can't afford to release a turkey." Goldberg believes that Micro Lab's success has been a happy combination of fortuitous timing and high quality product.

Dixler concurs in that opinion, but adds that the breadth of the product line has been a strongly contributive factor as well. In her view, dependence on one product or one line of products in an industry changing as rapidly as the microcomputer industry would be foolhardy.

The Elements of Partnership. It's true that an unbiased observer would not have chosen the combined experiences of Dixler and Goldberg as most favorable portents for success as software publishers. That same observer would have been hard pressed to select them as likely partners in the first place.

Goldberg was born and raised in Brooklyn. His family was what is most often described as one of modest circumstances. Dixler's father was the owner of two businesses and she was raised in the more affluent areas around Chicago. But the two have meshed their skills well despite the diversity of their backgrounds. Goldberg handles product research and development, making publishing agreements with authors and closing other contracts. Dixler pulls the loose ends together, handling packaging, developing marketing compaigns, and getting documentation completed.

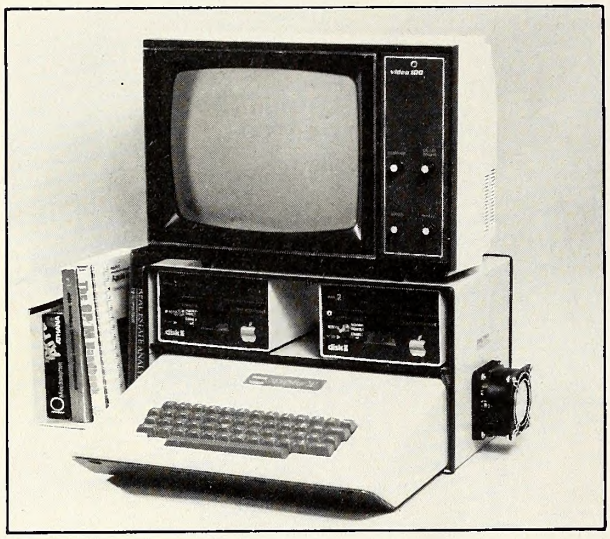
The pair share joint responsibilities for the company's advertising campaigns.

It wasn't until *Dogfight* was safely into the marketplace and had been accepted that the partners added their first employee. Like other elements about Micro Lab, conventional wisdom was not operative in the search for employees.

One of the unmistakable features of most software publishing companies is the youth of the staff. Dixler believes that's because young persons more readily accept change and new things than do older persons. In her view, change—particularly change that comes as rapidly as it does in the microcomputer industry—is threatening to most older persons. They have more difficulty adjusting to a pace where the technology of three months ago may already be out of date. So there's a nat-

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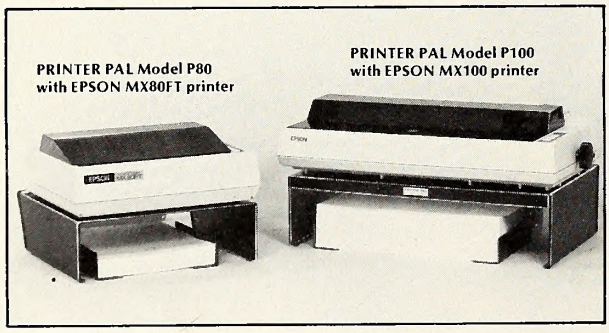


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ural trend to hire younger persons for whom such rapid rates of change are not threatening.

The Value of Living. But directors Dixler and Goldberg refused to accept as necessary settling for key employees who might lack experience because of their youth. Even in their hiring of programmers—a microcomputer skill where twenty-five is practically ancient—Micro Lab has sought out and hired older, more experienced persons. While there's no danger of anyone mistaking the Micro Lab offices for a home for doddering retirees, there's clearly an emphasis on experience and efficiency reflected in the employees on board.

Martha Erickson is a case in point. Last spring, she was hired to handle many of the customer support functions—answering queries from customers about the use of the various company products and solving specific problems that might arise. Erickson is not your typical recent college graduate, looking for work and receptive to the new world of the microcomputer.

