

MSP 99

USER
GROUP

THE MSP 99 NEWSLETTER

ASSEMBLER SORT AND SEARCH

by Joel Gerdeen

Part of my responsibilities as treasurer of the MSP 99 Users Group is to maintain the membership directory data base, which contains all pertinent information on each member. As members are added or member information is changed, this data base must be updated. Since we now have over 400 memberships listed, finding the correct record with Extended Basic was time consuming. This problem was alleviated somewhat by sorting the file by name, but this merely transferred the problem. Each sort of file took a full hour with an Extended Basic shell sort routine.

Then I noticed an assembler sort routine in the July issue of the Pittsburg Users Group newsletter. This routine written by John Dow and Jerry Rowell sorted numeric arrays set up in Extended Basic. With numerous hours of programming I successfully enhanced this program to sort alphanumeric arrays.

The routine requires three inputs from Extended Basic: N, the number of elements; A(), a numeric array normally just numbered 1 to N; and B\$(), an alphanumeric array to be sorted. The routine is called by CALL LINK("ASORT",N,A(),B\$()). After sorting and returning to Extended Basic, the array pairs A() and B\$() will be reordered by B\$(). Note, if A() was initially numbered 1 to N as recommended, it will now be a reference to the original order. This is very useful as an index to any file such as our membership list.

As I mentioned previously, an Extended Basic sort routine took one hour, eight

minutes of which was reading or writing data on disk. The assembler routine reduced this time to 10 minutes. In other words, the actual sort time was reduced from 50 minutes to 2 minutes, a factor of 25 in speed.

My next project along these lines was to develop an assembler search routine to locate a string in such an array. This process takes close to two minutes for an array of 400 in Extended Basic. Programming a search in Assembler was a much easier task than the sort routine. The most difficult problem was overcoming the lack of an Integer to Floating Point (CIF) routine when using Extended Basic (reference page 261 of Editor/Assembler manual). The routine I developed handles this only for numbers up to 9999. With the new assembler search routine, the retrieval of a member record from 400 records takes less than two seconds instead of close to two minutes.

The search routine is called from Extended Basic by CALL LINK("ASEEK",N,A\$,B\$()). Initially N is the size of the array B\$(). C\$ is the string to be found in the string array B\$(). Unlike the Basic POS function, a match is made only if C\$ matches the beginning of any B\$ string. Upon return from the routine, the first occurrence of C\$ is returned in the variable N. Note that N is now the array index of the matching string and no longer the size of the array. If no match was found, then N is returned as zero.

Both of these Assembler routines are in the MSP 99 Users Group Software library in source code format. They are available on diskette through the normal software distribution.

The MSP 99 USERS GROUP meets each month for discussions and presentations that enable its members to be better informed about their computers. Users group members share and exchange information. Some members have a broad range of computer expertise; others are just beginning. We are not affiliated with or sponsored by any other group or company. Membership dues are \$12 a year for a family, \$10 for an individual, and \$50 for a sponsor member. You're welcome to visit a meeting before you join. For more information, call or write us.

USERS GROUP MEETINGS are held the third Tuesday of each month at 7 p.m. at Brown Institute Computer Building, 27th Ave. and East Lake St., Minneapolis.

MSP 99 USERS GROUP
P.O. BOX 12351
ST. PAUL, MINNESOTA 55112, U.S.A.

PRESIDENT -- Diane Kavanaugh 644-5940
VICE PRESIDENT -- Bill Lovegren 784-5918
SECRETARY
TREASURER -- Joel Gerdeen 572-8148

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Newsletter Editor--Marilyn McPartlin 636-5663

Newsletter Committee Members:

Bonnie Burton, Wayne Page, Jon Todd

DEADLINE FOR NEXT ISSUE: October 18

If you're interested in working on one of our committees (Education, Equipment, Program, Publicity, Software, Newsletter), or have an idea for a future program, contact one of the officers.

COMMERCIAL ADVERTISEMENT RATES -- Business firms that desire to communicate with our members may do so by placing an ad in the newsletter. Rates are: Full Page (7-1/2 X 10-1/2) \$40; Half Page (3-1/2 X 10-1/2) \$30; Quarter Page (3-1/2 X 5) \$22. Each ad must be camera-ready in sizes indicated and paid in advance. Contact the newsletter editor for more information.

CHANGE OF ADDRESS -- Before you move, please mail a change of address to the group at the above address.

