TI FOCUS

PUBLISHED TEN TIMES A YEAR
BY CHANNEL 99 USERS GROUP,
HAMILTON, ONTARIO, CANADA.

TI-99/4A MYARC GENEVE

APRIL, 1989

CHANNEL 99 EXECUTIVE

Tom Arnold - President and Treasurer.....(416)385-5576
Tor Hansen - Vice President and Librarian..(416)279-0437
Wayne Anderson - COPOLA.....(519)632-7329
Richard Lilley - Newsletter Distribution...(416)336-7461
Ed Moriarty - Enquiries.....(416)632-7039
John Van Weelie - Disk of the Month.....(519)623-8218
Laura Blowey - Exchange Distribution.....(416)544-3068

Mailing Address - 656 Meadow Lane, Burlington, Ontario L7L4R8
Newsletter Exchanges - 77 Lavina Cres. Hamilton Ontario L9C5S8

NEWS AND VIEWS - Tom Arnold

Hi again fellow TI'ers. The deadline is tomoorow and I'am just now writing this column. Funny how we all leave things to the last minute. Actually that was not the case here, I have been busy putting together other articles for the newsletter. This takes a lot more time than one would expect.

I am not complaining, however, if these fine people did not submit articles I would just have to crank out more myself. I would much rather read what a variety of people have to say rather than just one or two. This is a problem with many newsletters, one or two write everything.

So, thanks to all who contribute, including Eric Wicklund, Tor Hansen, Richard Lilley, John Van Wheelie, Wayne Anderson, Dwayne Verity, Don Crossland. I might also mention that the great pictures on our front covers are done by Ed Moriarity. I want to thank Ed especially, as he has had some family problems which prevent him from spending much time on the old TI. Laura Blowey as well as many of the above people help put this thing together each month also. Thanks to all who help.

Another contributer this month is our first contest entry!! Harry Sparks has submitted two articles which are both entries in the contest. This is your last chance to enter as the contests end on May 1, 1989. So get cracking and write a review of some public domain or fairware software. If you don't, Harry will walk away with his shiney new copy of PRESS.

Speaking of PRESS, it still is not available. I received a note from Chris Bobbit on Feb. 13, 1989 saying they were still debugging. To quote Chris: "The major effort has been in debugging the program, a process which has resembled peeling an onion - everytime we remove a layer of bugs we've found another one underneath." Hopefully Chris will get this released soon, not only to make things better for us but I'm sure he's losing money as he has considerable money tied up in the manuals and advertising without any return.

Good news for those who do not have a subscription to Micropendium. They now take credit cards, Visa or Master Card. This will nake it a lot easier to order a subscription, simply mail the order form to them and all the details will be done for you. No more money orders, etc. Their address is: MICROPENDIUM, P.O. Box 1343, Round Rock, TX 78680.

As most of you know, I sold the Compudine products at the last meeting. These went over very well. I have ordered more of the following: PICTURE IT, JIFFY FLYER V 3.0 and JIFFY CARD. If you are interested in these give me a call. They haven't arrived at press time but should arrive any time. Costs are $10, $10 and $15 Canadian Money.

Not a lot of new news, especially for the TI. I have read of some hardware projects which would have the RS232, 32K and Speech Synthesizer all on board the computer. I can't see a lot of benefits of this as one still needs a controller card and disk drive to run anything.

I have heard news of MDOS 1.15 being released for the Geneve. Clint Pulley has released a patch program for the Geneve which patchs bugs is MDOS 1.14. Thanks Clint for your efforts. Clint brings us several items for the Geneve each month. Last month there was a copy of Advanced Basic. It is far from being debugged but does work. I was hopeing most of the TI X-basic would work with Advanced Basic, but there seems to be several major differences. Your old programs can be patched to run but it will take an effort to work out all the incompatibilities. I can vision a commercial program being released which will convert TI basic to Advanced Basic.

We did not have any Faireware contributions last month as we did not have any programs to give away. I did send Barry Boone $25US for his Archiver 3.02 program. I am also about to send Tony Mcgovern $20US for another version of Funnelweb. He has now sent me a version of the 80 column Funnelweb that seems to work well, I have not found any real problems with it. By the way, if a copy of FunnelWeb that I gave you does not work then contact me. I inadvertantly gave some TI owners the Geneve Version which is 80 columns and won't work on the TI.

I like FunnelWeb. especially it's Show Directory feature. However, it has a separte formatter and editor which I don't like. Myword's formatter is built into the editor so you do not have to exit the editor to print something. Too bad we can't combine the best of both. Of course, if PRESS is ever released then I probably won't use Myword either.

Speaking of PRESS, this program is written in modules, so will be a little slow when it goes to disk. A Ram Disk or Hard Disk will really enhance this program.

Want to go to a TI Faire? The Lima, Ohio group is running a faire on May 20th, at the Reed Hall/Student Activities Building, Ohio State University, Lima, Ohio. For information call Dave Szipple at (419)228-7109. Lima is about a 5 hour drive from Hamilton.

One last item, Asgard and Myarc have announced that they are no longer going to announce release dates on software and hardware. I had to laugh at this. No one really believed their announcements anyway. When was the last time a release date was met. Maybe never? See you next month.....TJA

SAVAGE BENCHMARK -- REVISITED

Eric Wicklund

The February article on the Savage benchmark had a few missing items which I had inadvertly not included in the article. After having it brought to my attention by one the members I tried to gather up the missing files but found I had wiped the files out in one of my "house cleaning bidges". Not too worry, I have reconstructed the missing files. Luckily I had not destroyed the BBS E/A files which I had used orginally as the starting point.

Missing from the E/A code was the Extended Basic "EQUATE1" files, containing all the necessary "equate" addresses for E/A routines used in the that environment. Missine too was the GPLLNK routine necessary for the Extended Basic environment and the master routine "SAVAGE-LNK"that calls all these routines together for assembling into the machine language routine "SAVAGE-EA1.Finally there is the Extended Basic programme "SAVAGE-EXML" that uses the machine language routine.

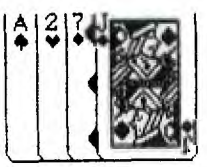
When you assemble the routines you call up "SAVAGE-LNK" as the source, name the object file as "SAVAGE-EA1", setup up a disk list file "DSK1.SAVAGE-LST" for trouble shooting, and finally the ossembler options used are "RL", donot use the "C" (compressed) option.

The "EQUATE1" file has most of the "equates" one would use in doing E/A programmes for the Extended Basic environment and use by myself as a general purpose file. There are a number of GPLLNK routines around, this is just the one I use most of the time.

I have borrowed from Gary Bowser a copy of "INTERN" which as the TI console BASIC dis-assembled, including the functions used in SAVAGE benchmark. I hope to find some time to examine them for the algorithms used and maybe see if they can be done outside the GPL environment.

