```
 *     *    #    #    @       @     %%%    $    $
**   **    #    #    @@      @    %    %   $    $
 *  *  *   #    #    @  @    @    %          $    $
 *     *   #    #    @    @  @    %          $$$$$
 *     *   #    #    @      @@    %    %   $    $
 *     *   ###      @       @     %%%    $    $
```
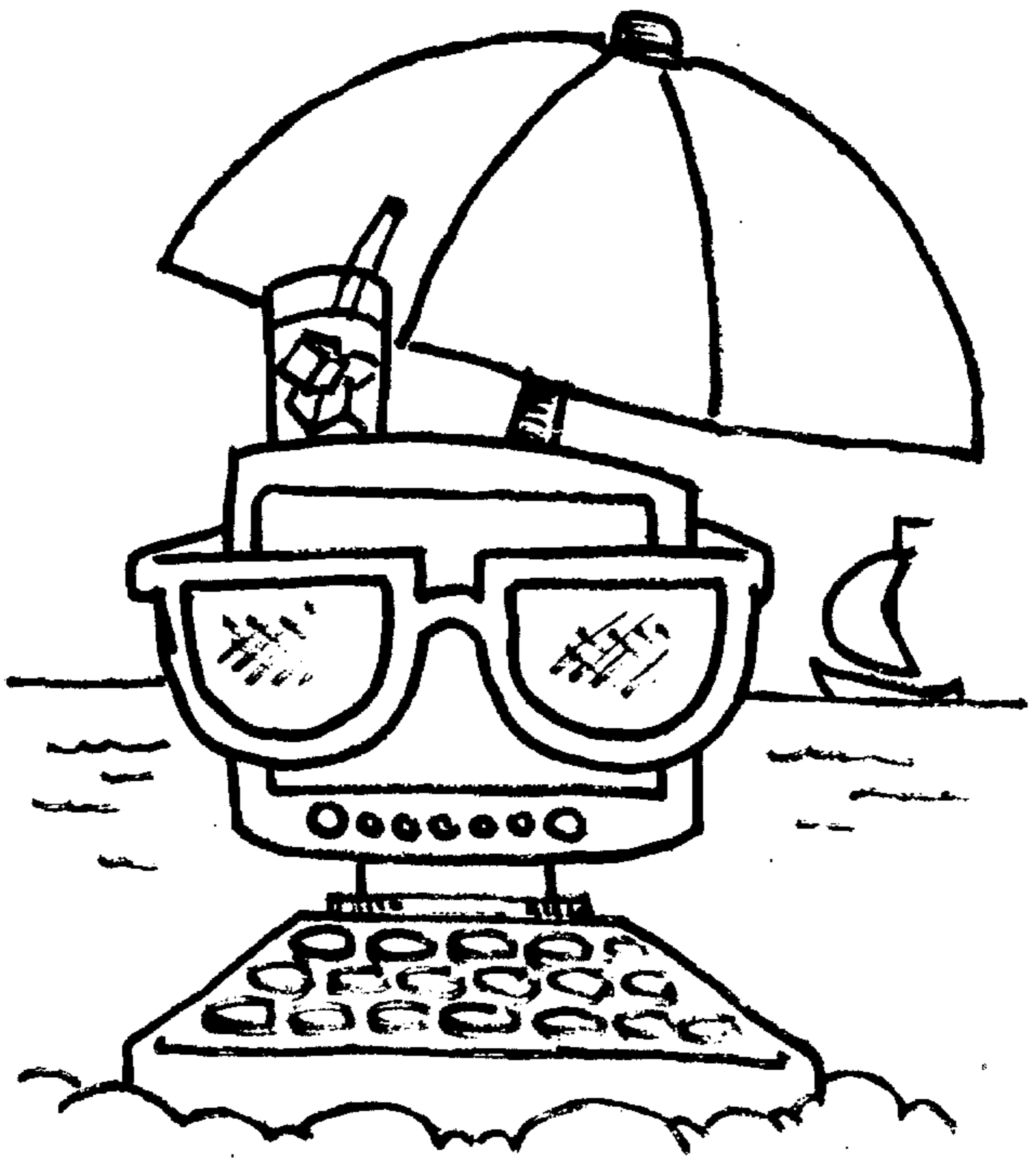

Mass Users of the Ninety nine and Computer Hobbyists

May. 1985   Monthly Newsletter   Version 4.5

Here comes summer!!!

