U-NEWS

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This spring and summer have been one of the worst allergy seasons ever.
People who never had allergy problems before had them this year.
The editor of U-NEWS, who has severe allergies to begin with,
was unable to work most of the time over several months.
The worst of the allergens seems to be past now, though,
and U-NEWS is back in production as before.
All twelve 1984 issues will be published.

SLIP-IN-YOUR-BRIEFCASE UNIX SYSTEM

While the rest of the Unix community sits around debating whether there will ever be a Unix system that can be carried with one hand, Sharp and VenturCom have created one that will fit in an ordinary briefcase with room left over. It's in gamma test now, and could be on the market within months.

This system is based on Sharp's PC-5000, an IBM PC compatible that's been on the market for some months. An 8088 CPU, of course, and sockets for 128k of rom, 128k of ram, another 128k of either rom or ram, and 128k of bubble memory. This last replaces the floppy drive; it's on the front panel to be as easy to change as floppies. A built-in liquid crystal display holds 80 columns by 8 lines of characters, or 640 dot by 80 dot bit-mapped graphics. The keyboard is standard size, with 8 definable function keys. The batteries are good for six hours use between charges, Sharp says, and the whole system takes up 12.8" x 12" x 3.4", weighs 9.8 pounds, and with MS DOS costs about $2300, including one bubble cartridge. Extra 128k bubbles cost $270.

The main option is a printer that fits within the case size above. It's thermal, but a ribbon cartridge is available for printing on plain paper, takes rolls or cut sheets up to $8\frac{1}{2}$" wide, and prints up to 6.6" wide in your choice (software controllable) of 10 pitch, 12 pitch or raster graphics. This printer adds 3 pounds to the weight and $400 to the price. A 300 baud autodial modem is available to go on the RS-232C port; it will fit inside the case also, or you can use the space to store 2 extra bubble cartridges. A pair of $5\frac{1}{4}$" floppy drives, small sized but not battery driven, are available for your base of operations. I've tried the MS DOS version, and the only criticism I can make is that the display needs a glare filter, especially for portable use.

Sharp hired VenturCom to port Unix into rom, without any use of the floppies, so their Unix version would also be briefcase portable. This VenturCom has done, delivering a remarkably utilizable subset of Venix. Sharp has not blasted proms yet, but they

are trying it out by reading it into ram and proceeding from there as with a memory-resident system. Their current step is to put this version up for tryouts in their booth at July's NCC show. If the reaction from NCC attendees is positive, we can expect to find a rom version on the market in short order.

Meanwhile, Sharp is finishing up Unix for desktop hardware they presently sell only in Japan. This is a 68000 system with 1k x 1k bit-mapped graphics display. The U.S. price for this system, complete with Unix, will be only about $2000, I'm told. It's not likely to appear before the end of the year, though.

I.E.D. Systems; Sharp Corp.; 10 Sharp Plaza; Paramus, NJ 07652; phone 201-265-5600.

LOCAL GROUPS, CONTINUED

BOSTON The Boston Computer Society has a Unix/C sig, Eric Rosenthal tells me, which meets at unknown intervals. You can write the Boston Computer Society for the details at One Center Plaza; Boston, MA 02108 or phone them at 617-367-8080.

SEATTLE A new group is getting started here; first meeting in May 1984. David Herington; Sun Microsystems; Mercer Canal Building, Suite 200; Bellfield Office Park; 1300 114th Ave. S.E.; Bellvue, WA 98004; phone 206-451-8449.

OAKLAND There's a small, low key group here that concentrates on Unix for smaller micros, particularly Xenix versions. Ray Bailey; Bailey Enterprises; 9837 Lawlor Street; Oakland, CA 94605; phone 415-562-6207.

DALLAS Finally found the contact information for this new group, in a ;login: issue. Irv Wardlow; Advanced Computer Seminars; 2915 LBJ Freeway, Suite 161; Dallas, TX 75234; phone 214-484-8649.

BOULDER The Front Range Users Group meets at local users' facilities about six times a year. Steve Gaede; N.B.I., Inc.; P. O. Box 9001; Boulder, CO 80301; phone 303-444-5710.

DENVER The Denver Amateur Computer Society is "moving in the direction of Unix, Unix look-a-likes and C." Connie Ulehla; Ulehla's and Associates; 9565 West 53rd Place; Arvada, CO 80002; phone 303-424-8540.