Eric C. Wiklund
Oakville, Ontario

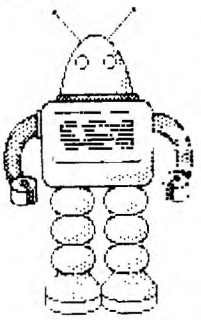
```
* DSRLNK SUBROUTINE by Jon Bannister
*
DSRLNK DATA DSRWS,DSRLIN
DSRWS  BSS  32
DNAMBU BSS  8              BUFFER FOR DEVICE NAME

DSRLIN MOV  *R14+,R5
       SZCB @SPACE,R15
       MOV  @>8356,R0
       MOV  R0,R9
       AI   R9,-8
       BLWP @VSBR
       MOVB R1,R3
       SRL  R3,8
       SETO R4
       LI   R2,DNAMBU
BR     INC  R0
       INC  R4
       C    R4,R3
       JEQ  BQ
       CLR  R1
       BLWP @VSBR
       MOVB R1,*R2+
       CI   R1,>2E00
       JNE  BR
BQ     MOV  R4,R4
       JEQ  DERR1
       MOV  R4,@>8354
       INC  R4
       A    R4,@>8356
       LWPI >83E0
       CLR  R1
       LI   R12,>0F00
BX     MOV  R12,R12
       JEQ  BU
       SBZ  >00
BU     AI   R12,>0100
       CI   R12,>2000
SPACE  EQU  $-2
       JEQ  DERROR
       SBO  >00
       CLR  R2
       MOVB @>4000,R2
       CI   R2,>AA00
       JNE  BX
       LI   R2,>4000
       A    @5*2+DSRWS,R2
       JMP  BZ
CD     MOV  @>83D2,R2
       SBO  >00
BZ     MOV  *R2,R2
       JEQ  BX
       MOV  R2,@>83D2
       INCT R2
       MOV  *R2+,R9
       MOVB @>8355,R5
       JEQ  CC
       CB   R5,*R2+
       JNE  CD
       SRL  R5,8
       LI   R6,DNAMBU
CE     CB   *R6+,*R2+
       JNE  CD
       DEC  R5
       JNE  CE
CC     INC  R1
       BL   *R9
       JMP  CD
       SBZ  >00
       LWPI DSRWS
       MOV  R9,R0
       BLWP @VSBR     GET ERROR BYTE
       SRL  R1,13     LEAVE ONLY ERROR CODE,
       JNE  DERR2
       RTWP                          RIGHT JUSTIFIED
DERROR LWPI DSRWS
DERR1  CLR  R1
DERR2  SWPB R1
       MOVB R1,*R13
       SOCB @SPACE,R15
       RTWP

* END OF DSRLNK SUBROUTINE

*       END
```



SAVAGE BENCHMARK - XB EXML PROGRAM

Eric Wicklund

```
10 ! Savage Benchmark, Sky&Telescope Mar 87
20 ! TI extended basic with m/l routine for
Savage iteration
30 CALL CLEAR :: DISPLAY AT(10,1):"Loading
M/L routine..."
40 CALL INIT :: CALL LOAD("DSK1.SAVAGE-ML1")
50 DISPLAY AT(10,1)ERASE ALL:"ITERATIONS:
100" :: ACCEPT AT(10,13)BEEP VALIDATE(
DIGIT) SIZE(-4):CNT$ :: CNTR=VAL(CNT$)::
ANS=1
60 CALL LINK("SAVAGE",CNTR,ANS):: DISPLAY
AT(11,12):ANS
70 DISPLAY AT(13,1):"Another One(Y/N):Y" ::
ACCEPT AT(13,18)BEEP VALIDATE("YyNn"
)SIZE(-1):ANSW$
80 IF ANSW$="Y" OR ANSW$="y" THEN 50
90 ! 100 Iterations 1 min 27 sec. ->
101.0000001
100 END
```



SAVAGE BENCHMARK DSRLNK SUBROUTINE

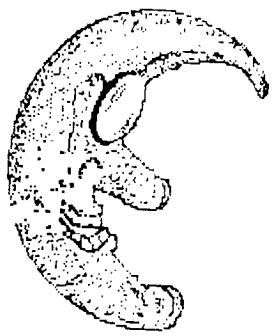
```
        TITL 'SAVAGE-E/A ECW'
        IDT  'V1.1 ECW'     02/14/89
        DEF  SLOAD,SFIRST,SLAST
*
*        AORG >24F4
*
SLOAD   EQU  $
SFIRST  COPY "DSK2.EQUATE1"
        COPY "DSK2.GPLLNK-MG"
        COPY "DSK2.SAVAGE-E/A"
SLAST   EQU  $
        END
```

SAVAGE BENCHMARK EQUATE FILES

Set up normal XB EQUates, E/A manual, pg. 415-416

```
****************** EQUATE ******************************************
*
* WP      EQU  >83E0          default workspace during a call LINK()
*                             R0,1,2,3,4,5,6,7,12 used during a KSCAN
*
* ORGSAV  EQU  $              preserve the program counter
*
*         RORG
*
*         AORG ORGSAV         restore the program counter
*
************************************************************************
ARG     EQU  >835C          Floating Point argument
BASIC   EQU  >006A          basic return with status cleared
*
* DSRLNK                     Link to Device service routine, separate routine
*                            required
ERR     EQU  >2034          error reporting utility to EXB
FAC     EQU  >834A          Floating Point accumulator
*
* GPLLNK                     link to GPL routines, separate routine required
*
GPLWS   EQU  >83E0          GPL workspace
KEYDEV  EQU  >8374          key device
KEYVAL  EQU  >8375          key value
KSCAN   EQU  >201C          key scan routine
NUMASG  EQU  >2008          numeric assignment
NUMREF  EQU  >200C          get numeric parameter
PAD     EQU  >8300
PNTR    EQU  >8356          pointer address used by DSRLNK routine
SCAN    EQU  >000E          keyboard scan
STATUS  EQU  >837C          GPL status register
STRASG  EQU  >2010          string assignment
STRREF  EQU  >2014          get string parameter
VDPWA   EQU  >8C02          vdp write address
VDPWD   EQU  >8C00          vdp write data address
VDPRD   EQU  >8800          vdp write read data address
VMBR    EQU  >202C          vdp ram multiple byte read
VMBW    EQU  >2024          vdp ram multiple byte write
VSBR    EQU  >2028          vdp ram single byte read
VSBW    EQU  >2020          vdp ram single byte write
VSPTR   EQU  >836E          vdp ram Floating Point stack location
VWTR    EQU  >2030          vdp ram write to register
XMLLNK  EQU  >2018          Link to ROM utilities
XRTN    EQU  >8377          x return, joystick from SCAN
YRTN    EQU  >8376          y return, joystick from SCAN
```

```
* Floating point ROM routines called via XMLLNK,
* E/A manual pg. 259-261  415-416
*
FADD    EQU  >ØD8Ø        floating point add routine        (E/A >Ø6ØØ)
FSUB    EQU  >ØD7C        floating point subtract routine   (E/A >Ø7ØØ)
FMUL    EQU  >ØE88        floating point multiply routine   (E/A >Ø8ØØ)
FDIV    EQU  >ØFF4        floating point divide routine     (E/A >Ø9ØØ)
FCOM    EQU  >ØD3A        floating point compare routine    (E/A >ØAØØ)
SADD    EQU  >ØD84        floating point stack(VSPTR) add  (E/A >ØBØØ)
SSUB    EQU  >ØD74        floating point stack(VSPTR) subtract (>ØCØØ)
SMUL    EQU  >ØE8C        floating point stack(VSPTR) multiple (>ØDØØ)
SDIV    EQU  >ØFF8        floating point stack(VSPTR) divide (E/A >ØEØØ)
SCOMP   EQU  >ØD46        floating point value stack compare (E/A >ØFØØ)
CSN     EQU  >11AE        convert ASCII string to floating point (E/A >1ØØØ)
CFI     EQU  >12B8        convert floating point to integer (E/A >12ØØ)
CIF     EQU  >ØØ2Ø        convert integer to floating point (E/A >23ØØ)
CNS     EQU  >ØØØ6        convert number to ASCII string,
*                         Australia TSUG, May 88 pg. 24; not tried as yet.
*
* Floating point GPL routines called via GPLLNK,
* E/A manual pg. 254-257  415-416
*
STR     EQU  >ØØ14        floating point conversion to an ASCII string
INT     EQU  >ØØ22        floating point conversion to greatest integer
PWR     EQU  >ØØ24        floating point involution:
*                         -raises a number to specified number
SQR     EQU  >ØØ26        floating point square root function
EXP     EQU  >ØØ28        floating point exponential function
LOG     EQU  >ØØ2A        floating point natural logarithm function
COS     EQU  >ØØ2C        floating point cosine function
SIN     EQU  >ØØ2E        floating point sine function
TAN     EQU  >ØØ3Ø        floating point tangent function
ATN     EQU  >ØØ32        floating point arctangent function
BEEP    EQU  >ØØ34        Accept tone
HORN    EQU  >ØØ36        Bad response tone
*
        EVEN
************ GPLLNK ********
UTLWS   EQU  >2Ø38
SUBST   EQU  >8373
GRMRA   EQU  >98Ø2
GPWS    EQU  >83EØ
*
* GPLLNK workspace,program  counter
*
GPLLNK  DATA UTLWS
        DATA GPLLN1
*
GPLLN1  MOVB GRMRA,RØ     fetch GROM address
        SWPB RØ
        MOVB GRMRA,RØ
        SWPB RØ
        AI   RØ,-3         back up to the XML instruction
        MOVB SUBST,R1     get the stack pointer
        SRL  R1,8
        AI   R1,>83ØØ
        INCT R1            push XML address for return
        MOV  RØ,*R1
        SWPB R1
        MOVB R1,SUBST
        LI   R3,>2ØØØ
        MOV  *R3,R2
        LI   RØ,GPLLN2
        MOV  RØ,*R3
        MOV  *R14+,>83EC
        LWPI GPWS          use GPL/XB workspace
        B    >ØØ6Ø
*
GPLLN2  LWPI UTLWS         should return here
        MOV  R2,*R3        restore original XML location
        RTWP               and go back to caller
****************************************
```



