



# News from the Apple Barrel

=====

VOLUME 3 NO. 2

FEBRUARY, 1980

President, Bruce Barber

Vice President, Bob Stout

Editor, Ed Seeger

=====

## PROMISES! PROMISES!

"History is the record of an encounter between character and circumstance."

In a real sense, this entire issue of "APPLE BARREL" documents such an encounter. It flows, perhaps irregularly, from the tension between what is promised as an ideal, and what is ultimately produced as real. David Black's fine orientation to Pascal reminds us that when the tumult and shouting died, those of us with expensive Language Systems were left with non-existent software support, non-tutorial documentation, and not even the system awareness to print a disk catalog. The intention far exceeded the final product. With patience, it might even catch up!

The Software Library listings recall HAAUG's desire not to distribute copywrited material, yet it's in there and we'll be keeping it there for the time being. All user groups are on the same spot. All public libraries are, too, for that matter. A disk drive is the Xerox machine of the computer world. Character says not even to run off a copy of an irresistible cartoon from the morning paper. Circumstance says that the laughter it brings from it's corner on the office bulletin board is worth anything.

The (cribbed) article from the Wall Street Journal covering the SOURCE recycles similar issues. Jack Taub has been long and loud on promises, short on keeping them. His overeager ambition reminds one of Shakespeare's comment on drink: "It provokes the desire, but it takes away the performance!"

Better, perhaps, to trim the talk and improve the product? Not necessarily. The gap between advertising departments and engineering departments is well-documented in many fields. User complaints can often be resolved, though not always, of course. Some people do get deceived, and resent it. Others, however, respond creatively to the challenge and improve a product or even produce a competing one. It's the nature of free enterprise. For those of us who promise dreams, and for those who dream of somebody's promise, it makes for interesting history.

- EBS

#### WANT AND DON'T WANT ADS

T.I 810 PRINTER. Character and line compression options - 16cpi, 81pi. \$1500. Carl Miller, office 661-0174; home 433-1017.

SOLA POWER CONDITIONER (AC regulator). AC power regulation better than 1, transients and noise suppressed at least 65dB. Originally \$500. Asking \$350. Bob Stout, 495-5533.

FOR SALE: 16K MEMORY for the Apple. Mostek "p" series (top of the line). 200ns chips. Guaranteed. Tom Broderick, 463-0642.

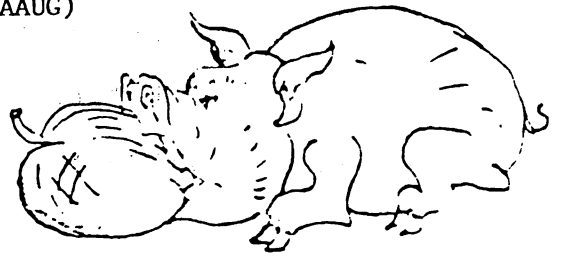
MICRO MUSIC BOARD for sale. Realistic speaker included. Total retail \$240. Sell for \$220. Only a month old. Travis Turpen, 476-0640 nites.

HEURISTICS SPEECH LAB with disk or cassette of working Speechlab programs. \$130. Travis Turpen, 476-0640 nites.

EASYWRITER Word Processor by Cap'n Software. Original disk and ring-bound manual. Version 1. This one is powerful and versatile, but I've got two. You are reading EASYWRITER right this moment! Retail \$99.95. Sell for \$75. Ed Seeger, 522-3955 days, 723-6919 nites.

HOUSTON AREA APPLE USERS GROUP (HAAUG)

A gathering formed of amateurs and professionals who hold a common interest and desire to learn, and get more out of their Apple computers. The Group freely exchanges programs from a vast software library. Members help each other solve computer problems and relay valuable information through meetings and newsletter. Special hardware construction projects and bulk, economic purchases of support equipment are sponsored.



HAAUG GETS THE MOST OUT OF THE APPLE

OFFICERS December 12, 1979

President	Bruce Barber	469-5805
Vice President	Bob Stout	495-5533
Treasurer	Ray Essig	497-7165
Secretary	Jim Odom	426-3970
Chairman Newsletter	Ed Seeger	723-6919
Chairman Software Library	Dennis Cornwell	774-0671
Chairman Hardware Projects	David Marchand	497-7366
Chairman Business Applications	Rudge Allen	622-3979
Chairman Membership	Lee Gilbreth	342-2685

The Group conducts a general meeting every second Wednesday of the month, in the ~~Youngman Library, 5830 Westheimer at 6:30 pm~~ (6:00 orientation for perspective new members). A work session also takes place at 2:00 pm, the last Saturday of the month, at the Houston Amateur Radio Club, 7011 Lozier Street, two miles east of the Astrodome.

\*\*

See "HAAUG has new meeting place" on the other side of this sheet.

\*\*

To: Lee Gilbreth  
3609 Glenmeadow  
Rosenberg, Texas  
77471

From: (Name) \_\_\_\_\_  
(Address) \_\_\_\_\_  
(Tel No.) \_\_\_\_\_

I wish to join the Houston Area Apple Users Group (HAAUG).  
Enclosed is \$18.00 (by check, cash, other) for one full year membership.  
This will entitle me to free subscription to the Apple Barrel Newsletter, no-cost access to the HAAUG software library, privileges to the hard copy reference library, and opportunity to participate in all other activities of the Group.

Signed: \_\_\_\_\_

Check if you want your name on mailing list for Apple-related products.



## ON USING PASCAL

Earlier last year Apple users observed the introduction of a new language system for their Apple II computer. Many owners jumped into the water immediately and purchased a system at the introductory price. Pascal by all signs (from magazines and rumors) promised to solve everybody's programming dilemmas. But now that you own a Pascal system, what do you do? The "Pascal User Manual and Report" proves to be a formidable book for all save the professional programmer. On the other side of the coin is "Problem Solving Using Pascal," an introductory course to programming aimed at the industrious university student. Not only does the text assume lots of time to devote to the learning process, but it also does not take advantage of the experience we have gained from programming in BASIC.

### INTRODUCTION

This is the first of a series of tutorials on the USCD Apple Pascal programming language. Therefore, if you fit into this category (and many HAAUG members do), rejoice! The awaited introduction to Pascal has arrived.

The overall intent of the Pascal tutorial is five-fold:

- I. Discuss the advantages and disadvantages of Pascal.
- II. Explain the languages' constructs (control, data and I/O).
- III. Describe how to use the Language System to edit, compile and execute Pascal programs.
- IV. Introduce an effective approach to creating programs.
- V. Bring out some history and notes on the development of Pascal.

Naturally, I do not expect to elaborate on every issue each month. Nor do I wish to approach them one at a time. My reasons are that not everyone is interested in all of the above issues and each issue could take up an entire tutorial by itself. Therefore, I will try to bring out a different issue each time.

## LESSON 1.

This first article will address issue 11, language constructs. Specifically, we will concentrate on control of program flow. In BASIC, program flow is controlled with the statements FOR-NEXT, IF-THEN-, GOTO, GOSUB, RETURN, ON-GOTO, ON-GOSUB, ONERR GOTO, STOP, CALL and END. Now, some of you may react by saying, "But that is all there is to BASIC"; however, I caution you to be patient because in time I will try to show you other aspects which have simply escaped your notice.

Dear Pascal Neophyte,

This set of programs is not intended to show you the best methods of programming a particular program. Rather it has been set up to elucidate numerous similarities, differences and subtleties of the Pascal language as opposed to BASIC. Given that you already have a moderate proficiency in BASIC, I expect that you will find it easy to translate these programs to their equivalent BASIC forms.

In making comparisons, please be sure that you do not make any "improvements" during the translation. Some of these Pascal programs have a much simpler Pascal expression, but then the idea being conveyed would probably not be so obvious.

Good luck,

David C. Black

note: Programs zero through four deal with "data types" and will be part of next month's lesson.

-ed

## LOOPING CONSTRUCTS

Write BASIC equivalents here, then run each and compare.

```
PROGRAM FIVE;  
  VAR I:INTEGER;
```

```
BEGIN  
  FOR I=1 TO 10 DO WRITELN(I)  
END.
```

```
PROGRAM SIX;  
  VAR I:INTEGER
```

```
BEGIN  
  FOR I:=10 DOWNT0 1 DO WRITELN(I)  
END.
```

```
PROGRAM SEVEN;  
  VAR I:INTEGER;  
      J:INTEGER;
```

```
BEGIN  
  FOR I:=0 TO 9 DO BEGIN  
    J:=2*I;  
    WRITELN(J)  
  END  
END.
```

```
PROGRAM EIGHT;  
  VAR I:INTEGER;
```

```
BEGIN  
  FOR I:=100 DOWNT0 90 DO WRITELN(2*I)  
END.
```

```
PROGRAM NINE;  
  VAR I:INTEGER;
```

```
BEGIN  
  I:=1;  
  WHILE I<=10 DO BEGIN  
    WRITELN(I);  
    I:=I+1  
  END;  
  WRITELN('FINISH I=',I)  
END.
```

# Growing Home-Information Field Led By Telecomputing's 'Source' for News

By BERNARD WYSOCKI JR.

Staff Reporter of THE WALL STREET JOURNAL

MCLEAN, Va.—You can't accuse Jack R. Taub of thinking small. "I'm in the process of building the next Bell Telephone Co.," he says in a typical outburst. "I'm going to change the way America does business."

Mr. Taub's ambition sounds all the more preposterous when one learns that his privately held company, Telecomputing Corp. of America, is barely six months old. It has 35 employes, and a monthly revenue of about \$100,000. It isn't even posting a profit.

But Mr. Taub has reason to be excited. His company recently introduced a product that is an overnight sensation among the cognoscenti of the computing world. Called The Source, it is a computer network that provides United Press International news, stock-market information, a restaurant guide, games, a home-buying and selling service and many other data programs to anybody with a terminal, usually one of the so-called home computers. Subscribers also can send messages to each other.