She's a schoolteacher of twenty years' experience who was reentering the job market. Toward that end, she'd taken a class in accounting but found the work not to her liking. She then took a business computer course. While taking the course, she applied for work at Micro Lab and was told to come back when she had finished. She did and was hired.

Erickson's teaching experience has been invaluable in handling customer queries. Most of the questions derive from the inability of the customer to understand the proper use of the program—a situation which calls for them to be taught the correct method.

Erickson allows that teaching over the telephone is difficult, but her background has made it easier to apply appropriate teaching techniques for each caller. The almost infinite patience that a seasoned teacher must learn to survive has stood her in good stead when callers open conversations with hostile attitudes. She most often manages to kid the person into a more receptive frame of mind while solving their problem.

Knowledge Never Hurt Sales. The major areas of her responsibility are *Data Factory* and *Invoice Factory*. Because of the reliability and ease of use of the products, her time is not consumed in customer service. Because of her familiarity with the advantages of the products, she uses her additional time to dial up retailers and push the product.

Micro Lab has provided an Apple for every employee, but Erickson confesses that she hasn't yet had time to learn one program other than those for which she's providing support. So while Dixler has converted from finding the computer an imposition when writing to an indispensable tool for composing, Erickson has yet to get the time to test that theory for herself.

Hired about the same time as Erickson was Deborah Mihm, likewise a computer novice. Mihm, like Dixler, has a fascination with new experiences that has found some fulfillment in the microcomputer industry. As one of the persons responsible for documentation, she's had to work closely with the programmers and found this stimulating. She describes the programmers' environment as one of humor and intense concentration. If that's not how you've seen it or pictured it, perhaps her comment represents a true tribute to the atmosphere created at Micro Lab by Goldberg and Dixler.

Mihm wasn't exactly looking for work in the microcomputer field, but when a friend mentioned that Micro Lab might have need of a person with her journalistic talents, it struck her right. Her vicarious knowledge of computers, gleaned from friends who were closely associated with data processing, prepared her to be quite comfortable with micros.

No stranger to hard work—she earned her way through college—that concept was tested early by her assignment to do the documentation for *Painter Power*. She sat with two computers, one displaying the program and one to do word processing, for several weeks.

Like Erickson, she represents those programs she's most familiar with to the retailers. She's found that contact enjoyable in that the retailers seem to like what they're doing. She's

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perceived in them a basic honesty and a minimum of hype that she can appreciate.

Looking at age differentials from a different perspective—not of the age of the persons working in the industry, but of the age of the average user—she sees a need for the microcomputer industry to reach more of the over-thirty population.

A Different Kind of Atmosphere. The programmers whose ambience Mihm has found so delightful are Hatlak and Rostenbach, the in-house technical gurus and the authors of *Language Plus.* The pair have known each other for some time, and in fact both worked for the Milwaukee Railroad in separate divisions.

Micro Lab has ensconced them in their own facility, away from the hue and cry of more mundane commerce, so they can concentrate on the programmers' art. This facility does not go unappreciated. Hatlak commutes an hour each way to take advantage of the tools, not the least of which is seclusion, provided in what they affectionately term the skunk works.

Hatlak is also more likely to be the one found there during the normal business hours, Rostenbach having the tendency to work asynchronously to the normal population.

But the pair work closely as a team, with their strengths complementing each other. Hatlak is more the short-term project programmer, being able to zap out volumes of runnable code in a short period. Rostenbach, by his own admission, is likely to anguish for as much as two weeks over the code that he took an afternoon to write.

Rostenbach is content with his method, feeling that his code when finished will meet his minimum criteria for acceptable programming, and his criteria are higher than most. In addition, he believes he makes back some of that time because his code requires substantially less debugging than that written in speedier fashion.

He Had the Time. The way Hatlak describes the team, Rostenbach is the theoretician and Hatlak is the pragmatist. In fact, Hatlak serves as an anchor for the team, handling most of the coordination of projects.

Hatlak came to the Apple by way of 8080 home kits and the TRS-80. He pursued his programming hobby while operating a crane for the Milwaukee Railroad. His ability to make the Apple hum the desired tune caused his programming services to be in demand in the Chicago area for consulting work on special applications programs, the biggest projects being in conjunction with audio-visual graphics.

