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# UNIX NEWS

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## SPECIAL DOUBLE ISSUE ON UNIX & C TRAINING

Despite the recent flood of books on Unix and C, even despite the quality and readability of most of them, the demand for training courses on using Unix and C keeps growing. Knowledge of available training isn't so widespread, though. A typical user might be able to name three or four of the training vendors who advertise extensively, and may know a little about a few of the courses they offer. He or she would be amazed to learn that there are more than thirty companies seriously involved in the field, offering more than one hundred twenty courses.

This special issue is a course-by-course description of the great majority of the courses available in public sessions, on site, or on tape. (Interactive, computer driven instruction is too new and too complex to be covered in this issue. The few conventional-training firms that have not yet sent their course descriptions to me after more than a month of requests will also be covered some time later.)

These courses are grouped by the companies which offer them. Each listing starts with the company's name and contact information, and usually some general remarks about the operation. Individual course listings follow: first the course title, underlined; then some general information such as the length of the course; finally, in quotation marks, a course outline or description from the vendor. These descriptions are sometimes excerpted from longer listings in the vendors' catalogs, but are never rewritten.

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Center for Advanced Professional Education  
1820 East Garry Street, Suite 110  
Santa Ana, California 92705

phone 714-261-0240

They offer their course on-site and at public sessions in Anaheim, Atlanta, Austin, Boston, Calgary, Columbus OH, Denver, Long Island, Minneapolis, Montreal, Ottawa, Philadelphia, Raleigh, Rochester NY, San Francisco and Toronto. CEUs are awarded, there are multiple-enrollment discounts, and full refunds for any attendee who is not satisfied at any point during the course and chooses to withdraw. Their big name is Marc Rochkind, who created SCCS while at Bell Labs.

### UNIX - A User Oriented Evaluation

3 days; \$745 per person at public sessions; on site for 10 or more.

"This seminar is geared for people interested in evaluating Unix as a viable operating system for their needs, and is useful for helping new users of Unix learn the system

and take full advantage of its features. No detailed knowledge of operating systems or programming is required. However, the course does assume some familiarity with data processing.

Unix is introduced in the context of traditional operating systems and is then examined thoroughly from the inside out. First, the system "kernel" is described in detail then, standard "user-level" programs and commands for file manipulation, word processing, and programming are discussed. Next, the pros and cons of using Unix for specific applications are treated from the perspective of the course directors' extensive experience as an implementor and user of Unix. Application areas discussed include transaction, database, and realtime processing, data communications, and office automation."

Association for Computing Education  
1901 Old Middlefield Way, Suite 10  
Mountain View, California 94043

phone 415-964-4437 days  
phone 415-965-7626 eves

Courses given in Palo Alto on weekends. Tuition ranges from \$100 to \$145 per day, depending on when you register and whether you're an Aces member; \$55 per day for full-time students; lunches included.

### Unix, C and Microcomputers

A pair of one-day courses that are usually taken together - first day on Unix, second on C.

"This seminar presents simple examples that demonstrate the elegance of the Unix operating system and C programming language, together with a comparison of Unix with other popular microcomputer operating systems and a comparison of C with other popular systems implementation languages."

Bunker Ramo Information Systems  
35 Nutmeg Drive  
Trumbull, Connecticut 06609

phone 203-386-2600

Courses at their southwest Connecticut site, where every student has a terminal throughout. Each course detailed below lasts 5 days.

### Introduction to Unix

"Introduction of data processing personnel to the Unix environment through hands-on experience to include work with the shell, editors and file handling. Topics: features and functions of Unix; the structure - shell, kernel, utilities; the Unix file system; files - ordinary, special, directories; the editor; manipulation of I/O; pipes & filters; conventions"

### Advanced Unix Methods

"Students who begin with a basic Unix background will learn to develop high-level programs using the shell command language. They will be using the most frequently used Unix commands in the synthesis of procedures which create new features. Further investigation of the shell programming constructs will enable them to use looping, branching, and decision mechanisms in the construction of sophisticated programs which manipulate the environment. In addition, an overview of salient features of the kernel will be given."

### Programming in C

"Students will utilize the C language in problem solving. The curriculum begins with simple "statement" programs and progressively becomes more difficult. Each programming assignment will involve the application of new aspects of C and requires participants to build on what they have mastered in earlier assignments."