## Mass Market Seen

The Source is cheaper and less specialized than other information-retrieval services. So Mr. Taub is convinced that the product has a good chance of reaching a mass market. The Source costs \$100 for a one-time hookup, plus \$15 an hour of daytime usage (aimed at the small businessman) and \$2.75 an hour after 6 p.m. (aimed at consumers).

By contrast, the New York Times Information Bank distributes news from the Times and elsewhere at a cost of \$100 an hour. The bank is designed primarily for library and office use.

The Source has well over 3,000 paying customers, or double the total of only two months ago. The company is adding new customers at a rate of 500 a week. While many present customers are computer buffs, Telecomputing officials see anybody with a home computer as a natural customer because the home computer alone has limited uses.

By plugging into The Source's computer and punching a few keys on the computer terminal, a customer can get breaking news, hourly news summaries, sports and features from the UPI wires. By typing in the words "State Department," for instance, a customer can get a printout of major UPI dispatches on foreign policy for the past week, with the latest news first.

The Source offers financial reports in a similar format: stock-market indicators, stock prices, spot and futures prices for commodities, money-market and foreign-exchange rates. Officials of Telecomputing say the computer will soon have extensive historical data on major corporations.

Bettie Steiger, Telecomputing's director of information resources, is in charge of obtaining new data bases, or files of information, for the computer. She is negotiating, for example, with Dun & Bradstreet Inc. for rights to the Official Airline Guide—a thick book that appears twice a month, costs \$92 a year and lists all scheduled North American flights by commercial airlines.

In return for providing information to The Source, suppliers typically get 9% of the revenue generated. So if a customer spent 20 hours a year referring to the airline guide in the evening, he would pay Telecomputing \$2.75 an hour, or a total \$55. Dun & Bradstreet would get 9% of that, or \$4.95.

Another company in the field is CompuServe Inc., Columbus, Ohio, whose Micronet service is aimed at the computer hobbyist. Micronet's 1,200 customers can obtain financial information, but the provision of news plus data on travel, sports and commodities is only in the planning stage, says John Meier, Micronet's marketing manager. Micronet costs \$5 an hour, with a surcharge for certain programs.

The Source "is on the leading edge of the home-information business," says Dennis White, manager of strategic planning at Tymshare Inc., Cupertino, Calif. Tymshare's Tymnet Service provides some of the lines that link The Source's customers by telephone to Telecomputing's main computers in Virginia and Maryland. The connection is available in 260 U.S. cities.

According to Mr. White, however, Telecomputing still faces a few challenges in satisfying consumers. One problem is getting the computer to respond immediately; it doesn't always. And Telecomputing officials concede that some programs, especially those for small business, are rather sophisticated and require a fair amount of knowledge of computers to operate them.

## Another Potential Rival

Another emerging technology could eventually replace The Source, or at least prove to be a tough competitor. That system, with a generic name of TV text or view data, also retrieves information from large, central computers, but it flashes the data across ordinary home-television screens. Prototypes already are being tested in the U.S. and in other countries, including England, France and Canada.

## Other Source Sources

Mrs. Steiger is also seeking the American Academic Encyclopedia, to be published in March by Arete Publishing Co., Princeton, N.J., as well as Media Enterprise Inc.'s World Almanac and Book of Facts.

For Telecomputing and its suppliers, the key to making money is rounding up huge numbers of new customers. Mr. Taub's goal is 100,000 customers by the end of 1980. Two experienced marketing executives recently joined the company to drum up business.

Even if Telecomputing reaches its 1980 goal, it will still have less than 10% of the potential market. Andrew Roman, an independent consultant based in Newark, Calif., estimates that 400,000 desktop computers valued at \$1 billion were shipped by 25 manufacturers in 1979. That brought to 600,000 the total number in use in the U.S. Mr. Roman expects another 500,000 units valued at \$1.2 billion to be shipped this year.

"The Source is certainly something that will stimulate some people to buy personal computers," says Alan Oppenheimer, manager of marketing and planning at Apple Computer Inc., a Cupertino, Calif., concern that makes small computers.

Already, The Source is selling through computer dealers such as Tandy Corp.'s Radio Shack stores, and Telecomputing is lining up its own regional franchises. The marketing drive will include demonstrations in people's homes.

"By midyear," vows Mr. Taub, "we'll be in the home like Tupperware."



## ABBS AND OTHER NETWORKS

An increasing number of Apple users are tying into one or more Apple Bulletin Board Systems (ABBS) and/or have subscribed to either the SOURCE, Micronet, or maybe all of the above! The D.C. Hayes modem has changed life for more than one former Trekkie. "Prime time", "auto-dial", "sysop" and "log on" have replaced "warp or ion", "shield energy" and "klingson" as the catch words of the moment. "Scan" no longer suggests a broad perspective on the Galaxy, but rather takes on the meaning of a summary display of multiple bulletin board messages. And so on and so on.

In it's more sophisticated incarnations, participating in a computer network is something like renting from Hertz and Avis -- nearly impossible without a credit card. But something about it is awfully attractive, and one almost believes the bombast that asserts that access to the entire Library of Congress will someday soon be "merely a matter of pushing a few buttons." For the time being, though, the fulfillment of more modest ends is sufficient, and it sure is selling modems!

A good number of us, however, never got our PR#'s and our IN#'s straight. After all, the "BASIC Programming Manual" dismissed them with the half-truth that they are "used to control accessories." Back then we were more interested in turning the paddles and nicking chinks in a brick wall, so who cared about "accessories"? All of a sudden the Carterfone decision gets us tight with Ma Bell and we've got a modem and a printer and a screen and a keyboard, all of them "accessories" that need controlling.

How do you get hardcopy off an ABBS or other network and onto your PR INter, anyhow? Val Golding of CALL -APPLE renown was good enough to answer this one via HAAUG's ABBS. (See. These things ARE good for stuff!) If you use the Hayes modem, you have by now typed up the Auto-Dial listing from the manual. It works just fine as is, but how do you get bulletin board output out onto paper? Make the following modifications to your program, with lines 120, 121 being the actual mods. If your printer controller card is NOT in slot one, you'll need to tailor things to your particular configuration. That "PR#1" in line 120 needs to PR# whatever slot your printer happens to be running from. The 1913 in line 121 is, again, specifically for printers tied onto slot 1. Calculate it as 1912 + YOUR slot#.

```

116 IF PEEK (1659) < 128 AND CH
    < > 10 THEN PRINT D$;"PR#
0"; PRINT "NO ANSWER OR BUSY
! "; POKE - 16368,0: GOTO 1
50
120 D$ = CHR$ (13) + CHR$ (4): PRINT
D$;"PR#0"D$;"PR#1"
121 POKE 1913,138
130 PRINT D$;"IN#3"
140 POKE 1915,142: INPUT I$
150 PRINT D$;"IN#0": INPUT "ANOT
HER CALL?";A$: IF LEFT$ (A$
,1) = "Y" THEN RUN

```

1912, by the way, holds a fascinating collection of data, depending on what you poke in there. 1912, which is \$778 in hex, contains 7 one-bit flags which control various functions of the Micromodem II firmware. Check it out in your manual. If you have discovered the Louisville ABBS with its download feature, it's this flags byte it's referring to when it says "Please be sure the transparency bit is reset (poke1912+slot,2)." Read up on it. You want to have things set up before dialing in. Louisville is a 24-hour ABBS at 1-502-245-8288.

If you are on the SOURCE, you may have stumbled on Peripherals Unlimited's "SOURCE Signon," which makes the Apple do the tricky part of accessing the network and signing you on without a scolding for bad password. Hardcopy is even more essential from The SOURCE than from ABBS. Put in lines 370 and 385, with PR#slot as the last expression of 370, and poke 1912+slot,138 at 385. Here's how mine looks for my printer at slot# 1:

```

370 D$ = CHR$ (13) + CHR$ (4): PRINT
D$;"PR#0"D$;"PR#1"
380 NORMAL
385 POKE 1913,138
390 TP = 4096: CALL TP
400 END

```

TELENET  
ROM

Now what you need is a cheap source of printer paper. That stuff goes fast. Good printing!

> Ed Seeger  
TCC 372  
HAAUG ABBS

HAAUG ABBS, 654-0759  
6:00 pm - 8:00 am weeknights  
24 hours weekends till 8:00 am Monday

H.A.A.U.G. VOL #1  
CATALOG

DISK VOLUME 001

\*I 010 HAAUG.LIBRARY.V1  
\*I 025 WORKSHOP 11  
\*I 008 CONVERT  
\*I 010 DISK DUMP #9  
\*A 005 HEXDEC  
\*I 043 APPLESOFT  
\*I 018 SW16 DISASSEMBLER  
\*B 005 RENUM & APPEND (300.3D4)  
\*I 003 CREATE.COMMAND.FILE  
\*I 003 LIST.COMMAND.FILE  
\*I 002 INIT.MEMBER.FILE  
\*I 005 PURGE.DELETED.MEMBERS  
\*I 026 MEMBERSHIP ROSTER PROGRAM  
\*I 005 DELETE.UNLOCKED.FILES  
\*I 001 COUNT.SECTORS  
T 001 HAAUG.MEMBERS

H.A.A.U.G. VOL #2  
CATALOG

DISK VOLUME 002

\*I 032 HAAUG.LIBRARY.V2  
\*I 032 WUMPUS  
\*B 002 RENUM & APPEND (300.3D4)  
\*I 020 LIFE  
\*I 049 GAME SET-1  
\*I 028 GAME SET-2  
\*B 009 ASM SUB-1 (800.F15)  
\*I 009 ROCKET LANDER  
\*I 007 MASTERMIND  
\*I 008 BIORHYTHM  
\*I 009 BREAKOUT  
\*I 025 STAR TREK  
\*I 009 OUTBREAK  
\*I 025 WUMPUS II  
\*I 012 ACEY DUCEY  
\*I 007 SLOT MACHINE (SIMPLE)  
\*I 032 ELIZA  
\*I 022 CLOSING SQUARE  
\*I 007 HURKLE  
\*I 012 TWENTY MATCHES  
\*I 007 SHOOTING STARS  
\*I 021 MASTER MIND #1  
\*I 021 PENTOMINOES