SAVAGE BENCHMARK GPLLNK ROUTINE

XB GPLLNK Routine by Heiner Martin
Smart Programmer July 1984,

```
* CALL LINK("SAVAGE",CNTR,ANS)
       DEF  SAVAGE
       EVEN
SAVRTN DATA Ø
CNTR   DATA Ø
ONE    BSS  8
SAVAGE MOV R11,SAVRTN
* 1st variable, loop count
       CLR  RØ
       LI   R1,1
       BLWP NUMREF
       BLWP XMLLNK        convert loop count to integer
       DATA CFI
       MOV  FAC,CNTR    store loop count
*
* 2nd variable,value from XBasic to be 1
       CLR  RØ
       LI   R1,2
       BLWP NUMREF
       LI   R1,FAC
       LI   R2,ONE
       BL   FPMOV         save value 1 for further use
*
CONT   LI   R1,FAC
       LI   R2,ARG
       BL   FPMOV         move fp value 1 to ARG
*
       BLWP XMLLNK
       DATA FMUL
*       JMP  EXIT          test exit
*  sqr
       CLR  RØ
       MOVB RØ,STATUS
       BLWP GPLLNK
       DATA SQR
*  log-natural
       CLR  RØ
       MOVB RØ,STATUS
       BLWP GPLLNK
       DATA LOG
*  exp
       CLR  RØ
       MOVB RØ,STATUS
       BLWP GPLLNK
       DATA EXP
*  atan
       CLR  RØ
       MOVB RØ,STATUS
       BLWP GPLLNK
       DATA ATN
*  tan
       CLR  RØ
       MOVB RØ,STATUS
       BLWP GPLLNK
       DATA TAN
*  +1
EXIT   LI   R1,ONE
       LI   R2,ARG
       BL   FPMOV         transfer fp 1 to ARG
       CLR  RØ
       MOVB RØ,STATUS
       BLWP XMLLNK
       DATA FADD
*
       DEC  CNTR          decrement counter by 1
       JGT  CONT           if not done (zero) then continue loop
*
       CLR  RØ
       LI   R1,2
       BLWP NUMASG        transfer answer to 2nd variable
*
       CLR  RØ
       MOVB RØ,STATUS
       MOV  SAVRTN,R11
       RT                       return to EXBASIC
*
*
* fp move routine, R1:source address; R2: destination address
FPMOV  LI   RØ,>ØØØ8
FPCONT MOVB *R1+,*R2+
       DEC  RØ
       JNE  FPCONT
       RT
```

TWOWAY PRINT - Jim Peterson

```
100 CALL CLEAR
110 DATA "THIS IS A
DEMONSTRATION","OF THE",
"TIGERCUB SOFTWARE","TWO-WAY
PRINT OUTINE"
112 FOR T=1 TO 4
113 READ M$
120 IF LEN(M$)/2=INT(LEN
(M$)/2)THEN 135
130 M$=M$&" "
131 GOTO 140 135 M$=M$&" "
140 L=LEN(M$)
150 C=16-L/2
160 FOR J=L/2 TO 1 STEP -1
170 CALL HCHAR(10+T*2,C+J,
ASC(SEG$(M$,J,1)))
180 CALL HCHAR(10+T*2,16+
L/2-J,ASC(SEG$(M$,L-J,1)))
190 NEXT J
200 NEXT T
```

The April meeting is on Saturday
April 15th, 1989 10am - 2pm

DISKLABELER - Eric Wicklund

The DISKLABEL programme is based on a programme by a Mr. Bob Neal. I have extended the programme by allowing two sizes of label plus doing miscellaneous items such as:

a) disabling the out of paper detection, couldn't with my printer get the label strip paper close enough to the printer's left margin to avoid the loss of paper detection being activated.

b) set the printer left margin appropriate for the label strip paper in use.

c) resetting the printer on exiting from the programme.

d) the programme has been processed by "PRE-SCAN" to speed up it's starting.

The two label sizes allowed for are:

a) 9/16 x 3-1/2 in. label, which I use on the disk itself.

b) 2 x 4 in. label, which I use on the disk envelope/holder.