#### Advanced C Methods

"To introduce the student to some of the more sophisticated features of the C language with a special emphasis on low level C operations and the Unix system interface. Topics: portability considerations, debugging techniques; Unix interfacing; advanced standard I/O library functions; process creation; I/O device drivers."

Bunkker Ramo also offers Unix Marketing, a one-day course, and Additional Unix Topics.

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Lurnix  
2560 Bancroft Way, #52  
Berkeley, California 94704

phone 415-527-1745

These courses originally were used to teach Unix use on the U.C. Berkeley campus - they're now offered as on-site courses for outside users.

#### Unix Capabilities - A Survey

"This one-day overview of the Unix computing environment surveys the wide variety of available Unix resources. The focus is on those aspects of the system appropriate for the three levels of personnel who can most benefit from Unix: office staff (supervisors and secretaries), who can use the system for record keeping and the design and production of printed material; programmers, who use Unix primarily to create, maintain and modify programs and databases; and managers, who use the system both to create and collaborate on written material, and to speed up the exchange of information within their organization. In addition, this is the appropriate survey course for marketing and sales personnel who need to understand the Unix computing environment."

#### Using the Unix Computing Environment

This is a five-day course, but it's divided into half-day modules that can be presented separately for clients who need only specialized training. This course is ordinarily taught with each student seated at a terminal. Instruction is highly individualized, so students in one class can be studying different modules at the same time.

"Upon completion of the course each participant will be able to: employ the full screen (visual) editor with wit and diplomacy to enter and modify data, text or computer programs; format and print text files or develop and compile programs; describe the role of command interpreters in Unix; employ the line editor (ex) to perform specialized editing tasks; send and receive electronic mail; efficiently create and utilize multiple levels of directories; efficiently troubleshoot whenever a Unix problem rears its ugly head; locate appropriate documentation about advanced Unix programs and resources. After the fundamentals are mastered . . . programmers usually explore more utility programs and the I/O redirect facilities, while text processors master production of complicated tables, equations, bibliographies, form letters, and phototypesetting (where available). Management personnel pursue the telecommunications and information management facilities available on the system."

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Elan Computer Group  
260 Alta Vista Avenue  
Los Altos, California 94022

phone 415-948-8193

Unix Device Drivers and System Internals Course

A 3 day course; \$750 at a public session, including lunches.

"A comprehensive course for those interested in writing Unix system device drivers. We cover the Unix system kernel, from the system call to the device driver entry, and proceed with a detailed study of real System V device drivers. Both Unix block and character device drivers are studied. The student will also have the opportunity to write a device driver during this course. Please note that all participants must be affiliated with an organization holding a Unix System V source license, as all example code is taken from this source."

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Intelligent Solution  
849 22nd Street  
Santa Monica, California 90403

phone 213-453-7906

Offered in Los Angeles or on site. Discounts for multiple enrollments, and a full refund guarantee for anyone who decides to leave during the first morning.

Unix Overview 1 day, \$135

"The course will prepare you to: decide if Unix is suitable for your application; decide if Unix offers cost-performance advantages over other systems; execute basic Unix commands; understand Unix file system and I/O redirection facilities; obtain and move to a Unix system. This course is for programmers, system analysts, engineers and technical managers . . . . This seminar will discuss Unix operating system evolution and present an overview of the facilities, software tools and programming languages available . . . ."

Programming in C 2 days, \$245

"The course will prepare you to: take full advantage of C's types, control constructs & data structures; design & implement modular, structured programs in C; write economic & efficient expressions; use effectively C library subroutines; use dynamic data structures. Background in high-level language is assumed."

Unix Concepts 2 days, \$245

"The course will prepare you to: log on/off the Unix system; use Unix commands; use I/O redirection facilities; navigate through Unix file systems; program the shell; use word processing facilities; develop projects under Unix; obtain Unix licenses & systems."

These people are currently wrapping up a fourth course, Advanced Unix System Programming, preparing video versions of all their courses, and licensing their courses to companies that want to do in house training.