Uni-Ops started one of the local groups from scratch, and we've provided help to several of the others. In the course of all this, we've gotten a good notion of what does and what doesn't work out in starting a local group. A little pithy advice:

¶ Start by arranging and announcing the first meeting. Make it typical of the sort of meeting you want to hold generally; a meeting just to organize a local group will draw either no one or a few people with a taste for power.

¶ In that first announcement, be clear on what you have in mind for the group. It's all right to say that your own plans are subject to revision by the group, making it clear that you're referring to those people who come to all or most of the meetings, but saying that you've made no future plans for the group in deference to the intentions of those who come around is the way to start a debating society, not a Unix/C users' group.

¶ Also in that first announcment, state flatly that you are organizing the first meeting only (or the first and second if you plan to meet monthly), and that only

if active active volunteers appear at the start will further activities happen. If you don't do this, you can expect to do all the work as long as your group exists, and your typical attendees will be essentially passive people.

¶ Strike a balance between technical discussion and social camaraderie. You need both to make people want to come to meetings. (Gil Dalit's Palo Alto Group is primarily technical, I know, but it's not what I think of as an ordinary local user group.) Keep the technical level a little higher than seems appropriate for the people in your group, because everyone is happier when the new people understand only part of what seems thrillingly advanced to them than when the veterans are yawning and nodding off.

¶ Sales people will want to talk at your meetings. This is good, because hard information about products is one of the more popular topics at most local meetings. But be sure the sales reps you put on the platform really know the technical merits of the products the want to push, and can make it all exciting. These considerations will leave out about 97% of the sales people I've ever met.

Following this advice may well lead you to successful local meetings. At the very least, it will keep you from falling into the same pits as I did.

HUNT THOSE HEADS

The big surprise over the size of the turnout at last January's UniForum has brought out flocks of new entrants in many Unix-support fields: trade shows, magazine reports, how-to books, etcetera. One of these instant growth fields is personnel recruiting, but here the potential client has understandable doubts - there are no samples of a recruiter's work to be examined and, if he's brand new, few if any past customers to talk with. Hiring a Unix recruiting specialist on blind faith is no one's idea of fun.

But a fair number of recruiters were specializing in Unix well before the start of 1984. They are less likely to be opportunists than those just scrambling into the field, and they all should be able to let you talk to satisfied customers of Unix personnel searches. Here is a list of those I know of:

Floyd Gerstenfeld 503-982-6410	Beck, Gerstenfeld & Assoc., Inc. 1367 North Pacific Highway, Suite B Woodburn, Oregon 97071
Evelyn Little 415-644-0440	Sunday & Associates 1400 Shattuck Avenue, Suite 1 Berkeley, California 94709
Cecilia Miller 408-246-2101	Positek 1333 Lawrence Expressway, Suite 424 Santa Clara, California 95051
William Hamilton 213-459-7863	The Whitman Challenge Company 18125 Coastline Drive, Suite C Malibu, California 90265
Gary Carl Anderson 213-371-7100	Computer Consultants, Inc. 2616 Voorhees Avenue, Unit 1 Redondo Beach, California 90278
Elvin W. Erickson 602-971-1502	Erickson & Associates, Inc. 17021 North 58th Way Scottsdale, Arizona 85254

Dave Small 713-496-6100	Scientific Placement, Inc. 14925 Memorial Drive Post Office Box 19949 Houston, Texas 77224
Ed Taylor 212-513-7777	Pencom Systems Inc. 150 Broadway, 6th Floor New York, New York 10038

They are not listed in order of preference (the actual order is by zip codes, highest first) because I'm not in a position to evaluate them. I've never had occasion to hire through a recruiter, in the Unix field or elsewhere, and I've never been hired through one, either. I hate working for wages, so I haven't even had occasion to discuss taking a job with any of these people. What I do know about them follows.

Mike Sunday hired Evelyn Little to take over the Unix area of his practice late in 1983. Floyd Gerstenfeld left the agency where he'd been employed to become a partner in his own firm in the spring of 1984. In all the other listings above, the person and the firm have been working together in Unix recruiting a long while.

