

**A**LPHA

**M**ICRO

**U**SERS

**S**OCIETY

**Newsletter**

VOL 2 NO 3

MARCH, 1979

FROM THE PRESIDENT

I don't know why I didn't start writing this section earlier. There are so many things to talk to you about. I'll try to use this to "chat" with you about things that seem important to me.

Please note that we now have a secretary, Sharon Greene, who will take care of most of your requests more efficiently than in the past. Her phone number is (303) 449-6917.

Many of you are calling and asking if we know about certain application software or certain types of hardware. Sharon has compiled a cross reference of the information we have and we will be asking you for more information through the newsletter in the form of questionnaires. Please respond so that we can place this information on file.

At the 3rd West Coast Computer Faire, a great deal of interest was evidenced by a few dealers at some meetings to create an organization of dealers called AMDEAL. Elsewhere in this issue is a copy of a recap of the objectives of the organization as written by Dale Horn. Unfortunately time has taken its toll, letters were not sent to dealers, little subsequent interest has been evidenced, and the idea is in jeopardy. I suggest a number of potential ideas if you as a dealer are interested:

1. Call or write Steve Patterson, Fred Gross, and Dale Horn, and express your interest.
2. David Kacela is independently attempting to create a software exchange mechanism. Let him know you are interested.
3. Use your AMUS membership. If you have something you are willing to market through dealers, let us know. We will publish it and get it in our cross reference file.
4. All of the above.
5. None of the above, but don't call me for information.

One of the goals of AMUS is to make sure that new owners of an Alpha Micro don't need to spend as much time as we did to learn how to use it. Some of the things that have occurred are: Four days of seminars at the 3rd West Coast Computer Faire. Two day Seminars being held in Boulder. Answering almost any questions coming to us by telephone. There will be training classes at the 4th West Coast Computer Faire, Boulder seminars will continue, Scott

Brimm of Las Vegas has considered starting some seminars. Duane Cowgill of Alta Dena, California has done some private training, Many dealers are providing good training and we will continue to publish whatever seems appropriate. We hope that our experience in Boulder will make us knowledgeable enough about what needs to be taught so that we can bring that training to you.

Steve Patterson may be reached at 1280 28th St., Boulder, Co. 80303. Dale Horn's address is 4059 Roosevelt Way NE, Seattle, Wash. 98105 We couldn't find Fred Gross' address at press time, but a call to Sharon will get it.

Jim Taylor

If you have software or hardware that applies to the Alpha Micro, or know of a dealer or software house creating Alpha Micro products, please let us know and send a copy of information about the product or service in reproducible form, and we will include it in the newsletter and place it on our cross reference list.

Please return the questionnaire that was in the last newsletter. We can only report on the use and availability of the Alpha Micro computer if we have the information from you folks out there.

4.1 will be released in April. It will contain fixes to known problems. a new print spooler, with lots of options, and an announcement of two manuals; a new AMOS operator's manual, and an Assembly Language manual. Fortran will not come with 4.1, but should be ready before 4.2 and may be obtained by request.

These items were sent to us from Lefford Lowden in his AM-100 user group newsletter. Lefford also has several patches for AMOS programs that makes them reuseable. If you enjoy twiddling with AMOS's innerds you might like to contact Lefford and join his user group. Twiddling might get you into trouble if you aren't careful since it's hard to second guess what Alpha Micro might do in the future that might produce interesting 'side effects' to changes, but if systems software is your passion, Lefford is the current voice for the Alpha Micro computer.

The following programs may be run in 4.0 without the user being logged in: ATTACH.PRG HELP.PRG LOG.PRG LOGOFF.PRG MEMORY.PRG PPN.PRG SET.PRG SYSTAT.PRG SYSTEM.PRG

In alphaBASIC the functions UCS and LCS will now correctly handle null strings without crashing the system. However, when inserting file names and directory devices, etc., these must be in upper case only. Curiously, the text of AlphaBASIC programs may be in upper or lower case characters -- even mixed without causing difficulties. Unfortunately, the case of the variables is important. It doesn't matter what case is used for the variables as long as the same case is used for all occurrences of the given variables. Consider the following code:

```
10 n = 1
20 FOR I = 1 to 50
30 N = N + 1
40 NEXT I
50 PRINT n, N
60 END
```

The values that are output are 1 and 50 rather than 51 and 51. Thus one concludes that n is not equal to N.

COMMENTARY ON SCNWLD.SYS: SCNWLD.SYS is a routine that is called for use by RENAME, DIR, COPY, ERASE, and DEL. It is used to interpret the wild card file names. Since it must be obtained from the system disk each time one of those programs is called (even though there may be no wild file names to handle), I would suggest that you might want to make it part of the system via a SYSTEM command in SYSTEM.INI. This will produce a little faster response from these commands as the FETCH won't have to go to the system disk.

THE FOURTH WEST COAST COMPUTER FAIRE will be held on May 11,12 & 13. The Alpha Micro Users Society will again be sponsoring training sessions and special seminars at the Faire. We are reserving two rooms in the convention hall for two concurrent training sessions which will be held on Friday, May 11th. Bob Currier from Alpha Micro will conduct an "advanced" class for you experts who want to go into detail about Alpha Micro software. Steve Elliott and Jim Taylor will conduct another "novice only" class covering SYSTEM.INI, memory management, file formats, and some on BASIC. To help cover the expenses, there will be a \$35 charge for the ond day training sessions.

There will be a general members meeting on Saturday evening at 6 PM in one of the regularly scheduled convention meeting rooms. The agenda will include reports from committees and nominations for officers and the Board of Directors. Voting will be done through a ballot in the newsletter following the meeting. If you have an item that

you would like to have on the agenda, please contact Sharon. Bob Hitchcock and Dick Wilcox also plan to be in attendance.

Plans are also under way for a dealers meeting on Saturday.

Alpha Accounting Package 1.1. Dalton Williams reports that the CALWTH program (calculation of withholding taxes) in the Payroll system erroneously reads the weekly rates in where the semi-weekly and monthly rates are supposed to go.