Eventually, Goldberg approached him about doing some consulting work for Micro Lab. Hatlak had three weeks of vacation due and took them the first three weeks of this year. For him it was the best of both worlds, being paid by one company not to work while being paid by another for working at his hobby. During that three-week stint at Micro Lab, Goldberg approached him about staying on full-time.

For the most part, Hatlak has been involved in the polishing of software developed outside the company and submitted for publishing. Those kinds of activities have provided him with insight as to which pitfalls to avoid in his own programs, but they've also kept him too busy to apply much of that new-gained knowledge.

However, Hatlak had primary responsibility for writing the code for *Invoice Factory,* a program conceived and designed by Goldberg.

Compile Not, Said He. It was Hatlak who discouraged Goldberg from entering the compiler fray. Supported by Rostenbach, he presented a scenario that predicted that the performance gains from compiled Applesoft would not be as significant as expected. In this view, the amount of RAM, the overhead required, and the very machine layout militated against an optimal compiler that would do preparsing and interpreting before delivering compiled code.

Rostenbach pointed out that the expansion of code required to compile a tokenized language like Applesoft would limit the advantages of the compilers.

This analysis paved the way for *Language Plus,* written as a joint effort by Rostenbach and Hatlak. A compilation of machine language routines that can be integrated into Basic programs, *Language Plus* offers the tailored coding of assembly language for specialized functions as opposed to the more general-purpose, and therefore more voluminous and ponderous, coding of a Basic language.

In contrast to Hatlak's fidelity to the Milwaukee Railroad for nine years, Rostenbach followed a more circuitous route to Micro Lab. He took several computer classes in high school, learning on a PDP-8. From there, he took a computer operator's position at the University of Iowa, where he was able to observe the hardware while monitoring some computer courses and taking others for credit. His assignment was the physics department, where Dr. James Van Allen presided.

The Creativity-Clock Conflict. From the university, he went to work on the Milwaukee Railroad as a clerk but was transferred to corporate headquarters data processing when his skills in that area were discovered. The constraints placed by big companies on creative individuals began to stifle him—particularly the requirement to work regular hours. Like many programmers, Rostenbach likes to continue writing code when it's flowing; breaking off an effort because it was quitting time was alien to his nature.

Because he had no friends when he moved to Chicago, he began hanging around his local computer store—Data Domain in Schaumburg. Eventually, owner John Clark offered him a job and he jumped at the chance. Rostenbach had fallen in love with the Apple at first sight. It was more powerful and more friendly than the mini he had learned on, and working at Data Domain would give him a chance to get intimately acquainted with the machine.

After a year during which he handled mostly sales, he began developing some software in anticipation that Data Domain would venture into the publishing business. When that eventuality didn't come to pass, Rostenbach looked for greener pastures.

In association with Harlan Felt he developed the Emergency Medical System Mobile Intensive Care data base management system for Loyola University. If you read ads in the papers carefully, you may have heard of it. It was one of the programs featured in Apple's campaign a while back.

Subsequent to completing that project, he tackled a biorhythm program for the Bally home arcade machine. His goal was to get an assignment writing for the coin-operated arcade machines. When that wasn't forthcoming, he was amenable to Micro Lab's offer.

Micro Lab's commitment to user-friendly software and to customer support was what won Rostenbach over. He's firmly against locking software, but felt that the policies of providing a backup with the package and providing liberal updating procedures were in concert with his general philosophy.

Enter the Closet Youth. Like Hatlak, much of his effort has been expended in polishing other authors' efforts, but he's looking forward to the day when their presence will be more noticeable in the Micro Lab output.

Micro Lab actually has a third programmer, David Sousson, who's attending the University of Illinois as a freshman on a Micro Lab scholarship. Both Hatlak and Rostenbach have high praise for Sousson; they described a scene wherein they were explaining the intricacies of data base management systems to the youngster. By the time they were halfway through their explanation, it was clear that Sousson had intuitively grasped the information and could anticipate what they would say next.

As their warranty procedures and their treatment of Sousson indicate, Micro Lab is a company that considers their impact on the persons with whom they come in touch. Of course, the other indication is the number of new products they've got for your Christmas stocking this season. ■