I know Mike Sunday personally. He and I were both APL enthusiasts before either of us got into Unix and C, and we found that we were both in the popular music ield before that: he was an artist & repertoire man for a couple of the big record companies; I headed a company that built high-tech loudspeaker systems for concert use. He's staightforward, persevering, is active in computing user groups, and has much more depth than ordinarily expected in a recruiter. Dave Small and Bill Hamilton I've worked with on promotional mailings for their firms; these have gone smoothly and I've heard no complaints from people on our mailing list about their services (people do tend to gripe to the company that mailed them a packet when one of the products or services listed does not work out well). I talk with Cecilia Miller on the phone from time to time; she has always been chipper, diligent and empathetic.

These companies understand the word "recruiting" in different ways. At one extreme is Scientific Placement, which maintains a huge file of résumés ready for perusal whenever an employer puts in an opening. At the opposite end, Whitman Challenge prides itself on doing each search from the ground up; they analyze the employer's requirements and only then start talking to their contacts. The other firms fall between these two poles - most of them are closer to Whitman Challenge, though.

[Eveline Rhodes just finished proofing the previous page, and tells me I left out one of the listings I'd intended to put in. She is absolutely right, so here it is.]

Dick Maiter
714-891-8649

Computer Professionals Unlimited
7411 Garden Grove Blvd., Suite D
Garden Grove, California 92641

Two of these companies have become well known for reasons related to their recruiting work. Pencom has long done Unix recruiting work for Western Electric, and has been put in charge of the job fair at Unix Expo, coming up in New York City this October. Scientific Placement encourages résumé submissions by giving out a 16 page Resumé workbook & Career Planner.

Much of the advice in Scientific Placement's workbook is quite valuable. There are a few important points, though, on which they're opposed to the best experts in the job-hunting field, and also to my own experience (I spent over a year during the

teacher glut of the early seventies working with new teachers seeking positions, and wound up writing a book, The Teaching Job Hunt, which quickly became a best-seller with college and university libraries).

The main point of non-consensus is the use for a résumé. SP sees it as a mailing piece, for soliciting job interviews. In the real world, sending a résumé works against getting a job interview. This is not just speculation: Carl Bolls has done many A/B tests that routinely showed at least half again as many interview requests from the employers who were sent letters without résumés. Nor should you take your résumé into an interview. As Eli Djedah points out, this is works against getting what you must get at the first interview to have any hope of landing the job: a definite appointment for another interview. Both these men's books are wellsprings of information for the job-hunter; especially Djedah's, if you take his slippery attitude with several grains of salt.

OBJECT ORIENTED KERNEL SUPPORTS SMALLTALK AND UNIX

by Jeffrey Stone, of J.D. Stone Software Associates in Menlo Park, CA

Syte Information Technology Inc. added its name to the roster of vendors offering high-performance micro-based graphic workstations. Syte's Series 3000, introduced in January, is based on the National Semiconductor NS16032 CPU and uses Intel 80186 and 8051 processors for support functions. The system is available with 1024 x 800 monochrome graphics or 640 x 480 x 4 color graphics. A basic configuration sells for about $25,000 without disk storage peripherals.