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NCR Corporation  
Customer Services Division - USDPG  
101 West Schantz Avenue, Dayton, OH 45479

phone 800-845-2273  
phone 800-841-2273 in Ohio  
phone 513-445-3770 overseas

As an adjunct to computer sales, NCR offers training courses in Chicago, Dallas, Dayton, Houston, Los Angeles, New York City and on site. NCR's self-study coursebook overviewing Unix is prerequisite to any of their courses.

Unix Operating System      5 days, \$950

"This course is intended primarily for application programmers and system support personnel . . . . Upon successful completion of this course the student will be able to: utilize system commands in daily information processing operations; create, modify & store disk files using one of the available text editors; utilize various software tools for program development activities; create and modify file and directory structures using system commands; employ the command programming language to construct & execute shell procedure programs; use system commands to complete local & network communication activities; create a document using Unix word processing macros."

Unix System Administration      5 days, \$570

"At the completion of this course, the student will be able to: install a Unix system; add & delete users on the system; describe the structure & functions of the Unix file system; perform daily maintenance functions; perform individual file & file system back-ups; solve problems that could occur on a Unix system; check & repair the file system. The topics will be presented in lecture/discussion format with workshops for hands-on experience."

C Programming      5 days, \$950 (Second week with group projects is possible.)

"This course introduces the student to the high-level language C. In addition, topics such as C's machine independence and accommodation to structured programming will be discussed. Approximately half of the class time will be devoted to workshops. The workshops will enable the student to design and write several C programs."

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Integrated Computer Systems  
6305 Arizona Place  
Post Office Box 45405  
Los Angeles, California 90045

phone 800-421-8166  
phone 800-352-8251 in California  
phone 213-417-8888 overseas  
Telex 4995168 ICS LA

Classes with a terminal for each pair of students, given in Baltimore, Boston, Los Angeles, Palo Alto, San Diego, Washington DC and on site.

Hands-On Unix Workshop      4 days, \$975

"You will learn: the Unix operating system - what it is, how it works; file & directory organization/access; Unix shells, shell scripts, pipes & filters; Unix programming & documentation conventions; the Programmer's Workbench - tools for software development; how to extend & customize Unix for specific applications; utilizing C, Pascal, Fortran & other languages under Unix; requirements for porting Unix to new hardware configurations; Unix support for networks, graphics & word processing. Hands-on exercises include: using shellscripts in applications; executing programs under Unix; employing Unix piping & filter facilities; using files, directories & subdirectories; sending & receiving electronic mail. This course is designed for engineers, programmers, system analysts, software support specialists and their managers . . . ."

Programming in C: A Hands-On Workshop      4 days; \$975

"You will learn how to: write, compile & execute C programs; make full use of C's powerful structured programming features; implement C programs for real-time applications; write system I/O drivers using C; link assembly language modules to C programs; develop programs rapidly using C library functions; use the Unix Programmers Workbench for C development. Participants should have some background in programming . . . ."

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The Institute for Communications and  
Information Management  
AT&T Information Systems  
Post Office Box 8  
Pine Mountain, Georgia 31822-0008

phone 800-247-1212 X 310

This course is offered in a woodsy rural setting just north of Columbus GA. There are discounts for multiple enrollments.

Unix OS: The First Step 3½ days, \$800

"Designed for middle to upper management in data processing. . . . at the end of this seminar you'll understand Unix architecture and be able to define existing and potential Unix applications. You'll also know all the key issues in implementing the Unix system and be able to compare with other operating systems. Throughout the course, a hands-on approach is an integral part of the learning process."

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Corporate Education Organization  
AT&T Technologies, Inc.  
Post Office Box 1000  
Hopewell, New Jersey 08525

phone 800-221-1647  
phone 609-639-4593

(from outside the U.S.)  
Post Office Box 7000  
Basking Ridge, New Jersey 07920

phone 201-953-7913  
Telex 219 365 ATTI UR

Classes in Chicago, Columbus OH, Princeton, Sunnyvale and on site. Lunches are included, there are discounts for multiple enrollments, and "Prices may vary for some international students due to administration costs." Most of these courses involve some lab sessions; a few require a System V source license; these are indicated by the words "lab" and "source", respectively, after course names in the listing below.