Dick Leach reports two no-nos which cause the system to go away or perform some unpredictable act of prestidigitation: Using the IF THEN statement interactively can be done in BASIC, but if a logically false comparison exists, the program counter will move to the next line and execute it and that could be just about anything. Loading zero records into a sort is a sure-fire way to crash AMOS too.

We know that some of you have been waiting forever for those floppys, and we are trying to get them done as soon as possible, but sometimes our resources just aren't cooperating. Patience. We are trying.

4059 Roosevelt Way N.E.  
Seattle, Washington 98105

Attention: Alpha Micro O.E.M. or Dealer

In November of 1978 the Alpha Micro Dealers Association was formed. The name of the Association is: AMDEAL, Inc.

AMDEAL has the following goals:

- A. AMDEAL, Inc. as an association of Alpha Micro's "official" OEM's and dealers.
- B. To act as a unified support group to Alpha Micro in OEM/dealer matters.
- C. To further an "official" unified AMDEAL OEM/dealer profile in matters of:
  1. OEM/dealer operation and ethics
  2. Marketing and Promotion
  3. Technical Training and Support
  4. Software cross licensing and documentation
  5. Warranties and legal aspects of software/hardware
- D. To act as a "clearing house" of requests directed to Alpha Micro with the purpose of supplying a unified "want list" to Alpha Micro with follow-up.
- E. To relay to AM unusual situations in the field, after researching same, to AM, in the areas of software, hardware and "end user" problems.
- F. To act as either an intermediary between AMUS and AM or in conjunction with AMUS.
- G. To supply an umbrella of support to OEM/dealers in the areas of:
  1. Insurance coverages (business and health)
  2. Litigation (Via: class action)
  3. Back-up when illness strikes a "one-man" dealer
  4. A possible national maintenance contract
  5. Vendor negotiations
- H. Supply seminars and video cassettes in:
  1. Marketing
  2. Technical service
  3. Manuals and documentation
  4. "So you're a new dealer" seminar
  5. Installation
  6. Maintenance

If you wish to join AMDEAL please do the following:

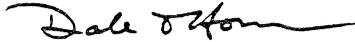
1. Send (on your letterhead)
  - A. Your AM original CPU number
  - B. Your officers names
  - C. Your "type" of OEM or dealership:
    1. Retail "store"
    2. Systems house

2.

- 3. Business equipment (cash registers, etc)
- 4. Other (specify)
- D. Your preference on the first seminar you wish to attend (or have a cassette of)
- E. Enclose a check for \$25.00 (made out to AMDEAL, Inc.)  
This is for registration! The annual dues will be billed to you later. Annual dues are to be set by the Executive Committee of AMDEAL. (fellow dealers)

If you have any questions, call me at (206) 632-5080 or drop me a note.

Thanking you in advance,



Dale T. Horn  
President AMDEAL, Inc.

CC: Jim Taylor, President AMUS



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AMOS SUGGESTIONS (Version 4.0)

3/2/79

- (1) Documentation in general --- looks good, huh gang ?

With the Version 4.0 release, it appears that we may now claim that a complete set of AM-100 software documentation consists of

- (a) The colored & bound manuals (6)
(b) The Version 4.0 update packet (about 1" thick)

Some minor exceptions to this ideal still exist; those which have thus far come to my attention are as follows :

- (a) MAP.PRG --- documentation obsolete & not replaced
The switch options (/FSBMURH) described in the AMOS manual under MAP.PRG are no longer available, and only tend to obstruct the normal MAP output.
(b) ISAM.PRG --- assembly language calling sequence manual
This came out in Version 2.0, was revised in Version 3.0, and has been included in all sets of documentation since that time. It is not included in the Version 4.0 packet.
(c) Converting to the AMS diskette format --- out of date
This is the original Version 2.0 release unchanged. For the most part, the conversion procedure has been significantly simplified because of the overall improvements made in the AMOS system, and the document is dreadfully in need of updating.

- (2) October 4 --- remember that date ?

October 4 of 1976 is the date given on the WD-16 manual. It is also the date given on the announcement of Western Digital's latest landmark, the PASCAL Microengine (4 October 1978).

- (3) COPY --- make backup capabilities more obvious

Many folks are quite surprised to find out that the COPY command can be easily used to make backups of entire disks. The sequence is something like this :

```
LOG 1,2
FORMAT
1
SYSACT DSK1:
I
Y
E
COPY DSK1:[]=DSK0:[]
```

The pre-release documentation for the COPY program (given out with the Alpha Accounting package) placed a description of this

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AMOS SUGGESTIONS (Version 4.0)

3/2/79

(3) [continued] fact in a prominent place at the beginning of the COPY section. In the final 4.0 release, this description was relegated to the bottom of the very last page of the COPY documentation. I would like to see this situation returned to its original state. Even better, make a standard backup file called BACKUP.CMD[2,2], which gives what I gave above with some cautious warnings at the appropriate places ....

(4) TXTFMT --- allow more LIST ELEMENT options

I would like to see 2 types of options available with the LIST ELEMENT structure. The first is the option for single or double spacing between elements (currently, double spacing is forced). The second is to choose whether to have none, the last, or all of the indices printed in front of the list elements. If these options were available, then table of contents would look even better. For example :

Possible Now	Would like to see	Would like to see
1. INTRO	1. INTRO	1. INTRO
1. HELLO	1.1 HELLO	HELLO
	1.2 BYE	BYE
2. BYE	2. MAIN TEXT	2. MAIN TEXT
	2.1 HELLO	HELLO
	2.1.1 HI	HI
	2.1.2 IM FRED	IM FRED
2. MAIN TEXT	2.2 BYE	BYE
1. HELLO		
1. HI		
2. IM FRED		
2. BYE		

This is not the cutest looking example, but it gets the idea across (I think). The chief advantage to be gained is that (in the center example) a table of contents could be made to exactly parallel numbering in the HEADER LEVEL sections in the main text of a document.