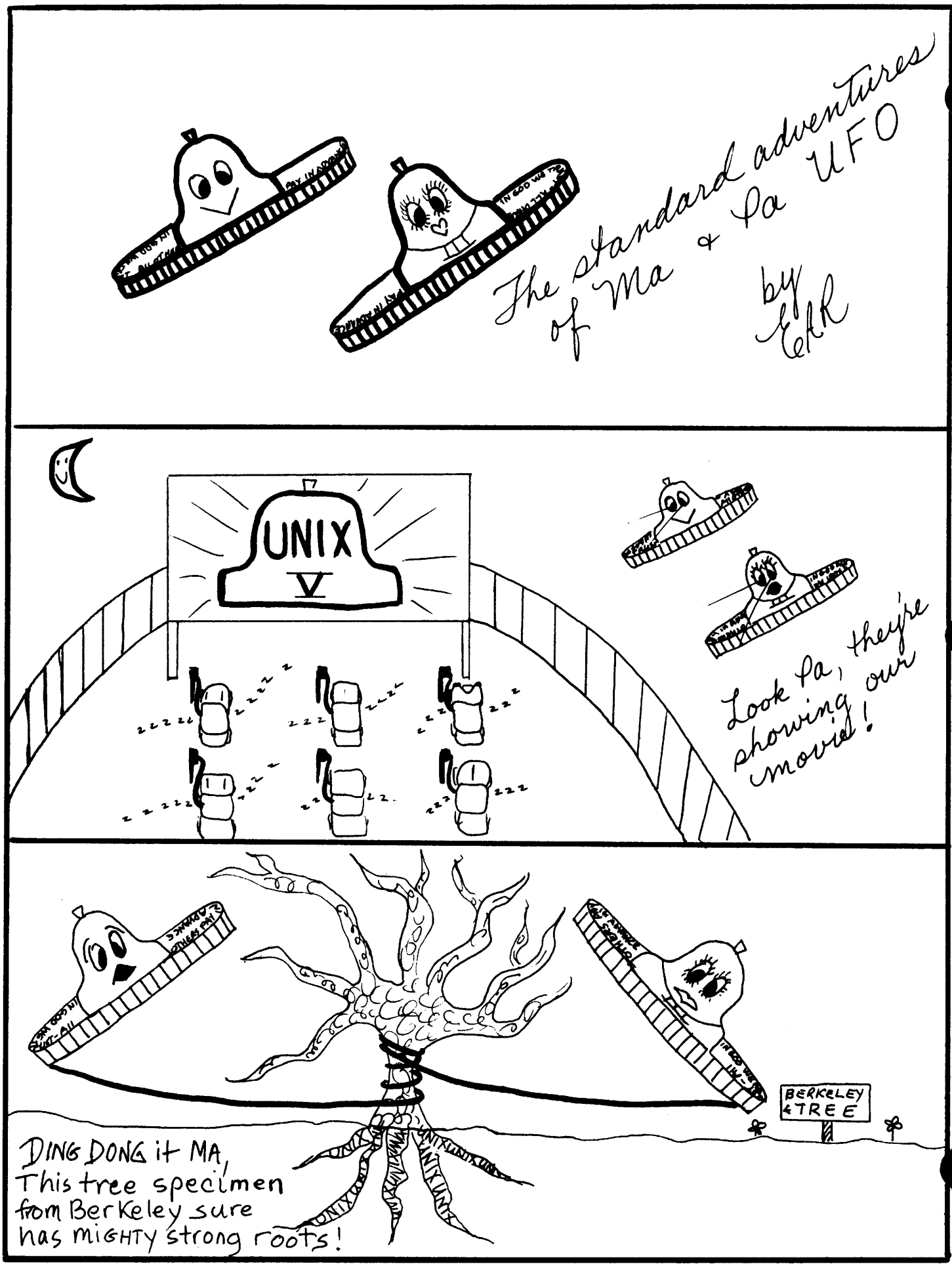
At the time of its introduction the Series 3000 was announced with Unix (System V) running on top of GEM (Global Environment Manager), Syte's proprietary object-oriented operating system kernel. GEM is said to contain a file system, I/O system, memory manager and other common operating system facilities.