I found the provision for the extra label size convenient as I can avoid the cutting and taping required for my previous disk enevope labeling programme plus there is the convenience of having one programme to generate both sets of labels. Before I used a programme that printed out the disk envelope label on ordinary paper which I had to cut and tape to the envelope.

```
10 GOTO 30 :: A$,A1$,ANS$,SU
BSCR$,A,CNT,I,J,K,LC,MLC,MLC
P,S,ST,TB,X
20 CALL COLOR :: CALL KEY ::
 CALL SCREEN :: DIM PN$(127)
,SZ$(127),PT$(127),TYPE$(20)
:: !@P-
30 ! DISKLABEL; by Bob Neal
& revised by Eric Wiklund
40 !
50 TYPE$(1)="D/F" :: TYPE$(2
)="D/V" :: TYPE$(3)="I/F" ::
 TYPE$(4)="I/V" :: TYPE$(5)=
"PRO"
60 SUBSCR$=CHR$(27)&CHR$(83)
&CHR$(1)! printer subscript
command
70 IMAGE ########## ### ###
 ########## ### ###  #######
### ### ###
80 IMAGE "
                    #########
##"
90 IMAGE " ###### ####  ####
# ####              #########
##"
100 CALL SCREEN(5):: FOR I=0
 TO 12 :: CALL COLOR(I,16,5)
:: NEXT I :: OPEN #1:"PIO"
110 PRINT #1:CHR$(26)&"8";!
disables paper end detection
120 PRINT #1:CHR$(27)&CHR$(6
5)&CHR$(6);! sets line feed
to 6/72 inch
130 PRINT #1:CHR$(15);! puts
 printer into condensed prin
t
140 DISPLAY AT(1,1)ERASE ALL
:"          DISKLABEL":"
    =========": :"          by
 Bob Neal":"  revised by Eri
c Wiklund"
150 DISPLAY AT(8,1):"Avail=2
91 Used= 67 DISKNAME":RPT$("
=",28):"DLABEL 20 PRO DLABEL
 27 PRO":"LOAD   15 PRO LDAT
A  25 D/F":RPT$("~",28)
160 DISPLAY AT(14,1):"Set le
ft edge of label paper at ta
b 20 of printer"
170 DISPLAY AT(18,1):" Label
 paper 9/16x3-1/2(N)":"
or 2x4(W) in.:N" :: ACCEPT A
T(19,20)VALIDATE("NW")BEEP S
IZE(-1):ANS$
180 IF ANS$="N" THEN MLC=9 :
: TB=35 ELSE MLC=20 :: TB=40
190 PRINT #1:CHR$(27)&"l"&CH
R$(TB);! sets left margin;TB
=35->20,TB=40->25
200 DISPLAY AT(22,1)BEEP:"Pl
ace Disk To Be Labeled in Dr
ive #1 Then Press Any Key" :
: ST=1 :: MLCP=MLC+2
210 CALL KEY(0,K,ST):: IF ST
=0 THEN 210 ELSE OPEN #2:"DS
K1.",INPUT ,RELATIVE,INTERNA
L
220 FOR X=1 TO 127 :: PN$(X)
="" :: SZ$(X)="" :: PT$(X)="
" :: NEXT X
230 INPUT #2:A$,J,J,K :: PRI
NT #1,USING 90:"AVAIL=",STR$
(K),"USED=",STR$(J-K),CHR$(1
4)&A$
240 PRINT #1:SUBSCR$;! puts
printer in subscript mode
250 PRINT #1:RPT$("=",58)::
LC=2 :: CNT=0
260 FOR X=1 TO 127 :: INPUT
#2:A1$,J,J,K :: IF LEN(A1$)=
0 THEN 300
270 PN$(X)=A1$ :: SZ$(X)=STR
$(J):: SZ$(X)=RPT$(" ",3-LEN
(SZ$(X)))&SZ$(X)
280 A=ABS(A):: PT$(X)=TYPE$(
A):: IF A=4 AND K=254 THEN P
T$(X)=TYPE$(5)
290 CNT=CNT+1 :: NEXT X
300 CLOSE #2
310 FOR X=1 TO CNT STEP 3 ::
 IF LC>MLC THEN PRINT #1:"":
"" ELSE 350
320 LC=2 :: PRINT #1,USING 8
0:CHR$(14)&A$ ! puts printer
 in double width mode
330 PRINT #1:SUBSCR$;! puts
printer in subscript mode
340 PRINT #1:RPT$("=",58)::
GOTO 360
350 PRINT #1:SUBSCR$;! puts
printer in subscript mode
360 PRINT #1,USING 70:PN$(X)
,SZ$(X),PT$(X),PN$(X+1),SZ$(
X+1),PT$(X+1),PN$(X+2),SZ$(X
+2),PT$(X+2):: LC=LC+1 :: NE
XT X
370 FOR X=1 TO MLCP-LC :: PR
INT #1:"" :: NEXT X
380 PRINT #1:CHR$(27)&CHR$(8
4)! releases printer from su
bscript mode
390 DISPLAY AT(22,1)BEEP:"Ca
talogue Another? (Y/N)":"":"
"
400 CALL KEY(3,K,S):: IF S=0
 THEN 400
410 IF CHR$(K)="Y" THEN 160
ELSE IF CHR$(K)="N" THEN 420
 ELSE 390
420 PRINT #1:CHR$(27)&"@" !
resets printer
430 CLOSE #1 :: RUN "DSK1.LO
AD"
440 !@P+
450 END
```

ASGARD SOFTWARE
NOW AVAIABLE IN HAMILTON

I would like everyone to know that I am now an Asgard Software dealer. I really am not selling their products for my benefit but yours. Since Wentworth Supplies no longer sells TI products there is no handy source of software for the TI.

Hopefully this will help you obtain new software. I would also appreciate if you would not pirate any of this software, lack of sales will surely cut this fine source of software off.

I will be placing one order a month initially but will place special orders on request. Why should you buy from me? Simple, I will save you a fair amount of money. I plan on selling all items at the same price as Asgard does but you will be able to pay in Canadian money saving about 22% exchange on your money. You will also not have to pay for postage either. For example, if you want to buy Font Writer II, the cost from Asgard would be 22.95 + 22% = $28.Ø1 plus Ø.75 + 22% postage = $Ø.85 for a total of $28.86, a savings of $5.11!! So you should save considerable money.

If you wish items give me a call, I will either have it in stock or can order it for you. You won't have to wait for our meetins either, everyone will be welcome to come up to the house to pick up their software.

I have placed an order already and should have the following items in stock. Those people who have placed orders with me already will have their items held for them.

In stock:

Asgard News - $12.ØØ per yearly Subscription
Recipe Writer - $19.95
The Aventure Guide - $7.95
Legends II - $17.95
Beyond Video Chess - $9.95
Artist Instances #7, #8, #9 - $7.95 each
Artist Borders - $7.95
Typewriter 99 - $14.95

Other Items available:

High Gravity - $9.95
Volcano Fortress - $7.95
Oliver's Twist - $9.95
Artist Instances - $7.95 (9 sets)
My-Art Coloring Book - $9.95
Disk of Dinosaurs - $12.95
Calendar Maker - $19.95
RAM*boot - $9.95
EZ-Keys Plus - $14.95
plus many more.....

Contact me at: (416) 385-5576

Tom Arnold

CLUB PAGE

By Tor Hansen

The March session at the Spectator was opened in a manner familiar to all, and is about to be written up in the same way.

Tom started the festivities, with 24-odd smiling faces hanging on his every word. Three full systems graced the hall where all were assembled (using original source code).

There were more comments about our contest, now flooded with one entry, so it now looks that if no one else gets off their fundament, the winnings will be easy for that entrant.

Tom also announced that he is now an authorised Asgard dealer, so the software horizons of the group have been enhanced by this move on Tom's part.

More on this excitement next month.

CLUB NEWS

By Tor Hansen

I owe an apology to one of our new members this month.

He was put in touch with me at last months session, to discuss some of the points of assembler regarding a utility he had written. We talked some at the session, and I suggested that we get together after that to discuss it further.

Which we did. I got his phone number from him, and shortly after he left my place, I promptly lost it.

He left the utility with me, and even offered to let it be published in these pages. He offered to write a little article to explain what he had done, and I was supposed to pick it up from him prior to our meeting to assemble this letter.

Having lost his number, and address, I wasn't able to get to him before our editing session, but I want to offer his work to you, and apologise to him for not getting in touch with him as I had promised.

Hopefully, he won't be too mad at me, and we'll see his article in a future issue. (Sorry, Eric).

With Tom's aquisition of the Asgard dealership, he announced at the last meeting that his discount from Asgard will be such that he will be able to sell the software here in Canada, at the same price as advertised in the U.S., but in Canadian dollars. That is not a bad deal!

What is advertised in the U.S. for $15.ØØ U.S. will now be available to us for $15.ØØ CDN. With the variety of software that Asgard has available, we'd be crazy to pass it up.

A new member to this group told me on the side that he has written a program that will allow programmers to flowchart their ideas prior to actually sitting down and writing it.

I have been trying to talk him into releasing this as Fairware, through our group, and I am also hoping I can get a peek at it in

the near future, as a tool like this can be valuable, especially if the program is going to be long and complex.

I'll try and have more for you next month on this.

The end of this month will see me attending a meeting of the Toronto Users group. This will be my first sortie out into the world of another users group.

I suppose the main reason for this is that the group now holds their meetings about five minutes from where I live, so it is very convenient to get to.

I'll have more on this next month for you, too.

See you then...

DEBUGGING

By Debugger

Well, it looks like I blew it this time. I still don't have the Benchmark program working yet, but I should shortly. But that is not what this is about.

Under another pseudonymn, I wrote an article for last months letter, and that is what I blew.

And what I now want to correct.

The following line appears in last months assembler article:

```
LI R1,>2000 *START WITH SPACE CHAR
```

The documenting comment for that line is incorrect. It should reflect that >2000 is the start address in low expansion RAM where the character definitions are tempoarily kept until they are reversed and written back to VDP RAM.

Sorry about that.

You may have also noted that the last page of the letter seems somewhat hard to follow. This is because the columns are reversed (it must have been the effect of my article).

There were a couple of other minor errors, but they're not really worth mentioning.

See you next month.

P.S. don't forget that the April meeting takes place on a Saturday morning, NOT a Friday night, as we usually have it.