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DR. KAP SAT NAM KARTA PURKH NIR BHAD NIR VER ANAL MOCHY AJUNI SAI BHANG GUR PRASAD JAP. AD SACH JUGAD SACH HEBI SACH NANAK HOBI BI SACH

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(5) BASIC RND function --- some notes

First, understand that true randomness is not possible using only digital methods, but we can get as close to it as desired. The ALPHABASIC RND(-X) function allows the user to reproduce his random function sequence by simply re-entering X, and then letting BASIC re-create the same sequence of random numbers that were generated before, using the "seed" of X. This makes debugging easier, and later on (after debugging) it allows any particularly enjoyable games to be replayed. Beware, however, that in ALPHABASIC, the following is true

RND(-X)=RND(-X\*2)

Thus, if you generate your games using RND(-1), RND(-2), RND(-3), you will not land up getting a good statistical randomness. Evidently, when ALPHABASIC sees RND(-X), it simply replaces the last random number generated with the value of X, only it ignores the (base 2) exponent of X. It then goes on to calculate the next random number, based on X as the last random number.

If you truly want a random game as a function of a positive integer seed, then use an irrational number such as SQR(2) or pi in the following expression

RND(-X\*IRRATIONAL'CONSTANT)

where X may now take on integer values from 1 onward, and yield reasonably random games. Another, even safer solution, is to use one of the following seed expressions :

RND(-SIN(X)-1)

RND(-.75-.25\*SIN(X))

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87E  
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- (6) To all software developers --- concerning PPNs [1,4] and [2,2]

It seems that just about every developer of AM-100 applications software gets around to using the program names START, MENU, GL, etc. If you put such programs into PPNs [1,4] or [2,2], you can be sure that they will ultimately collide with someone else's programs by the same name. We at Khalsa have four different applications systems on our hard disk for demo purposes; we have found that renaming/recoding programs to get around this problem is a drag. Even Alpha Micro themselves now assume that START.CMD will be automatically executed whenever anyone logs into the PPN where it resides. Since the inevitable software explosion on the AM-100 can only make things more chaotic if no planning is done in this area, may I offer some hard-earned tips for mutual co-existence of your software with other systems.

- (a) Give your application a 1 to 6 character name, for example, "LEDGER", put a single command or do file in [2,2] named LEDGER.CMD whose main purpose is to load any necessary routines, fool around with AMOS as much as necessary, put up a nice-looking screen, put the user at ease, and then get out of the common account areas for good.
- (b) If you run into any conflicts with other systems' names, simply rename your single command file.
- (c) Put your system's programs into a PPN with 3 digits, such as 100,1. Try to keep all of them in one account. Think of how easy it will be when everyone is trying to figure out where their programs are, and you can just sit there quietly and say "mine are all in 100,1 ....."
- (d) To facilitate the use of your system by several users, all with separate data files (and hence, separate PPNs), put your programs onto DSK0:[100,1] and CHAIN to each module using CHAIN "DSK0:FILNAM[100,1]". Thus, every user can stay where he is, with his own files in his own PPN, but still use the programs in 100,1 without having duplicate copies in his own PPN wasting disk room.
- (e) Finally, if you have a system of just 1 to 6 programs, and just can't stand the thought of not putting them into DSK0;1,4, at least give them a common naming structure,

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AMOS SUGGESTIONS (Version 4.0)

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(6) [continued]

such as the following :

- LEDGER.SBR
- LEDGER.RUN
- LEDGER.HLP

so that they can all be found or copied with a single command,

DIR LEDGER.\*

or, at very worst, a double wildcard such as

DIR STAT\*.\*

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### APPENDIX III --- LINK.BAS

LINK is a small (5-block) ALPHABASIC program which appends 1 or more program segments together, then compiles the resulting program. The observant reader will notice that LINK's primary objectives could just as easily be carried out by AMOS command files. However, there are several nice features about LINK which justify its existence. I wrote LINK because I observed 3 things :

(1) ALPHABASIC's labels allow the user to create truly "portable" subroutines, that can be easily imbeded into other programs. Note : the user must still beware of duplicate variable names (variable names inside the subroutine versus variable names outside the subroutine). This is because ALPHABASIC (like most BASICs) does not distinguish between locally & globally defined variables. If one could define a variable as local to a particular procedure, then this would not be a problem.

(2) ALPHABASIC's line numbers are only needed when using the BASIC/RUN program pair. When COMPILING programs directly off disk, line numbers are not necessary if the program uses labels in all of its GOTO's, GOSUB's, etc. In fact, line numbers may be duplicated, out of order, or missing entirely, and COMPIL will still compile correctly.

(3) Most large software systems will have some program segments/subroutines which are used by 2 or more of the programs in that system. It is desirable to store such program segments separately on disk, and only concatenate them together at compilation time. This not only saves room on the disk, but greatly simplifies the process of making system changes.

Because line numbers are not important when COMPILING label-based ALPHABASIC programs directly off disk, it is possible to concatenate together many program segments, without having to worry about whether the line numbers will "collide". In fact, the programming purist will probably prefer to store all his program segments with no line numbers whatsoever ! The only drawback to this situation is that, with no line numbers in the source code, the AMOS RUN package will not be able to report a line number if any fatal errors occur during execution. If source code is available, the program could be re-compiled with line numbers; if no source is available, there is no easy alternative.

## OPERATION OF THE LINK PROGRAM

To invoke the LINK program, type :

```
RUN LINK
```

The LINK program will then ask for a program name, for example :

```
FRED
```

LINK will then check to make sure that a FRED.BAS does not already exist. If it does, the program will exit. The user is asked whether or not he wishes to keep the FRED.BAS file which will be created by the LINK program. If not, FRED.BAS will be deleted after compilation (see below). LINK then looks for FRED.RUN; if found, FRED.RUN is deleted. Next, LINK looks for a file called FRED.LNK. If this ".LNK" file does not exist, the program will exit. Otherwise, LINK opens FRED.LNK and expects it to contain a list of program segments. For example, suppose that FRED.LNK contained the following :

```
FRED1.BAS  
FRED2.BAS  
OPEN.SUB  
INPUT.SUB  
END.BAS
```