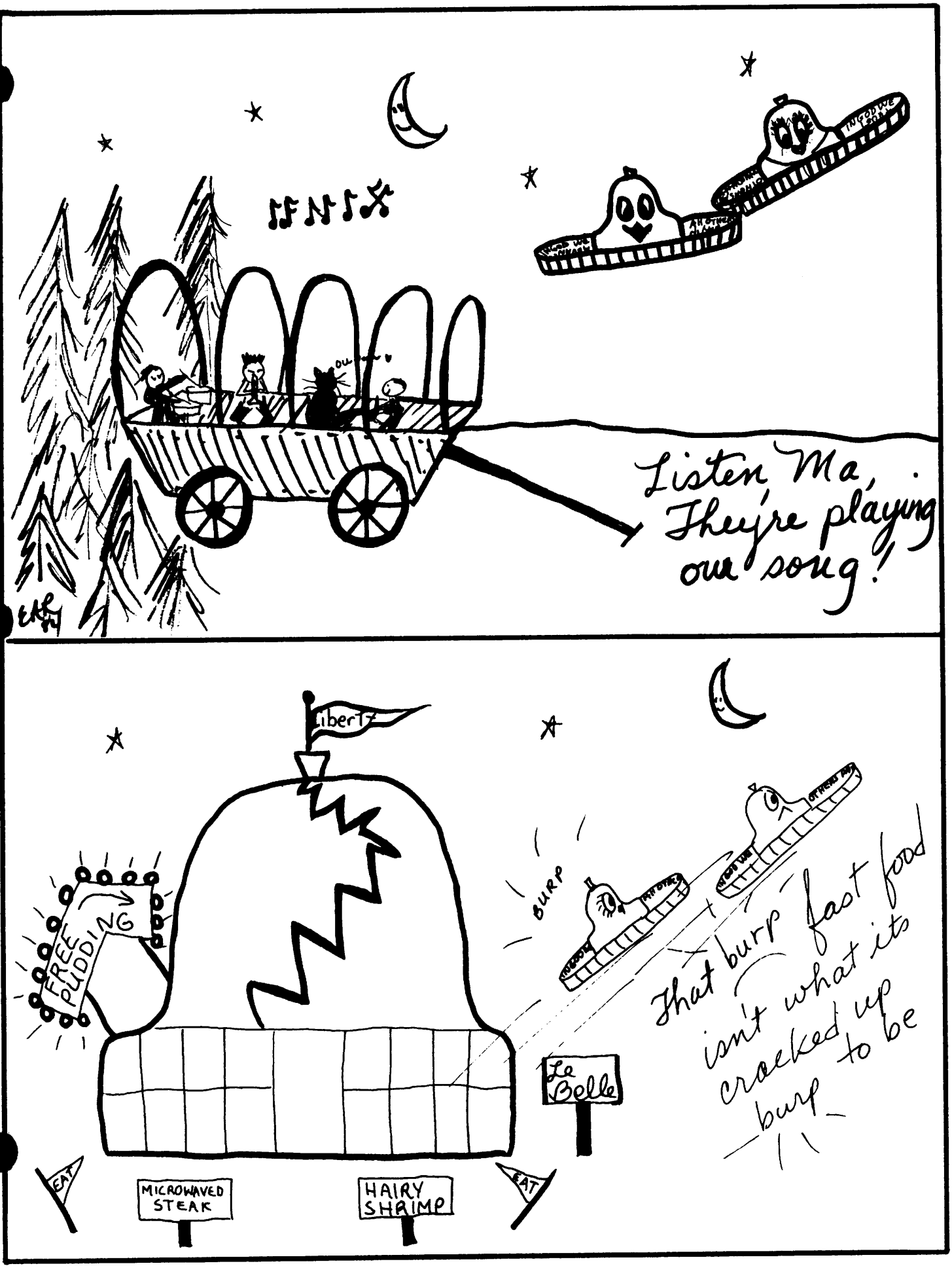
Now Syte is showing some marketing prowess, if not some technological savvy, with the announcement of Smalltalk for the Series 3000. Both Smalltalk and Unix sit on top of GEM and can run concurrently - at least this is what Syte promises for the third quarter of this year, when Smalltalk is scheduled to appear for the Syte workstations.

Peter Shaw, Syte's president, is convincing when he notes that "Unix is an excellent development system, but it has holes. Smalltalk has capabilities not in Unix, or not done well in Unix." Obviously, Smalltalk's ability to support sophisticated graphic ser interfaces is one area not covered well by standard Unix systems. Besides its potential or developing user interfaces, Shaw contends that Smalltalk and Syte's GEM kernel are the wave of the future because they promote software portability thru object orientation.

Aside fron Xerox, Syte is the first hardware vendor to offer Smalltalk. If Syte actually produces what it has promised, and if the Smalltalk implementation is faster than other Smalltalks have been - then Syte may really have something nest winter. Syte Information Technology, Inc.; 11339 Sorrento Valley Road; San Diego, California 92121; phone 619-457-2270.

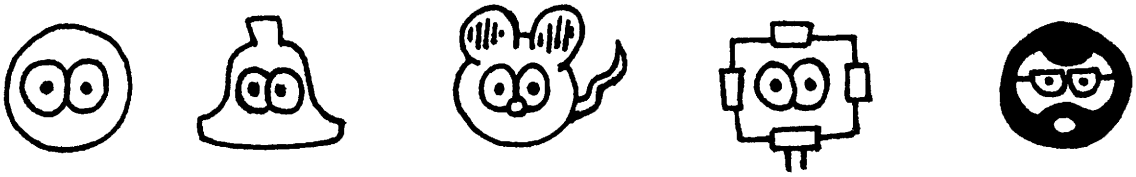
SOUTHEAST FLORIDA LOCAL USER GROUP An ex-Pennsylvanian is organizing local Unix user meetings for Florida's Atlantic coast, roughly from Boca Raton to Miami. He's thinking in terms of an evening meeting once a month, in or around Fort Lauderdale. Dr. Walter Hollenberg; 4200 North Ocean Drive, Tower 2; Riviera Beach, Florida 33404; phone 305-842-0576.