And here is Eric's utility (sans article), as I said I would present it.

```
* RANDOM DICE ROLLER *
        AORG >F000
        DEF  START
        REF  VWTR,VMBW,KSCAN,VSBW,VMBR
STATUS  EQU  >837C
KEYPR   EQU  >8375
WS1     EQU  >8300
WS2     EQU  >8320
RETADR  DATA >0000
START   MOV  R11,@RETADR
        LWPI WS1
        CLR  R0
        MOV  R0,@TIME
        BL   @DEFINE
        BL   @CLEAR
        BL   @ROLLER
        B    @DICE

* DEFINE COLORS FOR CHARACTERS *

COLOR   DATA >F5F5,>F5F5,>F5F5,>F5F5
        DATA >F5F5,>F5F5,>F5F5,>F5F5
        DATA >8CF5,>F5F5,>F5F5,>F5F5
        DATA >F5F5,>F5F5,>F5F5,>F5F5
        DATA >F5F5,>F5F5,>F5F5,>F5F5

DEFINE  LI   R0,>0705
        BLWP @VWTR
        LI   R0,>0380
        LI   R1,COLOR
        LI   R2,>0020
        BLWP @VMBW
        RT

* CLEAR SCREEN *

CLEAR   CLR  R0
        LI   R1,>2020
        LI   R2,768
        MOVB R0,@>8C02
        SWPB R0
        MOVB R0,@>8C02
        SWPB R0
CLEAR1  MOVB R1,@>8C00
        DEC  R2
        JNE  CLEAR1
        RT

* DICE ROUTINE *

COUNT   DATA 5
VDIE1   DATA 0
VDIE2   DATA 0
DICE    LWPI WS2
        LI   R3,1
DIC1    BL   @RANDOM
        SRL  R1,13
        CI   R1,5
        JGT  DIC1
        AI   R1,1
        MOV  R3,R3
        JEQ  DIC2
        AI   R1,>2030
        MOV  R1,@VDIE1
        DEC  R3
        JMP  DIC1
DIC2    AI   R1,>2030
        MOV  R1,@VDIE2
        BL   @DISPLY
        BL   @DIC3
        B    @DICE

DIC3    CLR  R9
        MOV  @COUNT,R9
        CI   R9,0
        JEQ  DIC4
        DEC  R9
        MOV  R9,@COUNT
        CLR  R9
        JMP  DIC5
```

```
DIC4    LI   R9,5
        MOV  R9,@COUNT
        CLR  R9
DIC6    LIMI 2
        LIMI Ø
        BLWP @KSCAN
        MOVB @STATUS,R9
        JEQ  DIC6
        CLR  R9
        MOVB @KEYPR,R9
        CI   R9,>ØDØØ
        JNE  DIC7
        MOV  @RETADR,R11
        CLR  R9
        MOV  R9,@STATUS
        RT
DIC7    LI   R9,Ø
        MOV  R9,@TIME
DIC5    RT

* RANDOM NUMBER GENERATOR *

RANDOM LI    RØ,28645
       MPY   @>83CØ,RØ
       AI    R1,31417
       MOV   R1,@>83CØ
       MOV   @>83CØ,R5
       MOV   R11,R4
       MOV   R4,R11
       MOV   R5,R1
       RT

* DATA DEFINITIONS FOR EACH NUMBER *

DIGITS DATA >ØØ8Ø,>Ø18Ø,>Ø38Ø,>Ø78Ø     * ØNE
       DATA >ØD8Ø,>198Ø,>Ø18Ø,>Ø18Ø
       DATA >Ø18Ø,>Ø18Ø,>Ø18Ø,>Ø18Ø
       DATA >Ø18Ø,>Ø18Ø,>1FF8,>1FF8

       DATA >Ø3CØ,>Ø7EØ,>ØC3Ø,>1818     * TWO
       DATA >1818,>ØØ18,>ØØ18,>ØØ3Ø
       DATA >ØØ6Ø,>ØØCØ,>Ø18Ø,>Ø3ØØ
       DATA >Ø6ØØ,>Ø6ØØ,>1FF8,>1FF8

       DATA >Ø3EØ,>Ø7FØ,>ØC38,>18ØC     * THREE
       DATA >ØØØC,>ØØ18,>ØØ18,>Ø1FØ
       DATA >Ø1FØ,>ØØ18,>ØØ18,>ØØØC
       DATA >18ØC,>ØC38,>Ø7FØ,>Ø3EØ

       DATA >ØØ7Ø,>ØØFØ,>Ø1BØ,>Ø33Ø     * FOUR
       DATA >Ø63Ø,>ØC3Ø,>183Ø,>1FFC
       DATA >1FFC,>ØØ3Ø,>ØØ3Ø,>ØØ3Ø
       DATA >ØØ3Ø,>ØØ3Ø,>ØØ3Ø,>ØØ3Ø

       DATA >1FFC,>1FFC,>18ØØ,>18ØØ     * FIVE
       DATA >18ØØ,>1FEØ,>1FEØ,>ØØ3Ø
       DATA >ØØ18,>ØØØC,>ØØØC,>18ØC
       DATA >1818,>ØC3Ø,>Ø7EØ,>Ø3CØ

       DATA >ØØ3Ø,>ØØ6Ø,>ØØCØ,>Ø18Ø     * SIX
       DATA >Ø3ØØ,>Ø6ØØ,>Ø6ØØ,>ØCØØ
       DATA >ØCØØ,>ØFCØ,>ØFEØ,>ØC3Ø
       DATA >ØC3Ø,>ØC3Ø,>Ø7EØ,>Ø3CØ

* CHARACTER DEFINITIONS *

CHAR   DATA >ØØØØ,>ØØØØ,>ØØØØ,>Ø1Ø3     CHAR 96
       DATA >ØØØØ,>ØØØØ,>7FFF,>FFFF     CHAR 97
       DATA >ØØØØ,>ØØØØ,>FFFF,>FFFF     CHAR 98
       DATA >ØØØØ,>ØØØØ,>FØFØ,>FØFØ     CHAR 99
       DATA >Ø7ØF,>Ø8Ø8,>Ø8Ø8,>Ø8Ø8     CHAR 1ØØ
       DATA >FFFF,>ØØØØ,>3F7F,>FFFF     CHAR 1Ø1
       DATA >FFFF,>ØØØØ,>FFFF,>FFFF     CHAR 1Ø2
       DATA >FFFF,>ØØØØ,>FØFØ,>FØF1     CHAR 1Ø3
       DATA >FFFF,>Ø3Ø3,>F3F3,>F3F3     CHAR 1Ø4
       DATA >FØFØ,>FØFØ,>FØFØ,>FØFØ     CHAR 1Ø5
       DATA >Ø9Ø9,>Ø9Ø9,>Ø9Ø9,>Ø9Ø9     CHAR 1Ø6
       DATA >F1F1,>F1F1,>F1F1,>F1F1     CHAR 1Ø7
       DATA >F3F3,>F3F3,>F3F3,>F3F3     CHAR 1Ø8
       DATA >F1F1,>F1F1,>F1F1,>E1C1     CHAR 1Ø9
       DATA >F3F3,>F3F3,>F3F3,>E3C3     CHAR 11Ø
       DATA >Ø9Ø8,>Ø8ØF,>152A,>55FF     CHAR 111
       DATA >FFØØ,>ØØFF,>55AA,>55FF     CHAR 112
       DATA >81ØØ,>ØØFF,>55AA,>55FF     CHAR 113
       DATA >83Ø3,>Ø3FF,>57AF,>5FFF     CHAR 114
       DATA >FØFØ,>FØFØ,>FØFØ,>FØEØ     CHAR 115
       DATA >8Ø83,>8282,>8283,>8ØFF     CHAR 116
       DATA >ØØ24,>AAA8,>AA24,>ØØFF     CHAR 117
       DATA >ØØE3,>82C3,>82E2,>ØØFF     CHAR 118
       DATA >Ø03A,>AA2A,>AABB,>ØØFF     CHAR 119
       DATA >ØØ23,>2223,>22BB,>ØØFF     CHAR 12Ø
       DATA >ØØBØ,>283Ø,>28A8,>ØØFF     CHAR 121
       DATA >3F3F,>3F3E,>3C38,>3ØEØ     CHAR 122
       DATA >CØ8Ø,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 123
ZEROS  DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 124
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 125
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 126
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 127
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 128
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 129
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 13Ø
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 131
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 128
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 129
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 13Ø
       DATA >ØØØØ,>ØØØØ,>ØØØØ,>ØØØØ     CHAR 131

* CHARACTER LOCATIONS ON THE SCREEN *

D1     DATA >6Ø61,>6262,>6262,>6263
D2     DATA >6465,>6667,>6566,>6869
D3     DATA >6A8Ø,>826B,>8486,>6C69
D4     DATA >6A81,>836D,>8587,>6E69
D5     DATA >6F7Ø,>7Ø71,>7Ø7Ø,>7273
D6     DATA >7475,>7677,>7879,>7A7B

* GENERAL DATA STORES *

STORE1 BYTE >ØØ      *TO GIVE THE ILLUSION
STORE2 BSS  >1Ø      *OF ROLLING
       BYTE >ØØ
LOC1   DATA >ØØØØ    * NUMBER (LEFT)
LOC2   DATA >ØØØØ    * (RIGHT) NUMBER
SAVLOC DATA >ØØØØ    * STORAGE INTERNAL ROUTINE
RETLOC DATA >ØØØØ    * STORAGE EXTERNAL ROUTINE
RDIE1  DATA >ØØØØ
RDIE2  DATA >ØØØØ
TIME   DATA >ØØØØ
TEMP   DATA >ØØØØ

ROLLER LI   RØ,>BØØ * DEFINE ALL CHARACTERS
       LI   R1,CHAR
       LI   R2,>14Ø
       BLWP @VMBW

* DISPLAY ALL CHARACTERS *

       LI   RØ,>18
       LI   R1,D1
       LI   R2,8
       BLWP @VMBW
```

```
        LI    RØ,>38
        LI    R1,D2
        BLWP  @VMBW
        LI    RØ,>58
        LI    R1,D3
        BLWP  @VMBW
        LI    RØ,>78
        LI    R1,D4
        BLWP  @VMBW
        LI    RØ,>98
        LI    R1,D5
        BLWP  @VMBW
        LI    RØ,>B8
        LI    R1,D6
        BLWP  @VMBW

* CLEAR THE STORE BUFFER

        LI    R1,STORE1
        LI    R2,>ØØØØ
        LI    RØ,9
LOOP3   MOV   R2,*R1
        INCT  R1
        DEC   RØ
        JNE   LOOP3
        RT

DISPLY  MOV   R11,@RETLOC
        MOV   @VDIE1,RØ
        AI    RØ,-48
        SWPB  RØ
        MOVB  RØ,@RDIE1

        MOV   @VDIE2,RØ
        AI    RØ,-48
        SWPB  RØ
        MOVB  RØ,@RDIE2

        CLR   R6
        LI    R5,DIGITS       * LOAD DIE1
        MOVB  @RDIE1,R6
        SWPB  R6
        DEC   R6
CONT1   CI    R6,Ø
        JEQ   CONT2
        AI    R5,32
        DEC   R6
        JMP   CONT1
CONT2   MOV   R5,@LOC1

        CLR   R6
        LI    R5,DIGITS
        MOVB  @RDIE2,R6       * LOAD DIE2
        SWPB  R6
        DEC   R6
CONT3   CI    R6,Ø
        JEQ   CONT4
        AI    R5,32
        DEC   R6
        JMP   CONT3
CONT4   MOV   R5,@LOC2

        BL    @SHIFT
        JMP   MAIN

* SHIFT THE CURRENT NUMBER IN DISPLAY UP

SHIFT   MOV   R11,@SAVLOC
        LI    R3,5
        JMP   LOOP4

LOOP    MOV   R11,@SAVLOC
LOOP4   LI    RØ,>CØØ
        LI    R2,16
        BL    @DISP
        AI    RØ,>ØØ1Ø
        BL    @DISP
        AI    RØ,>ØØ1Ø
        BL    @DISP
        AI    RØ,>ØØ1Ø
        BL    @DISP

        MOV   R3,@TEMP
        MOV   @TIME,R3
        AI    R3,5
        MOV   R3,@TIME
        AI    R3,8Ø
DELAY1  DEC   R3
        JNE   DELAY1
        MOV   @TEMP,R3

        DEC   R3
        JNE   LOOP4
        MOV   @SAVLOC,R11
        RT

* READ 2 CHARACTERS AND WRITE THEM

DISP    LI    R1,STORE1
        BLWP  @VMBR
        LI    R1,STORE2
        BLWP  @VMBW
        RT

* THIS ROUTINE DISPLAYS BOTH NUMBERS *

MAIN    MOV   @LOC1,R5      * SET POINTERS
        MOV   @LOC2,R6
        MOV   @LOC1,R7
        MOV   @LOC2,R8
        INC   R7
        INC   R8

        LI    R4,16         * LOOP COUNTER

* DISPLAY 2 BYTES AT A TIME

LOOP2   LI    R3,1          * LEFT BYTE
        BL    @LOOP         *1ST
        LI    RØ,>CØF
        MOVB  *R5,R1
        INCT  R5
        BLWP  @VSBW

        LI    RØ,>C1F       * RIGHT BYTE
        MOVB  *R7,R1        *1ST
        INCT  R7
        BLWP  @VSBW

        LI    RØ,>C2F       * LEFT BYTE
        MOVB  *R6,R1        *2ND
        INCT  R6
        BLWP  @VSBW

        LI    RØ,>C3F       * RIGHT BYTE
        MOVB  *R8,R1        *2ND
        INCT  R8
        BLWP  @VSBW

        MOV   @TIME,R3
        AI    R3,1
        MOV   R3,@TIME
```


