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THE FREE TCS LETTER IS A CLUB PROJECT OF  
THE TIDEWATER TRS-80 USERS GROUP

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Hello again. We are a little short of space in this issue but we'll see how much information we can cram in. We apologize for anything that gets left out.

First, PERSONAL COMPUTING '79 will be held October 5th, 6th and 7th in Philadelphia at the Civic Center. Registration at the door is \$5 per day or \$10 for all three days. Last year's crowd was over 13,000.

TOM SWALLENBERG is a reader we communicate with often and he'll have a booth at PC '79 under the name BONZANA ENTERPRISES. He will accept on consignment your good, "original", useful, tested and functioning TRS-80 software or tested & assembled hardware (all must be fully documented) for sale at the show for a 20% commission, an exclusive rate for TCS readers. He will demonstrate items with two TRS-80's including a 48K disk system. You must pay shipping for return of unsold items. He must get the items by October 1st and although it's probably too late now for many, those in his area or planning to go to PC '79 anyway might be able to make arrangements with him. His address is PO Box 13089, Columbus, OH 43213 or phone (614) 235-7212. Tom would also like to communicate with anyone (not necessarily professionals) who are interested in development of microcomputer applications for various areas of the health care industry. He has some ideas which may be mutually interesting and profitable.

#### OTHER NEWS

RADIO SHACK now sells Microsoft's disk based Macro Assembler for \$99. Some of its features are disk storage, linking loader (object code is all relative and need not be reassembled to relocate), support of macros (similar to subroutines except you only use the name instead of the whole routine), and much more.... Redesigned PC boards with the "pregnant cable" circuitry and a better layout are used in the latest Expansion Interfaces and should eliminate problems they've been plagued with. Too bad present owners can't swap boards.... RADIO SHACK is finally going to offer a "legal" lower case modification, probably in the \$30 to \$60 range and maybe available by Xmas.... Also coming is a new keyboard, possibly for use at remote locations.... CTR-80 recorders with a production run date earlier than 2A9 are the ones which destroy programs and may be returned to have a fix installed.... If you are one of those who can't get Radio Shack to install the XR-III board which solves cassette loading problems, you might want to try a circuit designed by PAUL GOELZ and DAVE MILLER which they say provides the same results. It's called the E-Z LOADER which can be built for about \$10 to \$20 and it can be mounted either inside or outside of the CPU. They sell the circuit board and instructions for \$6. Their address is 2228 Madison Place, Evanston, IL 60202.... There is a lot of talk about cheaper floppies coming soon. Several sources have mentioned new Japanese drives for about \$150 and one is said to be only \$70. Those may be here before you know it.... On the horizon, Hitachi's new optical memory disk has 50 times the density of magnetic disks and may have 500 times as much in the future. It uses a laser beam head, is suitable for miniaturization and both the disk and drive can be made for less than conventional types.

#### HINTS

To get all of the 255 characters allowable in a BASIC statement, it is necessary to ENTER as many as possible and add the rest with the edit mode's X command.... Cassette programs last longer if the recorder "stop" key is pressed after each load. Otherwise, the last portion of data (which is past the head and causes the computer to stop the recorder), is still caught between the capstan and pinch roller which was pulling it through. Continuous pressure in the same spot on a tape will eventually cause a "dimple" that will not contact the head surface and allow the data bit to be read.... Electric Pencil users, duplicate a block of text in a new location the same way you would move a block. Only use the H command twice, once immediately following the last marker and once at the new location. Then you can use the U command to delete the markers so you don't have to go back and delete them separately. That will delete the original block but the first duplication will take its place.... The July issue of DIGITAL DESIGN has a short article on the care and handling of floppy disks which is interesting. Send us an SASE for a summary.

\*\*\* HELP FELLOW READERS, SEND IN INFO YOU DISCOVER \*\*\*

ODD n' ENDS

ATTENTION USER GROUPS: People often ask if we know of a local user group in their area. Make us up a flyer so we can burn copies and send them to inquirers. It should contain your name, mailing address, phone number of a contact, dues, meeting time and place or anything else you want to put on it. Also tell us which zip codes are nearest you.

