

SEPTEMBER

# newsletter

---

VOLUME 4 ■ NUMBER 9 ■ 1981

# t

# TABLE OF CONTENTS

---

## ALPHA MICRO USERS SOCIETY

1911 11th St., Suite 210  
Boulder, CO 80302  
(303) 449-6917

|                                      |    |
|--------------------------------------|----|
| FROM THE PRESIDENT .....             | 2  |
| CLASSES .....                        | 5  |
| LOCAL NEWS .....                     | 7  |
| AMUS DIRECTORY .....                 | 8  |
| STRUCTURED PROGRAMMING PART II ..... | 10 |
| CONVENTION .....                     | 13 |
| FIELD REPORT .....                   | 21 |
| LETTERS .....                        | 22 |
| BUG FIX .....                        | 24 |
| CLASSIFIED .....                     | 25 |

---

# b

# BOARD OF DIRECTORS

---

## OFFICERS

**PRESIDENT**  
**Stephen K. Elliott**  
Boulder, Colorado

**1st VICE PRESIDENT**  
**Eugene Platt**  
North American Title Co.  
Houston, TX

**2nd VICE PRESIDENT**  
**Thomas B. Cross**  
Cross Communications  
Boulder, Colorado

**SECRETARY/TREASURER**  
**Pat Seitsinger**  
Dunn, Moore and Associates  
Brighton, CO

## MEMBERS

**Bob Fowler**  
Alpha Information Systems  
Palo Alto, CA

**Michael Lewis**  
Dravac  
Mahwah, NJ

**William Miller**  
William Miller and Associates  
Miami, FL

**Jim Taylor**  
Jim Taylor and Associates  
Boulder, CO

**Jim Rea**  
Micro Concepts  
Fullerton, CA

## STAFF

**Sharon Greene**  
Manager

---

# 1

# FROM THE PRESIDENT

We have a new staff typesetting and laying out the newsletter as of this issue. Many, many thanks go to Pat Seitsinger for her energy in editing the newsletter over the past year. It's hard enough to edit a monthly newsletter, but when you have a business to run along with it, it makes it doubly hard. Pat has improved the quality of the newsletter immensely and we greatly appreciate her efforts.

Pat is being replaced by two people who will be typesetting and laying out the newsletter. Due to the fact that we are adding the extra step of typesetting, we will have to move up the deadlines for each issue. From now on, material must be received on the 10th of the month to be included in the following newsletter. Also, all material for the newsletter should be sent directly to the AMUS office.

Please note our new office address: 1911 11th St., Suite 210, Boulder, CO 80306. The phone numbers are the same as before.

We have now installed the Dravac TSASS (Time Sharing and Security System) which means that you have a new logon procedure. You will have to identify yourself with your name, your password, and your company name. The company name will always be AM as in Alpha Micro.

---

**AMUS** office hours are from 8:00 AM to 4:00 PM mountain time. Our over-worked manager is Sharon Greene. She is happy to assist you with any questions you might have about **AMUS**, or the Alpha Micro Computer. If she doesn't know the answer to your question, she will try to direct you to someone who does.

The **AMUS** Newsletter is published monthly by **AMUS**, 1911 11th St., Suite 210, Boulder, CO 80302. Subscription rates are \$10.00 per year. Each member representative receives a one year subscription, the cost of which is included in the annual dues.

Additional copies and back issues of the newsletter may be ordered from Sharon. Bug fixes, articles, letters, reviews of software and information about Alpha Micro applications are happily accepted. Material must be received by the 10th of the preceding month for inclusion in the following month's edition.

Second class postage is paid at Boulder, CO 80302, ISSN 0273-8708, USPS 567-330.

The Alpha Micro Users Society Network is a computer system meant to give members access to information and other Alpha Micro users with similar interest. It consists of an Alpha Micro computer with a Hawk disk drive, a 300 baud modem, a 1200 baud modem, and 160k of memory. **AMUS** members are given an individual account and password on the Network. Contact Sharon Greene for your account and password. Many thanks to Alpha Micro Systems of Irvine, CA; North American Title Co. of Houston, TX; and Dravac, of New Jersey who have donated equipment and software to the Network.

**AMUS** has a library of programs which have been donated by members for distribution to other members. Programs are available either through the **AMUS** Network, or, if you prefer, we can make floppy or Hawk cartridge copies and mail them to you. Order may be placed through Sharon.

---

# FROM THE PRESIDENT CONTINUED

---

The July AMUS convention held in Chicago attracted about a hundred AMUS members and several dealers and vendors. Workshops were held on the AMUS system, preventative maintenance, telecommunications, and a host of other topics.

One of the most productive areas was the special interest group sessions. Users of ANDI, SYNDEX, SuperVUE and other software packages were able to meet the authors of the software packages face to face and get immediate answers to questions and make suggestions about future enhancements. For software creators, these sessions are invaluable for determining the usage made of their products, and detecting problems that might otherwise go unreported. Mini surveys can be conducted to determine if all the users are having the same problem, or wish to have a particular enhancement.

As always, some of the best information is that passed about during lunches, coffee, and other social occasions. Fred Watterson, Host for the conventions, provided an excellent means for members to mix during a hospitality session on Monday evening, and we met many AMUS members with varied uses for the Alpha Micro computer. Fred is to be commended for hosting an action packed week of interesting sessions. Hands-on computer time was available on three systems which were provided for general use. Softworks had a FORTRAN graphics package on display, and Larry White provided his own system which he used for his word processing and communications package demonstrations. Dravac and Micro Concepts have integrated the ANDI and SuperVUE packages so that files created by one system may be read by the other. SuperVUE has announced the release of an extensive Glossary system, and a unique spelling correction system that checks text as it is entered.

I have been noticing that the usage made of the Alpha Micro computer is becoming more and more sophisticated each year. The American Association for the Advancement of Science has two AM-100T's that they are using for all the word processing for their publications. They have spelling error detection using their own software with a 60,000 word dictionary installed on their Phoenix systems. We heard reports of the network in use now by Patterson Dental Supply that has over 72 Hawk systems conversing with each other daily on an unattended auto dial basis.

We also heard some horror stories of dealers supplying hardware but no documentation with systems, and then charging exorbitant rates for training sessions for information that is readily available in the standard documentation. Unfortunately, AMUS enters into these user's lives after they have already begun their relationship with a dealer. We would love to offer aid to prospective Alpha Micro purchasers and give guidelines for what kind of documentation, service, and training should come with a system. If you have a dealer that does not supply you with the information that you think you deserve, please let us know, and we will try to help you with your situation, either by contacting the dealer or supplying the information or documentation ourselves. We also can pass on information about obviously inept or fraudulent dealers to Alpha Micro.

We are anxious to help anyone interested in forming either a local, or a special interest Alpha Micro organization. We can supply names of local members, and some guidelines in the formation of your organization. Since we have already gone through the incorporation process, you are welcome to use the AMUS articles of incorporation and bylaws as a model if you wish.