continued on page 1

A REVIEW OF XB*TOOLS Harry Sparks Ti Focus Contest Entry #1

This is a group of files that I am not even sure how they came into my possession. They were written by Jim Swedlow and are distributed under the FAIRWARE method. I for one will certainly be sending Jim some cash as in the few weeks that I have had it, I have used it a lot and with very gratifying results. I run 2 DSDD half heights and a 512 MYARC RD. Using just one file I have gone through 15 disks of XB games and reduced it to 11+. This was just by using the COMPRESS file. Of course, the more efficiently a file has been written, the less it can be compressed. I have taken for instance one game that was 91 sectors, COMPRESSED it and ended up with 90 sectors. A WELL done game. In another I took a 70 sectors and ended up with 46.

Jim states in his DOC's that these files "will write, revise, debug analyze XB programmes." Gee, I really don't to disagree with someone who has written such beautiful programmes but here I feel that I must! Jim does not go far enough in his statement. If a TI BASIC file will run in XB, then the COMPRESS file will write it as a multi-statement XB file. You, like me may have written a programme in BASIC or XB that has few commands on each line and DATA in the same mode. Now this is easy to bebug. Find one of yours, make sure it runs fine, then run it through COMPRESS. WOW !! Now you have a more efficient file that will run better. As some people know, I don't feel that I am a good programmer. These files will help me to eventually write better programmes if I study them after RUNning them through COMPRESS. THIS IS NOT TO SAY WE SHOULD WRITE SLOPPY FILES AND LET TOOLS FIX THEM UP! COMPRESS will compress DATA lines in your programme or to compress DATA only, run DATAPRESS and DATA lines will be compressed.

The files on the disk that I am going to submit to the CHANNEL 99 library in the hopes that we the users will be helped and Jim see something concrete are, with a short description:

REFERENCE-makes a list of key items a reference list for each. Listed are line lengths, variables, line # references (GOTO etc), subprorams (built in user), DATA and DIM lines. Suggested pre-scan variable list order is also printed. You may print any combination of items

COMPRESS-takes a file eliminates memory hogs. Variable names and user sub program names are replaced with 1 or 2 character names. The number 1 is replaced by , REM and ! lines are removed and lines are joined as much as possible. ANY OF THESE FUNCTIONS MAY BE DEACTIV ATED.