H.A.A.U.G. VOL #3  
CATALOG

DISK VOLUME 003

\*I 011 HAAUG.LIBRARY.V3  
\*I 021 APPLEJACK  
\*A 009 BANNER  
\*I 043 APPLESOFT  
\*I 045 GAME SET-3  
\*I 011 BLOCKADE  
\*I 011 SINK THE SHIP  
\*I 015 MARBLE DROP  
\*I 009 GUNS  
\*I 011 STONES  
\*I 005 HORSERACE  
\*I 020 HEXPAWN  
\*I 004 TOWER OF HANOI  
\*I 015 DRAGON MAZE #2  
\*I 008 STAR WARS #1  
\*I 007 ROBOT CHASE  
\*I 007 BATTLESHIP  
\*I 008 BAGELS  
\*I 035 POKER  
\*I 005 KENO  
\*I 013 SEA CHASE  
\*I 008 NIGHTMARE #6  
\*I 018 SLOT MACHINE #2  
\*I 008 MASTERMIND #2  
\*I 010 CONNECT FIVE  
\*I 008 SAUCER WARS

H.A.A.U.G. VOL #4  
CATALOG

DISK VOLUME 004

\*I 017 HAAUG.SEL.V4  
\*I 015 BLACKBOX  
\*I 010 BLACKJACK  
\*I 018 SHOOTING STARS  
\*I 009 TIME BOMB  
\*I 011 COLOR SCETCH  
\*I 017 SOBRIETY TEST  
\*A 012 ART AUCTION  
\*I 006 COLOR LIFE  
\*I 014 AWARI  
\*I 012 OTHELLO  
\*I 014 SLOT MACHINE #3  
\*I 012 KENO #2  
\*I 009 ADVANCED DRAGON MAZE  
\*I 014 AWARI #2  
\*I 007 CRAPS  
\*I 007 TOWER OF HANOI #2  
\*I 006 TENNIS  
\*I 010 ROULETTE  
\*I 018 MID-WAY  
\*I 007 SUB COMMANDER

H.A.A.U.G. VOL #5  
CATALOG

DISK VOLUME 005

\*I 016 HAAUG.SEL.V5  
\*I 016 TWO VOICE MUSIC (HM:16000)  
\*I 011 BACH W/GRAPHICS  
\*B 020 MONO-MUSIC 1 (800.1AF0)  
\*I 005 MONO-MUSIC 2 (LM:7000)  
\*I 012 ENTERTAINER (USES MONO-MUSIC)  
\*I 022 BLUE DANUBE (USES MONO-MUSIC)  
\*I 019 BACH T&F IN D (MONO-MUSIC)  
\*I 011 STAR WARS/SOUND EFFECTS  
\*I 013 MORE BACH (HM:16000)  
\*I 019 SMALL WORLD (HM:16000)  
\*B 026 SUPER SYNTHESIS (800.2000 1100)  
\*I 024 APPELEODIAN II  
\*B 002 APPELEODIAN-1 (4A.FF)  
\*B 058 APPELEODIAN-2 (800.3FFF)  
~~B 004 BACH 2P W/P2~~  
~~B 005 BACH 2P W/P2~~  
~~I 025 PATS APPELEODIAN~~  
~~B 002 HS PLAY(800.675)~~  
~~I 038 MUSIC~~  
~~B 020 MONOMUSIC (800.1AF0) LM:7000~~

H.A.A.U.G. VOL #6  
CATALOG

DISK VOLUME 006

\*I 002 HAAUG.SEL.V6  
\*B 002 LUNAR LANDER 1 (4A.FF)  
\*B 026 LUNAR LANDER 2 (800.1FFF)  
\*I 006 SHAPE GENERATOR (HM:8192)  
\*I 003 HIRES ETCH-A-SCETCH (HM:8192)  
\*B 002 STAR WARS I-1 (4A.FF)  
\*B 025 STAR WARS I-2 (800.1FFF)  
\*B 008 STAR WARS II-1 (4A.FF)  
\*I 043 APPLESOFT  
\*B 026 STAR WARS II-2 (800.1FFF)  
\*B 007 HYPER LIFE 1 (800.D00)  
\*I 012 HYPER LIFE 2 (LM:4000)  
\*B 002 QUBIC 1 (4A.FF)  
\*A 008 ANIMALS #2  
\*A 019 OTHELLO #3  
\*B 018 QUBIC 2 (1000.1FFF)  
B 006 HIRES SUBS (COO.FFF)  
\*A 019 ELIZA #2  
\*A 033 TAX RETURN  
\*A 019 BASIC FINANCE  
T 002 UTIL.

H.A.A.U.G. VOL #7  
CATALOG

DISK VOLUME 007

\*I 040 HAAUG.SEL.V7  
\*I 014 MORSE CODE TRAINER  
\*I 007 STOPWATCH  
\*I 006 CRYPTOGRAM  
\*I 009 COLORMATH  
\*I 006 DIGITAL CLOCK  
\*I 040 A TRILLION STORIES  
\*I 017 POET  
\*I 017 MAD-LIB  
I 006 SIMON  
I 002 NOTES FOR SIMON

H.A.A.U.G. VOL #8  
CATALOG

DISK VOLUME 008

\*I 004 HAAUG.SEL.V8  
\*I 043 APPLESOFT  
\*A 014 STATISTICS  
\*A 010 DIFF E  
\*A 008 CONTRACT PAYOFF  
\*A 004 MASTER MENU  
\*A 038 BILLING #8  
\*A 042 INVENTORY #1  
\*A 042 LEDGER #1  
\*A 003 INITIALIZE FILE #1  
T 002 FILE #1  
T 001 FILE #2

H.A.A.U.G. VOL #9  
CATALOG

DISK VOLUME 009

\*I 034 HAAUG.SEL.V9  
\*I 022 HIRES DEMO-1  
\*B 006 HIRES SUBS (COO.FFF)  
\*I 011 HIRES DEMO-3  
\*B 003 HIRES DAZZLER (COO.D00)  
\*I 004 HIRES SHAPE PLOT  
\*B 034 HIRES NUDE (2000.3FFF)  
\*B 004 HIRES PLOT (2000.3FFF)  
\*I 005 EIGHT 3D GRAPHS (HM:8192)  
\*B 002 SUPER HIRES 1 (0.14)  
\*I 004 SUPER HIRES 2 (HM:8192)

H.A.A.U.G. VOL #10  
CATALOG

DISK VOLUME 010

\*I 019 HAAUG.SEL.V10  
\*I 003 BELL CURVE  
\*I 019 COLOR TEXT  
\*I 005 COLOR STROBE  
\*B 003 LORES DAZZLER (800.8FF)  
\*I 014 BIRTHDAY CAKE  
\*I 019 ALPHABET GRAPHICS  
\*I 005 LORES DEMO-1  
\*I 004 RANDOM WALK  
\*I 009 LORES DEMO-2  
\*I 009 LORES DEMO-3  
\*I 008 BIT BIN  
\*I 002 ROD'S COLOR PATTERN  
\*I 005 DANCING BUTTERFLIES  
\*I 011 APPLE PICTURE  
\*I 005 THE DRIP  
\*I 012 HOLIDAY PLOT  
\*I 002 FUNNY COLORS  
\*I 003 CHRISTMAS TREE  
\*I 004 KALIDOSCOPE  
\*I 011 MOUSE IN MAZE  
\*I 004 SANDY'S FOLLY  
\*I 010 THE MAZE  
\*I 003 GARY'S QUICKY  
\*I 002 SQUARES  
\*I 004 ANDROMEDA STRAIN

H.A.A.U.G. VOL #11  
CATALOG

DISK VOLUME 011

\*I 007 HAAUG.MASTER.INDEX  
\*I 003 INITIALIZE.INDEX  
T 002 LIBRARY.FILE  
\*I 019 CARD FILE  
T 007 VANS MASTER INDEX  
\*I 019 CARD FILE #2  
T 007 HAAUG PGMS V.1 & V.2  
\*I 006 PGM #6  
T 006 HAAUG PGMS V.5 & V.6  
T 007 HAAUG PGMS V.3 & V.4  
\*I 003 PGM #8  
\*I 002 RANDOMIZER  
~~A 011 DISK INDEX #6~~  
~~A 004 LIST INDEX FILE~~

H.A.A.U.G. VOL #12  
CATALOG

DISK VOLUME 001

\*I 015 MASTER #2  
\*I 008 CATALOG CONTROL 2  
\*I 007 COPY  
\*B 007 COPY.OBJ  
\*A 013 DISK2 TO DISK1  
\*A 006 DISK TO DISK (RUN)  
\*A 015 DISK TO CASSETTE  
\*I 006 DISK DUMP #9  
\*A 007 PRINT MULTI DISK INDEX  
\*I 004 MASTER.CREATE  
\*B 039 RAWDOS  
\*T 002 DISK TO CASSETTE.TEXT  
\*B 002 APPEND APPLESOFT ROM  
\*A 006 PRINT CATALOG  
\*A 002 PRINT DISK INDEX  
\*A 003 APPLE APPEND  
\*T 002 APPEND  
\*A 002 APPLSFT  
T 002 DISK TO DISK.FILE  
\*A 003 PRINT EXEC FILE

H.A.A.U.G. VOL #13  
CATALOG

DISK VOLUME 001

\*I 005 MASTER #3  
\*A 006 RENUMBER APPLESOFT (APP)  
\*A 018 DISK TO TAPE (RUN)  
\*A 004 EXOTIC LIST PRINTER (RUN)  
I 032 PSYCHIATRIST  
\*A 003 COPYRIGHT FP 1979 (APP)  
\*A 005 LOCATE APPLESOFT (APP)  
\*A 009 NUMBER CONVERSION (RUN)  
\*I 009 CONVERT APPLESOFT 1/II (RUN)  
I 048 APPLE 5 GAMES  
T 002 FILE  
\*A 003 APPLESOFT LISTER (APP)