MINUTES OF APRIL 16TH MEETING

Meeting called to order at 7:20 PM by President
Bruce Willard. 35 people were present. Mr. T.
Game was announced as the raffle offering.
TREASURERS REPORT..Jim Cox reported that the
checkbook balance is $515.36. Expenses include -
Monitor rental..$20. newsletter..$55.44. flyers..
$59. and postage at $22. while income included
$32.25 from last month's raffle. and $106 in
membership renewals.
HARDWARE - Bruce Willard reports that there is
news about the 99/8 look alike and Bernie will
put something about it in an upcoming newsletter.
SOFTWARE - Jack Sughrue passed out the disks that
came from programs typed by members last month.
He also passed out more programs to be typed for
yet another disk. There are 10 new disks
available from the Washington group.
OLD BUSINESS - Membership flyers are in and help
was requested from all to help distribute them
to libraries, schools, bookstores, and other
places where they might be seen by TI owners.
NEW BUSINESS - Raffle tickets for a SUPER SKETCH
will be sold at the May and June meetings at 5
for $1. You must be present to win.
Frank Billeri. librarian for the Attleboro Club
99er. was introduced.
Bruce is working on an exchange program with the
Valley Users Group in Grandby. Discount Tickets
were made available to a Boston Area Micro-
computer Show and Computer Fleamarket on Sat.,
May 4. 1985.
Bob Bosmer reported that Miller Graphics
Newsletter will be publishing a listing of active
TI 99/4A users groups. He volunteered to send in
our name to be listed.
Don Mason requested that the club buy Extended
Basic. Discussion followed with a motion made to
purchase. Jim Cox will research costs and report.
J.P. of Technologies Support Group, Inc.
mentioned some of the programs he had available
at the meeting.
Bruce is trying to get other companies to come
and demonstrate their software.
The business meeting was adjourned at 8:10 PM.
Respectfully submitted.   Mary E. Anderson

PRESIDENT'S MESSAGE

The first order of business this month is to thank all of the people who were willing to take their spare time to distribute the hundreds of membership flyers. It was a lot of work, but I feel our User Group will gain substantially from it. So will all the new members who join.

I originally had a great (what I thought was great) idea for having a large raffle. Well... So much for great ideas. I talked to the printer last week. It seems that the cost of the specially printed and numbered raffle tickets would be prohibitive. I need more input from the membership on this one. If you have any ideas on how to cut costs and still have a large "generic" raffle please tell me. It is just one more way for the group to get publicity.

Check further into the newsletter for information regarding this month's raffle.

Also, look for another article on what I feel is a great local supplyhouse of software and hardware.

-------------------------------- Bruce Willard, Pres. -------------------

****

MUNCH OFFICERS AND NUMBERS (all in 617 area)

President	Bruce Willard	852-3250
Vice Presidents	Ota Jiroutek	852-0835
	John Doon	852-4295
Secretary	V. Foster-Erlandson	481-8060
Treasurer	Jim Cox	869-2704
Editor	Pete Blackford	892-4946
Hardware Chair	Bernie Miller	
Programs Chair	Pete Rauktis	799-6035
Adv Prog. Chair	Dan Rogers	248-5502
Club Reviewer	Jack Sughrue	476-7630
Library	Al & Lisa Cecchini	
Mail & Messages	Video Connection	852-8213

AGENDA for May 21, 1985

```
7:00 - 7:15  Open Demonstrations
             New Member Registration
             Software Exchange (members only)

7:15 - 7:45  Business Meeting:
             Approval of Minutes
             Treasurers Report
             Committee Reports
             Old Business
             New Business
             Announcements
             Raffle
7:45 - 9:00  Special Interest Group Meetings
             and Open Demonstrations and Discussion
```

Basic Programming -- by Jack Sughrue
TI-WRITER -- by John Doon
Assembly Language -- by Dan Rogers

Plan for June meeting:

**Navarone Data Base Management System
demonstration by Computer Sense
Center of Westboro.**

**Regular and advanced programming to
continue.**

****

FROM THE SOFTWARE DESK

The Washington User's Group has forwarded 116 programs, all of them being in BASIC except for a couple that require the Terminal Emulator. There are about 20 programs that we already have and about 40% that are utilities - education.