FROM THE EDITOR:

You all might be interested in the amount of response a Letter to the Editor gets, even when it's written by the editor. Within two days of the newsletter's being out, I had received 5 potential solutions to my printer problem. You'll recall I wanted to be able to set the column width for listing a program. Jon Gould was the first person to come up with the escape code for column width on the Prowriter [PRINT #1:CHR\$(27);("L");XX] -- with XX being the column number where you want to start printing (it stops at 80). Dick Irwin said that for the Epson printer the code is PRINT #1:CHR\$(27)&CHR\$(81)&CHR\$(XX).

Others tried short programs -- a rendition of what one person uses to set column width for a modem, and other ideas. Another person suggested LISTING the program to disk, then calling it back through TI-Writer.

My thanks to Jon Gould, Dick Irwin, Scott Morgan, Ed Neu, and Kerm Steffenhagen for their helpful hints. By using a combination of the various techniques, I'll be able to list programs in the newsletter much easier and with less chance of error.

Be sure to try the column if you have a problem you need help with. I can vouch for its success.

Till next month,

Marilyn McPartlin, Editor

 ** MSP 99 CALENDAR OF EVENTS **
 **
 ** OCT. 18 -- Demonstration of the Control Data PLATO courseware. This **
 ** (TUESDAY) educational software has been used in classrooms and is **
 ** 7:00-9:00 now available for use on the TI 99/4A. **
 **
 ** NOV. 15 -- Presentation by Courage Center of uses of computers with **
 ** (TUESDAY) the handicapped. **
 ** 7:00-9:00 Voting on the revised Constitution and By-Laws **
 ** (copies included with the October newsletter). **
 **
 ** DEC. 20 -- For you last minute shoppers...gift ideas of games and **
 ** (TUESDAY) joysticks. Christmas celebration complete with Christmas **
 ** 7:00-9:00 cookies. Don't miss the social event of the year! **
 **
 **

SUBGROUP MEETINGS

ASSEMBLY LANGUAGE--First Tuesday of month, Brown Institute. Chair: Kern Steffenhagen.

BUSINESS--Second Friday, 7:30 p.m., 2818 Como S.E., Mpls. Pres.: Bob DeMars.

EDUCATION--At monthly MSP meetings. Chair: Pete Lawson.

INVESTMENT--Second Thursday, 7 p.m., Brown Institute. Chair: Dean Sorensen.

YOUTH GROUP--At monthly MSP meetings. Pres.: Scott Morgan.

