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TPUG NEWS

[*Bulletin of the Toronto Pet Users Group*]

MEMBERSHIP CARDS

Enclosed you will find your membership card. Please wear it at the meetings. The plan is to have additional double-sided tape available at the front desk for whenever you wish to replace the tape.

NEXT MEETING

The next meeting will be at Sheridan College on Wednesday, December 10th. It will include a presentation by Joseph Ferrari and Bruce Beach on using the computers that are built into the disk drive, an update by Gord Campbell on the inexpensive RS232c telephone interface, Chris Bennett on KRAM (Keyed Random Access Techniques), and several quizzes, including of course Jim Butterfield.

MACHINE LANGUAGE GROUP

This year's first meeting of the machine language group will be held at the George Brown College campus which is near Casa Loma. The address is 160 Kendal Ave. Room C. Admission is free but

restricted to members of TPUG. Because of limited facilities and the need to keep the group small for this kind of instruction we are not encouraging attendance. The date and time of the meeting (I'm scared to let anymore know about it) is Friday, November 28th at 7:00 pm. If attendance gets completely out of hand we may have to restrict it to a first come, admission to capacity only basis.

At least the first meeting will be presented by Jim Butterfield. He wants to make sure we get started off on the right path. Interim meetings may be presented by others, and then we expect to have Jim back at the last meetings to present more advanced techniques.

As a part of this bulletin you will find the "Machine Language Checklist". This should help you determine whether or not you wish to attend. If the initial meetings are going to be too elementary for you then please do not attend, unless you wish to help others who are just beginning. It would be good to have a work session and do as much as we

can on an individual tutorial basis.

If you come, please bring the enclosed checklist and a blank disk or tape so that we can give you a copy of Supermon and such other assembler tools as you may need.

THOSE MICHIGAN PROGRAMS

As announced at the last meeting we have gotten many new programs (about 300) from the Michigan Club. These are being evaluated and copied onto club diskettes and tapes. We anticipate this will make a substantial addition to our already extensive library of over two hundred programs.

Anyone else having a program to contribute to the library should contact the club librarian:

David Hook

A NOTE TO OTHER CLUBS

We are sending a copy of our bulletin to all the other clubs of which we are aware. We would like very much to be put on your mailing lists also. You may address any correspondence to:

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Bruce Beach
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Ontario, L0N 1J0
Canada

It might be of further interest and beneficial to all of us to exchange club tape and diskette libraries.

THE MIDNIGHT SOFTWARE GAZETTE

We have received from the Central Illinois PET Users a copy of Issue No. 1, Fall 1980, of The Midnight Software Gazette and an invitation to copy it so here it is-

**WIN A PRIZE
NAME OUR
NEWSLETTER**

WHAT ON EARTH IS THIS?

Welcome to the Midnite Software Gazette, an off-the-wall publication of the Central Illinois PET Users. (PET is a trademark of Commodore Business Machines Inc.) It is our attempt to fill the vacuum in PET reviews since the PET GAZETTE folded a year ago. Until then, nearly every available PET program was reviewed quickly. Since, lots of PET programs have been offered for sale, but very few reviewed. Some of the new programs are VERY expensive. Who wants to spend \$100+ on a program that may be junk?

Who are we to do the reviews?... Just PET owners with lots of software. JS has written some published reviews. The rest have other writing experience. Between us, we have all models and varieties of PET equipment, except the 8032. We want PETdom to prosper. Good software will help. We will point you to it, and steer you away from trash.

The gazette is mailed FREE to all who send a self-addressed reply envelope with 2 stamps to this address:

Central II PET Users
c/o Jim Strasma
3938 Benton Dr.
Decatur, IL 62526
U.S.A.

(Overseas airmail postage for 1oz. is \$0.52U.S.) If you want the next issue, send an extra envelope. We do not charge for

subscriptions. (we also don't turn down contributions.) We will not notify you of new issues. As each issue is done we stuff it in envelopes on hand, and mail them. Your job is to copy the newsletter for others! This should be a quarterly review, but all we guarantee is-- it will be worth every penny you pay for it!

Authors willing to risk a review are invited to send in programs. Only your reviewer will see them. PET users are welcome to send guest reviews. Be honest and fair in them. Keep them short, or they'll be edited. If you have a program you want to sell, but can't see spending \$1,500 for a full-page ad in Byte, we'll review it for you. If your program isn't already advertised widely, we'll include your address or phone number in the review, so folks can order your programs. (This isn't a come-on to build our library. We have too many programs already!)

Our key questions of a program are:

- 1) Who can use it?
- 2) Does it work?
- 3) Is it fun?
- 4) Does it do anything important?
- 5) Is it worth the cost?
- 6) What don't the ads say?

In this first issue, the reviews are by Jim Strasma and Jim Oldfield. Later issues will include offerings from the rest of the club. All reviews are

the opinion of the reviewer; like all human efforts, they may include errors. Corrections are welcome.

