Bcook

mini'app'les

apple computer user group newsletter

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IN THIS ISSUE

NEXT MEETING

Wednesday, Oct 15th, 7:30pm
Minnesota Federal Savings and Loan
9th Avenue South
Bloomington, Minnesota

Two topics:
1. Dan Dorwart, of Dorwart Peripherals, a Company that distributes a variety of electronic devices, will demonstrate the Malibu 165 Printer. This printer was listed under Dan on Printers in June issue of Mini'app'les. It was shown first at the '80 Chicago NCC show and is the 'Cadillac' of the dot matrix printers providing almost letter quality printing and lots of features. It comes with an Apple interface.

2. Chuck Boody will demonstrate the brand new Mountain Hardware 16 voice Music Board. The device, though formally announced about 2 months ago, has been in short supply because of some teething problems. It has absolutely fantastic specifications.

FUTURE MINI'APP'LES MEETINGS

We plan a demonstration of the 3 best graphics packages:
Sub-Logic   Appleworld   Budge

Apple III demo.

Apple II Coprocessor Board

Jim White

According to an article on page 42 of the September 25, 1980 issue of ELECTRONICS:

Stellation Two, a recently formed Santa Barbara, Calif. company, is introducing a plug-in board for the Apple II which holds a Motorola 6809E microprocessor. The board is designed to allow the 6809 and the 6502 to operate simultaneously. The result is claimed to be processing power equal to or exceeding that of the recently introduced Apple III.

The 6809E acts as the bus master while the 6502 uses the common bus during the time slices when the 6809E is doing internal operations. The board allots 80% of the bus time to the Motorola chip. However, it does let the 6502 interrupt, should it need access to the bus for a time-critical task. An on-board read-only memory stores the reset vectors for both processors, as well as the multiprocessing software. Stellation Two's coprocessor board initially will be offered with only the low-level software necessary to coordinate the multiprocessor synchronization - although negotiations for system support are under way with some 6809 software houses.

4. The program should be self documenting or documentation should accompany the program. If documentation is lacking the Program Editor will supply enough to get the program operating, I hope.

Contributed programs will be collected by the Program Editor, Ken Slingsby. He will screen out programs not meeting the standards or those that are duplicates of the existing bank. The remaining programs will be assembled on a disk. When this disk is nearly full, the disk will be duplicated along with any supporting documentation. At this time the number of duplicates is not known, however we should be able to determine the approximate number after a few tries. The first edition will have 20 copies. These copies will be sold at a regular meeting on a first come - first served basis. If there are extra copies the extras will be used for the next issue. If there are not enough copies a list of prepaid orders will be taken for the next meeting. The cost of the Best of Mini'App'Les Disk will be approximately the cost of the blank disk rounded to the nearest whole dollar plus one dollar to cover the wear and tear on the copying equipment. If there is enough demand a cassette version will be produced.

Contributors will be entitled to a free copy of the current Best of Mini'App'Les. There will be no attempt to save back issues as members are encouraged to copy the disk from each other.

THE MINI'APP'LES DISK OF THE MONTH

The Board of directors has adopted a plan which should solve two problems at once. That is "How does one submit programs to the user bank?" and "How can the bank be more uniformily distributed?".

In answer to the first problem, one submits a program to any of the club officers or to the Program Editor. The rules are simple for writing the programs and have been listed before. In summary they are:

1. The program must be in the public domain. That is, it must not now or in the future, be a copyright program.

2. We prefer that the program be origional with you but adaptations of existing works are acceptable provided rule 1 is not violated.

3. The program may be submitted on disk or tape as you prefer. If you wish the media will be returned at the next meeting.

GRAPHIC ART

BY Tom Edwards

There is a growing use of computers in the educational fields. One of the most recent in-roads is with videotape equipment recently introduced to the consumer market. Computers are helping to provide an interface between the medium (videotape) and the student. A recent article in "Educational and Industrial Television" reiterated these ideas. In that article Apple is mentioned and praised as a device for the interfacing assignments. Those using the Apple speak highly not only of the Apple itself, but also of the company that backs it up directly ... and let me add ... through their dealer network.

I speak from my own experience to confirm some of the comments in the referenced article:

1. It's easy to program. That even extends to my 7 year-old who does some nonsensical things in addition to his use of it as an entertainment device.
2. It's fast, doing calculations that I've wearied of when I previously had to do them by hand,
3. It's reliable. That is an important consideration when you are trying to make money even through its indirect use.

Well lets get to the point. My interest in video and education extends to the use of visual graphics. We have a graphics tablet and use it to generate 'pictures' both in low and high resolution. The accompanying slides are examples of some of the graphics that we have generated with the Apple. In addition my son has generated some original LORES pictures which I think are pretty good. Since the LORES depend on color for their impact, they are not reproduced here. (Comment from editor - the HIRES pictures are indeed beautiful in color, but are also very effective in black and white and so are reproduced here.)