There will be 5 tapes & diskettes available at the May meeting. They will be prerecorded on tape & diskettes as well. The Applications diskette is in now too!

I've noticed that we do not have an Expansion System any longer at the Video Connection. This was nice to get copies of diskettes rather than waiting in line at the meeting. I'd like to hear some suggestions of what we should do with the Master Diskettes in between the meetings for copying purposes.

At the last M.U.N.C.H. meeting we did a swap with the Club 99'er So. Attleboro, which was their software library for ours. We didn't have eough time at the meeting to complete everything so are corresponding thru the mail for completion. I'll be working on those programs for the June meeting. I also have about 50 programs to go through from our own group's contributions. So as you can see I've got my work cut out for me.

I demonstrated some music and graphics in Forth at May's meeting and found that people do not have the Forth Systems Diskette, which should have the folowing listing on it: FORTH 6 DIS/FIX 80, FORTHSAVE 39 PROGRAM, SYS-SCRNS 313 DIS/FIX 128. Without this you cannot program in Forth.

---------------------------- Don Mason ----------------------------

****

BEST, MOST WELLROUNDED INVENTORY of SOFTWARE and HARDWARE LOCALLY

What should a good computer store have? First, it should have the type computer and accessories you require (TI-99/4A compatible). Second, it should have a varied selection of the products for you to choose. And third, it should have knowledgable personnel to help you make the wisest choice for your needs. Optionally, it could have training facilities just in case you want a little one on one education.

That store is The Computer Sense Center. They have it all. My wife and I went there last month for some educational software for our nephews. When we arrived we were given special attention. We thought we knew what we wanted. However, we were advised to check out a couple of other pieces of software. We were in a hurry, but decided to listen. The following demonstration was well worth the extra time spent; both for them and us. They did such a superb job of selling and demonstrating they sold us four times the amount we had planned on.

They had quite an array of TI and Third Party software. I would venture to say they have the best stock in the area. The service? I can't say enough about it.

The owner is also a member of our Users Group. My discussion with them reveiled they actively persue good quality Third Party software and hardware. Congratulations to Computer Sense Center for doing such a good job of supporting the TI-99/4A and the M.U.N.C.H. Users Group.

---------------------------- Bruce Willard ----------------------------

This month's raffle item was won by a visitor from The Club 99er in Attleboro.
He is Frank Billeri, the Club's Librarian.

The raffle prize for May is another ten pack of OMNI Resources diskettes in a
library case or a stack of 12 C-30 cassettes. It will be the winner's choice.
The Disks were donated by OMNI Resources of Millbury and the cassettes were
donated by Hector Beaudreau, proprietor of Bailey's Audio Visual on Chandler
Street, Worcester.
We will be STARTING a second raffle at the May meeting. This will be for SUPER
SKETCH. Read carefully now. This is the way this raffle will work.
We will sell the tickets at $.25 each or 5 for $1.00. However, they will be a
different color from the other raffle tickets. You must FILL IN YOUR NAME
(legibly) and return them to Al Cecchini (our librarian). He will hold all
tickets in a safe place until the June meeting. At the June meeting we will
sell more tickets. At the end of the Business Meeting we will have the drawing
for SUPER SKETCH. That will be the only raffle item for June.

The reason the SUPER SKETCH raffle is being run over two months is that it
retails for approximately $60.00. We felt we should try to increase the raffle
pot to nearer the worth of the item.

Now, the rule of being present to win still applies. What if you are unable to
make the June meeting? Well... Let's use our old Yankee ingenuity. Perhaps
you have a friend who can make it to the June meeting. Then print his or her
first and last names on the ticket. Your friend can then put his or her name
including the middle initial on his tickets. This will keep you both in the
running.

The raffle is open to all who attend. The drawing will be held immediately
after the business meeting before we break into the various Special Interest
Groups. Remember:
        ***** YOU MUST BE PRESENT TO WIN *****

                                        Bruce Willard, Pres.