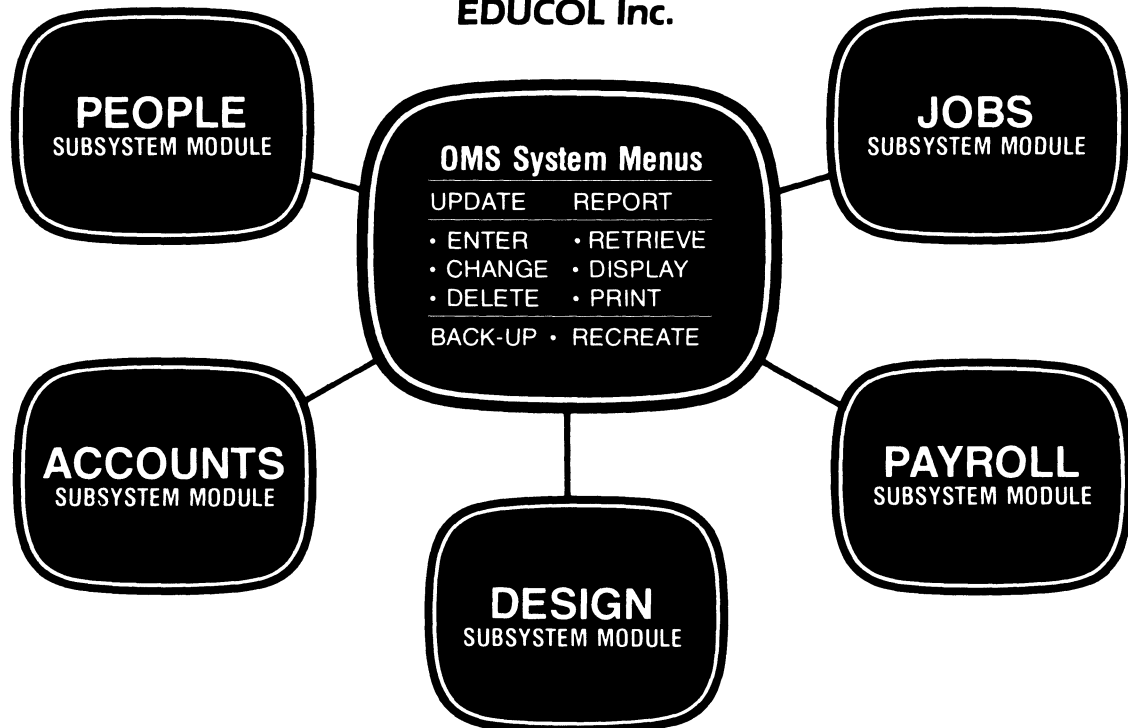
**Steve Elliott**

---

ARCHITECTURE • CONSTRUCTION • ENGINEERING  
**OFFICE MANAGEMENT SYSTEM**

MENU DRIVEN COMPUTER SOFTWARE MODULES FOR OFFICE AUTOMATION

**'OMS'**<sup>TM</sup>  
EDUCOL Inc.



An ALPHA MICRO<sup>TM</sup> computer-based office information storage and retrieval system for small to medium size professional firms in the design and construction industry; the 'OMS'<sup>TM</sup> Office Management System modules may be purchased separately or as one system.

**PEOPLE Subsystem Module**

Information storage and retrieval system for clients, contractors, consultants and vendors; multiple search functions; mailing labels.

**JOBS Subsystem Module**

Directly linked to Accounts Subsystem; office productivity and job progress reports; consultant and contractor job reports.

**ACCOUNTS Subsystem Module**

Enhanced two-level account structure; accounts receivable and accounts payable; journal and general ledger reports; financial statement; depreciation schedules and amortization tables.

**PAYROLL Subsystem Module**

Payroll preparation and time cards update; federal, state and local taxes; health insurance payments and benefits; W-2 forms; unions.

**DESIGN Subsystem Module**

Allows establishment of project data base with direct linkage to Uniform Construction Index (UCI) and Material & Equipment Catalog.

Alpha Micro Class Offerings and  
Schedule for Classes held in  
Irvine, California  
through December, 1981

# CLASS OFFERINGS

## SYSTEM MAINTENANCE COURSE

(10 days)

**Cost:** \$400.00 per week or \$650.00 for two weeks per student.

**Dates:** September 14-25, October 19-30, November 30-December 11.

**Prerequisites:** Electronic troubleshooting, knowledge of digital fundamentals and a conceptual understanding of system architecture from a software standpoint.

**Description:** This class is divided into two, one week sessions that can be taken separately or together. The first week, students will participate in exercises using AMOS to augment troubleshooting techniques used in system maintenance and configuration. System maintenance procedures will be taught using block diagram analysis and diagnostic troubleshooting aids. This course also includes the theory of operation of Alpha Micro hardware and circuit cards.

The second week of the course consists of an indepth maintenance course detailing aspects of the CDC Hawk and Phoenix Disk Drives. Instruction will include operating principles, nomenclature, detailed theory of operation, diagnostic routines using CDC field testers, alignment procedures and troubleshooting.

## AMOS OVERVIEW (5 days)

**Cost:** \$400.00 per student.

**Dates:** September 28-October 2, November 2-6, December 14-18.

**Prerequisites:** A conceptual understanding of system architecture from a software standpoint.

**Description:** An intermediate level software course that explores the Alpha Micro Operating System (AMOS). Students will participate in exercises using AMOS while learning operating system architecture.

## ALPHA ACCOUNTING (5 days)

**Cost:** \$400.00 per student.

**Dates:** September 21-25, October 26-30, December 7-11.

**Prerequisites:** None.

**Description:** The five-day training session in AlphaAccounting is for dealers and users who want to enhance their ability to install and maintain the Alpha Business Package. The course is designed in a manner that allows the student the opportunity to refresh his or her knowledge of basic accounting principles and to correlate these principles to the application software.

The AlphaAccounting Training Manual, pre-

pared by the ISSG Training Department, uses a step-by-step approach toward software installation and system management coupled with lectures and illustrations. This procedure is followed through four modules of the business package where the exercises and quizzes of each subsequent module reinforces the software theory of operation from the previous modules. At the end of the five-day session, the instructor will have covered:

1. Software installation and use of Command files, and system management functions, purpose and use.
2. Designing and customizing financial statements.
3. AlphaAccounting support and maintenance.
4. Data Entry and Editing, methods and procedures.

The ISSG Training Department does not attempt to assist the student in AlphaBASIC software modification techniques. This course is designed to focus concentrated instruction on application software use and maintenance of the AlphaAccounting Business Package.

## USING TXTFMT AND VUE

(10 days)

**Cost:** \$200.00 per student.

**Dates:** August 31-September 11.

**Prerequisites:** None.

**Description:** This is an introductory level class that will explain in detail the use of TXTFMT and VUE on the Alpha Micro system. Topics will include the use of these programs in doing reports, manuals, and letters as well as an explanation of INI.VUE functions.

## INTRODUCTION TO ALPHABASIC

(5 days)

**Cost:** \$400.00 per student.

**Dates:** November 16-20.

**Prerequisites:** Working knowledge of Alpha Micro Operating System.

**Description:** This is an introductory level course that will include definitions of programming concepts, structure and design, an overview of languages and a brief background of BASIC. The emphasis in this class will be on the difference between BASIC and AlphaBASIC. Students will write their own program at the end of the class.

**For information concerning class scheduling, or to enroll in any of these classes, contact the Training Department at (714) 957-6076.**

# The Alpha Micro Problem Solvers

CLR.PRG  
CNTBLK.PRG  
KILALL.PRG  
MOVE.SBR  
LOCK.SBR  
TAPE.SBR  
SEQIN.SBR  
SEQOUT.SBR  
TRMTST.PRG  
STRIP.SBR  
COMMON.SBR  
SLEEP.SBR

## System programming on the Alpha Micro.

- Terminal, Interface, Disk and Special Drivers.
- New System Commands.
- Special Communications Software.
- Getting around System anomalies.
- Special Subroutines (i.e. TAPE.SBR can access the AM600 MTU through BASIC).

## Interfacing of the Alpha Micro to any external or internal device.

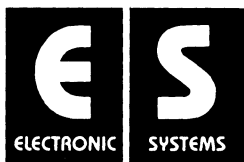
- Terminals, Printers, Modems, Card Readers, etc.
- S-100 IO, Clock, Memory and Special Function Boards.
- Interfacing the Alpha Micro to other computers.