I used a program published in 'Nibble', with modifications which included provision for a caption, to print these slides on a Paper Tiger. Copies of the driver are available to members of the Nibble Special Interest Group)

```
0 CALL -936
1 REM  LORES SLIDE VIEWER BY TWE
2 PRINT "THIS PROGRAM USES THE SLI
  DES FROM": PRINT "THE 'COLOR SKE
  TCH' PROGRAM, SUFFIXED": PRINT
  "WITH '.LPIC'.  ";
3 PRINT "THE '.LPIC' IS ADDED FOR
  YOU."
5 PRINT
6 PRINT "PRESS 'RETURN' TO START T
  HE PROGRAM"
7 PRINT "AND TO VIEW ANOTHER SLIDE
  ."
8 DIM N$(40)
9 GOTO 90
11 TEXT
13 CALL -936
15 D$="": REM  CTRL D
30 PRINT D$;"CATALOG"
40 PRINT
50 INPUT "SLIDE NAME? (DON'T TYPE
   .LPIC')........",N$
70 GR
80 PRINT D$;"BLOAD ";N$;".LPIC"

90 IF PEEK (-16384)<127 THEN GOTO
   90
100 POKE -16368,0
110 GOTO 11
120 END
```
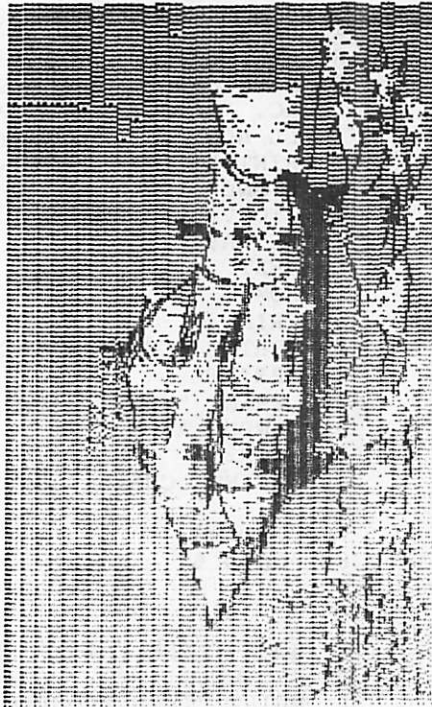
```
0   REM  HIRES SLIDE VIEWER BY TWE

1 HOME : PRINT "THIS SLIDE VIEWE
  R USES THE GRAPHICS": PRINT
  "TABLET SLIDES PERFIXED WITH
  'PIC.'": PRINT "THE PROGRAM
  WILL ADD 'PIC.' FOR YOU.": PRINT
  : PRINT "TOUCH 'RETURN' TO S
  TART AND WHEN": PRINT "YOU W
  ANT TO VIEW ANOTHER SLIDE."
2   GET A$
5   TEXT
6   HOME
8   PRINT
10  PRINT  CHR$ (4);"CATALOG"
20  PRINT
30  PRINT "WHAT HIRES SLIDE?"
40  INPUT A$
50  HGR2
60  PRINT  CHR$ (4);"BLOAD PIC.";
A$
70  GET A$
80  GOTO 5
```
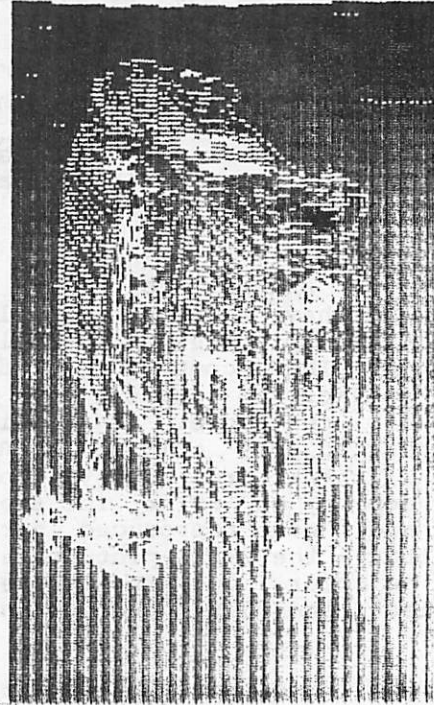
```
0  HOME : REM  HIRES SLIDE TRANSF
ER BY TWE
1  PRINT "THIS PROGRAM USES THE G
RAPHICS TABLET": PRINT "SLID
ES PREFIXED WITH 'PIC.' AND
WILL": PRINT "AUTOMATICALLY
ADD THE 'PIC.' FOR YOU.": PRINT
:
2  PRINT "THIS VERSION IS DESIGNE
D FOR TWO DISK": PRINT "DRIV
ES.  YOU WILL HAVE TO DO A B
IT OF": PRINT "MODIFICATION
IF USING ONE.":: PRINT : PRINT
"YOUR 'ORIGINAL' DISK SHOULD
 BE IN": PRINT "DRIVE NO. 1.
"
3  PRINT : PRINT "YOU WILL GET A
LOOK AT THE SLIDE BEFORE": PRINT
"IT IS TRANSFERED.  PRESS 'R
ETURN' TO": PRINT "START AND
 TO CONTINUE THE PROGRAM."
4   GET A$
5   TEXT
6   HOME
8   PRINT
10  PRINT  CHR$ (4);"CATALOG,D1"
20  PRINT
30  PRINT "WHAT HIRES SLIDE?"
40  INPUT A$
50  HGR2
60  PRINT  CHR$ (4);"BLOAD PIC.";
A$;",A$4000,D1"
70  GET Z$
74  PRINT
80  PRINT  CHR$ (4)"BSAVE PIC."A$
",A$4000,L$1FF8,D2"
84  PRINT
85  TEXT
87  HOME
90  PRINT  CHR$ (4)"CATALOG,D2"
94  PRINT
100  GET Z$
110  GOTO 5
```
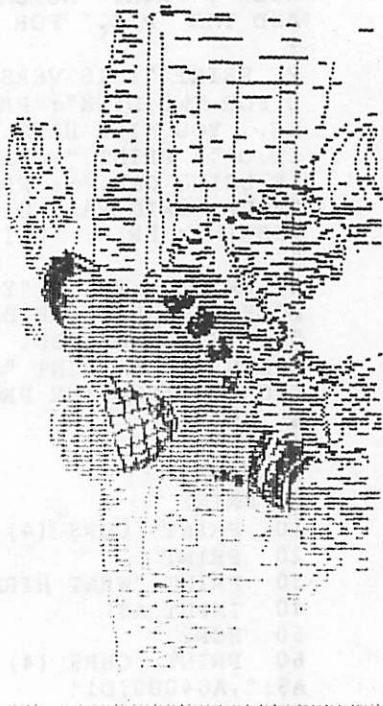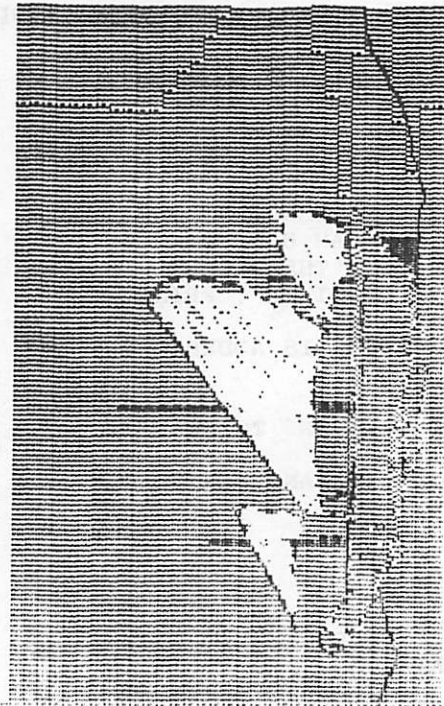
THE GREAT SHIP AMERICA