H.A.A.U.G. VOL #14  
CATALOG

DISK VOLUME 001

\*I 012 CORPS 1.1  
\*I 014 MUSIC MAKER  
\*I 014 CHECKERS  
\*I 006 BAR GRAPH  
\*I 008 BIORYTHM  
\*I 006 HOP-HOPPING  
\*I 012 KINDERGARTEN PACKAGE  
\*I 025 LONG DIVISION  
\*I 010 SERENDIPITY  
\*I 025 TIC-TAC-TOE (3D)  
\*I 011 ROCKET PILOT  
\*A 003 RANDOM SENTENCE GENERATOR  
\*A 025 COLOR DEMO  
\*A 008 HEAPSORT  
\*A 032 SWORDS & SORcery!  
\*A 007 STRING SAVE DEMO  
\*A 009 GREAT CIRCLE ROUTE  
\*I 013 SUB CHASE  
\*I 025 GOLF SCORE & HANDICAP  
\*I 018 MUSIC DEMO (GOSUBS +)  
\*I 009 CONVERT APPLESOFT 1 TO II

H.A.A.U.G. VOL #15  
CATALOG

DISK VOLUME 009

\*I 022 HELLO  
\*I 011 MUSIC SYNTHESIS  
\*I 008 PORNO  
\*I 012 ACEY DUCEY  
\*I 021 PENTOMINO  
\*I 034 BRAIN BUSTER  
\*I 022 DECISIONS  
\*I 003 YESTERDAY  
\*B 003 KALIEDW/MUSIC  
\*I 040 HIRES ROUTINES  
\*I 003 STAT DEMO  
\*I 010 ALPHABET PRIMER  
\*I 022 BASIC SUBROUTINES  
\*I 003 LISSAJOU PATTERNS  
\*B 006 HIRES ROUTINE  
\*I 015 GR BLKJACK  
\*I 026 TRIPLE SLOT  
\*I 009 HANGMAN  
\*I 018 APPLE SLOT  
\*I 022 APPLE HIRES PAK  
\*I 006 BASIC INSTR SET  
\*B 003 APPLE RAM TEST  
\*I 046 PROGRAMMED EXERCISE

H.A.A.U.G. VOL #16  
CATALOG

DISK VOLUME 001

\*I 001 HELLO  
\*I 008 RENUM  
\*I 026 TRISLOT  
\*I 034 BRAIN TEASER  
\*I 022 UTILITY  
I 022 UTILITY 1  
\*I 005 THE WORM  
\*I 014 MATCHING QUIZ  
\*I 011 VARIABLE MESSAGE  
\*B 010 LIFE BY TICE  
\*I 030 LIFE BYTICE  
\*B 012 CLASSIFIER  
\*B 006 HIRES ROUTINES  
\*I 014 SPIROLATERAL  
\*I 008 APPLE HEX  
\*I 007 ADDITION DRILL  
\*B 034 MOTHER AND CHILD  
\*I 009 CATCH  
\*I 006 CLOCK  
\*I 052 STARTREK  
\*I 008 APPLE BIORYTHM

H.A.A.U.G. VOL #17  
CATALOG

DISK VOLUME 001

\*I 030 CORPS 1.4  
\*I 009 TIME BOMB  
\*A 006 NUMBER CONVERSION  
\*I 030 STAR WARS II  
\*A 006 RENUMBER APPLESOFT (APPEND)  
\*I 004 INTEGER TO APPLESOFT (DISK)  
\*I 004 MOVIT  
\*I 016 BASEBALL  
\*I 007 BEAUTY ADVICE  
\*I 013 DRAGON MAZE  
\*A 009 BIORYTHM 2  
\*A 015 HANGMAN  
\*A 019 OTHELLO  
\*A 016 LUNAR LANDER  
\*I 008 GAMES.GAMES.GAMES  
\*I 008 SEA HUNT

H.A.A.U.G. VOL #18  
CATALOG

DISK VOLUME 052

\*I 004 M  
\*I 011 TIC TAC TOE  
\*I 008 BIT DISPLAY  
\*I 005 BOUNCING BALL  
\*I 009 HANDBALL-PONG  
\*I 004 COLOR EATER I  
\*I 012 AIR DEFENSE  
\*I 011 GOSDEM  
\*I 003 UNBELIEVABLE  
\*I 007 MINI TREK  
\*I 004 TEXT CRAPS  
\*I 009 GRAPHIC CRAPS  
\*I 015 REAL TIME DRAGON  
\*I 011 OTHELLO  
\*I 010 ANTI-AIRCRAFT  
I 010 STARDODGER  
\*I 013 AUTO DRIVER  
\*I 012 AWARI I  
\*I 022 TWONKY  
\*A 026 ELIZA I  
\*A 004 GUMOWSKI  
\*I 004 SHAPES  
\*I 003 DIGITAL CLOCK

H.A.A.U.G. VOL #19  
CATALOG

DISK VOLUME 001

\*I 005 CORPS 1.2  
\*I 005 LIST AND LOCATE (APPEND)  
\*I 007 BALLET  
\*I 014 S-C MUSIC  
\*I 009 LIFE 1.1  
\*I 007 LIFE II  
\*I 007 LETTER DISCRIMINATION  
\*I 015 BLACKOUT  
\*A 009 MATRIX ARITHMETIC  
\*A 005 MATRIX INVERSION  
\*A 007 GAUSSIAN QUADRATURE  
\*A 004 SIMULTANEOUS EQUATIONS  
\*A 003 DERIVATIVE  
\*A 006 FUNCTION PLOT  
\*A 009 POLYNOMIAL REGRESSION  
\*I 011 DATE OF EASTER  
\*I 011 DISASSEMBLE MACHINE CODE  
\*I 013 MACHINE WITH FP INSTRUCTIONS  
\*I 021 CHASE  
\*I 013 CUBIC  
\*I 009 DARTS  
\*I 015 HAMMURABI

DISK VOLUME 001

\*I 008 CORPS 1.3  
\*A 016 HI-Q  
\*I 023 HUNT THE WUMPUS  
\*I 014 LOGAN  
\*I 017 MEET THE COMPUTER  
\*I 003 MIRROR PRINT  
\*I 008 ONE CHECK  
\*I 012 PHONE MNEMONIC  
\*I 023 REAL TIME CHASE  
\*I 006 REVERSE  
\*I 008 RUSSIAN ROULETTE  
\*I 017 SHOOTING STARS  
\*I 022 STORYTELLER  
\*I 012 TAXMAN  
\*A 008 ARTILLERY  
\*I 009 BOMBARDMENT  
\*I 009 CASINO  
\*I 007 COLOR MASTERMIND  
\*A 016 CRAPS  
\*I 008 NUMBER LOGIC  
\*I 008 PONG  
\*I 009 RACES

H.A.A.U.G. VOL #21  
CATALOG

DISK VOLUME 001

\*I 017 HELLO  
\*B 004 DSPEED.OBJ  
\*I 008 DSPEED  
\*I 131 CAPABILITIES  
\*I 006 BUMBLE BEE  
\*I 043 ESCAPE  
\*A 017 STATE CAPITALS  
\*A 009 NATIONS AND CAPITALS  
\*I 056 SUPERMATH  
\*I 004 STORE WINDOW DISPLAY  
\*I 010 MEMORY AIDE  
\*B 030 TANK WAR A1008 CY  
\*I 009 TRUE FALSE QUIZ  
\*I 023 DONT FALL  
\*I 001 DUAL VOICE MUSICHIMEM:16000  
\*I 001 MUSIC

H.A.A.U.G. VOL #22  
CATALOG

DISK VOLUME 001

I 002 GAMES  
A 033 BIO-CYCLE  
A 023 FOOTBALL

H.A.A.U.G. VOL #23  
CATALOG

DISK VOLUME 002

\*I 053 HELLO  
\*I 053 STARTREK2  
\*I 028 APPLE EDUCATION PAK  
\*I 049 APPLE CASINO PAK  
\*I 020 LIFE-SEAT  
\*I 014 BIRTHDAY CAKE  
\*B 006 HIRES ROUTINES  
\*I 008 HIRES LANDING  
\*I 019 APPLE COLOR DEMO  
\*I 045 APPLE COLOR GAME PAK  
\*B 004 MUSIC KALIEDISCOPE  
\*I 002 MITCH'S PLUS  
\*I 002 SEAN  
\*I 008 CROSSASSEMBLER  
\*B 010 LINE#CROSS REF CALL 768  
\*I 030 GIANT TYPEWRITER  
\*I 008 COLOR KALIEDISCOPE  
\*B 007 LAZERUSCALL7680R772  
\*I 009 CODEBREAKER  
\*B 002 BLOCKADE.  
\*I 010 BLOCKADE  
\*I 001 COLOR DEMO  
\*I 035 MA7F

DISK VOLUME 012

\*I 009 HELLO  
\*B 002 APPLE.BYTE  
\*I 014 APPLE BYTE  
\*I 009 FAST PLOT 3-D  
\*I 032 PSYCHIATRIST  
\*I 003 SUB COMMANDER  
\*I 016 DUAL VOICE MUSICHIMEM:16000  
\*I 013 SEA WAR  
\*I 008 NIGHTMARE#6  
\*B 026 MAD MUSICIAN1100G  
\*I 011 SINK A SHIP  
\*B 002 SOUND  
\*B 006 HIRES ROUTINE  
\*I 004 SUPER GRAPHICS  
\*I 012 COLOR SLOTS  
\*I 035 POKER  
\*B 095 THE HAND CY  
\*I 022 MAZE  
\*I 008 HIRES PREFIX W/INITS  
\*B 002 LIST  
\*I 011 COLOR SKETCH  
\*B 002 HIRES.RUBBER BAND  
\*B 022 HIRES RUBBER.BAND