NAMECHANGE-changes names of up to 10 variables at a time.

LINEMOVE-deletes, keeps or RES a block of lines from one part of a program to another.

DATAPRESS-combines DATA lines as much as possible. All line references are honoured.

PRINTER-prints the line lengths of all program lines and, if requested, the line contents, character by character.

Included are:

ASCHART-prints a chart of all ASCII codes, their characters, the HEX value and TI keyboard key the TI BASIC tokens.

INSTALL-lets you configure the XB*TOOLS files to match your system.

LOAD-multipurpose disk cataloguer, program runner and file printer.

There are DOC's on the disk. 159 sectors. READ THEM. They contain some hints on some of the files. Programmes are nicely presented with the menu as clear as crystal. BUT there are a few things to watch out for to get maximum use out of a few files. It appears that Jim has done a superb job here. Some of the files show a lot of revisions. e.g. REFERENCE version 7.1 or COMPRESS version 6.1. Usually when you see that high a version it means that there has been interest shown TO THE AUTHOR.

To whet your appetite, I will tell you about one file that to me has been worth the contribution. I have used several programmes to write TI BASIC to XB or tighten up XB programmes. NONE have been even remotely easy to use as Jim's COMPRESS and NONE have given me such great results. There may be some out there, but I have not seen them. One that I used for over a year changed OPTION BASE 1 to OPTION BASE , changed ALL the number 1 in DATA to . This meant that you had to go through the programme and change them back. This was very time consuming and I almost always missed one. So that Jim does not get too swelled a head I will note that VERY occasionally a programme line will contain two command seperators together (:: ::). When you RUN the file you will be given a SYNTAX ERROR - LINE xxxx. This is easy to find and correct. By the way, that OTHER program would take a LONG time and crash OFTEN. A lot of times it would not do it's task even after 15 attempts. It has been given an indecent burial.

REQUIREMENTS-EXTENDED BASIC, 32K, at least one disk drive, RS232 (or say a PARALLAX or similar interface) to a PRINTER. Three files, REFERENCE, PRINTER and ASCHART require 80 column printer. To use COMPRESS just to compress files a printer is not needed unless you answer YES to menu query Print new names? Two drives are better. There is a fair bit of action with two. To me the best is to use my 512 RD with two drives. I call the RD DSK3. Since Jim has left his files open (thanks Jim) I just changed DSK1 occurences to DSK3 so all ac- tivity is on RD. Faster and saves drives. On RAMDISK I put the MYARC MANAGER and XB*TOOLS.

If you have one drive only formatted to SSSD then as Jim suggests, RUN ASC- HART and INSTALL and remove them and DOC's. Of course you have made a backup and use this as your working copy.

To use COMPRESS: All files on DSK3 plus Disk Manager. Your disk of files in DSK2 and formatted disk in DSK1. Unprotect files on DSK2. Bring program to be COMPRESS'd into memory. RUN to make sure it works bug free. If file has REM or ! headers and you wish to keep them I suggest two ways. Write them down and put them back in to file later or make sure they are in lines below 15Ø AFTER you RES file. I bring file to memory, RUN to check it, FUNC4 to break then SAVE DSK3. XB*TOOLS works on MERGE files so then SAVE DSK3.COM,MERGE(.) COM is the default file name. Then type NEW, RUN "DSK3.COMPRESS". You will then get the COMPRESS menu. To change any of the default "Y" or "N" just hit the letter A-I. Then the first time hit "S" to Save defaults. This is written to the CONFIG file. I'll print the menu below. After getting this far all that is left is Quit or Proceed. Hit P and sit back. As the programs runs you will see it working. Preping Line xxx, then preping DATA and Compressing Line xxx.

When finished, you get a message "FILE COMPRESSED" Now the procedure is as follows. Type NEW. Type MERGE DSK3.PRESS (.) Then type RES and when finished type SAVE DSK3.filename. Do not use original filename. I usually use the same file name WITH THE LAST LETTER DROPPED. This puts the original and new file next to each other when I catalogue the RD. You can either RUN the new file which will be in memory or first SAVE it to DSK1 if you want to be super careful. When it is okay (and you VERY RARELY will get an error-see above) SAVE it to DSK2. which is your original disk and watch the sectors that are saved especially on a DSDD format. Then if I want to use any of the XB*TOOLS files again I go back to the DM and delete the files which were written by the programme. In COMPRESS this would be COM, PRESS, \\\, the original file, the MERGE'd file and the new file. On my RD this takes literally seconds. The RD does the work quickly and saves wear and tear on the drives. Without a RD the results are slower as they write to drives but the results are still the same.

Get this from the Club Library and please remember Jim. The other files are every bit as useful especially to the CAPITAL P programmer or small p such as myself.

```
COMPRESS 6.1

A Delete REM ! lines? Y
B Delete before line 16Ø? Y
C Delete all ! tails? Y

D Replace SUB names? Y
E Replace variable names? Y
F Replace ? N

G Replace 1 with ? Y
H Combine lines? Y
I Print new names? N

J Old file DSK3.COM
K New file DSK3.PRESS

Q Quit
S Save defaults
P Proceed
Press your choice
```

The defaults of the above menu are mine but all can be changed except COM. I suggest strongly using PRESS as it is neater. COM PRESS, get it? I have had occasion to change option F as was already used in the original file and I also have changed option I to help in debugging my own stuff. Enjoy these utilities from Jim Swedlow.

CHANNEL 99 MEETING DATES FOR 1989
April 15, 1989 - 1Ø am to 2 pm
May 12, 1989 - 7 pm to 1Ø pm
June 9, 1989 - 7 pm to 1Ø pm
July 14, 1989 - 7 pm to 1Ø pm
August 11, 1989 - 7 pm to 1Øpm
September 15, 1989 - 7 pm to 1Ø pm
October 13, 1989 - 7 pm to 1Ø pm
November 1Ø, 1989 - 7 pm to 1Ø pm
December 1, 1989 - 7 pm to 1Ø pm
meetimgs are held at the Hamilton Spectator building 44 Frid Street

ORDER FORM CHANNEL 99 USERS
TI-FOCUS
NAME
ADDRESS
CITY
PROVINCE / STATE
POSTAL CODE
PHONE NUMBER
TI FOCUS is available by mail 1Ø times a year. Orders taken after Jan 1 will include all back issues for the current year.
Send your order to: Channel 99 User Group 256 Meadow Lane Burlington, Ontario L9C 4R8

MULTIPLAN CASH BOOK

BY

PETER GLEED.

Last month we put in the column headings, so as promised we shall put in the day to day figures, and also the TITLE OF THE PAGE.

Don't forget to have the MULTIPLAN DISK AND MODULE INSERTED and your CB/TEMPT DISK. After getting the MULTIPLAN screen up on your monitor load CB/TEMPT as showen last month, and also switch off the option. Now goto column 1, all the directions for doing this were given last month and seeing as I have to type this out I'm not giving them twice, so look up last months magazine. You should position the cursor one row below JAN. <Ø3> [Ø3] or any other day you wish to start your accounts, <enter> [enter] or to save a Key Stroke <fd> [ra].

For column 2 I will assume you have recieved some cheques in the mail so this is what we are now going to enter. The first cheque is from XYZ ENGINEERING INC this is to large for the column space so we will call it XYZ ENG, to do this <A> [A] <enter> [return]. Now <XYZ ENG> [XYZ ENG] <enter> [return].

Now again <A> [A] We are using the Alpha Mode because in these two columns there will be no Formula used. So we have to expect that the invoice was sent out out last month and the invoice number was 881208. Therefore <881208> [881208] then <enter> [return] or <fd> or [ra].