HOCKEY

THE ARAB SHOW

DAN ON PRINTERS

Dan got stuck in a lower case shift last month but is back again for this month (October)
We are still be deluged with new products. The average price of a basic printer with no frills (upper/lower case, 132 cols, 5x7 dot matrix, etc) continues to drop. You now have a choice of many such machines in the $500 to $700 bracket. Alot of new machines with more frills are appearing particularly those proporting to be ´Letter Quality´. The standard of comparison is still to the Diablo/Qume/NEC, all of which are around $3000. However it is interesting to note a few new models:
1. The Radio Shack 1981 catalog lists a 43 character/second Daisy Wheel printer for $1960. This should be similar to the Diablo.
2. There are several 80 column printers sold under different names but which use the same mechanism. The specifications were published in July as the Emako 20. The models are: Emako 20, C.ITOH 8300, Matchless and Super Brain. Prices start at $499!

3. It is interesting to note that Victor are back in the business of selling retail. They have a model 5080 80 col printer selling for $995. They have been making dot matrix printers as long as anyone.

4. Integral Data Systems have announced the model 460 Paper Tiger. Featuring a 9 wire head, it offers almost letter quality, proportional spacing, 84 dot/inch graphics, it should be similar to the Malibu 165 (to be featured at our Oct meeting).

Judd Elmers, one of our members who lives in NJ, recently purchased a Centronics 737. This machine, mentioned in previous Dan-on-Printer articles offers 9*7 characters and proportional spacing. It sells in the $800-$900 range. He writes that the 10cpi mode is a bit better than average and that the printer as delivered, though it has proportional spacing hardware, lacks the software to make use of it. A specialized Justification routine (similar to Dan´s JUST, is needed. He is trying to write one! He bought the 737 because of:-
   -1. Proportional Spacing
   -2. Right Justification
   -3. Roller and Pin Feed
   -4. Smaller than Paper Tiger
   -5. Established manufacturer

His criticisms are:-
a. Lack of clearly visible pilot light (LED can only be seen by looking in paper slot).
b. The plastic axle roll paper support is flimsy
c. Printer can only eject paper in local mode.
d. The ribbon rode upwards as the head travelled across page so that the right hand characters lacked the two lower descender dots. He had to install a supplementary ribbon guide to solve problem. (Details available on request)

INPUT ANYTHING IN APPLESOFT

This routine should have appeared in an earlier issue. I inadvertently omitted it then.(Editors note: when he said this routine was the smallest he had ever found I had to believe he was right last month for certainly last month´s routine was quite short). The routine allows any keyboard character to be input into an Applesoft program getting around the EXTRA IGNORED error. It is the shortest I have seen.
   The routine:

```
250   POKE 51,191: CALL 64874
255   A$ = ""
260   FOR I = 512 TO 767: A$ = A$ + CHR$ ( PEEK (I))
265   IF PEEK (I) < > 141 THEN 275
270   GOTO 280
275   NEXT
280   A$ = LEFT$ (A$, LEN (A$) - 1)
285   RETURN
```

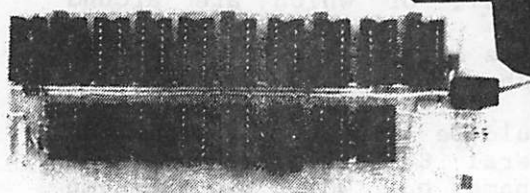   The calling sequence should be of the form:

```
700   PRINT "ENTER ANYTHING YOU WISH ";: GOSUB 250: ANY$ = A$: REM REMAINDER OF PROGRAM CONTINUES ON.
```

   The value of 191 in statement 250 determines the prompt character that will be displayed. The CALL jumps to the the Monitor routine GETLN. The remainder of the program will have to process the user input, seperating the possible "chaff from the wheat".
   The routine was not written by me although I am not sure where it originates. It is much shorter than many other routines I have seen to accomplish this purpose.