LINK would create the new file FRED.BAS, and then successively copy into it the contents of each of the above files, in the order given above. This is equivalent to executing the command :

```
APPEND FRED.BAS=FRED1.BAS,FRED2.BAS,DATE.SUB,INPUT.SUB,END.BAS
```

at AMOS monitor level. Any legitimate AMOS filename may appear in a .LNK file; in practice, I have settled into a naming scheme where all shared subroutines are given .SUB extensions, and all (unshared) main program segments have .BAS extensions (the single exception is END.BAS, which contains one CHAIN statement and one END statement). As each program segment is appended to FRED.BAS, its name is displayed, as well as its size in lines and bytes. If any of the files in FRED.LNK is not found, an error message is displayed by the LINK program. After the concatenation process is completed, LINK then chains to its own internally-stored command file which does the following :

```
ERASE FRED.RUN  
COMPIL FRED.BAS  
and finally, if the user chose to do so,  
ERASE FRED.BAS
```

```

2000 -----
2010 | ALPHABASIC CONCATENATING, COMPIILING PROGRAM |
2020 |-----|
2030
2040 REM ..... STRING DEFINITIONS
2050 MAP1 PAGE .F,6-63 ! # OF LINES PER "PAGE"
2060 MAP1 PNAME$ .S,6
2070 MAP1 LDATA$ .S,100
2080 MAP1 SEGMENT$,S,10
2090 MAP1 COMD$ .S,100
2100 MAP1 NOYES$ .S,1
2110 MAP1 TITLE1$ .S,80,"-----"
2120 MAP1 TITLE2$ .S,80,"-FILENAME- -STATUS- FILE PAGES BLOX LINES BYTES"
2130 MAP1 BS24$ .S,40,""
2140 MAP1 BS16$ .S,40,""
2150
2160 REM ..... CONSTRUCT SPACES
2170 FOR I=1 TO 16 : BS16%=BS16%+CHR(8) : NEXT I
2180 FOR I=1 TO 24 : BS24%=BS24%+CHR(8) : NEXT I
2190 INCR=10 ! AFTER EACH INCR LINES SCREEN IS UPDATED
2200
2210 REM .....
2220 PRINT TAB(-1,0):
2230 INPUT "ENTER NAME OF PROGRAM (1-6 CHARACTERS) : ", PNAME$
2240 LOOKUP PNAME$+".BAS", THERE
2250 IF(THERE = 0) THEN ? "ERROR---"; PNAME$; ".BAS EXISTS" : GO TO END
2260 LOOKUP PNAME$+".LNK", THERE
2270 IF(THERE=0) THEN PRINT "ERROR---"; PNAME$; ".LNK NOT FOUND" : GO TO END
2280 NOYES$="Y"
2290 PRINT "DELETE "; PNAME$; ".BAS ? (Y OR N) OR DEFAULT Y) : ";
2300 INPUT "" NOYES$
2310
2320 REM ..... OPEN FILES
2330 OPEN #1, PNAME$+".BAS", OUTPUT
2340 OPEN #2, PNAME$+".LNK", INPUT
2350 PRINT "NOW CONCATENATING PROGRAM SEGMENT FILES FOR "; PNAME$+".BAS"
2360 PRINT " "; TITLE1$
2370 PRINT " "; TITLE2$
2380 PRINT " "; TITLE1$
2390 TFILES=0
2400 TBYTES=0
2410 TFILES=0
2420
2430 NEXT COMMAND:
2440 INPUT #2, SEGMENT$
2450 IF(EOF(2)=1) THEN GO TO END'COMMANDS
2460 IF(SEGMENT$="") THEN GO TO NEXT'COMMAND
2470 TFILES=TFILES+1
2480 AFILE%=RIGHT$(" #" +STR$(TFILES),3)
2490 PRINT USING " \.....\ INPUTING \.\", SEGMENT$, AFILE$:
2500 LOOKUP SEGMENT$, THERE
2510 IF(THERE=0) THEN PRINT BS16$; " NOTFOUND" : GO TO NEXT'COMMAND
2520 OPEN #3, SEGMENT$, INPUT
2530 NFILES=0
2540 NBYTES=0
2550
2560 'O'LOOP:
2570 INPUT LINE #3, LDATA$
2580 IF(EOF(3)=1) THEN GO TO END'FILE
2590 NFILES=NFILES+1
2600 NBYTES=NBYTES+LEN(LDATA$)+2
2610 PRINT #1, LDATA$
2620 IF(NFILES/INCR = INT(NFILES/INCR)) THEN GO TO 'O'LOOP

```

```

2630 NPAGES=INT( (NLINES-1)/PAGE ) + 1
2640 NBLOCKS=INT( (NBYTES-1)/510 ) + 1
2650 PRINT USING " ##### ### ##### ####", NPAGES, NBLOCKS, NLINES, NBYTES;
2660 PRINT BS24#;
2670 GO TO IO1LOOP
2680
2690 END FILE:
2700 NPAGES=INT( (NLINES-1)/PAGE ) + 1
2710 NBLOCKS=INT( (NBYTES-1)/510 ) + 1
2720 PRINT BS14#;
2730 PRINT USING " \.....\ \.\", "FINISHED", AFILE#;
2740 PRINT USING " ##### ### ##### ####", NPAGES, NBLOCKS, NLINES, NBYTES
2750 TINES=TLINES+NLINES;
2760 TBYTES=TBYTES+NBYTES
2770 CLOSE #3
2780 GO TO NEXT COMMAND
2790
2800 END COMMANDS:
2810 PRINT " "; TITLE1#
2820 PRINT USING " \.....\ FINISHED ALL", PNAME$+".BAS";
2830 TPAGES=INT( (TLINES-1)/PAGE ) + 1
2840 TBLOCKS=INT( (TBYTES-1)/510 ) + 1
2850 PRINT USING " ##### ### ##### ####", TPAGES, TBLOCKS, TLINES- TBYTES
2860 PRINT "[CONCATENATION FINISHED]"
2870 CLOSE #2
2880 CLOSE #1
2890
2900 REM .....
2910 CRLF#=CHR(13)+CHR(10)
2920 COMD$="DSK0:TIME.PRG(1,43) + CRLF# + ":T" + CRLF#
2930 COMD$=COMD$ + "ERASE "+PNAME$+".RUN" + CRLF#
2940 COMD$=COMD$ + "COMPIL "+PNAME$+".BAS" + CRLF#
2950 IF(NOYES$ [ "N") THEN COMD$=COMD$ + "ERASE "+PNAME$+".BAS" + CRLF#
2960 CHAIN COMD$
2970
2980
2990 END:
3000 END