H.A.A.U.G. VOL #25  
CATALOG

DISK VOLUME 002

\*I 014 MUSIC  
\*I 050 GRADING ROUTINE  
\*I 053 KIDSTUFF  
\*I 008 BASE CONVERSION  
\*A 014 STATISTICS  
\*I 013 APPLE HIRES  
\*B 009 HIRES ROUTINES A3072  
\*B 003 TWINS  
\*I 012 MOTOR  
\*I 006 LETTER WRITER'  
\*I 009 WORDCROSS  
\*I 029 THE MACHINE  
\*I 043 APPLESOFT  
\*T 003 DUMP

H.A.A.U.G. VOL #26  
CATALOG

DISK VOLUME 006

\*I 019 HELLO  
\*I 023 MASTERMIND2  
\*I 018 SHOOTING STAR2  
\*I 008 VOICE PLOT2  
\*I 009 VOICE ID2  
\*I 019 DRAGONMAZE  
\*I 019 TOWERS OF HANOI  
\*I 010 INTROL HOUSE CONTROL  
\*I 009 BLACKJACK  
\*I 013 INTROL SYSTEM  
\*I 006 INTROL CONTROLLER LOMEM5500  
\*I 003 COLOR SCREEN LOMEM5500  
\*B 030 TANK WAR A1008 CY  
\*B 010 U-DRAW A768 CY  
\*I 009 VOICE CALCULATOR LOMEM5500  
\*I 031 SPEECHLAB DEMO LOMEM5500  
\*I 017 BRIANS QUIZ  
\*I 031 APPLE TUTOR  
\*I 009 SLOW SCROLL  
\*I 004 WAXER GRAPHICS  
\*B 034 HIRES LIFE A2048  
\*B 034 WOMAN  
\*B 034 MAN

DISK VOLUME 004

\*I 002 MENU  
\*I 011 HANGMAN  
\*T 002 WORD FILE  
\*I 012 ANIMALS  
T 001 ANIMALSFILE  
\*I 026 APPELDION  
\*B 008 WILLIAM TELL  
\*B 002 SELECTED CLASSICS  
\*B 003 MERRY OLDSMOBILE  
\*I 003 US FLAG  
\*B 003 WIERD MUSIC  
\*I 013 MOON LANDER  
\*I 002 MULTICOLOR  
\*I 008 ROTATING SHAPE  
\*I 004 SOUND EFFECTS  
\*I 003 SPEECH RECOG LOMEM5500  
\*I 008 STRING ANDS THINGS

H.A.A.U.G. VOL #28  
CATALOG

DISK VOLUME 001

\*I 005 CALIFORNIA1  
\*I 012 ACEY DUCEY  
\*I 008 BIT BIN  
\*I 022 CLOSING SQUARE  
\*I 009 COLOR MATH  
\*I 006 CRYPTOGRAM  
\*I 005 DANCING BUTTERFLIES  
\*I 021 DRAGON MAZE #2  
\*I 032 ELIZA  
\*I 020 HEXPAWN  
\*I 005 HORSERACE  
\*I 007 HURKLE  
\*I 006 MASTERMIND  
\*I 021 PENTOMINOES  
\*I 012 PINBALL (PDL)  
\*I 007 SHOOTING STARS #1  
\*I 011 SINK THE SHIP (PDL)  
\*I 012 SLOT MACHINE #1  
\*I 011 STONES  
\*I 004 TOWER OF HANOI #1  
\*I 012 TWENTY MATCHES

H.A.A.U.G. VOL #29  
CATALOG

DISK VOLUME 011

\*I 018 HELLO  
\*B 034 WOMAN  
\*I 056 SUPERMATH  
\*I 009 TRUE FALSE QUIZ  
\*I 023 DON'T FALL  
\*I 018 STAY AFLOAT  
\*I 018 DRAGONMAZE2  
\*I 010 CONNECT 5  
\*I 048 APPLE 5 GAMES  
\*B 002 SHAPE.GEN  
\*B 010 HIRES.OBJ LO:4400  
\*I 026 HOUSE CONTROL  
\*I 040 HIRES ROUTINES  
\*I 017 MOIRE TAPESTRY  
\*I 003 COLOR KINESIS  
\*I 014 PLOT-3D  
\*I 030 SUPER KALIEDISCOPE  
\*I 007 MORSE CODE  
\*I 023 I CHING  
\*I 003 EDS DAZZLER

H.A.A.U.G. VOL #30  
CATALOG

DISK VOLUME 001

\*I 012 CALIFORNIA2  
 \*I 008 BAGELS  
 \*I 007 BATTLE SHIP  
 \*I 010 CONNECT FIVE  
 \*I 006 DIGITAL CLOCK  
 \*I 002 FUNNY FACE  
 \*I 012 HOLIDAY PLOT  
 \*I 007 KALIDOSCOPE  
 \*I 005 KENO  
 \*I 008 MASTERMIND #2  
 \*I 011 MOUSE IN THE MAZE  
 \*I 008 NIGHTMARE #6  
 \*I 035 POKER  
 \*I 007 ROBOT CHASE  
 \*I 005 SANDY'S FOLLY  
 \*I 008 SAUCER WARS (PDL)  
 \*I 013 SEA WAR (PDL)  
 \*I 003 SEASONS GREETINGS  
 \*I 018 SLOT MACHINE #2  
 \*I 008 STAR WARS #1  
 \*I 005 THE DRIP

H.A.A.U.G. VOL #31  
CATALOG

DISK VOLUME 254

\*I 009 HELLO  
 \*I 131 CAPABILITIES  
 \*I 047 PROBABILITY MACHINE  
 \*I 009 ADVANCED DRAGON MAZE  
 \*B 033 KEITH'S PLOT(4A.1FFF)  
 \*I 005 EIGHT PLOTS  
 \*I 009 TRUE FALSE QUIZ  
 \*B 058 TWINS(800.3FFF)  
 \*B 058 PLOT#(800.80B)

H.A.A.U.G. VOL #32  
CATALOG

DISK VOLUME 001

\*I 010 CALIFORNIA3  
 \*I 004 ANDROMEDA STRAIN  
 \*I 012 APPLE CASINO  
 \*I 014 AWARI  
 \*I 014 AWARI GAME  
 \*I 003 BELL CURVE  
 \*I 010 BLACKJACK  
 \*I 025 COLOR LIFE  
 \*I 007 CRAPS  
 \*I 009 DRAGON MAZE #3  
 \*I 003 GARY'S QUICKY  
 \*I 017 MAD-LIB STORIES  
 \*I 012 OTHELLO  
 \*I 025 POET  
 \*I 010 ROULETTE  
 \*I 022 SEVENS  
 \*I 018 SHOOTING STARS #2  
 \*I 007 SLOT MACHINE #3  
 \*I 002 SQUARES  
 \*I 006 TENNIS (PDL)  
 \*I 010 THE MAZE!  
 \*I 040 TOWER OF HANOI #2  
 \*I 040 TRILLION STORIES

H.A.A.U.G. VOL #33  
CATALOG

DISK VOLUME 001

I 004 MASTER INTEGER UTILITIES  
 \*T 002 L & L  
 \*I 011 DISASSEMBLE MACHINE CODE  
 \*I 008 RENUM  
 \*I 005 LIST AND LOCATE  
 \*B 002 LANDL  
 \*I 002 LI & LO  
 \*T 002 COPYRIGHT.TEXT  
 \*T 002 INTEGER LISTER.TEXT  
 I 002 DAC  
 \*I 050 PDP  
 \*I 004 INT TO FP  
 \*I 003 COPYRIGHT INT 1979  
 \*I 003 COPYRIGHT INT (RUN)  
 \*I 003 INTEGER LIST  
 \*I 003 INTEGER LISTER (RUN)  
~~I 002 DEMO~~  
~~I 002 DEMO~~

H.A.A.U.G. VOL #34  
CATALOG

DISK VOLUME 005

\*I 014 HELLO  
 \*I 028 APPLE GAME PKG 2  
 \*I 024 CRAPS  
 \*I 037 PROGRAMMERS WORKSHOP  
 \*I 007 STOPWATCH  
 \*I 034 NUDE  
 \*I 014 MUSIC ROUTINES  
 \*I 036 HAMARABI  
 \*I 040 HIRES ROUTINES  
 \*I 017 MOIRE TAPESTRY  
 \*I 012 COLOR KINESIS  
 \*I 014 THREE-D PLOT  
 \*I 025 UTILITY PACKAGE  
 \*I 036 SAUCER INVASION  
 \*I 001 STARWARS  
 \*I 028 ROCKET PILOT  
 \*I 025 SCHOOL MATH  
 \*I 010 MEMORY AIDE  
 \*I 001 DON'T FALL

H.A.A.U.G. VOL #35  
CATALOG

DISK VOLUME 094

\*I 005 HELLO  
 \*I 004 TOP  
 \*I 005 ADD  
 \*I 005 DELETE  
 \*I 005 UPDATE  
 \*I 003 CAT  
 \*I 005 MENU  
 \*I 024 EXAMINE  
 \*I 006 MATH DEMO  
 \*I 019 SPEECH TOWERS  
 \*I 017 APPLEJACK W/SPEECHLAB  
 \*I 052 TALKING CALCULATOR  
 \*I 005 SPECTRUM ANALYSIS  
 \*I 024 A/C SIMULATOR (HM:8192)  
 T 001 GAMES  
 \*I 009 SPACE BATTLE  
 \*I 008 QUADRIPONG  
 \*A 013 WEEKDAY  
 \*I 015 FLAG  
 \*A 027 TIME  
 \*A 022 TELEPHONE  
 \*A 003 MOIRE  
 \*I 002 MEM DUMP (MULLER)  
 \*I 014 BINARY PROGRAMMER

H.A.A.U.G. VOL #36  
CATALOG

DISK VOLUME 001

\*I 006 HELLO  
 \*I 002 DOCKING MISSION  
 \*B 033 D M OBJ  
 \*I 010 SPACE WARS  
 \*I 008 WARDEN  
 \*I 043 APPLESOFT  
 \*A 006 STRING ART  
 \*A 004 TV TEST  
 \*A 010 POLYNOMIAL  
 \*A 004 QUADRATIC  
 \*A 004 THEVENIN #1  
 \*I 003 MEMORY TEST  
 \*B 002 MEMTEST  
 \*I 004 ERRATA  
 \*I 008 I>A  
 \*B 002 MPP SOURCE MOVER  
 \*I 009 SUBMOVER;LOMEM:-32767  
 \*B 002 SUBMVR  
 \*B 002 MATH-16  
 \*A 003 PLANET  
 \*A 008 MISSILE  
 \*I 041 PDP