Readers, someday your name may be dropped from our mailing list if we don't hear from you. Send for a "free registration" form to keep your name on the list. You'll receive our letters on a rotating basis with other readers. All issues will go to you if you make a donation for postage. User Groups will receive all letters anyway and are encouraged to draw from them for their own newsletters which we hope they will send us.... Notes still available from TCS: KEYBOARD MAINTENANCE to cure bounce, KEYPAD you can add for as little as \$7, REVERSE VIDEO modification, ROM notes, 44-PIN BUS standard. Specify the ones you want and send some stamps for the cigar box or a donation to the free newsletter fund (checks may be made payable to TCS)... JOE BRETON of Charlotte, NC wants to receive our newsletter and wants to start a Users Group. But he didn't provide his address. Anyone know it?.... The PACIFICA USER GROUP meets at the Radio Shack store in Eureka Square at 8 pm on 2nd & 4th Thursdays. Contact GRAEM ATKINSON at (415) 647-9122 or write PO Box 40387, San Francisco, CA 94140. Graem says he sells some software including a disassembler using 280 mnemonics and a BASIC "toolkit", \$9 each. He has a BASIC compiler in the works, to be announced later.... R. GILLEN can provide info on interfacing the Okidata CP110 printer to the TRS-80. His address is Box 383, Hustusford, WI 53034.... The CENTRAL ALABAMA MICROCOMPUTER SOCIETY meets at 7:30 pm on 3rd Tuesdays at the Goodwyn Community Center in Montgomery, Alabama.... The August issue of POPULAR ELECTRONICS contains listings for three Level I TRS-80 programs on electronics design: Ohm's Law, Resonant Frequency and Inductance Formulas including Q, impedance, etc.... CALCULATORS/COMPUTERS magazine has ceased publication, material is supposed to be passed to INTERFACE AGE or COMPUTING TEACHER.... ROBERT ELLIOT PURSER's index is now the size of a magazine and is called COMPUTER CASSETTES MAGAZINE. It's a directory of TRS-80, Pet and Apple software catalogued by source, contains some reviews and displays, published quarterly for \$12 per year. The address is Box 466, El Dorado, CA 95623....

#### ERRORS SENT IN BY OUR READERS

LEVEL II MANUAL - Page 8/8: 7D hex is equal to 125 decimal vice 208.... Page 8/9: 4 is not 10 binary as shown. It should be 2 = 10 binary.... Page A/16: active FOR/NEXT loops use 17 bytes vice 16; active GOSUB's use 5 bytes vice 6; for arithmetic operations, each temporary value uses 8 bytes plus 2, 4 or 8 for length, both levels of parentheses use 4 bytes plus 2, 4 or 8 for length, leading parentheses e.g. A=(B+ etc, uses 6 bytes. (Not an error, but an apostrophe used in place of REM is stored as 3 characters in memory: 58, 147 and 251).

EDITOR ASSEMBLER - Page 6: 400H loaded into BC ruins chances of getting back into a previously loaded BASIC program. Change 00140 to read LD BC,3FFH.... Page 26: address in example should read 2131H vice 2131M.... Page 64: contents of IX in example should be 3333H instead of 333H.... Page 81: first line of example should be 444H vice 4444H.... Page 103: OUT 01H,A will not work because the 01 must be expressed in decimal and enclosed in parentheses. OUT (01),A would be correct.... Page 117: add the line 0459, ED5F, and LD A,R to bottom of right column.... Page 130: the hex address of video memory starts at 3C00 vice 3000....

Don Inman's INTRODUCTION TO TRS-80 GRAPHICS - page 51: X1 = P-(INT P/64)\*64 instead of the way shown.... page 59: line 36 should read "NEXT Y" vice "NEXT X"....

John Blair's GET ABOARD THE TRS-80 BUS notes from TCS: pin 9 (INT\*) should be TRS-80 pin 23 vice 21; pin 10 (TEST\*) should be TRS-80 pin 21 vice 23.