VISICALC, \$200 from Personal Software. Protected. Needs 32k and disk. This is a super program, as Apple owners already know. It is both highly useful and fun to use. The instructions are the best yet. Well worth the cost. My only gripe is that it uses a dummy ROM at \$9000 and runs out of memory too soon. A functional ROM would leave more memory for data. Otherwise, it's perfect. -JS

WORD PRO 2 and 3. \$200 and \$300 from Professional Software. Protected. 2 needs 16k. 3 needs 32. Both need disk. As most PET users know, this is the other super program. PET word processing is second to none with these. Both are very well documented. Use 2 for a great letter. Use 3 for anything longer. In regular use, either is worth its cost. 2 uses a dummy ROM at \$6000, 3's dummy is at \$8000. 3 has more commands that Commodore has ROM sets. -JS

PROFILER, \$100 from Intermountain Data. Needs a disk. Claims to maintain 1100 files per diskette, but only about 100 can be in the same database. No way would I pay this much for a 4k Basic database manager with sequential files! -JS

JINSAM, \$150 and up, from Jini Microsystems. Protected. Needs 16K and a disk. Not for DOS 2. The best available PET data base manager. Very complete. Lots of documentation. FAST random access to 650 records. Over 150k of well-written Basic programs, and add-on modules to do about everything. Uses a dummy ROM at \$9000. Current version takes some setup and lots of disks. Well worth it for serious uses. Far better than their earlier JINI database, sold by the Computer Factory for \$125. -JS

TALKING CALCULATOR, \$15 from Programma International. Needs 16k plus second cassette buffer. Not for Basic 4. A must for blind people, and great fun for kids. Very recognizable speech. -JS

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BASIC PROGRAMMER'S TOOLKIT ROM, \$50 and \$80, from Palo Alto ICs. Not for Basic 4.0. Best known of all PET programs. Adds several vital commands to Basic. In ROM at \$6000. Uses end of second cassette buffer. Fine manual. If you write programs, you need it! -JS

DISK-O-PRO, \$75 from Skyles Electric Works. Basic 2 only. Good imitation of Basic 4.0 for those who don't want to throw out old programs. Has other added commands, notably beep, scroll and

print-using. 4k ROM at \$9000. Compatible with Toolkit Rom. Software compatible with programs for Basic 4, unless they use machine-language ROM calls. Works even during program execution. Slows Basic 20-30% in use. manual is too brief. Has a fair list of no-no's. Ignoring some crashes Basic. Not quite as good as having both Basic 2 and Basic 4. Like Basic 4, uses most of second cassette buffer. -JS

EXTRAMON, \$15 from Programma International. Not for Basic 1* 2k Supper monitor. Does for machine-language what the Toolkit ROM does for Basic. Lots of VERY useful added commands. OK to exchange. -JS

KRAM, \$100 from Computer Factory. Needs a disk and 16k. Excellent and fast random file manager. Fine manual. Comes with a simple mailing list program. Actually uses its ROM at \$a800. Can't have multiple keys to the same data, a serious limitation in uses that need later sorting. Alternative to JINSAM for those who need to write their own programs. -JS

ASM/TED \$50 from Eastern House Software. Best cassette-only assembler commercially available. Needs 16k. Not for disk* or Basic 4. Printer driver available on request. Versions available for most

6502 computers. Includes nearly every desirable command, even conditional assembly and macros. Slightly confusing manual. -JS

MAE, \$170 from EHS, ASM-TED perfected. Well mated to disk and printer. Needs 32k. Not for Basic 1. Good manual. Includes LOTS of useful accessory programs. The word processor module, included, is better than Word Pro in many ways. Latest version is relocatable and compatible with ASM/TED tapes. Has its own user group (started by me after reviewing MAE for COMPUTE.) -JS

CBM ASSEMBLER PACKAGE, \$80 from Commodore. An excellent assembler, similar to MAE. Not for cassette or Basic 1. Fine brief manual. No macros. Handles high and low parts of labels better than MAE, and allows resetting of program counter during assembly. Sends output to disk. Needs a special loader to set it back in memory. -JS

RABBIT, \$30 and \$50, EHS. Basic 2 only. Quadruples the program loading speed of PET's cassette. Available on tape or in ROM. The ROM sits at \$a000. If that spot is free, get the ROM. It save 40 seconds loading Rabbit itself each time you reset PET. Compatible with Toolkit ROM. Adds a well-done repeat key fea-

ture, hex-decimal conversion and 2 memory tests to Basic. Least cost way to faster program loads. ROM version uses part of second cassette buffer. Unfortunately, doesn't speed up data files. -JS

PLANET MINERS, \$15 from Avalon Hill. Intermediate complexity. Good game of strategy and chance. Many variables to contend with. Your mission is to be the wealthiest of 4 families, after exploring and mining the planets of our solarsystem. Figure on spending some time playing, as this same takes thought anplanning. -JO