Name	Zip	Info
APPLE PI	80014	
APPLE-SIDER	45014	(513) 829-1340
AUDIO KING, INC.	55435	920-4272
B. FERRELL	75234	
BELL, JIM	55427	544-4505
BENNETT, DALE	55113	489-7047 48K DISK
BILL MARK ED. APPLE SASS	96701	487-1268
BLUMBERG PHOTO SOUND CO.	55401	944-1000
BOHLIG, STEPHEN W.	55416	BOHLIG & ASSOC.
BOODY, CHARLES G	56011	48K,DISK,ROM,PRT,ALF
BRADFORD, ETHAN	99502	(907) 344-7959
BROCKHOUSE, RAYMON J.	55331	474-2414
BROOKS, STAN	76118	(817) 589-2080
BROWN, R. C. (CHARLIE)	55976	48K, DISK 533-6510
BUCHLER, DAN	55337	890-5051
CAPES, NELSON R.	55112	
CARLSON, MICHAEL H.	55416	
CHASE, RICHARD	55066	
CHIAPPETTA, MICHAEL A.	55106	774-0778 OR 456-2038
COMPUTERLAND	55431	48K 48K DISK
CONOVER, C. A.	55408	870-2054
COOPER, MICHAEL	57754	605-584-3516 48K 2D ROM
DECOURSEY, WILLIAM L.	55421	574-9062
DEWITT, RICHARD	55430	521-8571
DIGITAL DEN	55337	
DOWLING, JACK W. JR.	55337	894-8443
DUNN, JAMES P.	55110	483-2366
EDMANN, MEL	55343	32K,DISK 934-2596
EDWARDS, TOM	55410	927-6790
EILES, RUEDIGER		920-5282
ELLIS, KEN	55421	781-7111
ELLMERS, JUDSON B.	07645	
ELSTON, JOANN	55343	UDENT 48K DISK
FEESER, H. R.	98199	
FENNIG, RALPH J.	55437	831-1967
FERENS, JOSEPH A.	55431	884-6028
FISCHER, DAVE	55119	16K
FLYNN, FRANK	55337	894-1020
GATES, RICHARD	55119	16K
GERTENBACH, PAUL G.	55042	777-2032
GILLES, PETER L	55447	475-3916
GRIFFITH, RONALD C.	16117	12)758-7738
GUTHRIE, GEORGE W.	55403	377-2355 OR 332-1261
HAMMOND, DARYL	55117	48K DISK DANS PRTER
HANSEN, JOHN L.	55337	64K,1 DISKS, 890-3769
HARTZELL CORP.	55114	48K,646-9456,926-9155
HED, VIRGIL	55436	929-9771 32K DISK ROM
HENKE, JAMES A.	55423	
HENNES, GARY	55429	560-6100
HILLE, LARRY	55432	571-5736
HINRICHS, EARL & KAREN	55414	623-0638
HOFFMANN, SHIRLEY A.	55395	485-4233
HORCH, EDWARD B. "ED"	55420	854-7839
HOVERSTEN, DUANE	55350	483-1019
HYVARINEN, MATT DR.	55812	48K, DISK (218)724-3680
IBRAHIM, SHUKRY K.	55431	HW 884-0608
JACKSON, PAUL	55404	874-1956
JACOBS, MATT	55422	545-2324
JOHNSON, EARL H.	55116	698-1813
JOHNSON, STEPHEN K.	55419	32K, METEROLOGY INTREST
KIRKWOOD, TOM M.	55112	HW 48K DISK 484-7369
KONOPACKY, JOHN E.	54304	(414) 497-3755
KOSMAS, PETER G. JR.	55416	929-2233
KULAWSKE, WILLIAM V.	55416	929-8152
KURTZMAN, HUGH	55343	544-7303
LABORE, DOUGLAS J.	55124	432-4556
LADLN, DAVID E.	55113	489-8321
LARSON, DAVID A.	80020	48K, DISK
LARSON, LARRY	55112	636-5162
LARSON, STEVE	55109	770-3424
LIN, WALLACE E.	06105	
LINDEMAN, KARL F.	55338	955-1668 32K TV
MADONNA, KEITH	55331	474-3876,48K,DISK,ROM
MELONY, CHARLES	55331	474-9461
MEYER, R.C.(DICK)	55060	
MILLER, ART	55118	4576461 A+ ICARD DISK
MUELLER, DAVID W.	55391	574-4773
MULLIN, BARRY C.	55419	861-3875
MURPHY, THOMAS E. JR.	55426	938-8069
NEDELSKY, MICHAEL	57105	5-338-5922
NICKEL, JOYCE Y.	55437	
NORRIS, JANELLE A.	55410	920-1430
NSAUG	60045	(312) 295-6078
OLSON, DR. C. KENT	55359	48K,DISK 479-2708
OTIS, GEORGE	55437	48K,DISK 835-4271 MM
PEARSON, LLOYD A.	55031	437-9713
PERSONAL BUSINESS SYS INC	55410	
PETERMAN, ALAN	55407	721 3295
PINOTTI, TERRY L.	55432	786-7118
PLUIMER, MIKE	55431	K,DISK
RHOADES, BUTCHER	55337	APPLE, DISK 890-9779
RICE, JEAN M.	55435	941-1051 TEACHER TIES
RICH, KEN	55403	48K DISK PAPER TIGER
RICHARDSON, D. G.	55331	
RISKEN, JOHN	5410	920-7235 STORE OWNER
RODGERS, RICHARD	55432	571-2185
RODGERS, RICK	55432	784-1850
ROHLING, MELVIN M.	55113	483-0162
ROTENBERG, DAN	55405	48K, DISK 377-8265
ROWE, RICH	55044	469-4461
RUSSELL, ROBERT	55427	HW
SALTERMAN, STEVE	55901	48K, DISK 282-1020
SANDVEN, ROGER L.	55420	884-5841
SEVERINO, LOUIS E.	55423	869-6336
SHEARON, LARRY	55113	633-7423
SHULER, W. PHILIP	55409	HW 825-6646
SHUSTER, JOHN A.	55422	537-9699
SLINGSBY, KENNETH	55089	48K DISK TTY
SOUTHEASTERN SOFTWARE	70126	(504) 246-8438
STOCKWELL & ASSOCIATES	55402	APPLE 338-1441
SWEENEY, JAMES M.	55438	941-5316
TARARA, GREGORY S.	55106	771-7801
TEAM ELECTRONICS	55435	920-4817
TEAM HENNIPEN	55403	
THALER, G. M. "SKIP"	55337	890-2912
THE COMMITTEE, INC.	55403	896-7046
THE MICHIGAN APPLE	48018	
THILSFELD, CHARLES	55431	K, DISK, PRT 830-5020
THOMAS, MARILYN	55408	824-9892