>HRAUG VOL 37

>CATALOG

DISK VOLUME 005

\*I 007 BEGIN  
 \*I 030 CALENDAR  
 \*T 007 COUPON  
 \*I 019 CARD FILE  
 \*I 046 EXERCIZE  
 \*I 005 ADD  
 \*I 003 MENU ← *problems*  
 \*I 002 EXAMINE  
 \*I 003 CAT  
 \*I 005 DELETE  
 \*I 005 UPDATE  
 \*T 002 DEMOS  
 \*I 005 HELLO  
 \*T 002 GAMES  
 \*T 002 EDUCATIONAL  
 \*T 002 BUSINESS  
 \*T 002 MATH  
 \*T 002 UTILITY  
 \*T 002 OTHER  
 \*I 002 CATD

H.A.A.U.G. VOL #38  
CATALOG

DISK VOLUME 012

\*I 034 HELLO  
 \*I 032 COLOR & SOUND 16384  
 \*A 013 CORPORATE PROFIT  
 \*I 012 MERLIN MAZE  
 \*I 023 DEVILS DUNGEON  
 \*I 058 OREGON TRAIL  
 B 012 APPILOT  
 \*B 016 EDITOR  
 \*I 052 APPILOT AIDS  
 \*I 042 HOW TO EDIT  
 \*I 038 HOW IT WORKS  
 \*A 012 INCOME PROPERTY EVALUATION

H.A.A.U.G. VOL #39  
CATALOG

DISK VOLUME 001

\*I 013 HELLO  
\*I 007 COPY  
\*B 007 COPY.OBJ  
\*I 043 APPLESOFT  
\*I 022 HUSTLE  
\*A 013 AIRFOIL  
\*A 029 MICROLISP  
\*I 006 SHOOTOUT  
\*A 010 HI-RES CHARACTER DEMO  
\*B 003 HI-RES CHARACTER GENERATOR  
\*B 006 CHARACTER TABLE  
\*I 026 APPLE VISION  
\*I 014 ENGINE  
\*B 006 INTEGER HI-RES  
\*A 001 FILE CABINET  
\*I 037 KALEIDOSCOPE

H.A.A.U.G. VOL #40  
CATALOG

DISK VOLUME 017

\*I 021 HELLO  
\*A 041 RISK  
\*B 014 RISK2  
\*I 032 COLOR & SOUND 16384  
\*I 024 PAULS SONGWRITER  
\*A 012 MATCH STICK GAME  
\*A 021 CRAPS DICE GAME  
\*A 006 FACTOR GAME  
\*A 025 STAT 20  
\*A 022 SWARMS INSTRUCTIONS  
\*A 047 SWARMS  
\*A 012 INCOME PROPERTY EVALUATION  
\*I 007 VIVALDI  
\*B 006 WINDOW  
\*I 003 ELUSIAN WINDOW HIMEM:8192  
\*A 023 SUB2  
\*A 003 BIRTHDAY  
\*I 026 APPLEODION  
\*B 008 WILLIAM TELL  
\*B 021 SELECTED CLASSICS  
\*B 003 MERRY OLDSMOBILE  
\*I 003 ROTATING SHAPE  
\*I 004 SOUND EFFECTS  
\*I 003 SPEECH RECOG LOMEM5500

H.A.A.U.G. VOL #41  
CATALOG

DISK VOLUME 002

\*I 004 COMMON  
\*I 006 PHONE LIST  
\*I 006 PRINTOUT  
\*I 004 INITIALIZE  
\*I 003 INIT  
\*I 011 MAILIN  
\*I 006 SORT  
\*I 002 QUALIFIERS  
\*I 013 REVIEW  
\*I 004 ERASE  
T 002 LAKE  
\*I 053 APPLE STARTREK  
\*I 030 STAR WARS  
\*A 026 PROJECTILES  
\*A 014 BUZZWORD GENERATOR  
\*A 010 MAZE BUILDER FOR PRINTERS  
\*A 035 THE WORD  
\*A 021 TAG CHECK  
\*A 022 SYNC PATTERN  
\*I 019 CARD FILE  
T 014 POINTERS  
T 008 FILE FOR CARD FILE  
T 001 DAC  
T 001 NEW

CATALOG

DISK VOLUME 254

\*I 002 HELLO  
\*I 043 APPLESOFT  
\*I 018 ANIMALS  
\*B 009 UPDATE 3.2  
\*I 014 COPY  
\*I 009 COLOR DEMO  
\*B 003 CHAIN  
\*A 009 COLOR DEMOSOFT  
\*A 028 LITTLE BRICK OUT  
\*A 003 MAKE TEXT  
\*A 003 RETRIEVE TEXT  
\*A 010 EXEC DEMO  
\*A 010 RANDOM  
\*T 003 APPLE PROMS  
\*A 039 RENUMBER INSTRUCTIONS  
\*A 014 RENUMBER  
T 004 DO'ER  
T 002 POKELC  
A 002 EVEN MORE RECENT PROGRAM!!  
H.A.A.U.G. VOL #43  
CATALOG

DISK VOLUME 001

\*I 007 SLIDE SHOW 2  
\*B 007 COPY.OBJ  
\*B 034 RANDOM LADY.PIC  
\*B 034 LADY BE GOOD.PIC  
\*B 034 MACROMETER.PIC  
\*B 034 DIP CHIPS.PIC  
\*B 034 TEX.PIC  
\*B 034 SQUEEZE.PIC  
\*B 034 THE TIME MACHINE.PIC  
\*B 034 WINSTON CHURCHILL.PIC  
\*B 034 HOPALONG CASSIDY.PIC  
\*B 034 A GIRL'S BEST FRIEND.PIC  
\*B 034 BABY JANE.PIC  
H.A.A.U.G. VOL #44  
CATALOG

DISK VOLUME 001

\*I 007 HELLO  
\*I 006 COPY  
\*B 007 COPY.OBJ  
\*I 026 CHASER  
\*I 093 DRIVER'S TEST  
\*I 028 MISSION: U-BOAT  
\*I 063 APPLE ORGAN  
\*I 054 ADD-LIBS  
\*I 047 GREAT AMERICAN PROB. MACHINE  
\*B 003 RENUM/APPEND  
\*I 063 THE INFINITE NUMBER OF MONKEYS  
H.A.A.U.G. VOL #45  
CATALOG

DISK VOLUME 001

I 003 BOOT  
A 005 DSKDSK  
A 003 DSKMTP  
A 022 MEDICAL  
A 012 GRADING ROUTINE  
I 019 COLOR DEMO I  
I 024 COLOR DEMO II  
I 006 APPLESCOPE I  
I 004 APPLESCOPE II  
I 004 APPLESCOPE III  
B 033 COLOR ORGAN \$800-\$1FCF  
A 028 FEET & INCHES CALCULATOR  
A 016 PUZZLE  
A 006 BANNER  
I 034 CHECKBOOK  
I 019 CARD FILE  
I 003 COLOR EATER  
I 003 ROM HIRES PREFIX  
I 016 CONCENTRATION  
A 021 STAR TREK  
A 016 PLOTTER  
T 003 FILE  
T 009 COPYIT  
A 003 TTY-DV

H.A.A.U.G. VOL #46  
CATALOG

DISK VOLUME 001

I 003 BOOT  
A 005 DSKDSK  
A 003 DSKMTP  
\*A 003 APPLESOFT RENUM/APPEND  
\*A 005 APPLE-RENUMBER  
\*B 002 NEW.B.APPEND  
A 006 KEY-LAIDOSCOPE  
I 004 BAT  
I 046 PEP  
I 008 LISNER  
I 006 MODEM  
I 004 BUGLE  
I 008 TVPAT  
I 019 INDEX  
A 028 FINANCE  
T 001 NEW.B.APPEND-A#300-L\$46  
A 003 OPDES  
A 003 CAP  
A 010 FFTHGR  
A 003 VIBRATING ROD  
I 005 HI-RES PAGE PRINT  
B 002 B.HI-RES PAGE PRINT  
I 008 TVPAT.CPY  
I 019 INDEX.CPY  
A 028 FINANCE.CPY  
A 010 FFTHGR.CPY  
I 008 SECTOR DUMP

H.A.A.U.G. VOL #47  
CATALOG

DISK VOLUME 012

\*A 003 CATALOG  
\*A 009 INTEGRATIE  
\*A 006 ANGLE.CONVERSIONS  
\*A 006 PLOT.FUNCTIONS  
\*A 008 REAL.ROOTS  
\*A 006 ROOTS.HALF.INT.SEARCH  
\*A 010 MATRIX  
\*A 003 INTERPOL  
\*A 007 CONFIDENCE.LIMITS  
\*A 022 DESCRIPTIVE  
\*I 041 KAS/BANKBOEK  
\*I 003 APPLE  
\*I 011 COLOR.EASEL  
\*I 006 SAVE.TQ.TAPE  
\*I 009 FLOPPY.EASEL  
\*A 003 DISK.FREE  
\*A 011 COLOR.SPELL  
\*A 008 HIRES.SPELL  
\*A 022 MEDICAL  
T 001 FULL FILE  
\*A 010 DOOLHOF  
\*A 010 DRAUGHTS  
\*A 009 EVEN.WINS  
\*I 003 MIND READER  
\*I 012 MUSICAL.TOE  
\*A 026 PLOTTER2  
\*A 005 OXO.1  
\*A 010 OXO.2  
\*I 002 SWITCHBACK  
\*I 002 SWIGGLE  
\*A 010 CIR DIC  
\*I 003 QUAD.COLOR  
\*B 001 COLOR.SIZERS  
\*I 007 MUSICAL.WIZARD  
\*A 012 STAT.1  
\*A 019 STAT.2  
\*A 010 VARIANCE.1  
\*T 001 DR#