LIBRARY NOTICE

**Please return all borrowed materials to the MUNCH
library at each meeting. This will give other
members a chance to enjoy our collection of "text-
ware" as much as you have !!!   THANK YOU !!!**

THE VIDEO CONNECTION.
"The Chain That Has No Equal!"

INFOCOM ADVENTURES ARE NOW AVAILABLE

ZORK	39.95
ZORK II	44.95
ZORK III	44.95
DEADLINE	49.95
STARCROSS	49.95
SUSPENDED	49.95
WITNESS	39.95
PLANETFALL	39.95
ENCHANTER	39.95
INFIDEL	44.95
SORCERER	44.95

10% discount on all software for
M.U.N.C.H. members!!!!

T.I. Monitor (demo)	199.00
T.I. Modem (demo)	79.95
MBX System (demo)	74.95
CorComp RS232 card	109.95

There is still a good supply of soft-
ware available, but it is selling fast.

560 Lincoln St.
Worcester
next to McDonald's

852-8213

~ 7 ~

PROGRAMMING TIPS
by Bob Gagnon
(4/25/85)

(A) For a "DISPLAY AT" capability in TI BASIC, use the following subroutine with M$ (text to be printed), "R" (row) and "C" (column) previously defined:

```
1000 FOR LOOP=1 TO LEN(M$)
1010 CALL HCHAR(R,C+(LOOP-1), ASC(SEG$(M$,LOOP,1)))
1020 NEXT LOOP
1030 RETURN
```
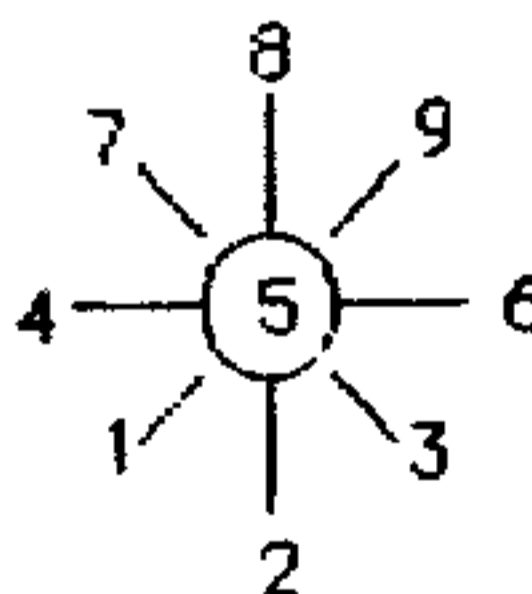
(B) To generate a random number "N" between some lower limit "L" and some upper limit "L", use the statement;

```
N=INT(RND*(U-L+1))+L
```

(C) For an easy way to incorporate use of the joystick in your program, use the following routine:

```
1000 CALL JOYST(1,X,Y)
1010 Z=((X+3*Y)/4)+5
1020 ON Z GOSUB ____,____,____,____ ____,____,____,____,____
                        ---- or ----
1020 ON Z GOTO ____,____,____,____ ____,____,____,____,____
```

Value of Z for joystick motion=

```
        8
    7 \  |  / 9
        \ | /
  4 ---- (5) ---- 6
        / | \
    1 /  |  \ 3
        2
```

(D) To create a heavy bass note below 110 hz as the third voice, use "BF" as the base note frequency in the following statement:

```
CALL SOUND(D,F1,V1,F2,V2,INT( BF*7.4545+.5),30,-4,V4)
```

This technique silences F3 and uses the "-4" noise source as the bass note.

(E) To imitate the sound of a steam calliope, use the routine;

```
1000 CALL KEY(0,K,S)
1010 IF S=0 THEN 1000
1020 IF S=-1 THEN 1040
1030 CALL SOUND(80,F,5,3*F,5, 5*F,10,-5,20)
1040 CALL SOUND(-150,F,0,-5,2 8)
1050 GOTO 1000
```

(F) To imitate the sound of a chime, use the routine;

```
1000 CALL KEY(0,K,S)
1010 IF S=0 THEN 1000
1020 FOR V=0 TO 30 STEP 2
1030 CALL SOUND(-100,F,V,2.75 6*F,.5*V+15)
1040 CALL KEY(0,K,S)
1050 IF S=1 THEN 1000
1060 NEXT V
1070 GOTO 1000
```