Name	Zip	Info
WEINER, HOWARD	55416	925-3411
WEINSTOCK	11787	
WHEATLEY, JOHN L.	55410	48K,DISK
WHITE, GARY D.	55419	822-7956
WHITE, JAMES A.	55112	05
WILLIAMSON, DR. KENNETH	55901	253-5831,251-2700-134
WILKINSON, DIANE	55112	483-1019
YAMAKAWA, MINEO	73104	(405) 236-5783
YOUNG, A. MICHAEL	55420	884-2841
ZAJICEK, BILL	55408	776-7601
ZIEMER, MARK D.	55113	636-7743
ZIM COMPUTER INC.	55429	
JORGENSEN, AARON	55437	482-8778 48K 2 DISK
MADY, ROBERT	55422	535-0816 48K DISK
SANDERSON, WAYNE A.	55112	483-1233 48K DISK
GRAY, JACK	55406	729-3910 48K DISK
SAND, DAVID A.	55405	374-4657
PETERSEN, PAUL D.	55406	722-2040 48K DISK
PRITCHARD, KENNETH	55404	871-9129
MC EVOY, DAVID J.	55104	644-7986
KEISER, KEN	55112	
SHANLS, JOHN B. JR.	23111	
STALBLER, DR. ROBIN J.	55313	612-477-5594
SALTER, ROGER G.	55379	445-6324
ROOT, JANICE A.	55432	574-1348
JOHNSON, ROLF A.	55422	535-3047
MUSCALA, JAMES A.	55441	545-9152
LANG, CRAIG	55412	521-5702
FALK, ROBERT T.	55406	332-5830
WHEATON, BRUCE	55432	474-3363 571-1000
COMPUTER LAND	55343	
*CHAKANIA, SHABBAR	55404	823-5908
CHAPMAN, PAUL	55429	533-0474H A+ 16K CASS
NORDVALL, DAVID	55417	724-9174
MELAMED, HAROLD L.	55116	690-0198 48K PASCAL
KOOYER, RICHARD L.	55109	770-8556 DISK 32K
NYGREN, DAVID L.	55441	545-9120 48K 2DI PRT
PERKU, WALT	55435	835-6031 MODEM
KNUTZEN, NELSON E.	55116	699-1515
EITTREIM, ORRIN	55418	588-8583H 789-8863W
OLSON, JOHN G.	55417	825-8766
LAMPE, FRED R.	55391	475-1947
RICE, JAMES C. II	55378	890-0803
SCHOEPPNER, JOHN C.	55075	455-8613
BOLT, RALPH O.	55331	474-4994
MOSBORG, STEVE	55407	722-1258
GOLDBERG, NANCY	55426	545-0205
SCALETTA, PAUL J.	55391	
SILVER, JEFFREY A.	55422	544-6820
FROELICH, JOHN P.	55327	427-5705
FINE, S. J.	55411	
STILLWELL, PATRICIA	55403	
SMITH, RODNEY S.	55417	866-4776
HENDERSON, SUSAN L.	55441	545-1756
BOHANON, PEG J.	55410	922-7063 48K MM PAPERT
COE, MAX & DIANE	55454	340-9237 48K D PRT
VUKOVIC, PHILIP M.	55113	853-5335
YOUNG, GEORGE	55104	226-3831
MARK, ED	55423	870-5430 LNG,2D,RW
CHADUCH, TIJANI	55108	646-6630 48K,D
BURGER, RONALD	55343	340-6733 32K,DIIS
OCHS, JAMES	55443	566-2098 48K,DOS
TUFT, DENNIS	55124	423-2066 32K CAS
SCHMIDT, ROBERT	55423	869-0588 NONE
PIERCE, RUTH M.	55418	48K,GR.TAB,PRINTER
PRITSCHET, ROBERT L.	55418	
DAVIDSON, JIM	55121	48K
BECKSTROM, DANIEL M.	55434	48K,II
BICKFORD, AL	55410	48K FP
WEISBERG, BURTON	55426	938-3865 48K,DISK
CHAPMAN, RICHARD	55113	644-9674 48K,DISK
SWAN, CRAIG	55408	374-2496 48K
SAXTON, ANTHONY	55337	894-1117 II,CASS,INT
PRANIS, ROBERT	55318	448-3475 48K,DISK,II
CLARK, SARA	55410	922-1335 LANG,2D
WYNNE, E. C.	55343	935-7148 48K,DISK
ANDERSON, EARL H.	55419	729-0357 LANG
DALE, HEIDI	55417	866-6163
ANDERSON, TERRY	55343	934-3788 48K,DISC
NEDBALEK, JAMES R.	55343	934-3531 48K 2D TIG MM
BERGSTAD, JOHN	55410	339-0686 II+ 48K
LUNDBERG, HERBERT W.	55082	439-0462 II DISC MOD PRT
SCHULTZ, STEPHEN W.	55112	631-2059
PAUS, GLENN H.	55406	722-6477 II,DISK
VIKEN, JOHN	55427	545-5447 48K
RAY, CHARLES M.D.	55391	475-2000 2D,PRT
BYKOSKI, JIM	55113	645-8982 32K,DISC
BAKSHI, RAUI	55428	535-1080 48K 2D MM
COLLINS, CHARLES E.	55426	546-5694 48K,2D
FAGERLIE, VAL	55113	645-7397 48K
MITCHELL, GORDON	55112	631-3366 II,CAS
POWELL, DAVID LEE	09189	
MURRELL, MICHAEL	55410	929-8861
VIETZ, EVELYN M.	55433	571-6980 32K
CALLAHAN, SEAN	55433	755-2797 16K,CASS
MIELENS, PAUL	55016	459-6291 48K,DSC
SHEPHARD, JOHN	54022	715-425-6203 48K,D,MOD
VAN BUSKIRK, JIM	55428	535-5261 32K
RICHARDS, JAY	55391	471-4864 48K,2D,PTR
WOLF, JIM	55112	483-1418 48K,D,INT
DE Q JEFFERSON, THOMAS		227-7401 32K
BARTHOLMEW, DALE	55119	739-4577 II,2D,MI-MO
O'CONNOR, CHARLES	55413	378-1408
KELSEY, ROBERT C.	55113	633-6102 48K,D,HAYES
GARRISON, GARY	55423	861-2593 48K
ERICKSON, FORREST LEE	55042	
GAMMELGAARD, JIM	55412	
AXELSON, STEVE	55408	872-8937
SCHROEDER, KENT	55364	472-4158 48K,D,HAYES
ELLIOTT, JONATHAN D.	55384	471-0285 32KII
LOOMIS, GORDON	55447	473-6295 48K,D
WORTHINGTON, JOHN	55901	929-6316 48K,D
SMITH, CORT	55384	827-6872 48K,DII
JENSEN, WILLIAM C.	55401	338-0002
VENJOHN, LARRY J.	55340	478-6838
RUMLEY, M.D.,MICHAEL	63141	
MOSBY, THOMAS	55024	48K 1D,CENT779
BROCKWAY, BRIAN	55409	922-8528
HUBBELL, JAYMES	55117	

PERSONAL BUSINESS SYSTEMS, INC.
an authorized Apple dealer

I intend to make this column a monthly event, if the workload at the store permits. Each month I will discuss some programming 'trick of the trade' that Personal Business Systems has used in the software that we sell.

It's difficult to know just how simple or advanced to make a column for such a wide audience, so after this first one, I'll try to let you readers decide. If there's a topic you would like covered, drop a letter to

        Tricks of the trade
        Personal Business Systems
        4306 Upton Avenue South
        Minneapolis, MN. 55410

and I will discuss each month's most requested topic.

By the way, we provide some consulting for our own Apple customers, but please don't call and ask us for free help with your individual programs unless you are.