Overview of the Unix System 1 day, \$200

Fundamentals of the Unix Operating System for Users 3 days, \$690, lab

Fundamentals of the Unix Operating System for Programmers 2½ days, \$575, lab

Unix System Screen Editor vi 1½ days, \$345, lab

Shell Command Language for Users 2½ days, \$575, lab

Shell Command Language for Programmers 4½ days, \$1035, lab

Unix System Tools 2 days, \$460, lab

Unix System Document Preparation 4½ days, \$1035, lab

- C Language for Experienced Programmers 4½ days, \$1035, lab
- Software Development Under the Unix System 2½ days, \$575, lab
- Unix System Internals 4½ days, \$1300, source
- Unix System Administration 4½ days, \$1285, lab, source
- Unix System Device Drivers 3 days, \$750, source
- Unix System/C Language Interface 4½ days, \$1285, lab

[EDITOR'S NOTE - Extracts from the course descriptions were omitted for these courses because AT&T has copyrighted its course brochure, and no one at Uni-Ops had time available to pursue reprint permission down the corridors of a very large organization.]

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Daemon Associates phone 303-442-1731  
 1760 Sunset Boulevard  
 Boulder, Colorado 80302

These people present on site courses; they are tailored extensively to the client's needs, which is why each course length is a range rather than a single figure.

An Introduction to the Unix System 3 to 5 days

"Students completing this course will be able to do productive and efficient work using the Unix system. This course can include sed and awk as well as text formatting. Unless otherwise requested, the screen editor vi is taught."

The Screen Editor vi 1 to 2 days

"Upon completing this course the student will be able to use vi effectively to create and edit text and source program files."

Shell Programming 2 to 4 days

"The student will be able to write readable, portable and easily maintained programs using the Bourne shell. Sed and awk are optional components of this course."

A First Course in C 4 to 5 days

"Students without prior experience with block structured languages will be able to write working C language programs which use all the facilities provided by the language. The course emphasizes not only the syntax of the language but also those aspects of good practice that lead to readable and portable code which is easy to maintain."

Basic Text Formatting Under Unix 1 day

"Completing this course will enable secretaries and technical clerks to use the essential macros in the mm macro package and tbl in their daily work."

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Human Computing Resources Corporation phone 416-922-1937  
 10 Saint Mary Street Telex 06-218072  
 Toronto, Ontario M4Y 1P9  
 Canada

This company now offers its public sessions only in Toronto, but on site courses are still available. There are discounts for multiple enrollments and for attending both courses consecutively. As we went to press, HCR was reviewing the prices, which may change. Details of the course outlines may change, too, so these descriptions are necessarily brief. Both courses involve terminal work.

Using Unix Well 2 days, US\$455

"It provides a comprehensive overview of Unix for users who are not from a programming or systems background. It covers both the nature of the Unix system as a working environment for application and development, and the facilities offered by the major Unix software packages and tools. It is ideally suited for those who will use Unix commands to do their work, but will not actually write large programs themselves."

Unix for Programmers 3 days, US\$675

"Through an intensive study of C and the shell, with attendant programming tools, participants will gain practical programming knowledge for Unix systems. Many aspects of the course will be of relevance to system administrators and managers."

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Pulsetrain  
747 Greenwich Street  
New York, New York 10017

phone 212-255-2385

This company has developed courses on several aspects of Unix and C, which are offered through other training vendors, some of them listed here. Pulsetrain itself is listed only because they have developed bilingual (English/Japanese) versions of two of their courses, on introduction to Unix and the C shell, which they offer on site to any interested firm.

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Institute for Advanced Technology  
Control Data Corporation  
6003 Executive Boulevard  
Rockville, Maryland 20852

phone 800-638-6590  
phone 301-468-8576 in Maryland

Two courses that are given consecutively to allow students to take both in one week. Both involve terminal work; both are limited to 24 students per session. There are discounts for multiple enrollments, and upcharges for those who must be billed later.

Unix Programming Workshop 2 days, \$585

"Participants will be shown basic Unix commands, the use of the Unix line editor (ed), and how to create shell scripts."

C Programming Workshop 3 days, \$765

"Program: programs & functions; standard I/O; statements in the C language; types & operators; developing programs; storage & initialization; pointers; structures; passing arguments to programs; standard file access & the Unix system interface."