```



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EN ONE KAR DAT NAM KARTA PURKH NIB BHAD NIB VEN ARAL MEHTA A UNILAL BHANG GUP PRASAD JAP D... 1720 AL SACH HEMI SACH NANAK HOBI B SACH

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AMOS BUGS (Version 4.0)

3/2/79

(1) BASIC --- new file I/O syntax (revisited)

In buglist #8 I reported the new syntax READ #1, XDATA[A,B] as being available in BASIC. My mistake. In reality, the syntax WRITE #1, XDATA[A,B] has been added. The READ syntax is illegal (!!!!) and will get you an error message. Since any usage of the new WRITE syntax will necessitate the availability of the corresponding READ syntax (as given above), I would suggest that Alpha Micro add this capability to the READ routine in BASIC. In fact, I am already using the new WRITE syntax in a cute program, and am kludging (badly !!) the currently-unavailable READ syntax. Please help me (and my program) save face....

(2) BASIC --- XOR doesn't work properly

Enter BASIC and enter the following simple statement IF(0=0 XOR 1=1) THEN PRINT "TRUE" ELSE PRINT "FALSE" This statement (on our Hawk System) causes a variety of responses (a) hangs BASIC up until control-C entered (b) buss error (c) crashes system

(3) BASIC --- some errors not detected by MAPS

MAPS are not well-known for catching syntax errors. Please do not end a variable with an apostrophe, MAP1 DOLLAR'TOTAL',S,10 or it will catch up with you at some unexpected time later on. Neither should you use the dollar sign on a floating variable MAP1 BALANCE\$,F,6 no matter how tempting it may be. I am not sure if this will cause any problems later on, but I do know that MAP does not catch the contradiction of types. Finally, be careful about making hierarchical edits after "bad" MAPS have been COMPILED or RUN. For example, enter the following 10 MAP1 X(5) 20 MAP2 Y,B,1,1 ! note incorrect form 30 MAP2 Z,B,1,1 ! note again 40 END RUN 10 the last line will be followed by an immediate & silent crash.

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AMOS BUGS (Version 4.0)

3/2/79

(4) BASIC --- subscripts are still having problems

The following still gets an undeserved error message :

1 A(B)=1
even when it is the first thing entered to BASIC. The error message is "WRONG NUMBER OF SUBSCRIPTS".

(5) RUN --- no file name still causes crash

Type RUN at monitor level with no filename following. Crash.

(6) ISAM --- hard to describe, easy to fix

The symptoms : if the first record ever entered to an ISAMed file is deleted, pointers get messed up and no new entries can thereafter be made. Another symptom : entering new records causes the output of "SYSTEM ERROR 35".

The fix, from Alpha Micro,

```
.LOG 1,4
.DDT ISAM
PROGRAM BASE IS nnnnnn
PROGRAM SIZE IS 7516
6730/ BEQ 7032 0 crlf
control-C
```

.SAVE ISAM.PRG

To check whether your ISAM is good or bad, type

```
.DIR ISAM/H
ISAM PRG 8 513-461-220-072 DSK0:[1,4] (if ok)
ISAM PRG 8 610-033-343-544 DSK0:[1,4] (if bad)
```

(7) COPY --- gives source PPN's in hex if hex currently set

Typing the following may confuse the average user :

```
.SET HEX
.COPY =FILNAM.EXT[40,40]
FILNAM.EXT[20,20] to FILNAM.EXT (note hex PPN)
```

(8) HELP --- not yet bulletproof

Type HELP VUE and the first page of the VUE.HLP file will appear. To proceed on to the next page, you are supposed to enter a simple carriage return. If instead you enter one or more non-blank characters plus a carriage return, the next page will be displayed without any carriage returns. Try it.



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AMOS BUGS (Version 4.0)

3/2/79

(9) TIME --- 12 o'clock not input correctly

Any time input of the form

TIME 12:mm AM/PM

will go in advanced by 12 hours beyond what it should be.

The correct logic for the TIME inputs is as follows :

input : HOUR , MINUTE , AMPM

range : 0-23 , 0-59 , null or "AM" or "PM"

default : 0 , 0 , null

After input, the following processing should be done :

IF (HOUR=12 AND AMPM≠null) THEN HOUR=0

IF (AMPM="PM") THEN HOUR=HOUR+12

IF (HOUR>23 ) THEN give error message

As currently implemented, the first of the 3 IFs given above is now missing in the TIME program. The output from the above logic is an HOUR:MINUTE pair in 24-hour clock format (in the range 00:00 to 23:59).

(10) Command files --- if last line is :K, it is ignored

Create the following trivial command file :

:S

:K

And call it BOB.CMD . It should execute as follows :

.\_BOB crlf

crlf

.\_

However, it is now executing as follows :

.\_BOB crlf

.\_

This is especially annoying when using the :P and :K in a partial keyboard input, because an extraneous monitor "." shows up on the screen.

(11) DIR --- old bug

The output from the 2 commands

DIR MEM:

DIR RES:

is still incorrect. They both give program sizes that are 10 bytes too large.

ONG KAR SAT NAM KARTA PURAN NIR BHAD NIR VER ANEL MOCHY AJUNI SAI BHANG GUN PRASAD JIP A ...



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AMOS BUGS (Version 4.0)

3/2/79

(12) DUMP --- a variety of notes and mini-bugs

If any of you AMOS readers out there haven't tried DUMP, please do. It is most helpful at times.