(G) To generate random numbers with the same stastical distribution as rolling dice, use the routine;

```
ROLL=INT(RND*6)+INT(RND*6)+2
```

(H) A pretty good error trap in a program requiring a "yes" or "no" entry is;

```
1000 INPUT AN$
1010 IF SEG$(AN$,1,1)="Y"  THEN ____
1020 IF SEG$(AN$,1,1)="N"  THEN ____
1030 GOTO 1000
```

(I) When using "ACCEPT AT" in a program and you want to have default answer and cursor blinking alternately at the entry coordinates, use the following:

```
1000 DISPLAY AT(R,C):"Y"
1010 ACCEPT AT(R,C)SIZE(-1):A N$
```

TOP DOWN DESIGN WITH
TI EXTENDED BASIC
(PART 1)

by Tony Falco

The idea of top down design is presently very much in vogue in computer science. Languages like Pascal and ADA were designed around this concept. A major criticism of BASIC is that it does not support top down design. There is, however, a noteable exception. You guessed it!! TI Extended Basic.

Just what is top down design? A program is generally a means to solve some problem. In top down design we start by breaking the problem down into a set of subproblems. This process continues until each subproblem cannot be further refined. We are creating a stucture of problems and subproblems, called modules. Modules on one level (the lower the level the higher its number) call modules in lower levels. These modules become the basic building blocks of our program. As a by product programs become understandable, readable, easily modified and easily debugged. This "divide and conquer" technique is also appropriately called step-wise refinement.

The top down design of a program is like writing an outline for a report. We start at the top with a rough outline and then we refine and add detail until it is right. In a program the main program (level 0 or the main module) specifies the names of the tasks. Each name of a task needs to be expanded at a lower level unless the name of the task becomes a BASIC statement. This continues at each level. There would be as many modules at level 1 as as there are uncompleted tasks at level 0, and so on for each successive level. If you test each module as it is written then when you put it all together the whole program should work. (Of course there will be bugs, but they are easier to isolate.) The whole IDEA IS TO POSTPONE DETAILS.

In Pascal modules are procedures and functions. In TI Extended Basic the modules are CALLs to subprograms. There are built in subprograms like CALL CLEAR, CALL CHAR and the like. But real power comes in your capability to create and name user defined subprograms.

The non-executable program listed below is to illustrate how the main program (level 0) calls the other levels. The completed program with the other levels detailed will appear next month.

The program provides drill in dealing with fractions (any of the four operations). Lines 10 to 150 make up the main program (level 0), while the rest of the program contains remarks to explain the functions of the subprograms.

Before the listing I'll give a preliminary outline to help you see how I planned the program. (This is level -1 ...)

```
.clear and color screen  -establish constants
.pick an operation
.find number of problem
.for each problem:
  ..set up screen
  ..get problem
  ..show the problem
  ..if + then ADD
  ..if - then ADD opposite
  ..if x then MULTIPLY
  ..if / then MULTIPLY by reciprocal
  ..get an answer
  ..check answer and respond
.get next problem..if done do again
```

```
5 !...FRACTIONS..BY..............Tony Falco...........!
30 CALL PICK_OP(OP,S$)
40 INPUT "HOW MANY PROBLEMS_>":NOPROBS :: CALL CLEAR
50 FOR PROBLEM=1 TO NOPROBS
60 CALL SET_UP(L$,S$,R$)
70 CALL GET_PROBLEM(OP,N1,D1,N2,D2)
80 CALL SHOW_PROB(N1,D1,N2,D2)
90 IF OP=1 THEN CALL ADD(N1,D1,N2,D2,NA,DA)
100 IF OP=2 THEN CALL ADD(N1,D1,-N2,D2,NA,DA)
110 IF OP=3 THEN CALL MULTIPLY(N1,D1,N2,D2,NA,DA)
120 IF OP=4 THEN CALL MULTIPLY(N1,D1,D2,N2,NA,DA)
130 CALL GET_ANS(X,Y)
140 CALL CHECK_ANS(NA,DA,X,Y)
150 NEXT PROBLEM :: GOTO 30
160 DATA ADDITION,SUBTRACTION,MULTIPLICATION,DIVISION,EXIT PROGRAM
170 !....................................................!
180 SUB SET_UP(L$,OP$,R$):: !L$&R$ make bars for fractions
OP$=operation sign!
190 !....................................................!
200 SUB SHOW_PROB(N1,D1,N2,D2):: !display problem N1/D1 + N2/D2!
230 !....................................................!
240 SUB GET_ANS(A,B):: ! accept answer from user--A is numerator
B=denominator
260 !....................................................!
270 SUB PICK_OP(OP,S$):: !OP is code for operation:1=+,2=-,3=x,4=/,
S$ is symbol for the operation sign
340 !....................................................!
350 SUB GET_PROBLEM(OP,N1,D1,N2,D2):: !randomly select  problem for
operation op e.g.-->N1/D1 + N2/D2
400 !....................................................!
410 SUB REDUCE(N,D,X,Y):: ! reduce the fraction N/D into  X/Y
450 !....................................................!
460 SUB ADD(N1,D1,N2,D2,NA,DA):: ! add fractions N1/D1 + N2/D2
and get NA/DA
480 !....................................................!
490 SUB MULTIPLY(N1,D1,N2,D2,NA,DA):: !multiply N1/D1 by  N2/D2
and get NA/DA
510 !....................................................!
520 SUB CHECK_ANS(NA,DA,X,Y)
530 !compare right answer   NA/DA to input answer X/Y & give
appropriate message
```