## Repair and/or Setup of Alpha Micro Boards.

## Applications Programming in Assembly, BASIC, or PASCAL Languages.

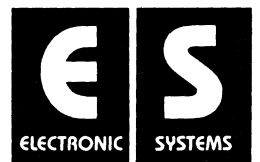
## • COMPLETE COMPUTER SYSTEM DESIGN •

If you are having problems with your Alpha Micro then give us a call. We can help you! Call Barry at **312/944-6565**



# ELECTRONIC SYSTEMS

615 NORTH WELLS STREET • CHICAGO, IL 60610 • (312) 944-6565



# **I**OCAL NEWS

---

## **DC-AMUS**

DC-AMUS IS progressing very well and is involved in a number of activities. Their time-sharing system is up and running with success. They have a new security system available which is much simpler than those currently available. For information on this, please contact Jay.

They are currently searching and comparing for the best PRIAM sub-system and would be interested in talking to anyone who has any helpful information. They would also be interested in getting in touch with anyone who has generalized documentation on how to write disk device drivers. DC-AMUS members have tested the DC Hayes Smart Modem and have only good things to say about it. AMUS members can purchase these modems through DC-AMUS if they like.

Current active membership in DC-AMUS is 25. If you are interested in becoming involved in DC-AMUS, please contact Jay Gourley, 903 C Street, N.E., Washington, D.C. 20002, (202) 547-7607. Meetings are held the first Monday of each month at 903 C Street, N.E.

## **CH-AMUS**

Meetings are held the third week or every month alternating between Wednesday and Thursday at 1612 E. Algonquin Rd., Schaumburg, IL 60195. The main purpose is to get together to talk about problems. For further information, contact Jeff Fisher at (312) 397-8700.

## **SC-AMUS**

SC-AMUS is probably the chapter that has been around the longest. They hold meetings one Sunday each month at Fullerton Savings and Loan at 12860 Euclid (just north of Garden Grove Blvd.). They also publish a newsletter each month with lots of good information. Membership dues are \$10.00 initially plus \$12.00 per year. Send \$22 for first year to Phil Putman, 16168 Beach Blvd., #141, Huntington Beach, CA 92647. Or call him at (714) 842-4484. SC-AMUS has many helpful activities going on and knowledgeable and interesting speakers at their meetings.

## **F.A.M.O.U.S.**

The August Meeting was held Thursday, August 6. The expected guest speaker at press time was Bob Moody from Alpha Information Systems in Palo Alto. Elections are being planned for the positions of president, vice president, secretary/treasurer and newsletter editor. George Hoover, who was responsible for starting F.A.M.O.U.S., is no longer involved with Alpha Micros and is therefore not involved with the users group. For the time being, at least until elections are over, Bob Fowler will be chairperson. By the next newsletter, we will have all information as to how you in the northern California area can get involved in F.A.M.O.U.S. and we here at AMUS will try and keep you updated on the events.

---



# AMUS MEMBER • DEALER DIRECTORY NOW AVAILABLE

If you would like your name to appear in the AMUS Member Directory, please fill out this form and return to Sharon Greene, AMUS, 1911 11th St., Suite 210, Boulder, CO 80302. Regardless of whether you want your name to appear, please be sure and fill out the information about your dealer and send it to Sharon.

- Yes, I want my name to appear.
- No, I do not want my name to appear.
- Enclosed is my check or money order for \$ \_\_\_\_\_ for \_\_\_\_\_ copies of the **AMUS Directory** at \$10.00 each plus .50 for postage and handling. (Please allow 2 weeks delivery.)

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Country \_\_\_\_\_

Phone \_\_\_\_\_ Date \_\_\_\_\_

## COMMENTS:

Major Interests \_\_\_\_\_

\_\_\_\_\_

Areas of Expertise \_\_\_\_\_

\_\_\_\_\_

Additional Comments \_\_\_\_\_

\_\_\_\_\_

## WHO IS YOUR DEALER?

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Country \_\_\_\_\_ Phone \_\_\_\_\_

Contact Person \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

# LOOKING FOR THE BEST IN CLIENT WRITE-UP PACKAGES? LOOK NO FURTHER! IT'S ACCOUNT81

ACCOUNT81 is the Client Write-Up Package for Accountants and CPA's who want PROVEN reliability and FLEXIBLE capability at the right price. Here are just a few of ACCOUNT81's generous features:

\*COMPREHENSIVE FINANCIAL REPORTING:

- Chart of Accounts
- General Ledger
- Profit & Loss
- 3 Comparative Reports
- Balance Sheet
- Working Trial Balance
- Check & Journal Registers

\*COMPLETE PAYROLL PROCESSING:

- W-2's
- 941's
- Master Employee Report
- Payroll Check-Writer
- Comprehensive Master Reports
- Handles Consultants  
and Contractors

\*PLUS THESE ADDITIONAL FEATURES:

- Full Operator Edit Checks
- SRT - Sort Reduction Technique
- Complete Pagination Control
- Suppress Print Options
- Personalized Reporting

ACCOUNT81 offers you the power and flexibility you'd expect to find on a large mainframe, not on an Alpha. But ACCOUNT81 is here and working today. See your Alpha-Micro dealer for a free demonstration of ACCOUNT81 or complete the coupon below.

---

YES! Please send the items marked below to me right away!

- ACCOUNT81 Demonstration Package - \$169.95 + media. See ACCOUNT81 in action. ACCOUNT81's extensive printing capabilities will impress CPA's and Accountants who are looking for full use of their Alpha-Micro.
- ACCOUNT81 Documentation - \$25.00. Over 200 pps. of user documentation are provided in ACCOUNT81's easy-to-read, easy-to-follow User's Manual. Written by experienced technical writers, the ACCOUNT81 User's Manual fills that void left so often by our competition.
- ACCOUNT81 Package Run Code - \$995.00 + media. For under a thousand dollars, ACCOUNT81 can be yours! You get the full power and operating capabilities of ACCOUNT81 plus the knowledge and comfort of owning a top-flight software package backed by qualified and supportive service.
- ACCOUNT81 Source Code - \$2995.00 + media (DEALERS ONLY).  
ATTENTION DEALERS: This is a ONE-TIME CHARGE! There are NO royalty payments, NO licensing fees! And Pony Express Services won't compete with you in your area. We make it easy for you to reach the lucrative accountant market with the best in accounting software.

Attach business card and send to:

Pony Express Services - 268 Alhambra Circle - Coral Gables, FL 33134  
or call: (305) 441-1784

We will pay the shipping if you send payment with your order.

Otherwise, your order will be sent COD. Allow 2-4 weeks for delivery.