- (a) DUMP BITMAP --- hard to follow  
Please add octal or hex addresses to the left of each 64-bit dump line on the screen. This command is very handy for seeing how "unpacked" your disk is getting to be.
- (b) DUMP RECORD --- be careful when hex is set  
If you have set hex and plan to DUMP records (disk blocks) whose hex addresses begin with hex digits A thru F, be sure that you put a zero in front of any such addresses that may be mistaken for device names. For example  
DUMP BITMAP A98 DSK0: works ok  
DUMP BITMAP A98 A99 DSK0: fails  
DUMP BITMAP A98 0A99 DSK0: works ok
- (c) DUMP DIRECTORY --- deleted directory entries look funny  
Files that have been ERASEd may still occupy room in the user's directory. These will be characterized by the presence of the 3 characters ":80" in place of the previous first 3 letters in the original filename. Do a directory DUMP and see.
- (d) DUMP FILNAM.EXT --- fails for random files  
I think this command should be revised to handle random files as well as sequential files. As of now, an attempt to DUMP a random file results in a "FILE TYPE MISMATCH" error.
- (e) DUMP l --- try it !  
This causes the user's terminal to go into an unstoppable dump of semi-pure garbage. Only re-booting the system will stop it. Other user's are not crashed, however.

(13) BASORT --- careful !

Bryce Jackson of Thousand Oaks reports that BASORTing a random file (small enough to fit into memory) will cause the loss of exactly 0 or 1 blocks (512 bytes) of data from the file. Thus, it "sometimes loses a block". This problem has been acknowledged by Alpha Micro. On files requiring a polysort/merge sort, extra null records are being inserted into the file.

I myself can report that the monitor level SORT appears to work ok; both bugs reported in buglist #8 about SORT are gone.

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AMOS BUGS (Version 4.0)

3/2/79

(14) VUE --- still kills IMSIO HOG option, but less often

In buglist #8, Duane Cowgill reported that entering and then exiting from VUE killed the IMSIO HOG option until system was reset again. In this buglist, he wishes to report that the HOG is killed only if VUE is exited with errors (i.e., if disk is write protected and VUE can't write the newly edited file out to the disk). Life is getting better for the HOG with each AMOS release .....

(15) VUE --- problems with the ADDS terminal

I went through this over the phone with Terry Peterson, but I will take at least 90% responsibility for asserting this to be a real bug. If we had an ADDS terminal at the Store right now, I would check it out and assume 100% responsibility.

To be safe, use EDIT and create a file FRED.FRD with the line /abc

Where there just 4 characters and a carriage return line feed pair at the end. Then, on an ADDS terminal, type

VUE FRED.FRD

control-L

(to move cursor one character over)

A

(to replace "a" with "A")

The screen would normally look like this

/Abc

With the cursor now over the "b". But on the ADDS it looks like this :

/AY "

Where the cursor is now immediately to the right of the ". This is exactly what would happen if someone tried to position the cursor at row 1 column 2 on the ADDS screen and forgot to send out an escape with high-order (128-) bit on to get it past the AMOS monitor. In other words, the cursor sequence is

escape , Y , blank , "

or, in straight numerical ASCII

27(+128) , 73 , 31+1 , 31+2

And the escape is either not getting generated, or more likely, is getting trapped by AMOS.

(16) VUE --- some more bugs reported by Bill Miller in Florida

Bill has made a very good bug report and it would be senseless for me to type it all over. So, for the next 2 pages I turn the bug report over to Bill.

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February 1, 1979

## Buglist 4.0

I. While you are using VUE on a file containing one or more upper case E's:

1. Get into command mode.
2. >SEARCHFOLD~~Y~~FALSE ↵
3. >FOLD~~Y~~FALSE ↵
4. >R~~Y~~E ↵ ; enter upper case letter
5. ?e ↵ ; enter lower case letter
6. Enter a Y for any or all occurrences of "E".

Problem: only upper case E is placed into the file. The problem is more general in that no lower case letters can be placed in a file using REPLACE.

II. The same problem occurs using GLOBAL.

III. Prepare an INI.VUE file the last line of which is blank:

- 1) .VUE~~Y~~filename ↵ ; use an existing, valid filename with extension.
- 2) Get into command mode. ; esc.
- 3) >Q ↵ ; quit using VUE.
- 4) .VUE~~Y~~filename ↵ ; same filename plus extension as above.

Problem: system will crash.

Solution: remove blank line from INI.VUE. It is my opinion that many users will use VUE to create an INI.VUE file. When using VUE in insert mode, most users will hit ↵ on their last line of text. This will create a last-line-blank condition unless a control Z is then entered.

IV. The search argument string when using SEARCH, REPLACE or GLOBAL in VUE will ignore leading and trailing blanks. Example: file contains dog~~Y~~BoyAB

- 1) Get into command mode of VUE
- 2) >s~~Y~~B
- 3) ctrl x ; next match

Problem: the cursor will incorrectly be positioned over the second occurrence of B. There is no second occurrence of ~~Y~~B.

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page 2 of 2

## Buglist 4.0 (cont'd.)

V.     .LOGØ1,2 ↵  
       .SYSACTØDSK1: ↵             ; use a scratch disk  
       \*AØ69,69 ↵                 ; non octal number  
       PASSWORD ↵  
       \*E ↵  
       .DSKANAOØDSK1:/L

Problem: Results are unpredictable. The directories are sometimes clobbered. A new PPN 0,6 is sometimes added.

Solution: Make sure that only valid octal numbers are entered i.e., Ø to 377.

Underlined text is entered by the user.

"Ø" is a blank.

Comments follow a ";".

"↵" is a carriage return.



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NOTES ON DATE CONVERSIONS

(1) Gregorian dates (Y,M,D). This system has achieved almost-worldwide usage. Exception: the Modified Gregorian Calendar of the Greek Orthodox Church in Albania will differ from Gregorian in a couple of centuries from now.

(2) Day of year (Y,DOY). This system has achieved popularity among the military and business programmers, and is commonly known among them as the so-called "Julian date", which is a mis-nomer on two accounts, first, because it is still Gregorian (not Julian) calendar in origin, & secondly, because the original "Julian Date" (see below) has been in use at least 200 years longer than this system. The year (Y) is taken to be the same as the Gregorian Year value, and the "Julian Date" or day-of-year (DOY) is 1 for Jan 1, running through to 365 (or 366) for Dec 31. The advantages of this system are several.