By: Bernie Miller

   April is here... Tax checks should be arriving any day
now, to be spent on, among other things, peripherals for
your computer. Mine already came (and was spent) a long
time ago! Following, are some good deals to spend your
hard earned cash on...
   TEX COMP in California is really getting into buying
surplus peripherals and software for the T. I., and are sell-
ing them at pretty much rock bottom prices! For example,
they are selling the Complete Scott Adams adventure series,
either on disk or tape, for only $49.95. The complete set
originally sold for over $250.00 when bought seperately, a
little less than a year ago! when you buy the complete set,
they also throw in a free adventure from Europe, called
'Knight Ironheart'. So you are getting thirteen adventures
in all. They are costing under four dollars an adventure!
Good deal, huh? The same company is also selling new T. I.
disk drives, model PHP1850 (stand alone, external) for
$129.95 a pop, including cable. This is ready to install
to your P.E.B. box, and can be used as a second or third
drive. They also throw in a free disk drive cleaning kit,
which retails for another $15.95. I just bought a Tandom
external half height, and paid more, then these drives, and
I even had to pay for my cable! So this really is a good
deal. These are new drives, not reconditioned, and has a
90 day factory warranty. *One more thing of interest* that
this company sells is a program known as 'Adventure editor',
which lets you write or modify adventures for the Adventure
cartridge. You can also copy an adventure from tape to disk,
and vice versa. The price is $29.95, and you need either
mini memory, or editor assembler and disk. If anyone has
purchased one of these, please let me know what you think of
it! For more information on these products, write to Tex
Comp at: Box 33084, Granada Hills, California, 91344.
Inclose $2.00 for their fifty page catalog, in which you get
a five dollar credit slip that you can use towards your first
order. Foundation has reduced the price of their 128K card,
the new price is $179.95, and includes a free disk file
emulator, which retails for $29.95. This offer is good for
a limited time only, so if you plan on buying one, you better

act quick! Their address is: Foundation Computing, 74 Claire
Way, Tiburon, California, 94920. Tel: (415)-388-3840.
Consumertronics Company, Box 537, Alamogordo, New Mexico,
88310 is offering disk drive tutorials for $15.00 each. The
manuals include seven chapters, and cover a wide range of
drives, from Apple to T.I. They also sell a disk drive
service manual which includes thirteen chapters on how to
test, fix, and clean yout drives. It has advice, tips,
troubleshooting, etc... The price on this one is $20.00,
and can be ordered at the above address. A company out in
New Jersey has these incredable, almost unbelieveable deals
on T. I. surplus. Check out these prices, and you tell me...
They have surplus video modulators at $4.95 each, keyboards
at $5.95 each, thermal printers at $24.95 each, YES! $24.95
each! Why? Dunno! These units are sold AS-IS, so that
might have something to do with it, but if you are good with
electronics, then this is a real deal for you! One more
thing they sell is the T. I. external drive with cable (same
as above), but they are also throwing a disk controller in
as part of the deal. The disk controller is the old choo-
choo train type. They are also sold as-is, but the price is
only $99.00. No typo, ninety-nine clams! Once again, if
you are good with electronics, here you go! The ad states
that they are all tested, and in working condidtion, so
don't ask me why they are sold 'as-is'. The company's name
is: American Design Components, and can be reached at: 62
Joseph Street, Moonachie, New Jersey, 07074, or call at:
(201) 939-2710. If you are in need of cables, software,
cartridges, monitors, etc... check out a local T.I.
specialty shop out in Westboro called Computer Sense Center.
They have a complete selection of T. I. equipement, and
they also hold classes, teaching everything from Basic to
Logo to Word Processing. The store has a very homey touch
to it, and is a great place to meet other users of the T. I.
computer. Their address is: 86 East Main street, Westboro,
Mass., or call them at 366-4944. Stop in and say 'Hi' to
Nancy!