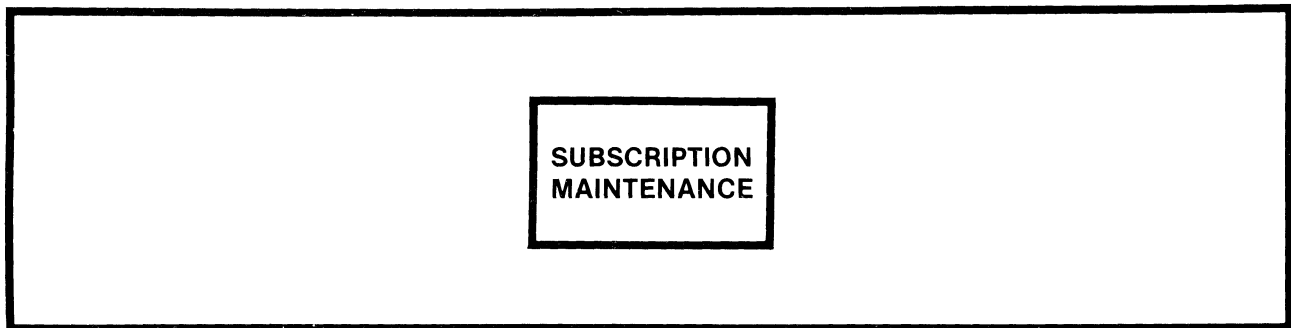


# STRUCTURED PROGRAMMING CONTINUED

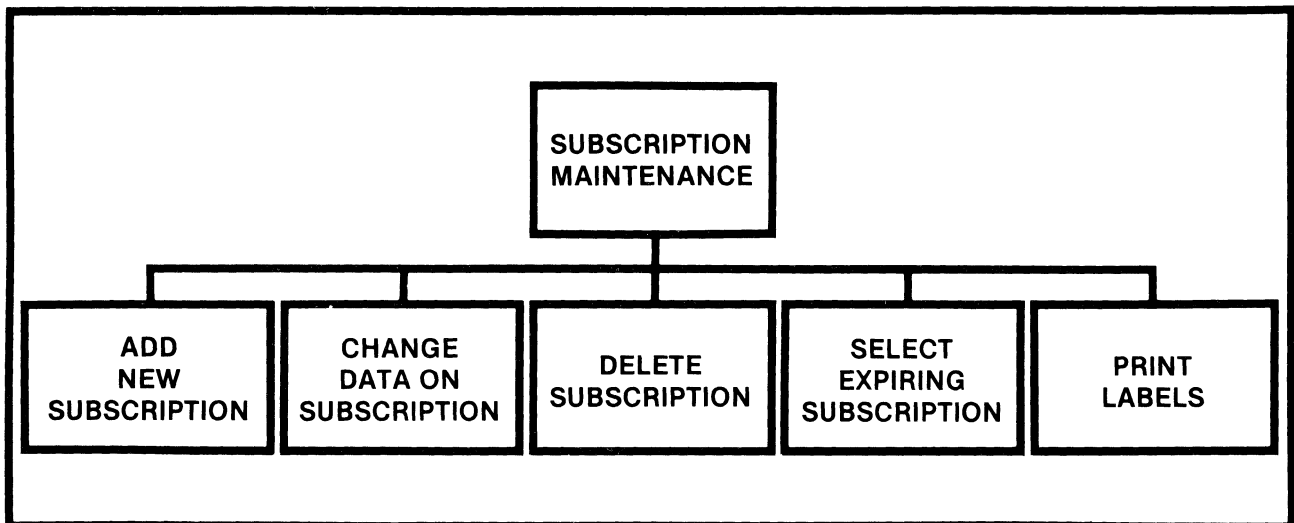
when the programmer could be convinced that a graphic representation was needed to help document their work. More often than not, they are created after the program is finished to verify what the program already does. Flow charts are a valuable tool for determining what direction a program takes when decisions are made, however, they do not graphically show the relationship of one section of the program to another in the hierarchy of the program, nor do they display the modularity of the system in a way that clearly shows redundant code that can be built as subroutines. Top-down diagrams, on the other hand are always built during the design stage of a project, and become the road map for the project, showing the order that modules are created, and allowing for the accurate tracking of the project, helping to determine early on whether or not the project is running on schedule. Also, top-down techniques allow for easy division of projects into several programming teams.

Let's consider an example of a hierarchical (or top-down) design might be created, and then look at how it helps plan, supervise, and test the project.

Let's say that we wanted to create a program that handled all of the subscriptions for a magazine. We start at the top of the page with a box called Subscription maintenance:



Next we think about all of the general purpose functions that will have to be done by the program. If it helps, you can think: What would the user like to see on a menu of possible things to do? In fact, the next row of boxes will become the menu in an interactive type program:





**STARR  
COMPUTER  
SYSTEMS INC.**

6126 Melissa Lane • Omaha, Nebraska 68152 • (402)571-1722



Dear **Teletype 40 Printer Users:**

Starr Computer Systems and D. K. Engineering can provide you with an interface driver to run your Teletype Model 40 Printer from your AM300 board, with full printer control at 9600 baud.

**FULL CONTROL!  
FULL SPEED!**

This software is entirely interrupt driven, contains no time consuming null insertions or timing loops and runs with minimal impact on the system. The Teletype motor is under complete software control, and will start and stop automatically.

This software is used in place of the AM300.IDV, but with added features that allow full control of one or more Teletype printers from Teletype ports while providing normal control for all other ports.

**GET FULL PERFORMANCE FROM YOUR PRINTER !!!**

We have exhaustively researched the problem of interfacing the Teletype to the Alpha Micro. Our systems design approach allows the Teletype to run at 9600 baud, with full motor control, and will never miss a character.

Includes program TTY300.IDV and full documentation.

Sincerely,

*Dick Starr*

Richard J. Starr  
President



## THE SECOND ANNUAL AMUS CONVENTION

- WHERE?** The Deauville Hotel, Miami Beach, Florida
- WHEN?** January 24 through January 29, 1982
- WHAT?** Seminars, conferences, demonstrations, and meetings for businessmen, systems analysts and programmers based on the Alpha Micro System.

The Second Annual AMUS Convention is being held to bring end users of Alpha Micro systems together with the various software firms that provide software for the Alpha Micro and representatives of Alpha Micro. We have scheduled five days of meetings and software demonstrations where the customers can see the products first hand. This is the time and place to ask questions and get the answers you need. What can a word processor do for me? Is VUE and TXTFMT enough? What is a data base? Do I need a data base system? What data base system should I purchase? Has anyone documented the fixes to Alpha Accounting? What are other users doing with their system? How can I save money with my system? How can I use my system to make money? What steps should I take to prevent unauthorized access to my data? How can I possibly evaluate software systems? These questions and similar ones will be addressed during the AMUS convention.

Technical sessions will be held that are oriented toward programmers and system analysts.

Exhibitors will demonstrate first hand the various systems you have only been able to read about. Purchasing decisions can be made on a much more informed basis.

We are very proud that the first convention was so successful. This, the second convention, promises to be even better. There will of course be more exhibitors and attendees. The seminars and classes will be kept on a closer schedule. Meetings for special interest groups will be included in the master schedule.

For those with energy left over there is the ocean, pool, tennis, golf, etc.

**HOW MUCH?** *Registration \$180.00*—includes all seminars and classes for 6 days. *Additional registrants*—\$140.00 each additional registrant per company. *Exhibitor fee*—\$350.00. *Banquet*—\$30.00. *Hotel Convention Rates*—first come, first-served basis. \$60.00 per day per room. Children under 12 are free when accompanied by parents and using same room. Rooms will be reserved for a deposit of \$60.00. *Note:* We are able to hold down the room rates to last year's amount.

**WHAT DO I HAVE TO DO?** Make out two checks. Make the first check payable to: William L. Miller & Associates for Registration and optionally the banquet. Make the second check payable to the Deauville Hotel for the amount of \$60.00 per room you wish to reserve. Complete the form below. Send both checks and completed form to:

William L. Miller & Associates  
8380 S.W. 151 Street  
Miami, FL 33158

Do not send reservation requests to the hotel as this will delay matters. Reservation requests must be accompanied by the reservation deposit. Due to the limited number of rooms available, registration is limited to AMUS members. Sorry, travel agency commissions will not apply due to the special group rate. Reservation confirmation will be sent by mail. Make your reservations early to avoid disappointment.

Please call (305) 233-1216 for further information.

## SECOND ANNUAL AMUS CONVENTION

Please reserve \_\_\_\_\_ room(s) at \$60.00 daily, single occupancy.

Please reserve \_\_\_\_\_ room(s) at \$60.00 daily, double occupancy.\*

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

ZIP or Country \_\_\_\_\_

Arrival Date \_\_\_\_\_ Departure Date \_\_\_\_\_

\*Will share room with: \_\_\_\_\_

Topics I am interested in: \_\_\_\_\_

\_\_\_\_\_

---

# WINCHESTER DISK SUPPORT

## FOR THE AM-100 IS NOW AVAILABLE FROM Mu Systems Inc.

These AMOS (tm) compatible driver programs permit the attachment of economical Seagate or Corvus winchester disks to an Alpha-Micro AM-100 system. The winchester can be either a system device (DSKx:) or a peripheral device (CRV: or STS:). Hardware items are available from Mu Systems ( ST-506 complete system \$3000) or contact your local dealer.