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STC Idec Limited  
Six Hills House, London Road  
Stevenage, Hertfordshire SG1 1YB  
England

phone 0438-726161 X 8087  
Telex 266991 INTEL G

Usually these courses are presented either at STC's facility 25 miles north of the City of London or on site. The prices shown (in British pounds) are for public sessions, including lunches but not the value-added tax. Courses on site cost 8 times the prices shown, plus expenses. All courses feature terminal work on STC's Berkeley Unix system.

Unix Users Course      3 days, £290

"Principal Topics: the format & documentation facilities for Unix commands; the basic shell commands; use of the Unix text editors (ed, sed); the Unix file system & utilities to handle Unix files; common useful utilities, e.g. grep, awk; shell programming techniques - commands, pipes, regular expressions, variables, arguments, control constructs, built-in commands; overview of . . . e.g. make, sccs, lex, yacc. Designed for programmers and others who need an understanding of the Unix programming environment."

Unix and C Workshop for Systems Programmers      5 days, £520

"Principal Topics: C programs - data types & operators; expressions, statements & control flow; program structure & scoping; arrays, pointers & addresses; structures & unions; the preprocessor; the standard I/O library. The Unix input-output system calls - opening files; use of pipes. The Unix file system features - file formats; l-nodes; security; creating & deleting files. Unix processes - forking; execution & exits; signals & interrupts. Familiarity with the Unix system . . . and in-depth experience of at least one other language is required."

C Programming Language Course      5 days, £480

"Principal Topics: data types & operators; expressions & statements; control flow; program structure & scoping; arrays, pointers & addresses; structures & unions; the standard I/O library; the preprocessor. Designed for programmers and others with experience of at least one other language. . . . intended as an introductory course."

C Intensive Workshop      3 days, £290

"Designed for programmers and others with substantial programming experience, including in-depth use of at least one other language. This course is more intensive than the 5-day C Programming Language Course and is appropriate for personnel with knowledge of advanced programming techniques." [Principal Topics same as previous course.]

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Concentric Associates, Inc.  
40 Journal Square  
Jersey City, New Jersey 07306

phone 201-795-2017

Concentric's courses are for on site presentation. They will supply instructors if you like, but their course documents are complete enough that they can also license you to use one of your own trainers. Prices for licensing without a Concentric instructor are \$200 per class day for one-time use, \$2000 per class day for unlimited use of a course internally. Copyright restrictions again prevent excerpting from the course descriptions.

Introduction to Unix      10 days, some terminal sessions



Wordprocessing with Unix 8 hours

" . . . for people who do wordprocessing with Unix and need to enter text (vi), format text for printing (nroff) or for typesetting (troff)."

C Programming Course 18 hours

"This hands-on course covers the basics of programming in the C language. It is designed for people experienced with one other programming language."

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Auxton Computer Enterprises, Inc. phone 201-572-5075  
2 Kilmer Road  
Edison, New Jersey 08817

Auxco does on site training and has a lot of its clients in the communications industry.

Overview of Unix Facilities 1 day

"Provides an overview of the tools and utilities available under the Unix operating system. Also discusses the general philosophy and capabilities of Unix and its facilities."

Introduction to Unix 3 days

"Provides an introduction to timesharing with the Unix operating system, and a basic understanding of the major features and facilities available under Unix. Includes detailed discussions of the Unix text editor (ed), the Unix file system, and the structure of shell command lines."

Introduction to Document Preparation 2 days

"Both the basic nroff commands and the memorandum macros are explained, with emphasis on creating common business-oriented documentation."

Introduction to ex/vi 2 days

"Commands to create, interrogate and update files are discussed with reference to both ex and vi."

Advanced Text Editing 1 day

"The emphasis is placed on locating and manipulating text using the special regular expression character strings."

Shell Programming 2 days

"Includes a discussion of commands particularly useful in conjunction with shell programs, as well as a description of the programming constructs available within the shell."

Advanced Shell Programming 3 days

"Emphasis is placed on explaining the relationship between the Unix operating system and the shell, thus enabling the creation of efficient and reliable shell programs."

Introduction to awk Programming 1 day

"Emphasis is placed on combining awk programs with the shell to create useful utilities."