MIDWAY CAMPAIGN, \$15, AH. Intermediate complexity. If you like war simulations, you'll enjoy this one. Scaled version of the Battle of Midway between the U.S. and Japan during World War II. The computer is a tough opponent. It takes charge of the Japanese forces, which outnumber yours. As in PLANET MINERS, you must read the well written instructions if you expect to beat the computer. -JO

HEARTS 1.5, \$15 from Dynacomp. If you need to have a card game oHearts, then you'll get it otherwise, don't. -JO

GAMES PAC II, \$10. Dynacomp. A collection of games, primarily of cards, e.g. Aacey Duecy, Crazy

8's. 6 small programs merged into 1 program that requires 16k. User groups have better versions of the games, at a better price. -JO

PAENNY ARCADE, \$8 from Instant Software. Easy. The only good program in this collection of 8k games, is Solitaire. With a little dressing up, it's a good card game. To my knowledge, it's the only Solitaire program available for the Pet. -JO

MICROTHELLO, \$10 from AB Computers. Challenging to impossible. For anyone remotely interested in Othello, I recommend this program. Written in basic and machine language, it is FAST. Has 5 levels of play. Forget level 5; it's nearly impossible. You use a blinking cursor to move, and you watch the Pet analyze the board, while thinking about its moves. It has many options built-in. You'll enjoy playing it. -JO

DATESTONES OF RYN, \$15 from Automated Simulations. Intermediate complexity. The same concept used in this role playing game is used in their other fine program, "Temple of Apshai". The graphics are adequate but slow. It's all in real time, which makes for a good game. If you can't afford "Temple", then bu"Datestones", and save some more for the rest of A.S.'s fantasy role playing games. -JO

Now for a couple of hardware reviews

THE BASIC SWITCH, \$130 and up, from Computer Center of South Bend. For those upgrading to either Basic 2 or Basic 4. Flips quickly and easily between 2 versions of Basic. Includes an extra socket for the Toolkit or whatever. Instructions for the upgrade to 4.0 are sparse so far. The best way to go to 4.0, if you can afford it. Too bad it doesn't also flip the other two ROM sockets. -JS

DIAL-A-ROM, \$88 and up, from Kobetek Systems Ltd. The best answer to the rash of new ROM programs for PET, and protection ROMs used in other programs. Switches instantly between 6 ROMS at any one address. Comes in a very nice case that sits next to PET. Has a lite to show PET is on, plus an on/off switch you'd be better off without. -JS

FLIP SORT, \$35 from Quiet Designs. A very pretty disk organizer, in static-resistant smoked plastic. Includes a built-in carrying ridge and internal dividers. Said to hold 60 disks, but 30 is about tops for regular use. Much easier to use than anything else I've seen. -JS

That's it for this first issue. Notice we left out programs by JS--Keysort2, Supersort1.1, and the ASM/TED User Group

disk U1-U3. Conflict of interest keeps us from reviewing them ourselves. An outside review would be OK.

Last word...JS's rumor mill reports that Commodore has a 96k PET. (That's nothing...Fred Hambrecht has a 640k PET...with time-sharing!)

*Some PET owners have found ways around these limitations in programs.

MACHINE LANGUAGE CHECKLIST

The purpose of this check sheet is to help new attendees of the group make sure they understand the machine language fundamentals that have been covered in previous sessions. If there are any of the questions which you do not understand then be sure to get the answers from another member of the group.

1. Do you know what binary numbers look like?
2. Do you know why computers use binary?
3. Can you convert this binary string to decimal? 1101
4. Do you know what a byte is?
5. Do you know how many bits there are in a

6. Do you know the value of each bit position in a byte?

7. Can you count to decimal 16 in Hex?

8. Do you see why it is convenient to represent the value of a byte by a Hex number?

9. Can you convert hex DB3A to base 10?

10. Can you convert decimal 813 to hex?

11. Can you convert 11010011 to decimal?

12. Do you realize that to add or subtract two binary or hex number on paper that you can always convert to decimal, do the addition or subtraction and then convert back?

13. Can you add 1011 and 0110?

14. Can you or 0100 and 0110?

15. Can you add 13 and 7?

16. Can you or 13 and 7?

17. On a memory map can you find the beginning of Basic?

18. On a memory map can you locate the video storage area?

19. On a memory map can you locate the second cassette buffer?

20. Can you poke a number into a location in memory?

21. Can you peek a location in memory?

22. Can you poke a symbol onto the CRT?

23. Do you know a mnemonic op code is?

24. Have you seen the list of mnemonic 6502 op codes?

25. Do you know what op codes are the equivalent of a poke statement?

26. Do you know what the decimal equivalents are of the op codes in question 25?

27. On paper can you write an assembler program to display some characters on the CRT?

28. Can you write a BASIC loader that will store the program in question 27?

29. Can you make a jump from your BASIC program to the program in question 27, and return to your BASIC program?

30. Do you know what an assembler is?

31. Do you know what a disassembler is?

more to come next issue