Thanks to DENNIS KITSZ, GORDON GIBSON, R. WALLACE, C. SCHUG, JOHN BLAIR, and CHARLIE CAIN,

#### GOOD COMPANIES AND BAD

We now have several hundred folders of companies that sell items related to TRS-80's. Besides flyers, we'll keep copies of reviews and letters of praise or complaints that readers send us. We won't make recommendations but for an SASE we'll let anyone know what's in a particular folder.

We recently got letters of PRAISE about two companies that have gone out of their way to help customers: GRT CORPORATION who sells G2 Level III and INTERNATIONAL DATA SERVICES who sells Microsketch II.

We're checking out complaints about non-delivery of two publications, one of which is TRS-80 COMPUTING.

# TCS FREE BULLETIN BOARD

Free ad space is donated by TCS. A small percentage of any profits that result will be appreciated to help continue this service but there is no obligation.

**QUALITY PRINT-OUTS OF YOUR TRS-80 PROGRAMS:** For documentation, debugging, publication, copyrights, etc. Level I or II up to 48K. Tractor feed, notebook size paper, \$1 per program, \$3 minimum..... MACHINE LANGUAGE PROGRAMS COPIED: Only \$1 for 2 guaranteed readable copies, TRS-80 Level II only. Either send a cassette or add \$1.50 for brand new quality data cassette..... All orders shipped same day by first class mail. RON URBASSIK, 13519 CARTER ROAD, PAINESVILLE, OH 44077

**FLASH CARD PROGRAM:** Use your own questions and answers with this program to create data tapes of any length on any subject. When played back, a chance to answer is given before the correct answer is displayed. School's open, parents, help your children by letting them play with YOUR toy. \$1 for list, \$2 for tape from CHARLIE CAIN c/o TCS.

**BIBLE VERSE STUDY GAME,** list for SASE, tape for \$1. STAN OCKERS, RR#4 BOX 209, LOCKPORT, IL 60441

**SOFTWARE SOURCE,** published 3 times a year has over 4,000 listings of TRS-80 software from over 250 vendors, cross referenced six ways and includes 7 categories of info on each. Single issue \$4, \$6 outside N. America; year subscription \$10, \$16 outside N. America. COMPUTERMAT, BOX 1664, LAKE HAVASU CITY, AZ 86403

**BABYDUB** copies any program up to 15.5K long, **BABYBUG** is a BASIC program that lets you write machine language. Send SASE for listing of these and info on other FREE programs. **PLAYING GOD WITH LIFE** is only one for sale, \$9. Will also provide free consultation on Level II stuff. DENNIS KITSZ, ROXBURY, VT 05669 (that's full address) or call (802) 485-6112

**HIGH MEMORY OPERATING SYSTEM:** Includes renumber, append, display BASIC variables, list BASIC 1-9 lines at a time, keyboard debounce, works with Level II or Disk Basic. Specify 16K, 32K or 48K. \$14.95 DUANE SAYLOR, 854 EADS CT., NEWPORT NEWS, VA 23663

**CLEARINGHOUSE OF TRS-80 SOFTWARE** in Canada. Sell your software or hardware in Canada without obstacles of mail system, currency exchange, Customs and excise. Have articles published. Also newsletter \$24/year. Write COTS, PO BOX 3103, STATION 'D', OTTAWA, ONTARIO, K1P 6H7, CANADA

**DISASSEMBLER:** Disassembles machine code to 2-80 mnemonics, operands shown in both Hex and Decimal, displays memory in ASCII format, searches for specified words. Level II 16K, \$2.00 to cover tape & postage. PHELPS GATES, 6 CRESTWOOD TR. PK. - RT. 4, CHAPEL HILL, NC 27514

**SPECIAL:** A FREE newsletter and FREE program exchange and quality Level II and DOS programs for \$1 each, send SASE. ACEY/DUECY, DOGFIGHT, STAR PATROL listings \$1 each, 3 for \$2.50; FROG, TROLL, MONSTER listings \$2 each, 3 for \$5. Added to your tape or diskette for same price plus return postage or add \$1 to have them put on a used tape. VIC HNYP, 4418 MORROW RD, MODESTO, CA 95350