Programming Development Tools 2 days

"Provides a detailed discussion of the standard Unix utilities and tools commonly useful in maintaining a successful development environment. Included are explanations of both make and sccs, among others."

Introduction to the C Programming Language 5 days

"Provides an explanation of the syntax associated with the C programming language. Most of the features of the C programming language identified in the standard formal language definition are discussed, and emphasis is placed on writing structured code."

Standard C Language Library Functions 2 days

"Provides detailed explanations of the standard C language library functions available under the Unix operating system. The relationship of the library functions to the Unix system calls is also discussed, and portability is stressed."

Advanced C Language Programming 3 days

"Provides detailed insights into the more confusing aspects of the C programming language. Emphasis is placed on making efficient use of pointers, structures, and arrays."

C - Unix Interface 3 days

"Provides an explanation of the most useful Unix system calls. Emphasis is placed on using the Unix system calls to perform I/O and to manipulate processes."

Conceptual Overview of the Unix Operating System 1 day

"Provides a general overview of the major components associated with the Unix operating system kernel. Discussed are the process subsystem, the I/O subsystem, and the file subsystem."

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Computer Systems Resources, Inc. phone 404-586-9663  
1170 South Omni International  
Atlanta, Georgia 30303

On site classes for groups up to 12. CSR favors hands-on instruction, and will customize their courses to match the client's operation and the version of Unix to be used. The prices given are for the entire class, excluding expenses for the instructor and assistant.

Beginning Unix 2 days, \$3000

"What is Unix?; basic procedures; session with ed; the file system; commands; the shell; shell programming."

Intermediate Unix 2 days, \$3000

"Using vi; nroff the formatting tool; system administration; system maintenance; communication."

C for Programmers 3 days, \$4500

"Compiling C programs; the C preprocessor; the structure of C programs; variables & expressions; pointers; arrays; structures; control flow; input-output; the standard library & system interface; command line arguments; make; sccs."

The Instructor Set, Inc.  
259 West 10th Street, Suite 1E  
New York, New York 10014

phone 212-675-3224

This company is 100% owned by the instructors for its courses and one marketing person. They give their courses on site, and they're fervent for hands-on instruction - a system and terminals are required for the first three courses, recommended for the latter two. Once again, the course outlines are copyrighted, and we have no reprint permission.

Unix Fundamentals and the Bourne Shell 5 days

Unix Fundamentals and the C Shell 5 days

C Language Programming 5 days

Unix Internals 5 days

Unix for System Administrators 5 days

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Data Kinetics Ltd.  
97 Norman Street  
Ottawa, Ontario K1S 3K5  
Canada

phone 613-238-6709

This course can be given on site by Data Kinetics' instructors, or licensed to a client for presentation in-house by his own training staff.

Unix

"The workshop format course is made up of lectures, discussion and related coding problems. It presents an introduction to Unix concepts and facilities including an historical background, references, features and components of the system. Upon completion of the course, students will be able to create and manipulate files and execute programs in a Unix environment."

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Engineering Renewal & Growth Program  
Engineering Research Center  
Colorado State University  
Fort Collins, Colorado 80523

phone 800-525-4950  
phone 303-491-8417  
TWX 910-930-9000

Unix A videotaped course consisting of ten half-hour videocassettes in U-matic, VHS or Betamax I format. All are in color; all are to U.S. television standard unless you order a foreign format as an extra. The complete set can be purchased at \$3625, leased for 12 weeks at \$1860 or leased for 4 weeks at \$930; individual lessons for sale at \$390, 3 week lease at \$200, 1 week lease at \$100; lease prices can apply toward purchase. Student manuals cost \$16.25 each. Quantity discounts available on both tapes & manuals.

"Course contents - a lecture by lecture outline: getting started; files & directories, part I; files & directories, part II; text editor, part I; text editor, part II; file manipulation; wild characters, patterns, pipes & tees; shell files, part I; shell files, part II; process control."