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100 REM -WHAT HAPPENED?
105 REM FROM CENTRAL JERSEY 99 COMPUTER C
LUB NEWS, JULY 1983
110 CALL CLEAR :: FOR K=65 TO 98 :: CALL
CHARPAT(K,A$):: FOR J=15 TO 1 STEP -2 :
: CH$=CH$&SEG$(A$,J,2):: NEXT J :: CALL C
HAR(K,CH$)
120 CH$=NUL$ :: NEXT K :: DISPLAY AT(14,3
):"VT EHT DENRUT OHW !YEH" :: DISPLAY A
T(12,13):"NWOD EDISPU"
130 INPUT @ :: GOTO 130
  
```

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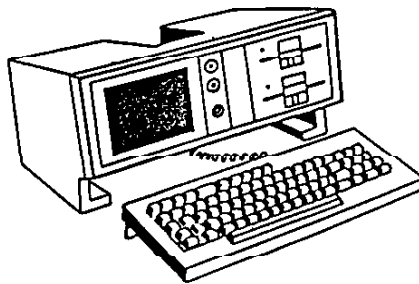
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TI EXCHANGE CENTER

by Bob DeMars

In recent months, I've talked to many people who aren't aware of the TI Exchange Center or don't understand TI's exchange policy. The Center is located at 7625 Parklawn Ave., Edina, (612) 830-1616. All TI consumer products (hardware and software) that are under warranty and develop a problem can be exchanged for a small handling fee (e.g., \$3.50). After the warranty period, products may still be exchanged, but there is an exchange fee charge. Some current exchange and repair fees are:

	Exchange	Repair
TI 99/4A Console	\$45.00	\$25-\$00
Color Monitor	65.00	35-100
TV Adaptor	18.00	16.00
Disk Drive	83.00	80.00
RS-232 Interface	55.50	52.50

TI is the only computer manufacturer to offer this excellent service to its customers. Note, if you put two slim-line disk drives into the Peripheral Expansion Box, TI will void your warranty on the box because they draw too much power.

SOFTWARE REVIEW

by Sarah DeMars

Be King of the hill! The Ant must get food back to his colony and destroy the deadly Ant Eater. The Ant Eater is limited to traveling in tunnels that are already set, but the Ant can create new paths of its own. But don't get too antsy with this bit of advantage. Each time the Ant destroys one Ant Eater, another will appear in its place -- their number and speed increasing with each new round.

This game is put out by Romox Inc., and is on a cartridge made for the TI 99/4A. You have probably already guessed the name of the game -- ANT EATER.

Romox also has four other cartridges for the TI 99/4A: TYPO, PRINCESS AND THE FROG, WHIZ KID, and HEN PECKED.

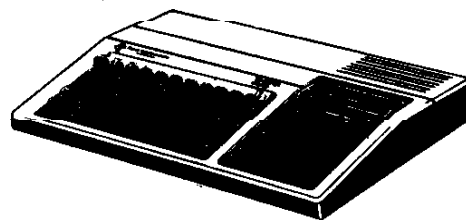
FROM THE PRESIDENT:

In case you missed my request for help at the Sept. 20 meeting, or in the event you heard it but did not respond, I am going to repeat my plea.

The MSP 99 Users Group is, I feel, coming to a critical crossroads. For the almost two years that we have been a Users Group, most of the work of keeping the Group going has been done by a few dedicated people. When we started with less than 40 members, everyone (well, nearly everyone) felt the need to become involved to insure the success of the group. Now that our Group has grown to over 300 members, the same few people are still getting the bulk of things done. It is time for others to become involved. Many committees need members and all need fresh ideas and "new blood." Your time volunteered need not be great (1-2 hours a month would be a tremendous assistance). We are looking for a commitment until January. At that time, new committees can be formed to coincide with the officer elections and the committee members can choose their chairperson.

All of us who have involved ourselves as officers, chairpersons, committee members, program presentors, etc., would agree that we have gotten much more out of the Group by becoming involved. Please contact me if you can help plan programs, help publicize our Group, secure sponsor members, contribute articles or time for the newsletter, help with equipment set-up at meetings, or arrange for our Group to become better educated.

Diane Kavanaugh, President





OCTOBER



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TIDBITS

*** In this issue you'll find a Nomination Form. As annual elections are coming soon, the Nominating Committee requests your help in locating good candidates. Please note members you believe would make good officers and why. Completed forms should be brought to the Nov. 15 meeting or mailed to the Users Group address by Nov. 9.

***Also in here is a copy of the proposed Constitution and By-Laws that will be voted on at the Nov. 15 meeting. The whole document was rewritten to take into account the way our Group has developed over time. Please look it over and bring your comments to the November meeting.

***And also included are new additions to the Software catalog and an order form. My goodness but you're getting a lot of stuff this month.

***Businesses should note that ad costs have gone up due to rising printing costs and increased circulation. Current prices are \$40 for full page, \$30 for half page, and \$22 for quarter page. Sponsor members are limited to the equivalent of one full page ad at reduced rates; they may take out more ads at regular rates.

***Advertisers may also be interested in another option. They can print their own flyers on 8-1/2 X 11 paper (printed one or both sides); the flyers will be stuffed into the newsletter at the cost of \$20. There's no lowered rate for sponsor members on this offer. Advertisers must reserve space in advance with the editor.

MSP 99 USERS GROUP
P.O. BOX 12351
ST. PAUL, MINNESOTA 55112

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WANT ADS

Members may place want ads, at no charge, by calling Bonnie Burton at 431-6064 or by turning in written copy of the ad at any MSP 99 meeting.

BIG SCREEN TV -- Urgently needed for loan or rent very inexpensively to our Group for monthly meetings as needed. Remember the days of the small TV screens for Group meetings? Contact Diane Kavanaugh, 644-5940.

LOCKING CABINET needed for storing Group computer equipment so it can be left at Brown Institute between meetings. Call Diane Kavanaugh, 644-5940.

HOUSEHOLD BUDGET MGMT module. Never used, \$20. Call 631-9886, afternoons.

MTC Command Control Joystick. \$15. Call Jon, 920-3263.

DISKS/TAPES -- Top quality blank disks and Ampex 10-min. tapes at users group rates. Box of 10, \$20; single disk, \$3. Tapes: 10 for \$5; 75 cents each. Tape boxes: 10 for \$1.50; 25 cents each. Mailing charge \$1 or pick up at meeting. Call Joel Gerdeen, 572-0148.

GET PUBLISHED -- Write an article for the group about a program, ways you use your computer, or a module. Call Marilyn McPartlin, 636-5663, for info.

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