The standard adventures of Ma & Pa UFO
by E&R
UNIX
V
Look Pa, they're showing our movie!
DING DONG it MA, This tree specimen from Berkeley sure has MIGHTY strong roots!
BERKELEY TREE


Listen Ma, They're playing our song!
Liberty
FREE PUDDING
MICROWAVED STEAK
HAIRY SHRIMP
EAT
EAT
La Belle
BURP
That burp fast food isn't what it's cracked up to be burp

UNI-TOONS

JR



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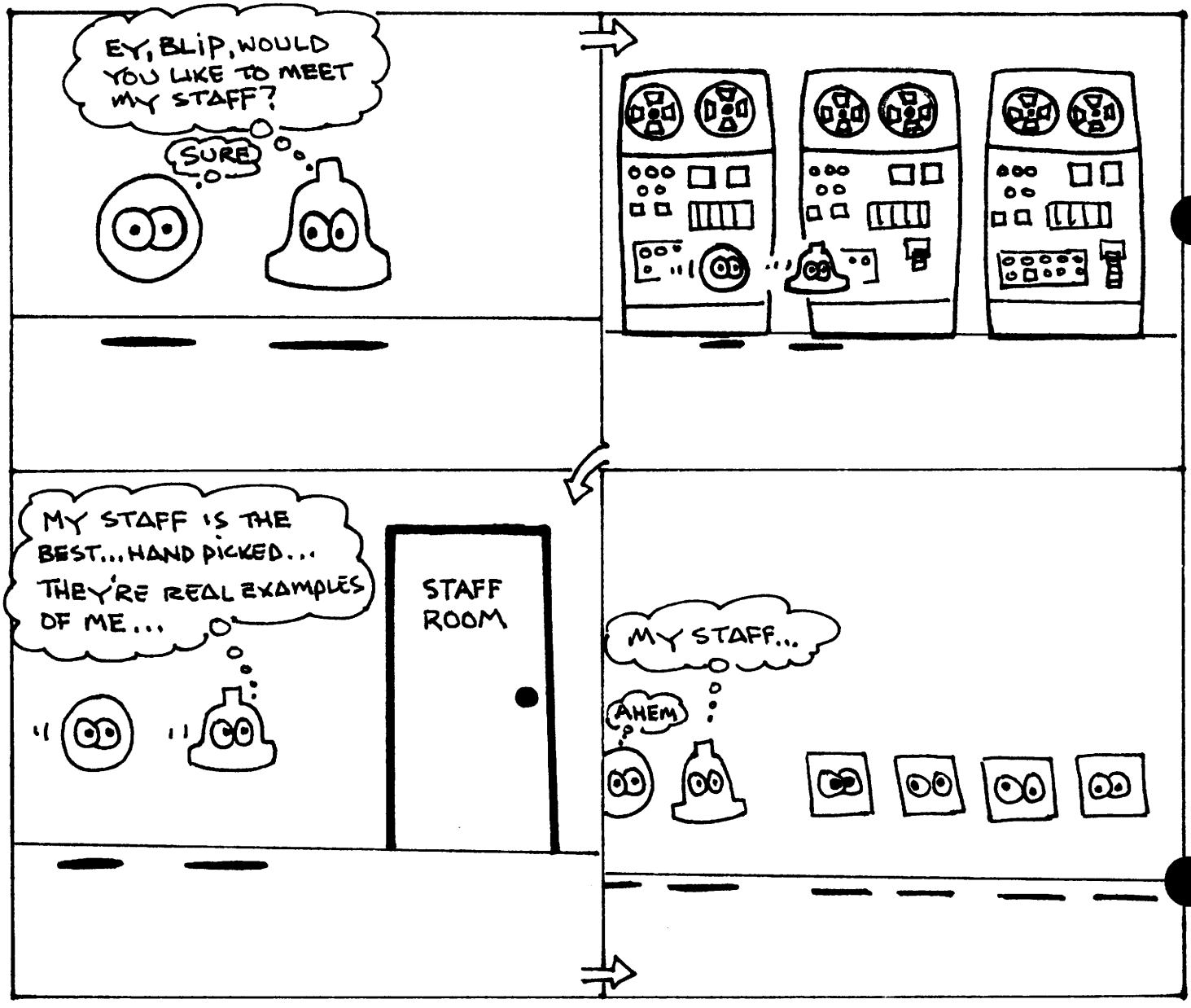