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Extended Engineering Education  
113 Engineering Building East  
University of Massachusetts  
Amherst, Massachusetts 01003

phone 413-545-0063

A Concentrated Short Course in C A vidotaped course of 7 videocassette lessons, each 20 to 40 minutes long. All are in color, and produced in a studio. (This last is a real benefit - putting a camera in the classroom has never proven satisfactory.) The set of 7 videocassettes sells for \$2220 or rents (one week per tape) for \$750; the manual is an additional \$ 19.50. CEUs available. At press time, the tapes were complete and ready to ship, but the absolutely essential manual was not finished.

"Topics include: tokens, identifiers, and formulas with examples of input/output; functions; declarations - including arrays, enumeration, unions, structs, pointers, & extended types; control flow; modules - modularity & security; input/output - external file; and Unix & C interfacing aspects."

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User Training Corporation  
591 West Hamilton Avenue  
Campbell, California 95008

phone 408-370-9710

These people put out taped courses that are utterly unique; in fact, one of them invented the technology they use. Their courses come on standard audio cassettes, but you don't put them in your cassette player. They go in a black box which UTC also supplies. The black box sends one of the two stereo tracks to headphones on which the student(s) listen to lecture. The other track goes into the RS-232 port of an ordinary Ascii CRT terminal, where examples of what the lecturer is explaining are displayed on the screen.

But lecture and examples aren't the whole of the experience. The audio track also has occasional stretches of music, frequently classical guitar, and each lesson starts on the screen with animated graphics. The whole effect of these lessons is reminiscent of the laid back feeling I used to get from the rural branch of the 1960s countercultural boom.

Both the black box and the taped courses may be rented by the month or licensed for permanent use. After 12 consecutive months of renting an item, you're automatically licensed without any further payments. Maintenance is included with rentals and the first month of a license; available for a fee after the first 30 days on a license. The black box rents for \$205, licenses for \$1610. Course prices are shown next to each course.

There are workbooks for each course, sold at the prices given below. Incidentally, the number of hours given next to each course is not the time the tapes run - it's the time a typical student takes to go through the course, including tape-stopped pauses to do the exercises, etcetra. Finally, there are volume and package discounts available.

First Course in Unix for the Novice (with ed): NOV-1

8 lessons, 9 hours; \$325 rental, \$2900 license, \$35 workbook

"Introduces Unix to people who have never used an interactive computer system. This course covers basic Unix facilities, line-oriented text editing (ed), and the file system."

Supplementary Course in ex and vi for the Novice: NOV-vi

5 lessons, 8 hours; \$225 rental, \$2000 license, \$35 workbook

"This course introduces full-screen text editing with vi and covers the basic concepts of ex. It is a supplement to the NOV-1 course."

First Course in Unix for the Novice (with vi): NOV-UCB

10 lessons, 13 hours; \$475 rental, \$4250 license, \$50 workbook

"This course is an alternative to NOV-1 and NOV-vi. It includes the same material as NOV-1, except that it covers the vi text editor instead of ed. Like NOV-1, it is designed for people without computer experience."

First Course in Unix: ADV-1

9 lessons, 9 hours; \$400 rental, \$3500 license, \$35 workbook

"This course is designed for people with experience in using interactive systems. Sessions include: an introduction to Unix; the line-oriented text editor ed; the Unix file system; and the basic shell facilities."

A Second Course in Unix: ADV-2

9 lessons, 9 hours; \$400 rental, \$3500 license, \$35 workbook

"This course is a follow-up to ADV-1. Sessions include: advanced use of ed; shell programming; and the Unix utilities. Taken together, ADV-1 and ADV-2 are a complete Unix curriculum for experienced computer system users."

A Special Supplementary Course in ex and vi: ex-vi

4 lessons, 5 hours; \$200 rental, \$1800 license, \$35 workbook

"This course covers the vi full-screen text editor. It supplements ADV-1 and ADV-2. Sessions include: overview of ex and use of the vi full-screen editor."

C for Programmers: CFP

8 lessons, 20 hours; \$475 rental, \$4250 license, \$50 workbook

"This course is an accelerated course in the C language for programmers who are adept in another language. It provides comprehensive coverage of C. The course is not limited to C in Unix environments."