   Rumors rumors rumors.... It seems that the successor to
the 99/4A is right around the corner. The '99/8', to be
released in June, is fully compatable with the 99/4. It
will contain 128K, expandable to 512K, 80 column screen, and
among other things, will be fully compatable with the P.E.B.
box. The computer will be faster than the 99/4 because of
the use of faster chips. It will make the speed of the IBM
look like a turtle! We're talking fast, folks! The computer

is still in development stages, so I wouldn't be too surprised if it isn't ready for the June deadline. Price is expected to be in the $300 to $600 dollar range. Not at all bad, considering what you get. Apple look out! To get a sample copy of their free newsletter containing information on this computer, you can write to them at: Ryte Data, Box 210, Mountain Street, Haliburton, Ontario, KOM 1SO, Canada, Or call at (705) 457-2774. Send a large SASE with your request.

It's my column, and I'll cry if I want to... This months review has been delayed until next month due to problems with the equipment. Next month, look for my LONG review of the UCSD Pascal system, and also a short mini review of the Tandom half height disk drive for the T. I. By the way, if anyone out there has something of interest in the world of Hardware, let me know at the meeting! Hell, thats where I find out about half of the stuff in my columns! You could also write to me at: Box 92, Wayland, MASS., 01778. Please, no phone calls. See you next month...

****

LIBRARY NOTES:

The following is a list of items BORROWED but NOT RETURNED:

Item	Borrower
Spy Mission (tape)	Charles Lemieux
Savage Island (tape)	Steven Neaz
Mission Impossible (tape)	Joseph Conselli
Miner 49'er (tape)	Larry Howard
Strange Odyssey (tape)	Norman Abare
Adventure Land (tape)	Chris Moir
The Four Vedas (tape)	Linda Johnson
Best of 99'er	Gary Spencer
Computer Shopper Newsletter	Benny Parda
TI Console + P.E. Data	Jim Cox
Users Guide To TI Computer Software + Peripherals	Usha Patel

If you have or know where any of these are please bring the item to the next meeting or give it to one of your officers.

RAMBLING by Jim Cox

Welcome new member Bob Gagnon of Holliston,
Mass.
TI Software for sale. Mostly young educational
programs. If interested call 853-7534 in the
evenings.
Also for sale at the May Meeting will be one pair
of TI Joysticks and one WICO joystick. $15 for
either...

For other User's Groups, please note our change
of address: MUNCH
                 c/o Video Connection
                   560 Lincoln St.
                 Worcester, MA 01605

For members: Please note there are both disks and
tapes of programs in our library that are for
sale at the monthly meetings. This saves alot of
copying time. (Thanks Don Mason)

Remember that renewals are due the month you get
a notice in the news- letter.

FOR YOUR INFORMATION

         As of the June issue, Family
Computing magazine "can no longer
cover all the machines (computers-Ed)
that are no longer in production."
That's another subscription I won't be
having for. Ed.

DEADLINE: Newsletter material, June 6, 1985.

M.U.N.C.H.

560 LINCOLN STREET

WORCESTER, MA. 01605

TO:

FIRST CLASS

****
IMPORTANT NOTICE
****

May meeting will be on May 21, 1985
at University of Massachusetts Medical Center
(Come to the VISITORS entrance and follow the signs for MUNCH....)