DOWN WITH BLINKNING CURSORS

None of the software written by Personal Business Systems has the big flashing square cursor that you always get with Applesoft's INPUT and GET statements. I've always thought that such insistent flashing was a little rude - like some overeager salesperson pulling on your coatsleeve, and so I replace it with a simple, unobtrusive, non-flashing underline. Just how that's done is the subject of this first column.

Choosing from a menu

Often a program will have a 'menu' of choices, and the user selects one by pressing a letter or number key corresponding to his/her choice. In flashing-cursor BASIC, you could write it like this:

```
100  GET A$
150  ON A$ = "A" GOTO 1000, etc.
```

but in no-cursor BASIC you would write it like this:

```
100  ON PEEK (-16384) < 128 GOTO 100
110  A$ = CHR$ ( PEEK(-16384) - 128)
120  POKE -16368,0
150  ON A$ = "A" GOTO 1000, etc.
```

Whenever a keyboard key is actually pressed, the byte of memory at location -16384 is changed. Until a key is pressed, the value of this location is always less than 128; after a keypress it is always greater. So the program keeps looping on line 100 until a key is pressed.

The value that is put into location -16384 is directly related to the key that was pressed. If you PEEK at that location and subtract 128 from the value you find there, then the table on pp. 138-139 of the Applesoft manual will tell you exactly what key the resulting number corresponds

to. But this is knowledge you don't really need, because Applesoft's CHR$ function will turn this number into the letter for you. Line 110, then, takes the number that resulted from the keypress, and turns it into a character.

Line 120 tells the Apple that it's OK to accept another keypress from the keyboard.

Typing in a line

Suppose that instead of having a menu that would respond to a single keypress, you wanted the user to type in a whole word. You would have to put the letters on the screen as they were typed. Let's say you wanted the input to appear on the 12th line, halfway across the screen. In flashing-cursor BASIC, you would write:

```
100  VTAB 12: HTAB 20
150  INPUT A$
```

but in no-cursor BASIC, it's a little more difficult:

```
100  VTAB 12: HTAB 20
125  A$ = ""
150  ON PEEK(-16384) < 128 GOTO 150
200  X$ = CHR$(PEEK(-16384) - 128)
300  A$ = A$ + X$
350  PRINT X$;
375  POKE -16368,0: GOTO 150
```

Lines 150 and 200 are the same as the previous example, of course: they wait for a keypress and turn it into a letter. Line 350 echos what was typed onto the screen. Note the semicolon at the end of the PRINT statement. Without this, each letter would appear on a new line.

Lines 125 and 300 make it possible to build up the character string in A$ so that you can use it elsewhere.

Unfortunately, we haven't gone far enough yet. There is no way to backspace, and no way to make the RETURN key do what it's supposed to. Let's add those functions now:

```
150  ON PEEK(-16384) < 128 GOTO 150
200  X$ = CHR$(PEEK(-16384) - 128)
202  ON X$ = CHR$(13) GOTO 400
205  ON X$ <> CHR$(8) GOTO 300
210  ON LEN (A$) = 0 GOTO 375
220  PRINT X$" "X$;
230  A$ = MID$(A$,1,LEN(A$)-1)
240  GOTO 375
300  A$ = A$ + X$
350  PRINT X$;
375  POKE -16368,0: GOTO 150
400  REM END OF INPUT ROUTINE
```

Line 202 is new. CHR$(13) is Applesoft's code for the RETURN key. If it is pressed, we want to go on to the next part of the program, without adding that character to the string.

Lines 205 - 240 are also new. CHR$(8) is Applesoft's code for the left arrow key. My choice, when the left arrow key is pressed, is to erase the last letter the user typed. Line 205 makes sure the user

doesn't erase more than all of the letters he has typed so far. Line 210 prints a backspace (which isn't visible on the screen), a space to over-write the last character typed, and a backspace again so the user's next keypress will be in the right place. Line 230 shortens up the string-typed-so-far by one character so that it corresponds with what's on the screen.

Refinements

The code above will work just fine for most cases, but since you have complete control of the input, you can do a lot more to protect the user and your program from careless input errors. If, for example, you wanted to accept only numbers, you could add this line:

```
202   ON X$ < "0" OR X$ > "9" GOTO 375
```

or if you wanted to limit the input to only 5 letters, you could do this:

```
203   ON LEN(A$) = 5 GOTO 375
```

or you could have an encrypting keyboard so that what you typed would systematically not correspond with what was displayed by doing this:

```
350   PRINT CHR$( ASC(X$) + 1);
```

Use your imagination.

John Risken

PERSONAL BUSINESS SYSTEMS, INC.

4306 UPTON AVE. SOUTH, MINNEAPOLIS, MINN. 55410

New products

The Executive Secretary. A professional word processor with 40 and 80 column editors, electronic mail, built-in mailing list, connection to Data Factory and CCA databases for customized form letters, left-justified and right-justified tabs, page headers and page numbering, abbreviation tables, file and subfile, and Visicalc print file linking. Shift key modification included.

With Bit-3 80 column board	$600.
With Paymar chip (40 column)	300.
Without required hardware	249.

Personal Secretary. Like The Executive Secretary, but without abbreviation, form letter, electronic mail, or mailing list capability.

With Paymar chip	160.
Without required Paymar chip	99.

New Services

We can convert Apple Post data diskettes to be used with either CCA DMS or The Data Factory. The charge is $20.00 per diskette.

Club specials

Memorex diskettes, box of 10	30.
Diskette games - 10% off	

CLOSE-OUTS (quantities limited)

Desktop PLAN	85.
Easywriter Professional	200.
Easywriter pro & Videx card	500.
Darrell's Appleware Financial Management System	700.
Doublevision card	225.
Supertalker	250.
INTROL X-10 home control	250.
IFO database system	85.
Apple's The Cashier	220.
Single Disk Copy program	18.
DOS 3.2 manuals	7.
Milliken Math program, 1-6	225.
Magazine back issues - 20% off	

Other specials

Cassette games - 30% off	
Z-80 Softcard	325.

THANK YOU

We failed to thank those of you who contributed to the Word Processing night in August. In particular Nat Forbes of Computerland who demonstrated the new Professional Easy Writer with the Videx board, and John Riskin who demonstrated their own 80 character board and word processing system. Also all of you who brought Computers that night, we thank you.