**ANNOUNCEMENT FOR USER GROUPS** (and other interested parties): Radio Shack seems to have a policy which prohibits local stores from getting involved in any way with local TRS-80 user groups, even to the point of not helping them contact each other so they can form one by themselves. If you know of any organized attempt to convince Radio Shack or Tandy headquarters that, from a public relations aspect if nothing else, that it would be in their best interests to lift this restriction from company policy, please contact AL MACINTYRE, 6750 SHENANDOAH, APT. 5, FLORENCE, KY 41042. He has proposed such an attempt and would like to unite with others who are interested.

**2-80 SOURCE LISTING,** Hangman game for TRS-DOS. Well documented, easily relocatable, structured code. Lots of good ideas. Listing \$3, cassette with both source and object code \$5. CHARLES BUTLER, 1806 ADA, LANSING, MI 48910

**SUNGRAPH** is a 13K Level II BASIC program that calculates and plots the sun's local elevation and azimuth for any location on Earth for any date and time, \$49 cassette, \$75 disk. SOLARTEK, BOX 298, GUILDERLAND, NY 12084

"It pays to advertise"

**RENUMBER, VARIABLE FINDER, VARIABLE CHANGER** programs in BASIC which append to your program with method provided. **AUTOMATIC TELEPHONE DIALER** uses cassette "remote" plug in series with phone line or \$15 hardware package. **4K OTHELLO** 3-level difficulty, 1 or 2 people. **CHECKBOOK BALANCER** aids end of month chore. \$5 first program, \$3 each additional on same cassette or \$3 each if you supply cassette, \$1 each if you supply an original, usable program (decision). JACK DECKER, 1804 W. 18th #155, SAUTE STE. MARIE, MI 49783

**MIND:** A Teach Yourself by Computer Course that teaches you a system for memorizing unrelated information, logical material, how to remember names and faces, better listening skills. **MIND - STEP 1** is 2 computer cassettes, 10 programs, \$24.95. **MIND - STEP 2** is 2 computer cassettes, 9 programs, 1 audio cassette, \$29.95. Both come in vinyl binder with teaching manual. Specify Level I 4K or Level II 16K. Order both, save \$5. P&H \$1.50 each. TYC SOFTWARE, 40 STUYVESANT MANOR, GENESEO, NY 14454

**TBUG:** Powerful M/L monitor allows you to trace, single step and use 6 breakpoints in ROM or RAM. Has all features of TBUG plus block dump to printer or screen, block write, hex math, or change a register pair value directly. Specify 16K, 32K or 48K. \$12.00..... **RELOC:** Relocates any M/L program to a new address in RAM, resolves all memory addressing and option writes the program from new location to tape. \$5.00 R.J. MCINTIRE, 1807 WOMBLE CT., HAMPTON, VA 23663

**BLOCKADE:** a game of speed, skill and strategy. Play against a friend or the computer. Great graphics, Level II specify 4K or 16K, \$3.50..... **5 GRAPHICS DISPLAYS** that can be used "as is" or in your own program, Level II 4K, \$2.50..... Please add \$1.00 for cassette and postage, SASE for list of others. Also interested in marketing your programs on royalty basis. Send it for evaluation or write for info. BRIAN COUCHEY, CHAMPLAIN SOFTWARE, 14 LAKE SHORE ROAD, ESSEX, NY 12936

**PASCAL COMPILER FOR TRS-80 DOS 48K:** Includes 16-bit integer operations, function declarations, procedures (recursion permitted), full PASCAL control structures, all supporting routines, \$35 for diskette..... **RENAME:** Utility program which will replace a variable name throughout any BASIC program with a selected new name to shorten, lengthen, change type of suffix or make more meaningful. Specify memory size. \$9.95 on tape. GENE PERKINS, 5224 WINIFRED, FT. WORTH, TX 76133