digital

A Brief History of UNIX™

Born of a system designer's need for a flexible, programmer-oriented environment and a Digital PDP-7 computer, UNIX has revolutionized the industry's concept of an operating system. With commentators linking phrases like "industry standard" with UNIX, it's important to understand what this operating system is all about, and why it has such a devoted following. One of the best ways to begin a study of UNIX is with a synopsis of its history.

The UNIX story rightfully begins with a collaborative effort between MIT, GE, and Bell Laboratories. In the late 1960's, these three organizations worked together on an experimental operating system that was to create a large-system environment optimized for developers instead of for machines. The project did not live up to expectations, and Bell Labs eventually pulled their people, including one Ken Thompson, from the project. MIT and GE continued the effort, which resulted in the Multics operating system that Honeywell (having purchased the GE computer operation and Multics) still offers on some of its machines.

Off the Multics project, Thompson had a real problem: Where could he find a home for the Space Travel solar system simulator he'd developed for Multics? After considerable legwork, he got authorization to use a Digital PDP-7, complete with a video display that would enhance his software. The system designer began reimplementing the game on the PDP-7 in his spare time, and along the way started experimenting with a small-machine version of some Multics file system concepts and operating system design. His tinkering in PDP-7 assembly language grew into a rudimentary operating system, including a central core (kernel), his file system, and a set of small, specific utilities he developed to ease his own programming efforts. And thus UNIX came into being as more of a developer's workbench than a machine-oriented operating system.

The intriguing project attracted other Bell Labs developers, including Dennis Ritchie who became Thompson's partner in the endeavor. In a bid for financial backing for their pet project, the two developed word-processing software to run under UNIX on a Digital PDP-11/20. The system was such a success that they received funding for Digital's PDP-11/45 and set about developing new utilities and software. The UNIX and PDP-11 combination became very popular within Bell Labs, and UNIX was well on its way.

So what do you do as an encore to a successful operating system that considers people rather than machines? Thompson set out on another challenge: design a high-level language compiler that generates code tight enough to use for writing an operating system.

Thompson experimented with a variety of languages before concentrating on BCPL. He wrote an interpreter, B, from a subset of this ALGOL-like compiled language, and used it for some of the early UNIX compilers and utilities. Ritchie then added data structures to the better elements of B to produce an interpreter he called NB. In 1972, NB produced a new compiler called, logically enough, C. Essentially a structured assembler, C enables programmers to use machines efficiently without tying them to specific hardware. And so another challenge was met: C is a high-level language that can be used to write operating systems.

UNIX became the portable operating system it is today when it was rewritten in C in 1973. The first real test of its portability came in 1977, when it was ported to an Interdata 8/32. The machine was selected because it was as different as possible from UNIX's PDP-11 home base.

In the next four years, UNIX was ported to several machines. The University of California at Berkeley achieved one of the most successful ports by bringing UNIX to Digital's VAX computers. A VAX running Berkeley 4.1 or 4.2 is still extremely popular at universities, software development houses, and government installations.

Meanwhile, UNIX continued to mature. UNIX Version 6 -- so named because that was the edition number on the sketchy documentation -- on the popular PDP-11 minicomputer gained a wide and devoted user base both inside and outside Bell Labs. By mid 1978, UNIX boasted over 600 installed sites across the country. Many universities and software houses caught the UNIX fever, adding features to the system and writing applications for it. Version 7 UNIX and C, still the de facto benchmarks, appeared in early 1978.

By the time Bell Labs brought UNIX into the commercial market as System III in 1982, several UNIX ports and work-alikes were already available. But it wasn't until late 1983, when Bell Labs negotiated agreements with Intel, Motorola, Zilog, and National Semiconductor to support compatible UNIX ports for their sufficiently powerful processors, that the industry in general started to realize what enthusiasts had been thinking all along: UNIX could be the operating system of the future.

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