Except for the PROM boot-strap programs, all programs are supplied on 8 inch STD format, single-sided, single-density diskettes. There is a \$5.00 media charge for each diskette/PROM and a \$5.00 postage and handling charge per order. The PROM programs may be ordered on diskette for the same price as PROM.

### CORVUS (tm)

|                                                     |         |
|-----------------------------------------------------|---------|
| AMOS (tm) disk driver (Requires AMOS 4.4a or later) | \$99.00 |
| Boot-strap 2708 PROM for AM-200 board               | \$35.00 |
| Mirror (tm) backup/restore program                  | \$49.00 |

### SEAGATE TECHNOLOGY ST-506 (tm)/XCOMP STS (tm) CONTROLLER

|                                                                                                                                                  |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| AMOS disk driver (Requires AMOS 4.4a or later)                                                                                                   | \$99.00 |
| Boot-strap 2708 PROM for AM-200 board<br>(Requires AM-100 auto-start and AM-200<br>PROM address headers be changed --<br>instructions included.) | \$35.00 |

Documentation and installation instructions included with order.

|                                                              |         |
|--------------------------------------------------------------|---------|
| Documentation only<br>(Price applicable to subsequent order) | \$10.00 |
|--------------------------------------------------------------|---------|

**M u   S y s t e m s   I n c**  
1000 Sagamore Parkway  
Lafayette, IN 47905  
(317) 447-5917

Dealer inquiries invited.

---

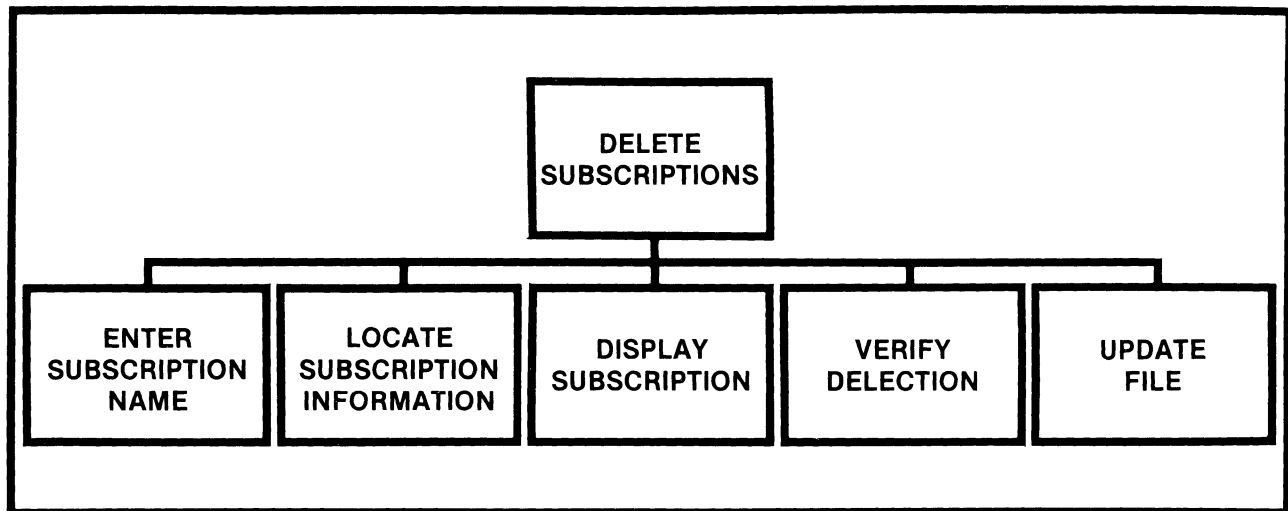


# STRUCTURED PROGRAMMING CONTINUED

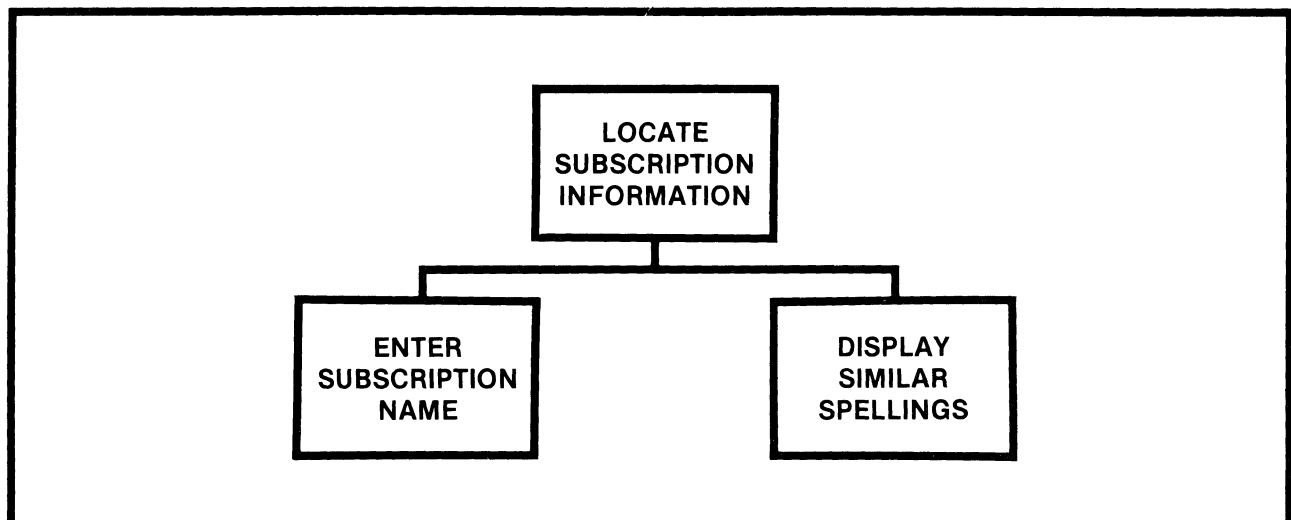
This tells us what the general functions of the program will be, and now can be broken down into more specific tasks for each of the blocks. For instance the Deleting subscription box may be broken down into the tasks of:

1. entering the name or subscription number
2. locating the subscription information
3. displaying the information
4. verifying that the name should be deleted
5. deleting the name from the file

Now we can create the next level of boxes in our top-down chart.



We can then break any of these functions into subfunctions where necessary. For instance if we don't find the subscription we're looking for we will have to either enter a new name, or display all of the subscriptions that are similar in spelling to the name we entered. The descriptions for this will go directly under the box labeled locate the subscription information:



# STRUCTURED PROGRAMMING CONTINUED

---

This process will be repeated until we have broken all of the functions of the program into their smallest possible components. The results of this effort are many:

1. We now know how complicated the program really is going to be. This will be of immeasurable help when we try to determine how long it is going to take to do the programming.
2. We can go through and decide the order that the modules can be created in, insuring that each module is thoroughly tested before moving on to the next.
3. We can ask how long each section will take to program. The theory here being that we can make better estimates on the completion times of one hundred small programs than we can on one huge program.
4. We can schedule sessions for the user to meet with the programmer to try out the program as far as it has been completed, and to request minor changes before they become major changes.
5. The programmer now has a schedule that consists of many small goals, rather than one monster program that seems like it will never be done. Because of this the programmer can see that a couple of evenings of overtime are necessary to meet this week's deadline, and then we will be back on schedule rather than thinking that it's ok to let things slip now, and we can catch up later.
6. We can identify subroutines that can be used from previous projects, and we can identify subroutines that should become part of the library to be used in later projects.