**LEVEL II PROGRAMMING HINTS:** Graphics techniques, disable keyboard (great for demos, kids can't stop execution), test if key is being held down (great for paddle and doodle programs). 3 program listings to illustrate techniques including DOODLE and ROAD RACE, \$5.00. MIKE CHERTOK, 20 BUTTERNUT DR., PEARL RIVER, NY 10965

**SATTRK:** An amateur radio operator satellite tracking program for Oscar 7 and Oscar 8, Level II 16K, \$5.00..... **PRINT:** a 255 byte M/L printer driver utility & R LLIST/LPRINT commands that allows you to select characters per line, lines per page, line spacing, form feeds, and head delay necessary for some printers. Specify 4K, 8K, 32K or 48K, \$5.00. JOHN BLAIR, 122 DUMONT ST., NORFOLK, VA 23505

**LEVEL II GRAPHICS SPECIAL** (fund raiser to help continue this newsletter). **HONEST ABE:** A recognizable image of Abe Lincoln like the one on a penny, programmed in poke graphics.... **HAPPY:** For kids 2 and up, randomly selected digits and letters are displayed one at a time in large block style. Nothing happens until the matching key is pressed then acknowledgement is graphic "happyface" that winks..... **DOODLER:** Single version of the popular original allows you to doodle on the screen with prompted input commands and stores them in memory for recall or replay..... **DICE:** A graphic rolling dice subroutine for games, demonstrated by a craps game with scoring.... **GRAPH:** A vertical bargraph subroutine for displaying 12 months or month by month comparison of 24 months of data. Operator specifies upper/lower scale limits, increments/center scale value, or automatic scaling by computer..... **BOWLAVG:** Stores a whole season of individual bowling league game scores on a data tape that can be updated weekly and displayed graphically by games and average..... All 6 for \$20 (that's \$3.33 each, folks) on one cassette. TCS, PO BOX 10281, NORFOLK, VA 23513

**WANTED - CHURCH FINANCES PROGRAM:** Need Level II 16K program to handle 500 church members making weekly donations in 5 categories. Weekly data to be stored on cassette for monthly and yearly statements. Respond to: PETER DALY, SOFTWARE CASSETTES, 430 JEAN ST., MADISON, WI 53703 (Also want to make contact with other user groups.)

## ANSWERS FOR OUR READERS

For those of you on our "permanent" mailing list (who paid a dollar, are a newsletter editor, etc.), the last issue was June/July. There aren't many left but if you didn't get it let us know.

We wish to thank all of you who have sent us donations because they are keeping our losses low enough to enable us to continue these TCS letters. It takes more than mere money, though. It takes effort and sacrifice by the volunteers in the local club for which the only compensation is the satisfaction of doing something worthwhile (which is evident by the nice letters and compliments we've been receiving). When those stop coming we'll know our services are no longer needed and we'll stop.

For those of you who are reading our letter for the first time, it is essentially free. Our readership is large enough that we could easily charge for a subscription but there are much better newsletters than ours which you can buy. It is our belief that there should be at least one FREE source of information on the TRS-80 that is not limited in scope or influenced by a particular company. We distribute our letter by mailing it with flyers from various companies who participate in a "cooperative mailing" to share postage costs. We have no ties to those companies and neither endorse nor recommend their products. We rotate our mailing lists and mail newsletters until the flyers run out and then some. You can receive our letters more often by sending for a free registration form to fill out and return. We will then put you on a higher priority mailing list. Any donations or extra stamps for the cigar box will be appreciated but are not necessary for receiving our letter unless you want to make sure you get every one. We usually put one out every two or three months.

The people who send us flyers to mail out really have no idea whether or not we are doing it unless it results in sales. So it is important, if you order from them, that you let the company know that TCS sent you the flyer. Continued participation is necessary for our letters to continue.

If you have a business that benefits from direct mail advertising to TRS-80 owners, you might consider letting us mail your flyers, too. It costs as little as \$20 per thousand for 1/3-size "mini-flyers" mailed with your letter, first class and in sealed envelopes. The next letter will be in reader's hands the first week in December for those Christmas orders. Write for details.