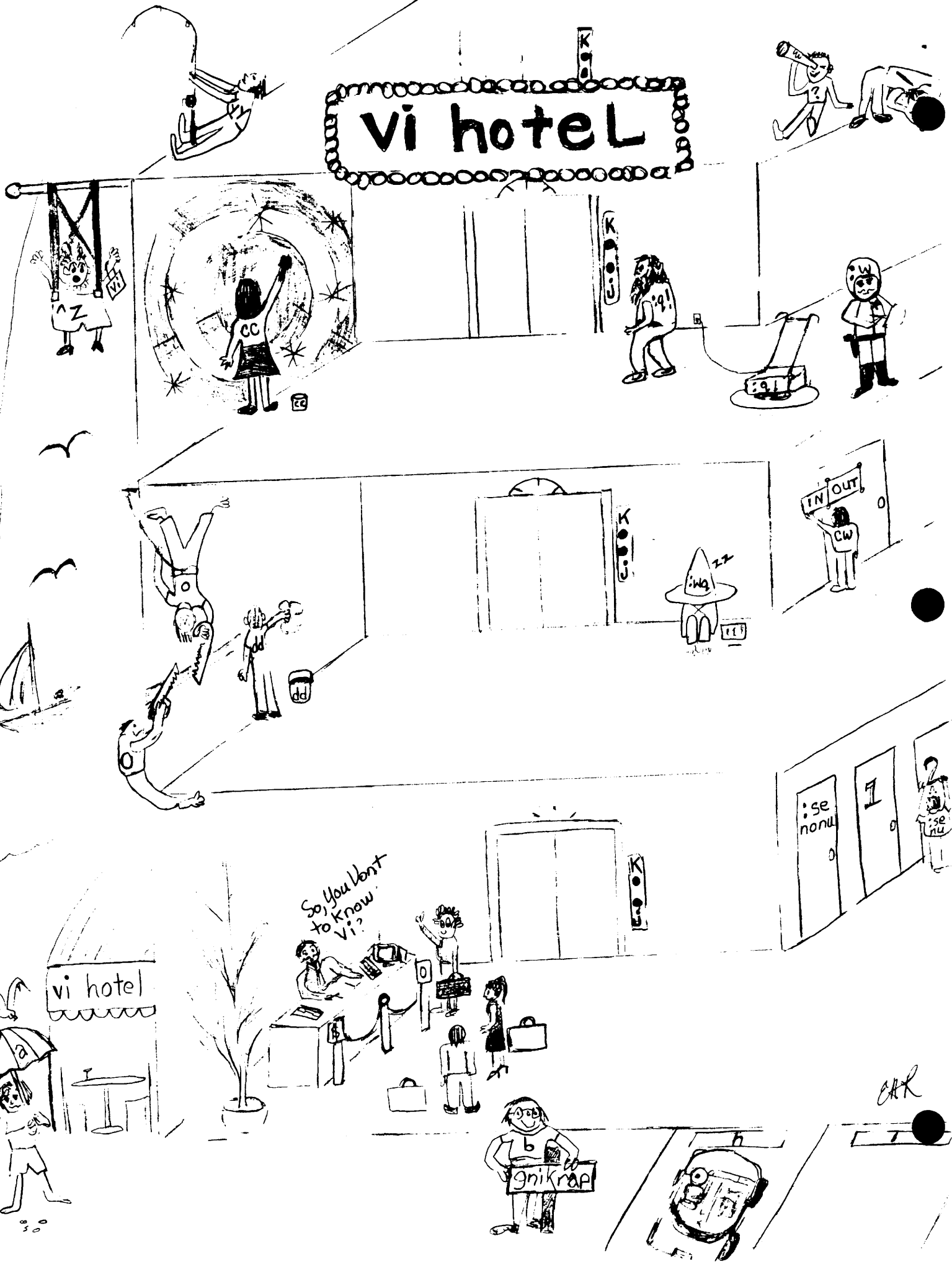
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The Silicon Valley local Unix user group, which has been meeting monthly in Palo Alto, recently decided to incorporate. They'd been meeting for more than two years under Uni-Ops and Hewlett-Packard's sponsorship, but recent meetings had drawn 110 to 200 people, and the consensus favored more member involvement. At the last meeting, the group nominated 8 incorporators by acclamation and heard Doug Michels briefly explain the possibility of local chapter status under /usr/group. Acting Chairman of the panel of incorporators and long-time leader of the Palo Alto meetings is John Bass.

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