- (a) no monthly irregularities
- (b) it maintains a basic similiarity with the calendar
- (c) for year-based accounting intervals, it is perfect

Unfortunately, the day of the week is not any more easily determined than with the Gregorian Calendar system (Y,M,D).

(3) Julian Date (JD). This system, although not related directly to the Julian calendar, is not misnomered, as it is named after Julian Schalager, the inventor's father. This system is used by scientists (especially astronomers) and chronologers. It is defined as follows:

JD = the number of solar days (and any fraction) since Greenwich noon of the last mutual concurrence of the 4-year leap year cycle, the 7-year "solar" cycle, the 19-year Metonic cycle (235 lunations = 19 years ± 2 hours), and the 15-year indiction cycle (Roman taxation interval).

- = 0 at BC 4713 January 1 , 12:00 GMT
- = n at exactly n days after that time
- = 2415020.50000 at AD 1900 January 01 , 00:00 GMT
- = 2415021.00000 at AD 1900 January 01 , 12:00 GMT
- = 2444240.00000 at AD 1980 January 01 , 12:00 GMT

The advantages of this system should be obvious, especially when determining the day of the week, and the number of days between any two dates. For historians, the starting point (4713 BC) is handy because it predates virtually all events known to the exact day, hence, all historical dates are positive Julian Dates.



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(4) Calculating JD from Y,M,D. This may seem formidable. However, I maintain that, in order to calculate the day of the week, a program effectively calculates the Julian date anyway (or a close "relative" of it). The simplest method I have seen for this calculation is as follows :

- (a) Start with Y,M,D
- (b) IF (M=1 or M=2) THEN LET M=M+10 & LET Y=Y-1 ELSE LET M=M-2  
(i.e., consider March thru December as the 1st thru 10th months, and consider January & February as the 11th & 12th months of the previous year. Historically, this is how things used to be; "Dec"ember was the "tenth" ember, and so forth.)
- (c)  $JD = INT(Y*1461/4) + INT(M*367/12) + D + 1721074$

Simple, huh ? For practicality's sake, I have confined myself to the range 1900-MAR-01 to 2100-FEB-28 in the above expression. Also notice that the above expressions always give an integer for JD (the value of JD at Greenwich Noon). The completely general expression for JD is as follows :

$$\begin{aligned}
 (d) \quad JD = & INT(Y*1461/4) + INT(M*367/12) + D + 1721087 \\
 & + (h-12)/24 + m/1440 + s/86400 \quad (\text{where } h:m:s \text{ is GMT}) \\
 & + 2 - INT(INT(Y/100+1)*3/4) \quad (\text{for Gregorian dates})
 \end{aligned}$$

where the last line is to be included in the calculation if the Gregorian Calendar Y,M,D are begun with (in (a)), and excluded if the Julian Calendar Y,M,D are used, chiefly for dates before 1582 AD. Note that the above expressions will fail for BC dates (Y<0) if the INT function is a simple "chop" function, rather than the "always-round-down" function.

(5) Calculating the day of the week from JD. Trivial. Divide JD by 7; the remainder will be 0 for Monday, 6 for Sunday. If a non-integer JD is used, round to the nearest integer before dividing by 7. The GMT convention will also have to be accounted for, if observed.

(6) Calculating DOY from JD. Also trivial. Use following :

$$DOY = (JD \text{ of } Y,M,D) - (JD \text{ of } Y,1,0)$$



The following programs are available through the Byte Shop of Reno. At press time, we had no prices, but you may contact Chuck Growdon at 4104 Kiltzke Lane, Reno, Nevada 89502. (702) 826-8080. Chuck promised to send more information about these and other programs developed by the Byte Shop of Reno for the next Newsletter.

BASIC language:

- CMPALL Allows 'wild card' compilation of basic programs.
- IF A conditional statement processor which allows the user to control the flow of procedure files.  
An example: .RUN IF FILE ABC.BAS THEN COMPIL ABC  
The file ABC will be compiled only if it exists.
- MENU A generalized menu system which allows selection of programs to be run. The menu can be easily edited when new functions are to be added.
- RENUM A program which will renumber a basic program.  
The renumbering can take place on specific lines if desired.
- RESEQ A BASIC programs resequencer. Similar to RENUM, but allows imbedded line numbers.

BASIC subroutines:

- CHAIN Chain allows the user to chain to a command file directly by passing it a string of commands. This allows the user to pass arguments.
- CLINE Cline will fetch the command line into a string. This is very useful because it allows arguments to be passed to BASIC programs via the command line.
- COMBLK Comblk is a general common block routine which allows common blocks to be stored in memory when chaining to other programs. It is similar to the alphaMicro COMMON subroutine, but it allows any number and size of common blocks.
- DATCNV a generalized date conversion routine. It allows dates to be stored in just two bytes. DATCNV will check for date legality (i.e. 2/29/77 is illegal) and is valid through 6/5/2079.

**GETCH** Gets a character from the keyboard without the necessity of pressing return.  
**PAUSE** Allows the job to delay for a specified amount of time.  
**PRTRERR** Prints an error message and waits for return from keyboard.  
**PUTIN** Allows the user to force characters into his own input string  
**RENAME** Allows renaming files inside of basic.  
**RGETCH** Allows real-time entry of characters from keyboard. Returns null if no keys pressed, but returns a character when one has been entered.

Assembly language programs:

**ALLOC** Same as the ALLOCATE statement in basic, but entered in command mode.  
**BASCNV** Allows easy conversion between octal,hex, and decimal nos.  
**EXIT** Terminate a command file and print a message. Generally used with the IF program.  
**GOTO** Allows forward jumping in a command file. Very useful with the DO processor

Changes to existing programs:

**LOGOFF** will now delete any modules left in memory.  
**PRINT** new options for auto file deletion, form-feed after print, and multiple spooler capability have been added.