## NEWSLETTER BARGAINS

The most impressive user group newsletter continues to be the Orange County TRS-80 User Group's. They now number over 500 and their professionally written newsletter runs 25+ pages. They now have a data comm setup for access over phone lines and have had a lot of articles on the subject. Their latest issue lists over two dozen computer bulletin board phone numbers across the country, lots of articles, and product reviews on TRSDOS 2.2, VTOS 3.0, and a couple on FORTH language. You can get the newsletter by joining OCTUG for \$10 sent to Dick White, Treasurer, PO Box 653, Norwalk, CA 90650. You can't go wrong.

One of the best newsletters that concentrates on machine language is INSIDERS. It is currently running a series on Editor Assembler, another on machine language programming and another on Level II ROM routines. It also reviewed TRSDOS 2.2, VTOS 3.0 and FORTH recently and described Radio Shack's fix for sensitive memory. Subscriptions are \$7.50 for six issues, \$15 outside North America and back issues are available. Computer Cablevision, Inc., PO Box 32296, Washington, DC 20007.

ON-LINE is an advertising newsletter published and mailed first class every three weeks at a bargain price of \$3.75 for 18 issues. The latest issue was 38 half-sized pages of buy and sell items relating to computers, mostly by individuals. It has lots of TRS-80 stuff in it and publisher Dave Beetle is a big supporter of clubs. In fact, he will send you a complimentary issue just for asking and will send quantities to a computer club representative for distribution at meetings and list your meeting dates in each issue. Write ON-LINE, Dave Beetle, Publisher, 24695 Santa Cruz Hwy., Los Gatos, CA 95030.

## MAGAZINE BARGAINS

The most popular magazine by far among our readers is KILOBAUD MICROCOMPUTING because it has the most TRS-80 articles. They seem to be in the process of changing their name because it used to be just KILOBAUD and now that is in tiny letters next to the giant word MICROCOMPUTING. That is unfortunate because it is harder to say in conversations and sounds so much like several of the other computer magazines, newcomers often think you are referring to a different one. Anyway, the October issue

has about half a dozen articles directly relating to the TRS-80 including a very interesting one that goes into the details of the World Power scam.

The Kilobaud publishers are starting a new magazine devoted to the TRS-80 called 80 MICROCOMPUTING. This one is to debut in November. Many people have already sent in the \$12 subscription price based solely on the excellence of Kilobaud. Many people expect it to be the undisputed leader of all TRS-80 publications.

But that doesn't mean other magazines won't be of any value to TRS-80 owners. There are several good competitors. CREATIVE COMPUTING has a regular TRS-80 column which reviews new products and even BYTE, which doesn't cater much to the TRS-80 specifically, has programs which can easily be adapted. RECREATIONAL COMPUTING is recommended by a lot of our readers. It has many well written articles with a lot of variety and their "announcements" section makes particularly good reading for finding out about new software and peripherals for your TRS-80. The Sept-Oct issue has one about using the VAR/80 device to monitor and control alarms or other devices with your TRS-80. The Aug/Sep issue of INTERFACE AGE has four TRS-80 articles including one on teaching BASIC to kids and a couple on disks (a renumbering program and indexed sequential random access files).

Not exactly falling under the category of magazines, but closer than anything else, is the "newspaper style" periodicals. 80-US is one of the best for the money and is widely read. The August issue contained some 15 articles including listings of three programs, book and software reviews, and articles on high speed graphics techniques and restoring lost programs in memory. Our latest issue has been loaned out so we can't report on it this time. TRS-80 COMPUTING is a similar type of publication and is pretty good when it comes out. The first issue was over a year ago and was supposed to be monthly but there have only been three issues so far. However, they do send out a free supplemental "bulletin" regularly every month or two which you can obtain by writing to CIE, Box 158, San Luis Rey, CA 92068.