P  
H.A.A.U.G. VOL #48  
CATALOG

DISK VOLUME 001

\*I 001 HELLO  
\*A 007 VIEW  
\*A 002 FILESET  
\*A 005 CLEAN  
\*B 034 BLUEY  
\*A 017 ROSIE  
T 001 NAMES  
T 002 RANDOM  
T 002 SER FILE  
\*A 019 ROSRENUM  
\*B 034 BABY ROSIE  
\*A 007 VIEWRENUM  
\*A 002 FILESETRENUM  
\*A 005 CLEANRENUM  
\*B 001 CUTE  
\*B 034 RED  
\*B 034 BLANCO  
\*B 034 PRETTY  
\*B 034 WHATEVER  
\*B 001 CHARLIE  
T 001 TAPE SAVER  
T 001 SER FILE

H.A.A.U.G. VOL #49  
CATALOG

DISK VOLUME 254

\*I 002 HELLO  
\*I 052 ASTROLOGY  
\*I 056 I CHING  
\*A 019 BIORHYTHM  
\*A 035 LIFE EXPECTANCY  
\*I 002 ABO-DISK FILE CREATOR  
\*I 020 ABOX  
T 002 SCORE

H.A.A.U.G. VOL #50  
CATALOG

DISK VOLUME 175

\*A 013 TIME  
\*I 008 DISK MANAGER  
\*I 013 TRANSFER 3.2  
\*A 016 COMMUNICATION LOCKUP  
\*A 044 AUTO DIAL  
\*I 006 MICROMODEM SELF-TEST  
\*I 013 DISK ACCESS UTILITY  
\*A 005 INTEGER BASIC EXCHANGE  
\*I 006 ALARM CLOCK  
\*I 006 DUMB TERMINAL  
\*A 017 MODEM CHESS  
\*A 004 PICK UP PHONE  
\*A 007 APPLESOFTBASICEXCHANGE  
\*A 005 TEXTFILETRANSFER  
\*A 032 TEXTFILECREATE.APPEND.RUN62000  
\*A 005 AUTODIAL  
\*I 032 TELEPHONE

H.A.A.U.G. VOL #51  
CATALOG

DISK VOLUME 100

A 002 HELLO  
I 023 PROFESSIONAL SECRETARY  
I 029 BILLINGS/LEDGER  
I 024 BILLINGS/INVOICE  
I 043 INVENTORY  
I 036 TAX PLANNING  
I 026 DATA MANAGEMENT  
I 004 LEDGER RECORD SYSTEM  
\*I 012 MAILING LIST MANAGEMENT  
\*I 008 CARETAKER  
\*I 043 DISK CHECKBOOK  
\*A 010 THE LUSCHER COLOR TEST  
\*A 010 EXEC DEMO  
\*T 004 DO'ER  
\*B 004 INTERRUPT HANDLER  
\*A 002 EVEN MORE RECENT PROGRAM!!  
\*A 013 CHANGE DOS COMMANDS  
\*A 022 DECIDER #20  
\*I 009 DISK DUMP #12  
\*A 002 REM LINE FORMAT  
\*I 004 HEX EXAMPLE #3  
\*I 002 TRANSFER(3.2 48K)  
\*I 001 M  
\*T 002 DECIDER FILEFCTR  
\*B 002 EDIT-1 (300,38F)  
\*I 003 BASIC EDIT HELPER  
\*I 007 SORT I/O (SHELL-METZNER)  
\*B 002 SORT RTN (SHELL-METZNER)  
\*A 000 FOURIER ANALYSIS  
\*B 002 TALKING APPLE (800,86B)  
\*I 001 TALKING APPLE/DOC  
\*T 002 DECIDER FILEITEM  
T 001 DECIDER FILEITEMFCTR

H.A.A.U.G. VOL #52  
CATALOG

DISK VOLUME 001

I 004 HELLO  
\*I 011 BOXER  
\*I 005 MUZAK  
\*I 006 BIO II  
\*I 005 RND NO FREQ  
\*I 005 COLOR STROBE  
\*I 007 APPLE HEX  
\*I 005 MCLEAN  
\*I 014 PIZZA  
\*I 020 COLOSSUS  
\*I 006 ENTERPRISE  
\*I 005 PAGE1/2  
\*A 008 STRING/STORE FOR TAPE  
\*A 005 SIMPLER INTEREST  
\*A 010 DAY OF WEEK  
\*A 004 RANDOM ELEPHANT  
\*A 019 MADLIB  
\*I 004 DRAGON LOAD  
\*B 033 DRAGON  
\*B 005 HI-RES LOW LEVEL  
\*I 010 VINCENT  
\*A 017 DOS UTILITY #1  
\*I 017 IMPROVED CAT-1 (SLOW)  
\*I 007 B/BSTAT (LATEST VER)  
\*B 008 IMPROVED CAT (B-RUN)  
\*A 008 TIME TEACHER  
\*I 004 RENUMBER NOTES  
\*B 002 INTEGER RENUMBER  
\*B 002 APPLESOFT RENUMBER  
\*B 007 PSHAPE  
\*I 003 QUAD COLOR  
\*I 007 MUSICAL WIZARD  
\*I 016 HORSE  
\*I 002 SWITCHBACK  
\*I 006 BASIC.TOKENS  
\*I 004 LINE.X.REF  
\*I 004 WIGWIZ  
\*B 002 LINEX A\$300 L\$F6  
\*I 006 HELLO MYSTERY  
\*I 004 EIGHT.QUEENS

F  
H.A.A.U.G. VOL #53  
CATALOG

DISK VOLUME 202

\*I 004 APPLE PI SLICE 2 (UTILITY)  
I 004 MASTER.CREATE (REV)  
\*B 039 RAWDOS (REV)  
\*I 002 RAWDOS A\$1B00 L\$2500  
\*I 007 COPY  
\*B 007 COPY.OBJ  
\*I 043 APPLESOFT  
\*A 004 BASE CONVERSIONS  
\*I 002 COPY.OBJ A2304 L1280  
\*I 009 BINADR  
\*A 003 DEC.HEX.KEY-CODE  
\*I 004 MEMORY TEST  
\*A 004 DISK SPACE FREE  
\*I 009 BINADR 48K  
\*I 004 ENTRY POINTS  
\*A 005 APTOKEN.ENTRY  
\*B 004 MEMORY CHECK 6502  
\*I 002 MEMORY CHECK 6502 A2048 L512  
\*A 003 SORT  
\*I 013 MEMORY SPYING PROGRAM  
\*I 004 BYTES  
\*I 007 N 1.3 DISK HELLO  
\*I 010 APPLE PI HELLO  
\*I 008 T.V. PATTERN GENERATOR 2  
\*A 004 HOW TO STORE DATA  
\*A 004 HOW TO RECALL DATA  
\*A 007 CREATE NAMES FILE  
\*A 007 READ NAMES FILE  
\*A 006 EXCH NAMES FILE  
\*A 008 AVAILABLE MEMORY A.S.  
\*I 008 AVAILABLE MEMORY INTEGER  
\*I 004 LOMEM & HIMEM INTEGER  
\*A 004 LOMEM & HIMEM APPLESOFT  
\*A 006 DEBUGGING AID  
\*I 011 COLORMATH (SPEECHLAB)  
\*A 007 CONSECUTIVE REACTIONS  
\*A 054 ENZYME KINETICS  
\*I 006 BROWNIAN MOTION

PR#1

H.A.A.U.G. VOL #54  
CATALOG

DISK VOLUME 175

\*I 008 DISK MANAGEMENT  
\*I 004 PLOT 1/F VARTATIONS  
\*I 006 BINADR  
\*I 006 IPACK  
\*I 005 SLOW POKES  
\*I 011 D-D TRANSFER  
\*I 016 FLAG  
\*A 003 DISK FREE SPACE  
\*I 004 WOZ LC DEMO  
\*A 007 MULTI FUNCTION PLOT  
\*B 002 WOZ LC  
\*I 004 SUPER HELLO #1  
\*I 002 TEXT FILE LISTER  
\*I 003 EXEC FILE MAKER  
\*I 011 ASM-WOZPACK LC  
\*A 006 APPLESOFT DISPATCH TABLE PRTR  
\*A 003 APPLESOFT POINTERS  
\*I 004 H  
\*I 002 BUILD EXEC PC FILE  
\*T 002 PCALENDAR  
T 001 FULL FILE  
\*I 005 CONVERT INT/FP  
\*I 013 ENTERTAINER  
\*I 022 BLUE DANUBE  
\*B 020 RAND MUSIC(200,100) #  
\*I 019 MOND I  
\*I 050 BACH  
\*I 050 WILLTELL  
\*I 014 FILE EDITOR  
\*A 034 ELEC.ENG. I  
\*A 006 RANDOM



PR#1  
H.A.A.U.G. VOL #55  
CATALOG

DISK VOLUME 001

\*I 045 HELLO  
\*I 002 STEINER COLOR SKETCH  
\*B 002 FP TONE FROM WOZPACK  
\*B 002 FP TONE ENTRY  
\*B 066 MODULE VII  
\*A 045 TEST FILE XVIII  
\*T 002 FILE  
\*B 030 OBJECTS A-\$300-\$F8  
\*A 029 TAX FORM 1040A  
\*A 041 INCOME TAX  
\*A 005 STEINER COLOR  
\*I 021 JENSEN DEMO  
\*A 002 STEINER SUPER GRAPH  
\*A 002 STEINER SUPER GRAPH II  
\*B 006 OBJECTS B-\$300-\$F8  
\*B 002 OBJECT C-\$300-\$F8  
\*B 006 GEN-\$800-\$400  
\*I 005 APPLE PI  
\*A 029 FP WORKSHOP  
I 004 MEMORY TEST FAST  
\*A 008 HEAPSORT  
I 004 MEMORY TEST SLOW  
\*A 016 CRAPS  
\*I 006 BAR GRAPH  
\*B 002 SLOW SCROLL (3AC,3F4)  
\*B 002 SEARCH (338,3AB)  
\*B 002 VARIABLE SPEED OUT (339,34F)  
\*B 002 SLOW LISTER (340,37F)  
\*A 002 STEINER SUPER GRAPH III