## Building up a subroutine library

AlphaBASIC has always lent itself to structured style programming techniques, but with the release of AMOS version 4.5 the creation and use of subroutine libraries becomes exceptionally easy. AlphaBASIC now supports a new command called `++INCLUDE`. This command allows the programmer to just name a subroutine that is in the library when building a new program, and the compiler will automatically fetch this subroutine at compile time and include it in the program. For instance, let's say that you want to fetch the system date and you have a subroutine called `TODAY.BSI` (`BSI` is the default extension for the `++INCLUDE` command, but I like `.SUB` myself). During the creation of the program, you only need to do the following:

```
INITIALIZE'THE'REPORT:  
CALL TODAY'S'DATE  
----  
----  
----  
----
```

```
TODAY'S'DATE:  
++INCLUDE TODAY.BSI
```

# STRUCTURED PROGRAMMING CONTINUED

During the compile process, the COMPIL program will fetch the subroutine TODAY.BSI which might look like this:

```
MONTH = BYTE(86)
DAY   = BYTE(87)
YEAR  = BYTE(88)
```

```
? "TODAY'S DATE IS: "; MONTH + "/" + DAY + "/" + YEAR
```

There are two things you must keep in mind when using the ++INCLUDE command: 1) you should be sure that you have entered the corresponding MAP statements at the beginning of your program for all the variables that will be picked up by ++INCLUDE, and 2) when you print out a copy of your program you will not get a complete listing, you will only get a copy of the program with the ++INCLUDE statements in it. If the bug in your program happens to be within one of the subroutines, you will have to go through other print processes to find the subroutines. One of my next projects is to build a program that will give you a complete listing of a program. Next month's article will discuss the process of creating the structured program to do just that, including the source code for the program.

## NEW DISK CARTRIDGES

### PHOENIX-HAWK

| Qty | Phoenix<br>CDC 1204* | Hawk<br>CDC 848-12* | Hawk<br>BASF 133 |
|-----|----------------------|---------------------|------------------|
| 1-3 | \$ 220               | \$ 90               | \$ 85            |
| 4-6 | 215                  | 85                  | 80               |
| 7+  | 210                  | 80                  | 75               |

write for quantity discounts

\*CDC cartridges include lifetime warranty.

Please send check, Money Order, or credit information with order to:

Newport-Irvine Commercial Equipment  
P.O. Box 11777  
Costa Mesa, CA 92627-0777

Price includes shipping via UPS.

In California add 6% sales tax

# EXTRAORDINARY INTRODUCTORY OFFER

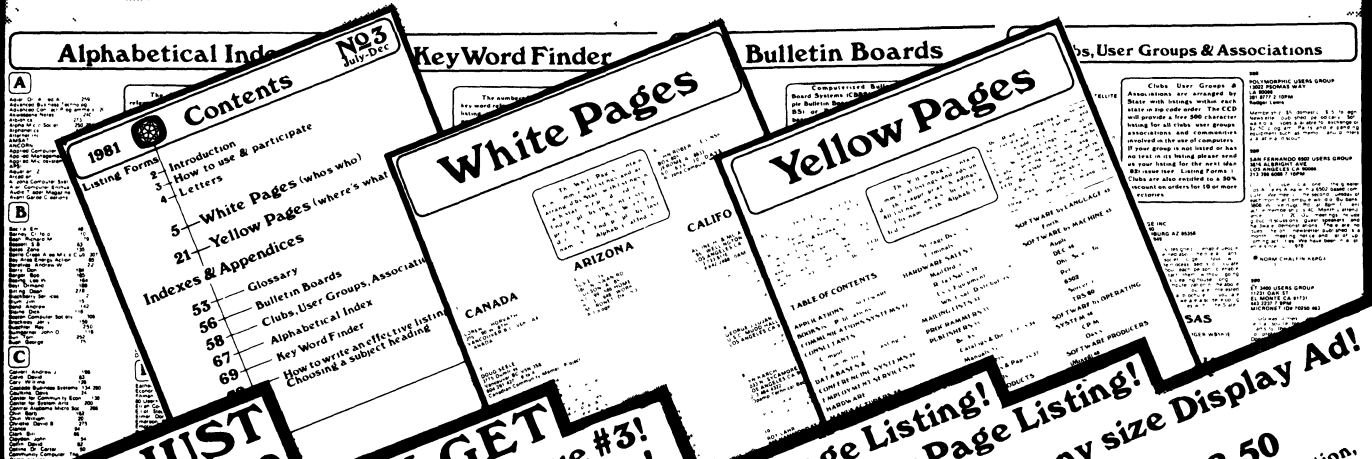
FOR NEW SUBSCRIBERS

# \$10<sup>00</sup>



## NEVER BOUGHT SO MUCH!!

What is the Computerist's Directory? It is a national "paper data base" in phone book format, dedicated to all computer users including professionals, business people, hobbyists and prospective buyers. The Computerist's Directory is published twice annually in January and July with quarterly updates planned for April '82. Take a peek at the current issue #3 below. Call (707) 887-1857 for more information.



**FOR JUST \$10<sup>00</sup> YOU GET:**

- 1) a Free copy of current issue #3!
- 2) a One Year Subscription! (includes issues #4-Jan '82 & #5-July '82 + all updates)
- 3) a Free 25 word White Page Listing!
- 4) \$5.00 Credit on a Yellow Page Listing!
- 5) \$10.00 Credit towards any size Display Ad!

**Total Value = \$28.50**  
 Save \$18.50 and Join the Information Revolution.  
 Subscribe Now, Offer Expires Sept 15, 1981

Send me your Yellow Page Display ad rates  Send me your retail store order form.

YES!! Enclosed is my \$10.00. Send me Issue #3 immediately. [Issue #3 contains all necessary listing forms.]

**the Community Computerist's Directory**  
 PO BOX 405 FORESTVILLE, CA 95436  
 PHONE: (707) 887-1857

|                                                                                                            |      |              |     |
|------------------------------------------------------------------------------------------------------------|------|--------------|-----|
| <input type="checkbox"/> VISA <input type="checkbox"/> MASTER CHARGE <input type="checkbox"/> AMERICAN EXP |      | ENCLOSED \$  |     |
| ACCOUNT NO.                                                                                                |      | CARD EXPIRES |     |
| NAME                                                                                                       |      | SIGNATURE    |     |
| ADDRESS                                                                                                    | CITY | STATE        | ZIP |

# STRUCTURED PROGRAMMING CONTINUED

---

I use two files for each subroutine within my library. One file has the extension .DOC and it contains:

1. A description of the subroutine (usually one paragraph long).
2. The MAP statements for the variables used in the subroutine.
3. The subroutine itself.
4. The name of a program using the subroutine that can be referred to as an example of its use.

The second file has the extension .SUB (remember that Alpha Micro's default for this is .BSI) and is the file that is used by the ++INCLUDE command.

Your programs are going to be an amorphous mass of subroutines if you don't have some kind of convention about where certain types of subroutines should be physically located within the code. For our in-house purposes we have divided programs into 'levels.' Each level handles one class of functions.

1. Level I handles operations that affect the entire file all at once: opening the files, closing the files, allocating space, doing lookups to insure that the file exists, or is not going to destroy an already existing file.
2. Level II handles functions that affect specific records within the file. This includes all ISAM calls, searching for a record key, writing and reading the entire record.
3. Level III within the program will deal with fields within a record, such as changing a customer's address.
4. Level IV does calculations or error checking that applies to one field within a record.
5. Level V is a collection of many minor subroutines. For instance one that freezes a screen display and waits for any character to be entered at the keyboard before displaying the next screen or moving on to the next function in the program.

You needn't use these same conventions, just recognize the idea that some kind of convention should be used that will allow you to quickly find a module within your program by narrowing down the search area. If you were told to go into a program and expand all of the zip code fields because of a new 9 digit zip code, you would know (using the above conventions) that all of your changes were going to be made in levels three and four because those are the areas that deal with field level information.