## IN CONCLUSION

That's all the room we have for this time. It is certain that some things got left out and we apologize to anyone whose ad got left out of the bulletin board. Since we might not catch it for the next issue, drop us a postcard to remind us. If you order anything from us and don't hear from us in about three weeks, remind us about that too. We know of at least four instances that we either didn't get the order or we misfiled it ourselves. That's a pretty good record from our point of view but if you were one of those affected, it was pretty bad from your point of view.

If you have a special interest and want to contact others with the same interests, send in your name to go on the "pen pals" list. We don't want to take up space here listing those who have written but so far we have heard from people who are interested in healthcare, education, war-gaming, scientific applications, electronics, machine language and word processing. All of them want to communicate directly with others who share the same special interests with the TRS-80.

We still have a bunch of people who want to sell their 4K RAM's which were removed after converting to 16K. The going price is \$15 per set of 8. Any of you in clubs that are not strictly TRS-80 oriented are urged to spread the word among members who might find this an attractive price for expanding memory in other types of computers. Let us know and we'll send you names and addresses of those who want to sell them.

We still have lists of people who have both single chip and two-chip sets of Level I ROM's for sale for \$20. If you are interested, specify which you want and let us know. The October issue of KILOBAUD has an article on how to install both Level I and Level II in the same machine.

Some 16K RAM's work great in the CPU but are unnecessarily fast (and therefore sensitive to noise) for the Expansion box. If you have a set of these chips you can't use and will take \$50 to keep from being a total loss, send in your name and address and we may be able to find a buyer.

If we can be of any other help, just write. We'll try to help if we can. Please send stamps for replies, though, and any extras will go into the cigar box for those who don't. HAPPY COMPUTING.

Overheard in a store in the southwest and sent to us:

Clerk: You can get the TRS-80 with 4, 16, 32 or 48K.

Customer: What does that mean?

Clerk: That's how many bytes of memory it has.

Customer: How many bytes in 4K?

Clerk: I dunno for sure but there must be at least a million of 'em.



STEVEN E. SHAW, P.E.  
(SOFTWARE CONSULTANT)

P. O. BOX 1707  
TAMPA, FL 33601

This flyer is a coupon good for a 10% discount off your order received prior to 10-30-79. Please return it for your discount.

#### LETTER PROCESSOR-

The LETTER PROCESSOR is a multi-purpose utility program. With it, you can generate multiple copies of notes, receipts, manuscripts, and letters. You have the choice with receipts and letters of having each personally addressed. The names and addresses may be input from either the keyboard or cassette.

For use on the TRS-80 level 2 16K. Please remit \$15.00.

#### ACCOUNTING ANALYSIS SYSTEM-

This system performs simple double entry bookkeeping. There are two fixed accounts in addition to any the user may create. One is under assets called cash on hand, the other is under liabilities called debt to owner. Automatic second entries are made to the appropriate of these two accounts by one of the two system programs when updating the data base. The other program queries the data base and produces a Balance Sheet and a Profit-Loss statement. TRS-80 level 2 16K and PET. Please remit \$20.00.

#### STOCK MARKET ANALYSIS SYSTEM-

Technical analysis, 12 daily and 15 weekly indicators for the stock market enthusiast. This system signaled the October 78 debacle. For \$25.00 you receive two programs plus data base and 27 page detailed instruction manual.

Please indicate: TRS-80 level 1 or 2 16K or PET. \$25.00.

#### OPTION ANALYSIS SYSTEM-

This system is strictly for the market speculator. Working with price, calculated volatility, and calculated average daily premium, this system picks the best buys from 75 or more options. Judgement by the analyst is required. For \$35.00 you receive two programs plus example data base and instruction manual.

Please indicate: TRS-80 level 2 16K or PET. \$35.00.

#### STOCK MARKET FINANCIAL ANALYSIS SYSTEM-

Includes two programs and hard copy instructions for better control of your stock and option transactions. For \$20.00, you receive software with eight analysis routines. Two of these routines are stock transactions which made money and option transactions which made money. Six more program routines exist with some consideration given to taxes. Please indicate: TRS-80 level 2 16K or PET. \$20.00.