The September meeting was one of our periodic program exchange nights (heretofor refered to as "Exchange Stampede". We wish to thank the following persons for providing 2 disk drive systems:-
Marylene Thomas (2 systems)
Hugh Kurtzmann
Irodell Bell
John Schoeppner
Terry Pinotti
Chuck Booby
Rick Gates
Bill Decoursey

NIBBLE SPECIAL INTEREST GROUP

Updated list includes

Max Coe	631-6667
	340-9237
Chuck Boody	9.13-5290
Dan Buchler	890-5051
Bill Decoursey	574-9062
Peter Gilles	
Paul Jackson	
Mike Murrell	929-8861
Janelle Norris	920-1430
Marylene Thomas	872-7669
John Schoeppner	455-8613
Judson Ellmers	N.J.
Tom Edwards	927-6790.

WHAT FLAVOR DISKETTE DO YOU WANT?
By: David E. Laden

This article is continued from the September 1980 edition of Mini'app'les.

The most current version of DOS is 3.3. A major change has taken place between 3.2.1 and 3.3. DOS versin 3.2.1 (and previous) used diskettes that contained 13 sectors per track. DOS 3.3 uses diskettes that contain 16 sectors per track. This change allows you to store more informaton on each diskette. Other than this major change, not much else has been done except to add a couple of new utilities to the SYSTEM MASTER DISKETTE. If your diskettes contain DOS 3.2.1 (or previous) there is really no need to update them to DOS 3.3. You will still be able to use your 13 sectored diskettes by using BASICS. BASICS is a diskette which, when

booted, allows you to boot a 13 sectored diskette. (The minor revision that took place between DOS 3.2 and 3.2.1 consisted of a change made to the timing when seeking a drive and changes to the COPY program to facilitate more reliable disk-to-disk copying.)

The term MASTER is not only used to mean SYSTEM MSTER or original. It is also used to describe a diskette which will boot any size system. This means that when DOS is loaded into your system, it will locate itself into the highest portion of RAM memory contained in that system (not including the Language Card). The utility MASTER CREATE from the 3.3 SYSTEM MASTER DISKETTE (or UPDATE 3.2.1 from the 3.2.1 SYSTEM MASTER DISKETTE if you are using a previol : version of DOS) will update your diskette to a MASTER diskette. This updated diskette will be able to boot any size Apple.

Well then, if your diskette is not a MASTER it must be a SLAVE. A SLAVE is created when you initialize a diskette via the DOS INIT command. The DOS that is placed on this diskette is the same DOS that is in the memory of your APPLE at the time of initialization. Therefore, a SLAVE diskette is created with DOS that is system size dependent. This is why a SLAVE diskette will only boot a system of at least the same size as the system upon which the diskette was initialized. This also explains "LOST" DOS--when you try to boot a 32K system and nothing seems to be happening (as of DOS were lost). What is probably happening is that the system is trying to load a 48K copy of DOS into a 32K system and there is no place to put it. Another point about the SLAVE diskette that should be made is if you boot a 48K system with a smaller (32K) SLAVE diskette, you reduce your 48K system to a smaller (32K) system.

Now, after you have had a chance to read this article, I hope some of your questions have been answered and problems solved!

TURNING THE PAGES with Dave Laden.

BYTE -- OCTOBER 1980

Education Forum: A Multiple-Machine Loader for Classroom Computers by Richard C. Hallgren. Pages 90-94.

Sorting with Binary Trees by Bill Walker. Pages 96-112 and 250-263. BASIC and Pascal examples are included.

The 6502 Gets Microprogrammable Instructions by Dennette A. Harrod. Pages 282-285.

COMPUTE -- SEPTEMBER/OCTOBER 1980

Computers And Society by David D. Thornburg and Betty J. Burr. Pages 10-16.

RS232 Communications by Michael E. Day. Pages 26-30.

Solving Equations With A Computer by Marvin L. DeJong. Pages 32-36.

Al Baker's Programming Hints: Apple and Atari. Pages 52-55.

Randomize For The Apple II by Sherm Ostrowsky. Page 59.

Screendump by Jeff Schmoyer. Pages 60-63. This is an assembly language program.

Thesus Versus The Minotaur: Pascal Visits Ancient Greece by Joseph H. Budge. Pages 64-67.

Some Routines From Applesoft Basic by Jim Butterfield. Pages 68-69.

CREATIVE COMPUTING -- SEPTEMBER 1980

A Buyer's Guide to Apple II Software by David Lubar. Pages 54-55.

Computers At An Alternative School by Deborah Stone. Pages 46-47.

Educational Software Part One by David Lubar. Pages 64-72.

A New Look at the Creative Process Part II by Eugene Raudsepp. Pages 82-90.

Computer Literacy Bibliography by Susan Friel and Nancy Roberts. Pages 92-97.

Classroom Computers And Innovation Theory Why Don't They Adopt Us? by Helena C. Martellaro. Pages 104-105.

Word Problems Made Painless by Nel Noddings. Pages 108-113.

Integrating CAI & Videotape by Marc D. Schwartz. Pages 116-117.

A Challenge for the Language Arts CAI Developer by John G. Allee, Jr. and Robert L. Williams. Pages 120-125.

How To Solve It -- With The Computer by Donald T. Piele. Pages 126-131.

How Not To Be Out Of Sorts Part II: Heapsort by Albert Nijenhuis. Pages 136-137.

Apple-Cart by Chuck Carpenter. Pages 174-178. This month, Chuck tells us about catalogs, music, and Applesoft along with other things.

INTERFACE AGE -- OCTOBER 1980

Computers in the Playground Sesame Place by Kathy Tekawa. Pages 14-15 and 120.

Al Baker's Game Corner. Pages 18-21. Applesoft program called "The Presidents" is included.

Improving Your Console Input by Hugh Poynor. Pages 100-102.

KILOBAUD MICROCOMPUTING -- SEPTEMBER 1980

Role-Playing Games Reviewed by William L. Colsher. Pages 106-108.

Apple II HIRES Graphics Memory Mapping by John Martellaro. Pages 134-136.

Romplus+ by Jeffrey G. Mazur. Pages 151-152. Mountain Computer's Romplus+ for the Apple is reviewed.