Some final thoughts about variables and files: Open all of your files up at once if at all possible. This will do two things:

1. All of your OPEN statements will be together in the program and easily identified.
2. If you are going to have any problems running out of room because of buffer limitations, they will happen during the first ten seconds of the program execution, and not later during the program where information could be lost.

Always MAP variables. This accomplishes much the same as the OPENing of all files at once. It insures that you will have enough space for your variables and won't run out of room during mid-run. program, and it puts all of your variable up at the top of the program where they can be identified. This becomes more useful to the programmer who must modify your code years later after you are no longer around to remind folks of secret variables you 'only used once' in a small subroutine at the end of the code. These secret variables have a way of conflicting with modifications made by second generation programmers who unwittingly use the same variable name.

By putting a little thought into your programming style now, you should soon be able to draw upon your past efforts to create programs faster, and with less errors, since you will be using material that you are already familiar with, and have tested and used many times. This will also help with the modifications to programs later since there will be a consistency that is found throughout your programs.

---

## **f**IELD REPORT

---

### **Educational Alpha Micro Users Group**

Last weekend **AMUS** visited the Tacoma Community College in Washington, and toured the computer facilities there. The College offers several classes in computer programming, word processing, and system operation. Classes are also held in the evenings for working folks. The College has two systems, one for student use, and another for administrative purposes. We met with Fran Kirby, the lab supervisor, David Habura, the Executive Dean of Educational Services, and Gary Sigmen, the chairman of the business division of the college. Last year, David sent out a survey to all of the schools that could be found that were using an Alpha Micro. He then compiled a directory of all these schools and published the directory. **AMUS** has reprinted the directory in the **AMUS** member directory which is now available. We hope that this will be the beginning of an educational special user's group. Gary Sigmen has inherited the project and can be contacted if you have any ideas about ways that schools can help each other. There will be a meeting of the educational Alpha Micro users at the **AMUS** convention in Miami in January. If you wish to participate in the meeting, or have items that should be placed on the agenda for the meeting, please contact Gary at Tacoma Community College: (206) 756-5168. His address is 5900 South 12th St., Tacoma, WA 98465.

# LETTERS

## PIICEON MEMORY AND SYSTEM.INI

There is a confusing situation that can arise if a Piiceon Superam 2 board is configured to work as user bank 0 and bank 1. Normally if the board is configured in this way, the instructions in document DWM-00100-34 "Setting Up Multiple Piiceon 64K Memory Boards" are unambiguous. The problem with mixing bank 0 and any other bank on one board is that the two halves are turned on and off in a different manner.

To set up the board, the bank select switch should be set with Rows A + B off and Rows C + D on. Rows C + D will need to be in bank 0 because of the Disable function which is needed for power up. The two address switches 5D and 7D should be set the same so Rows A + B and Rows C + D both address 32K — 64K.

The SYSTEM.INI file is where the confusion lies. At first glance, you may be inclined to set-up as below:

```
MEMDEF 100, 0, 14  
MEMDEF 100, 3, 0
```

On power-up, bank 0 will work OK, but when bank 1 is selected, you will have both banks "on line!" Sending a 3 to port 100 will enable Rows A + B, but the 0's in bits 3 and 4 also trigger Rows C + D on. To solve this you might try:

```
MEMDEF 100, 0, 14  
MEMDEF 100, 17, 0
```

This seems to look Ok but you will find it doesn't work in systems with more than 2 user banks. When AMUS wants to turn a bank off, it does not

## PROJECT ANALYSIS SYSTEM

The Project Analysis System (PANSY) analyzes time spent on the phases, tasks and subtasks (to eight levels) of a project in progress. The system has been kept very simple, with ease-of-use as its main design goal.

PANSY produces two reports which show totals and subtotals at every project level. The "Current Period Analysis" covers just the latest period (week, month, etc.) entered into the system, while the "Cumulative Analysis" reports all time spent from the project's inception.

PANSY comes with an 18 page user's manual which explains how to code the project tasks, how to collect and enter time sheet information, and how to obtain the desired reports — all of which is illustrated with a sample project. PANSY is written in AlphaPASCAL, and the source code is included in the package. The cost is \$100.

### SourceWare

204 West 20th Street  
New York, NY 10011  
Phone: (212) 242-7972

# LETTERS CONTINUED

want another to automatically turn on. This is exactly what happens when a 0 is sent to port 100. Bank 1 goes off, but Bank 0 turns on. This would obviously conflict with bank 2 thru X. The correct way is:

MEMDEF 100, 0, 14  
MEMDEF 100, 17, 14

Sending 14 to port 100 will turn off the entire board.

Does anybody have a complete memory test program? It is very difficult to test sharable memory or memory occupied by the spooler program. I suspected a memory problem in sharable memory and I had to reconfigure virtually all of my memory boards (and SYSTEM, INI) to be able to test it. It would not have been as difficult if I had 2 Piiceon boards, but I have 1 Piiceon and 4 IMS 16K.

Sincerely,  
Hans E. Hansen  
Hansen Motor Co.  
P. O. Box 1287  
Roseburg, OR 97470

## BUSTING THE BUSSES

Last year we reported being haunted by numerous buss errors, many of which resulted in system crashes. Our investigations led us to believe that our power was the culprit, but installation of a SOLA transformer and some small filters did not solve the problem.

Subsequent investigations led us to evaluate UPS systems and motor-generator sets, but these ranged in price up to ten thousand dollars. The article in the newsletter describing phase control equipment carrying a price tag of around forty thousand dollars sent us into shock.

Before I could begin to spend the kilobucks, I was authorized to try a number of filtering systems costing much less.

The SOLA is still in place, and we have at the outlet in the computer room a unit called an ISLATROL manufactured by Control Concepts Corp. of Binghamton, New York. We bought the unit for under two hundred dollars, and it has been in for over a month. Prior to installing the ISLATROL, we averaged about four crashes per week, in a good week, and on occasion that many in a single day. Since installing the unit, we have not had a single buss error that could not be traced back to programmer or operator error.

There are undoubtedly other units of comparable quality and effectiveness, but we suggest that those with gremlin problems might do well to investigate this unit.

Brion Norton, DP Mgr.  
Seattle Refrigeration & Mfg. Co., Inc.  
1057 S. Director St.  
Seattle, WA 98108

Here is a tip that you might want to include in the next newsletter:

## S-100 COMPATIBILITY MOD FOR AM-100/T CPU BOARDS

How many of you have eagerly plugged an S-100 board of one type or another into an AM-100/T based computer only to find that the new board will not function? Curses! And you thought for sure that it would work because it does not rely on the CPU clock for timing! Although this cannot be considered a universal solution, it should allow you to use some nice boards that otherwise would not be compatible, such as the Theta Labs SIO-4 RS-232C/current loop I/O card.

The problem is that the AM-100/T does not generate the -POC (Power On Clear) signal that many interface boards require as an initial reset. We should try to derive the signal from logic that is already on the board. Since the 2651 UARTs on the Am-100/T require a reset signal, they are a logical place to begin the search. Lo and behold, we find a RESET pulse coming from pin 13 of U16, a 74LS123.

To turn this signal into -POC and put it on the bus, we must invert it and buffer it. Luckily, there is a free inverting buffer in U2, a 74LS240. I suggest the following two wire modifications:

Connect pin 13 of U16 to pin 8 of U2. Then connect pin 12 of U2 to J1 (S-100 bus connector) pin 99. That's all there is to it!

Please note that this mod is not necessary on the AM-100 CPU, since it already produces -POC. Alpha Micro, if you are listening, I urge you to generate -POC on your next revision of the AM-100/T! It is one thing to imply S-100 compatibility and have a clock that runs at a non-standard speed (3 Mhz.), but quite another to omit a very important and commonly referenced signal.