PR#1  
H.A.A.U.G. VOL #56  
CATALOG

DISK VOLUME 175

\*I 013 TRANSFER 3.2  
\*B 003 SUB PACK/UNPACK (800,96A)  
\*I 023 ZIP CODE FIND  
\*I 008 TRAP SHOOT  
\*I 013 STAR SHIP ATTACK  
\*I 021 SW16 #17  
\*I 015 GENERAL SECRECY  
\*A 003 VANS.VOL.010.B  
\*B 014 S-C DISK ASM 3.2  
\*I 023 SW16 #18  
\*I 005 BASIC EDITOR #2  
\*I 005 OPTIMIZER III DISK  
\*I 003 BASIC EDITOR #1  
\*B 002 EDIT-SUB  
\*B 002 SW16-SUB

PR#1  
H.A.A.U.G. VOL #57  
CATALOG

DISK VOLUME 175

\*I 013 TRANSFER 3.2  
\*B 014 RISK2  
\*I 013 STAR SHIP ATTACK  
\*A 042 NEW AND IMPROVED RISK  
\*I 009 DISK DUMP #12  
\*B 002 INTERRUPT HANDLER  
\*A 013 CHANGE DOS COMMANDS  
\*I 043 DISK CHECKBOOK  
\*A 010 ANALOG CLOCK  
\*B 034 CLOCK FACE  
\*A 002 FIND CLOCK BOARD  
\*A 023 DECIDER #22  
\*A 002 REM LINE FORMAT  
\*I 004 HEX EXAMPLE #3  
\*I 004 BINARY SWITCH DEMO  
\*B 021 RW'S WEEKEND ASM  
\*B 002 PRT VARIABLE ADDRS (300,360)  
\*B 002 BINARY SWITCH SUB (300,350)  
\*I 012 INTRODUCTION  
\*I 009 MERRY XMAS

H.A.A.U.G. VOL #58  
CATALOG

DISK VOLUME 001

\*A 002 HELLO  
I 018 BINGO D2  
\*T 006 OAKS  
I 001 END  
\*T 002 TEST  
\*I 010 APPLETALKER  
\*B 002 TALKER.SUBS  
\*A 003 NEW CONTEXT  
\*A 002 IT  
\*I 007 COLOR ORGAN  
\*I 024 MUSIC COMPOSE  
\*A 003 ART1  
I 017 NJ LOTTERY  
I 018 BINGO  
I 017 AUTO BINGO  
I 007 BINGO CARD  
\*I 025 CYRPTOGRAM  
\*I 004 MEMORY TEST FAST  
\*I 004 MEMORY TEST SLOW  
\*B 003 MUSIC BOX  
\*A 003 ART

PR#1  
H.A.A.U.G. VOL #59  
CATALOG

DISK VOLUME 001

\*I 006 BOOT  
\*A 005 DSKDSK  
\*A 003 DSKMTP  
\*A 029 HIRES IN 3D  
\*A 003 PRINT POINTERS  
\*I 003 A/S MOVER  
\*A 030 TAX - 1040A  
\*T 002 MOVE.PTRS FILE  
\*A 009 BRIDGE DEAL  
\*A 005 STILL ANOTHER COLOR GRAPHIC  
\*A 004 MULTIPLICATION DRILL  
\*I 024 APPLE MUSIC  
\*A 004 ELECTRICAL FIELD PLOTTER  
\*A 009 SPELLING EXERCISE  
\*A 002 ROD  
\*I 007 HAPPY BIRTHDAY(PROG AIDE)  
\*I 010 ORANGE BLOSSOM SPECIAL(PROG AI  
T 007 COPYIT  
\*I 013 TRANSFER(3.2 48K)  
\*I 009 DISK DUMP #12

PR#1  
H.A.A.U.G. VOL #60  
CATALOG

DISK VOLUME 254

\*I 002 HELLO  
\*B 002 TONE INPUT (300,26)  
\*B 002 TONE PRINT (A#300,L#1F)  
\*I 009 MINELAYER  
\*I 007 SAFECRACKER  
\*A 005 CODE MAKER  
\*A 009 MORTAR2 (FIRES BACK)  
\*I 013 DISK ACCESS UTILITY  
\*B 002 ERROR TONE (1000,1D)  
\*A 021 MARKET  
\*B 003 SPLIT CAT (800,123)  
\*I 013 ARTPAC.3  
\*A 017 SNOOPY-PLINT PORTRAIT  
\*I 006 MICROMODEM SELF-TEST PGM  
\*B 002 UNDERScore CURSOR (1000,1017)

H.A.A.U.G. VOL #61  
CATALOG

DISK VOLUME 254

\*I 010 APPLE PI SLICE 7 (APPLICATIONS  
\*A 005 MORSE CODE READER  
\*A 009 MORSE CODE SENDER  
\*I 023 WEAVER  
\*A 010 APPLE PI DEMO  
\*I 002 BETTER-EX.SC A1024 L1023  
\*B 006 BETTER-EXAMPLE.SCREEN  
\*I 003 MAC START  
\*I 030 LOGO SPLIT  
\*I 033 CONES  
\*A 017 TITRATION  
\*I 008 CHRISTMAS TREE & MSG  
\*A 038 FILE CABINET

d.A.A.U.G. VOL #62

DISK VOLUME 001

\*I 002 HELLO  
A 005 LIGHT PEN DEMO  
A 005 GENASYS/MASTER MENU  
A 033 GENASYS/PASS #1  
A 012 GENASYS/PASS #2  
T 002 MAIN/MASTER MENU  
T 003 EDITOR/MASTER MENU  
T 003 EDITOR/ADDITION  
T 002 EDITOR/SCREEN GENERATOR  
T 002 EDITOR/EDIT CRITERIA  
A 003 ORBIT(SUN/EARTH/MOON)  
I 013 TRIANGLE  
A 009 ROBOT II  
B 003 ROBOT SHAPE TABLES  
B 002 ROBOT STARTER  
I 012 DATABASE W/O GARBAGE  
I 003 PRINT DATABASE  
I 005 CONVERT TO DATABASE FORMAT  
B 002 SUB  
B 013 DISASSEMBLER (A00.B15 S-C FORMA  
I 014 DISASSEMBLER/SRC (SC-FORMAT)  
I 009 MASKED SEARCH  
I 008 HEX/ASCII DUMP  
I 005 INPUT FROM DISK (S-C ASM 6CHAR  
I 003 C.O.S. SET-UP  
B 003 COS.OBJ

H.A.A.U.G. VOL #63

DISK VOLUME 175

\*I 008 DISK MANAGER  
\*A 031 DISCTEXT  
A 027 APPLE LANDER  
\*I 010 APPLE PI SLICE 7 (APPLICATIONS  
\*A 005 MORSE CODE READER  
\*A 009 MORSE CODE SENDER  
\*I 023 WEAVER  
\*A 010 APPLE PI DEMO  
\*I 002 BETTER-EX.SC A1024 L1023  
\*B 006 BETTER-EXAMPLE.SCREEN  
\*I 003 MAC START  
\*I 030 LOGO SPLIT  
\*I 033 CONES  
\*A 017 TITRATION  
\*I 024 CHRISTMAS TREE & MSG  
\*A 038 FILE CABINET  
B 002 APPLE LANDER SHAPE A#3DFC L24  
\*A 003 ART1  
A 010 NEW HOME PLANNER  
\*I 004 MEMORY TEST FAST  
\*I 004 MEMORY TEST SLOW  
\*I 010 APPLETALKER  
\*B 005 TALKER.SUBS  
\*A 027 NEW CONTEXT  
\*A 002 IT

## SATURDAY SOFTWARE EXCHANGE

"How do I get a crack at all those programs you say you have?" Last Saturday of the month, unless you make arrangements on your own with another HAAUG member or with Dennis Cornwell, our Software Librarian. We meet at the Houston Amateur Radio Club (HARC) building, 7011 Lozier Street. Go out Old Spanish Trail (Route 90) about two miles east of the AstroDome. Cross Alameda. Look on the right for Peerless, Del Rio, Burkett, and LOZIER Streets. Right down Lozier. I know, I know; you think you're lost back in there! Those there are pot holes City Council doesn't want to hear about, either. Drive past the "Road Closed" barrier and see the HARC clubhouse down on the left. Things get going about 2:00 p.m. Bring your Apple, extension cord and plug adapters, empty disks, whatever you think you need.

Several dual-disk copying stations will be set up inside. Dennis will have the entire software library. Disk copying limit is five disks from Dennis at one time, so everybody has a chance. Mark the library catalog in this issue of "APPLE BARREL" ahead of time so you know what you want. In general, the lower numbered volumes are less sophisticated programs from the olden days, but there are gems and classics scattered throughout.

HAAUG makes a practice of culling out obvious copywrited programs, although in some instances we have gotten ahold of early versions of stuff that later on hit it big. Just like many other Apple Users Groups, we have members who make all or part of their living writing software, and we are not in business to rip off their talent. Still and all, we have as fine a collection as anyone!

When not copying programs, members talk over programming problems, ideas for hardware projects, evaluate new equipment, hold orientation for new members, and drool over the latest machine language acrobatics from Bob Stout.

Last Saturday of the month, 2:00 p.m.

THE  
END



Ed Seeger, Editor  
APPLE BARREL  
4331 Nenana Drive  
Houston, Texas 77035

(713) 723-6919



DeWayne Van Hoozer  
4510 Avalon  
Lawton, OK 73501

Postmasters:

Address correction requested  
-----



\*\*\*\*\*  
\*  
\* THIRD CLASS MAIL \*  
\*  
\*\*\*\*\*

NOTE NEW HAAUG MEETING PLACE  
SEE STORY INSIDE  
NEXT MEETING WEDNESDAY, FEBRUARY 13