MICRO -- SEPTEMBER 1980

Creating Shape Tables, Improved! by Peter A. Cook. Pages 7-12.

A Versatile HI-RES Function Plotter for the APPLE II by David P. Allen. Pages 49-54.

MEAN14: A Pseudo-Machine Floating Point Processor for the APPLE II by R. M. Mottola. Pages 67-71.

The MICRO Software Catalog: XXIV. Pages 73-74.

6502 Bibliography: Part XXIV by Dr. William R. Dial. Pages 76-78.

PERSONAL COMPUTING -- OCTOBER 1980

Small Computers Come To The Rescue of Big Business by William R. Parks. Page 22.

Word Search by Mike Fischer. Pages 34-39. An Applesoft program is included.

Problem Solving and Computers by David Lubar. Pages 49-50. This article is about "getting the computer to solve problems about itself."

Cash in on the Power of Pascal by Sam Gaylord. Pages 52-53. This is a Pascal program to calculate meltvalues of silvercoins.

Modems: Your Link to the World by Ken Mazur. Pages 60-64. Includes a Modem Glossary and Modem Vendor Guide.

Are You Computer Literate? Book review by Elli Holman. Page 91.

That is enough pages for this month. Next month is sure to bring more pages.

VERBATIM DISK PROBLEM - SEQUEL

Those of you who have been with our club for 6 months or more will remember that there use to be a prominent manufacturer of disks, whose product was sold in the Twin Cities. The name was VERBATIM. Well you may also remember that those diskettes received a black mark for reliability and everybody started buying Maxell, 3M, Dysan and CDC instead.

Well, Verbatim is trying to recover their lost image and claim they have solved their problems. The problem, according to Verbatim, was miss-centered disks. That is, the diskettes did not center properly within the drive, resulting in eccentrically recorded tracks. This caused garbled or complete loss of data.

They claim that they have a "virtual 100% cure to the problem" with the use of hub rings. If you buy Verbatim, specify part number 17975 or 17976 (plastic box) to obtain diskettes with the hub ring.

Verbatim has been kind enough to supply us with 10 free diskettes to evaluate. These diskettes have been distributed to working members who in turn may receive one additional diskette if they complete the questionnaire provided with the diskette. The questionnaire inquires about the performance of the new diskettes.

It is interesting to note that Verbatim blames the problem partially on the sensitivity of the Shugart SA 390 drives used by Apple.

Dear Mr. Fixit:

After reading your column last month I thought, "This will be great, no more CATAS⟶LOG or CATAL:⟶OG etc." But wait a minute! To get this on all of my disks I need to make the changes, initialize a new disk, and then copy an old one.

Well I've owned my Apple for two months and have just finished Max Coe's Assembly Programming Course and should be able to take care of something like this.

One of the following two programs will need to be on each disk and a change be made to your HELLO program.

1. Using the Mini-assembler
.CALL -151
*F666G
!302:LDX #$00
! LDA #$D4
! STA $A8D4
! LDA $A8D9,X
! STA $A8D5,X
! INX
! CPX #$30
! BNE $0309
! RTS
!$3D0G
 BSAVE CAT FOR CATALOG,A$302,L$13
    Now add to your HELLO programe.(use own line nos)
20 PRINT "D_cBRUN CAT FOR CATALOG"

30 POKE 50, 63;PRINT "USE CAT FOR CATALOG": POKE
    50,255
    2. Using PP
100 FOR I=770 TO 788
110 READ A: POKE I,A
120 NEXT I
130 DATA 162,0, 169,212,141,212,168,189,217,168,157,
    213,168,232,224,48,208,245,96,
140 CALL 770: END
 SAVE CAT FOR CATALOG
    Now add to your HELLO programe.(use own line nos)
20 PRINT "D_cRUN CAT FOR CATALOG"

30 POKE 50,63: PRINT "USE CAT FOR CATALOG":
      POKE 50,255
  I had hoped this would be useful to someone but as it is , it will only work with 48K systems and if any of your programes use the DOS command "CATALOG" you will get a syntax error.
    Question: Can the DOS commands be changed to work with both CAT and CATALOG? Where is the command table for 32K.
P.S. In programe 2. replace lines 100 & 130
with 100 FOR I=-223,16 to -2232
      130 DATA 212,234,234,234,234

                                      David Nordvall

ANNOUNCEMENTS

1. A Mini'app'les Board meeting was held on Sept 23rd. Detailed minutes published elswhere. Two highlights
-The currently circulating user bank will cease to exist. Instead we will distribute periodically a full disk of new programs which have been edited and cataloged. Tentative price will be $5.
-Starting with next newsletter, we will include a significant number of reprints of the best articles published in other user group newsletters.

2. A new Internatinal Apple Corps (IAC)disk (#3) has been received. The disk comes from Japan, complete with literal translations from the original Japanese, but does contain some good games. These programs will probably be incorporated in the first Mini'app'les disk (See 1 above).

3. The original Apple ABBS (phone number 929-8966) has been discontinued. A new ABBS has been put into operation by ZIM computer. The number is 561-6311. If you have a modem, have a go! ZIM is anxious that you try it out!

4. APPLE ORCHARD. The September issue shipment has arrived and those who paid their $7 subscription may claim their copy at OCT meeting or at Dan Buchler's house. A limited number of extra copies were ordered and will be sold for $2.00 each on a first come first served basis. Also the remaining copies of ISSUE #1 will be sold.

MINNESOTA PERSONAL COMPUTER FAIRE

Hyland Hills Ski area,
Bush Lake Road
Blommington

Those of you who were at the Sept meeting will have heard Russ Bagley announce the subject Faire to be held on
Oct 18th, Sat, from 8.00am to 4.00pm
Individuals, Ham Radio Operators, Personal Computer nuts, (and some dealers) will have a computer flea market. You will probably be able to buy anything from Apples to Z-80s and bargain prices (you hope).

We Mini'app'les will have a stand to promote the club. We need 3 or 4 volunteers to man the stand for 2 or 3 hours at a time!

Admission to the public will be $3.00, children under 12 free.

MINI'APP'LES
13516 GRAND AVENUE SOUTH
BURNSVILLE,
MINNESOTA, 55337.