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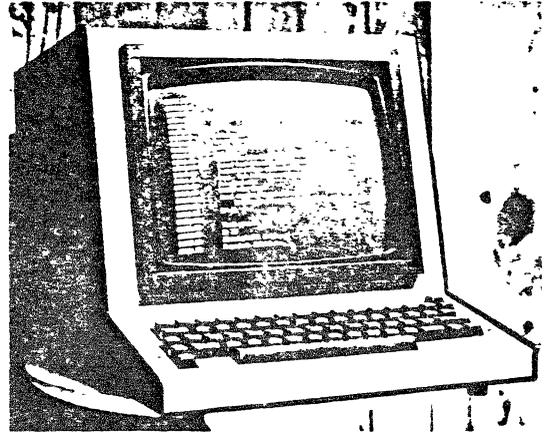
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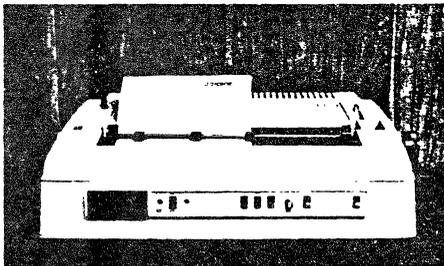
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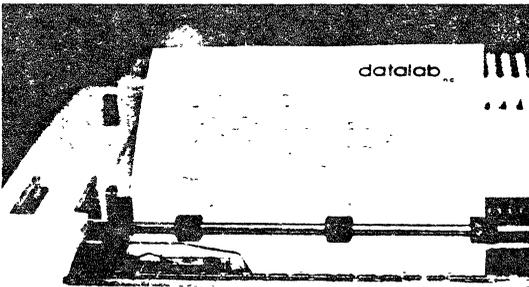


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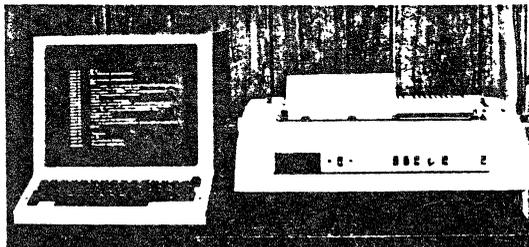
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- ✓ Results are automatically placed in a file with the extension of .LST. The latter in turn may be printed, viewed, edited, etc.
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JAY GOURLEY  
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Washington, D. C., 20002

-----  
Telephone 202-547-5935

February 13, 1979

Mr. Jim Taylor  
Alpha Micro Users Society  
c/o Community Free School  
Box 1724  
Boulder, Colo. 80306

Dear Mr. Taylor:

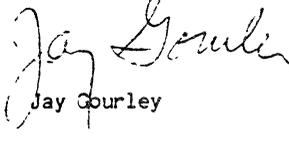
Several weeks ago I finished an investment evaluator called SHARK for Thought Processor. He is written in AlphaBasic and I retain proprietary rights to him. I would like to sell copies to other AMUS members.

SHARK solves for all variables in a variety of investment problems including sinking funds, annuities, simple interest compounding, days-between-dates, mortgage amortizations, interest conversions, etc. Anyone understanding these can avoid arithmetic on most investment analysis without program documentation. In the sense that long, explanatory prompts are a nuisance to regular users, SHARK is more workable, functional and flexible than he is educational. He runs very fast in small memory with little prompting.

After completing SHARK, I began work on documentation to help inexperienced users solve financial problems across a wide spectrum of difficulty. Since SHARK himself is forthright, the documentation is more a text on financial mathematics, full of sample problems. Even without the associated software, it is a worthwhile tutorial.

I want to sell SHARK with cursory documentation for \$120 to fellow AMUS members. Complete documentation costs \$30. On SHARK's advice, I'm offering a special finance plan to AMUS members -- \$7.50 a week for 36 months; if you don't pay I break your thumbs. For a demonstration, of SHARK's speed and power AMUS members may call 202 547 8462 and log into 101,101 between 1 and 5 p.m. ET. The Password is AMUS. I would appreciate your spreading the word. For quetions, AMUS members should call or write me.

Sincerely,

  
Jay Gourley

JG:ft



**STAT**®

HEALTHCARE SYSTEMS, INC.

4059 Roosevelt Way NE  
Seattle, WA 98105

1-800-562-7775  
(206) 632-5080

February 13, 1979

Mr. Jim Taylor  
P. O. Box 1723  
Boulder, Colorado 80306

Dear Jim:

Enclosed is a list of the Medical/Dental Accounts Receivable System components we have just completed. Note that there is a distinction between the AR100 system (one patient, one account) and the AR300 system (five patients, one account). We are very excited about the power and versatility of this system, and believe it to be one of the most comprehensive on the market.

Thanks again for the information on possible job cost systems being developed. I would like to reiterate that should you run across a good job cost system, please let me know immediately. I have several clients who are very interested.

Very truly yours,

STAT SYSTEMS, INC.

  
Tod C. Turner  
General Manager

TCT:slc  
Enclosure

## STAT AR100 MEDICAL BILLING SYSTEM

THE FOLLOWING ARE THE COMPONENTS OF THE STAT AR100 SYSTEM:

I. THE SCREEN "MENU" (LIST OF OPTIONS) IS BROKEN DOWN INTO

14 OPTIONS:

1. MASTER FILE MAINTENANCE (ADD, UPDATE, DELETE, PRINT)
2. PRINTING OF ALPHABETIC NAMES & ADDRESS LIST
3. CHARGE TRANSACTION POSTING
4. PAYMENT AND ADJUSTMENT POSTING
5. ACCOUNTS RECEIVABLE AGING/LEDGER PRINT
6. ALPHA NAME SEARCH FOR ACCOUNT NUMBER
7. ACCOUNT VISUAL INQUIRY (LEDGER)
8. PRINT STATEMENTS/INSURANCE FORMS
9. SERVICE CODE MAINTENANCE
10. PRINT ANALYSIS REPORTS
11. PRINT PRODUCTION REPORTS
12. CALCULATE FINANCE CHARGES
13. CLIENT OPTION MAINTENANCE
14. PRINT LABELS (MAILING OR FEE SLIP STYLES)

**STAT.**



ALPHA MICRO USERS SOCIETY Membership form

Please fill out as much information as possible.

Name \_\_\_\_\_ Company \_\_\_\_\_

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

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 \$25.00 per member.

AMUS  
c/o Community Free School  
P O Box 1724  
Boulder, Colorado 80306

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