Respectfully,  
Alex Begin  
7335 Deep Run  
Birmingham, MI 48010



# BUG FIX

## b

From John Lindsay — There is a problem with RUN and RUNSML, they don't run in user memory under 4.5. The patch is DDT RUNSML or RUN. The location is 612/ and you type:

```
TST 344 (RO)
CARRIAGE RETURN.
CONTROL C.
```

The new HASH totals are, for RUNSML, 113-764-621-441; and for RUN, 431-625-561-665. It appears that Alpha Micro forgot the (RO).

## LETTERS CONTINUED

I enjoyed reading the May issue of AMUS MAGAZINE. I was delighted to find the "NEC 5510 INFO."

*Since I received my Alpha Micro more than a year ago, I have had problems with my NEC 5510 printer. My dealer has tried to use it with several configurations, but either it can run no faster than 300 Baud, or the letters appear backwards*

*as the head is moving from right to left. Please send me information about the corrections discussed in the ISSG Newsletter since my dealer is no longer an Alpha Micro dealer.*

*I have been reading letters from users having head crashes with the Phoenix Drives. However, I do not know anybody who has had two consecutive crashes that have destroyed all five platters. I got my Alpha Micro in February of 1980 from two dealers who merged into one. They were nice at first, but later on it was a different story, and now neither of them are dealers. When I had my first head crash in October I was under a service contract with one of the original dealers and they had just "Serviced" my whole unit three weeks before. The first head crash occurred on a Sunday evening while I was accessing the system via the phone.*

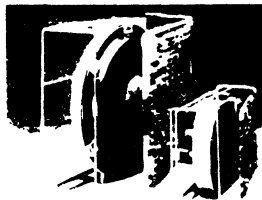
*I called my dealer the next day, and after six hours of trying to reach him he returned my call to say he would be coming to my clinic the next day. When he opened the disk drive and made an analysis of head crashes, he claimed that he couldn't help me except by calling Alpha Micro in California. He estimated that the cost would be \$6,000 plus his cost. I decided to call Control Data who removed the unit for over four weeks, but repaired it for \$4,500.*

*After they fixed and returned my drives, I tried to buy a complete Phoenix maintenance contract from them. They required me to have a special room for the computer with nothing else inside.*

### Helix Disk Drive Sub-systems

Using the Priam winchester drives with the Smart interface, direct drive, voice coil positioning.

|       |       |     |         |
|-------|-------|-----|---------|
| H-10  | 10mb  | 8"  | \$4000. |
| H-34  | 34mb  | 8"  | 6500.   |
| H-33  | 33mb  | 14" | 5500.   |
| H-66  | 66mb  | 14" | 6500.   |
| H-70  | 70mb  | 14" | 8500.   |
| H-154 | 154mb | 14" | 8000.   |



Prices includes power supply, cables, software, installation, delivery, and set up with your system on site, cabinet or rack.

Please specify: Alpha Micro, CP/M, TRS 80, Apple.

#### Micro Computers of New Orleans

4539 I-10  
Metairie, La. 70002  
504-885-5883

# LETTERS CONTINUED

---

*They also required that the room was to always be locked with controlled temperature and humidity. We also have double filtered air going into the room.*

*Two weeks after the last service work was done by Control Data, we had another head crash. Again, the service man blamed dust for the crash, but when they opened up the drive, they found all the filters were clean. Only the second and third platters had been damaged. Three days later the drive was returned to me. No explanations were given for the crash except that they had to replace all of the fixed disks.*

*This really hurt me although I did not lose any data since I had backups of all the platters. (I learned a big lesson from the first head crash). When the second crash happened, I was demonstrating the medical package I am using to three physicians, one from out of state. I am a licensed dealer for the American Medical Software Package which we have greatly improved, including added functions, multiple printers, programmer's utility programs, and added security.*

*Just imagine, demonstrating to three physicians, trying to sell a system, when the system has a head crash. I was so ashamed and disappointed at the time. Apparently these doctors got bad impressions of the Alpha Micro since they did not purchase the system.*

*Respectfully,  
Rogelio P. Bascon, M.D.  
2255 Landwehr Road  
Northbrook, IL 60062*

---

## NEEDS AMUS DIRECTORY

*I am a member of the AMUS since April 1981, and it is my purpose to receive any news concerning the activity of the AMUS members or other people in the development and dealing of AlphaLisp software.*

*Please help me to contact people or institutions working on or interested in developing the AlphaLisp package. Further, give me information on how I can receive one copy of the most recent revision of the AlphaLisp user's manual (my dealer is not able to fill my request).*

*Thank you in advance,  
yours truly,  
Marco Piazzalunga  
Via Borromeo, 3  
24044 Dalmine, Italy*

---

## CLASSIFIED

---

**Wanted:** I am interested in a software package that will handle the challenges of a medical clinic. It must include insurance billings and accounts receivables.

Kelly Gallawa  
P. O. Box 442  
Scottsbluff, NE 69361  
(308) 635-1100

**For Sale:** 2 used Piiceon 64K memory boards — \$800 each. Contact Steve Elliott (303) 449-6917.

---

**Wanted:** Hardware technician/system programmer with at least 2 years experience on Alpha Micro. Salary negotiable. For further information call: Yoram Kafry, Aleph Computer Systems  
1549 Shattuck Avenue  
Berkeley, CA 94709  
(415) 843-4443.

**Wanted:** Information on a C-Compiler for the Alpha Micro. Legal Information Systems, P. O. Box 10302, Eugene, OR 97440.

---

# CLASSIFIED CONTINUED

Thomas Computer Corporation will again make available to Amus Members cartridges for the Hawk and Phoenix drives at special prices.

New CDC Hawk Cartridges for \$89.00. each (lifetime warranty); refurbished Hawk Cartridges for \$49.00 each (3 year warranty); new CDC Phoenix Cartridges for \$239.00 each (lifetime warranty); Memorex Blank Flexible Disks — call for quotation.

We have inventory available for immediate shipment. Members may call toll free outside Illinois (800) 621-3906. In Illinois, call (312) 944-1401.

We request that you identify yourself as an Amus Member when making an inquiry or placing an order.

**Software Legal Guides and Timesharing Services** CCC has published a Software License Planning Guide, authored by I. J. Kerner, Attorney, which is a useful publication containing information and forms designed to enhance the ability of the software owner to protect his proprietary interests when licensing use of his product. The guide is available for \$15.00. CCC provides DEC VAX 11/780 timesharing services via Telenet at nominal rates. For more information: Cross Communications Company

934 Pearl Street  
Boulder, CO 80302  
(303) 499-8888

**Wanted:** Information on drives and handshaking between HP2600 series (2649, 2648) graphics terminals and the Alpha Micro. Contact Larry Heim at U.S. Gold & Silver, (800) 547-1680.

## ALPHA MICRO USERS SOCIETY MEMBERSHIP FORM

Please fill out as much information as possible.

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_

Business Phone \_\_\_\_\_ Home Phone \_\_\_\_\_

Circle one:      Own          Lease          Thinking

Check all applicable:      Dealer \_\_\_\_\_      OEM \_\_\_\_\_

User:      Corporate \_\_\_\_\_      Individual \_\_\_\_\_

Describe equipment: \_\_\_\_\_

AMUS may use my name for mailing lists \_\_\_\_\_.

Make checks payable to AMUS.

Annual dues are \$35.00 per member. (Members outside North America add \$10.00 for Air Mail Postage.)

For more information call Sharon Greene at (303) 449-6917 or write AMUS.

SEPTEMBER

# newsletter

**omnis**  
1911 11th St. Suite 210  
Boulder, CO 80302

Second Class Postage  
Paid At  
Boulder, CO 80302  
ISSN 0273-8708  
USPS 567-330