This paragraph and the others following it will deal with figures that are connected to a formula. So before you go on please read the instructions at least twice (I bet they don't George).

In column 4 we have to insert the amount of the cheque so <V> or [V] this gets us into the value mode, which allows a formula to be used. Let us now assume that the cheque was worth nine hundred and ninetynine dollars and ninetynine cents, to get this in our column we just <99999> <enter> or [99999] [return] easy isn't it. You do not have to put in dollar signs or decimal points, the formating that we did last month does it for you. Thats one time saver with MULTIPLAN.

Now back to column 2 <cs> thats right <cs> or [f23], go on do it and see what happens. The curser has shifted 3columns at one key stroke, now that is a time saver, and another one is only type in what is really necessary, so if you have more than one transaction on the same date there is no need to fill in column 1 more than once. Whilst we are on time savers, I hope none of you are actualy using the figures that are shown in this article (their is a silly lump of a girl in BEVERLY HILLS that is Pete I can see her from up here, now she is going all red, just like a young teenager.) These figuars are only for guidance, you have to substitute your own proper accounts.

If your accounts have wages to pay on this day they are entered like this <SELF> <enter> or [SELF] [return] then <fd> or [f24] until you come to the wages column <V> or [V] <5ØØ.ØØ> or [5ØØ.ØØ] <enter> or [return]. Now get over to the next to last column by using <fd> or [f24] now insert the amount of all the wages paid with that one cheque. This is done by using the following formula <V> or [V]. Have another look at you screen to make sure your curser is under the next to last column and on row 14. <R14C6+R15C6> <enter> or [R14C6] [return], you will now find that where your cuser is positioned the total now appears. Handy this formulation isn't it. That is the first piece of formulation that you have done.

Now by looking at the sample in this tutorial go and fill in your own accounts, but do not do any more formulations yet, whilst you are filling in the cash book let me expain something to you if you have only one transaction in a day enter it that day, leaving it gets into a bad habit and in the end nothing gets done. One other thing the manual tells you not to overwrite a disk file, well I always over write mine and touchwood I have not had any accidents, just thought I would let you know.

Let us now assume that the cash book for January is filled in but the totals are not, you have filled in column 15 though havent you, in row 16 I used the formula <V> <R16CIØ + R16C11> or [R16CIØ+R16C11]. In column 2 row 26 you will find the letters EOW EXPEND this means end of week expenditure and in row 26 column 15 you will find the amount of the expenditure for that week, the formula for getting this is <V> <SUM (R13C15:R25C15)enter> or [V] [SUM(R13C15:R25C15)enter] "To paraphrase one of our politicians who sometimes loses his pants LIFE WAS MEANT TO BE EASY." By using the formulations that you have learnt in this months tutorial you should be able to get all of your totals.

I know some of your bottom columns come like this ######## this means the column was not formatted wide enough so goto column 17 and formulate by using <F> or [F] then <W> or [W] and change the 8 to a 6, you can also go to column 5 and <D> or [D] then choose column by <C> or [C] and <enter> or [return], you can use this idea of decreasing column width in an area that does not require the width of the original set up to increase the width of columns that do require extra width. Do not forget though do not exceed 136 oolumns in width overal as it will not print out on your printer.

Have fun and keep on filling the cash book, next month we will do a goods inward journal, using the basis of what we have done this month.

PETER GLEED.

GENEVE/MYARC 9640 AUTOEXEC and MENU files

After replacing the TI99/4A with the Geneve I have been gettin grumbling from the family, ages 7 to >21, about the difficulty of using the Geneve compared to the TI. Their grumbling didn't stopped them using the machine, but the feeling was it was "messy" to use, "So much to remember what one must do!". To alleviate their complaints and to make things convenient for myself I have designed a set of batch operation files to ease the use of the machine and organize my commonly used application disks to complement them.

The system parts affecting the way I have organized things are the following:
a)two DSSD drives (TI controller)
b) 80 column monitor, color (converted RGB TTL unit)

My first decision was that drive #1 would normally contain a disk with the Geneve's DOS file SYSTEM/SYS, the AUTOEXEC file, the MENU files and associated batch operation files, and the free space filled with small DOS applications (non TI mode applications).

The second decision was that the drive #2 would normally contain the TI-mode applications or the large MDOS applications.

The third decision was each major TI application disk would include the necessary GPL files (J. Johnson's menu version generally) and useful utility applications such as ARCHIVER and DM1000 loadeable from JJ's menu. In most cases the main application would also be loaded from JJ's menu. The My-Word and Myarc Extended Basic II applications initial loading programmes, MWG and BASIC had to be modified to load the subsequent files from drive #2 by changing the "DSK1" operations to "DSK2" via a sector editor.

The fourth decision was to have the AUTOEXEC file containing only those things necessary and for it to auto-load a MENU file. The MENU(s) file would use 2 alpha-numeric characters to initate loading of an application, these loading commands would be such that addition or delection of an application would not necessitate redoing the menus and the associated batch loading files. The MENU(s) file was to be setup so at least two screens of selections would be available.

The end result is indicated below by the disk directories for the MDOS disk for drive #1 and a sample TI-mode application disk for drive #2. Also below are the files AUTOEXEC, MENU, MENU1, and five sample batch loading files M, P4, U1, W1, and W3. The MDOS disk includes an Extended Basic LOAD file that just runs a LOAD file on the drive #2.

The reception of the family after implementing this arrangement of batch operation files has been positive to the Geneve, indicating that the "operation" has been successful, I know I find it a lot more convenient to run the Geneve. I hope these notes give others ideas on how to make the Geneve convenient for them to use.

Extra features recently added that might be of interest to "expert" GENEVE users follow.

The new MDOS allows loading of autoexec files with other then the "AUTOEXEC" file name, this feature has been used with some MDOS applications to redo my normal arrangement of TIMODE and ramdisk size. An example is what has been done for HYPERCOPY, for details on how this is done refer to the batch files U1 and AUTOEXHC.

Recently Clint Pulley has issued a means to correct errors in MDOS in a very convenient manner, the AUTOEXEC file shows this new feature being used, the MDOS patch programme and patch file being PATCHMDOS and PFILE114.

Eric C. Wiklund
Oakville, Ontario

```
MDOS114     Free     8 Used  712
Filename    Size Type/No  53 P
----------  ---- ---------- -     <<<<<MDOS DISK
A              2 DIS/VAR  80 U          LISTING
AREACODE      24 PROGRAM     U
AUTOEXAB       2 DIS/VAR  80 U
AUTOEXEC       2 DIS/VAR  80 U
AUTOEXHC       2 DIS/VAR  80 U
AUTOEXPT       2 DIS/VAR  80 U
B1             2 DIS/VAR  80 U
B2             2 DIS/VAR  80 U
B3             2 DIS/VAR  80 U
B4             3 DIS/VAR  80 U
CALENDAR       4 PROGRA
D1             2 DIS/VA
EPSON         14 PROGRA
FILEZAP       39 PROGRA
FILEZAQ       30 PROGRA
FIXGIF         5 PROGRA
FIXGIFDOC      5 DIS/VA
HC-TI         33 PROGRA
HC-TJ         24 PROGRA
LOAD           2 PROGRA
M              2 DIS/VA
MENU           6 DIS/VA
MENU1          6 DIS/VA
N              2 DIS/VA
P              2 DIS/VA
P1             2 DIS/VA
P2             2 DIS/VA
P3             2 DIS/VA
P4             3 DIS/VA
P5             2 DIS/VA
PATCH          3 PROGRA
PATCHDOC       5 DIS/VA
PATCHMDOS     15 PROGRA
PFILE114       3 DIS/VA
QDE           42 PROGRA..
QDE_HELP      13 DIS/VAR  80 U
SD             7 PROGRAM     U
SYSTEM/SYS   358 PROGRAM     U
U1             2 DIS/VAR  80 U
U2             2 DIS/VAR  80 U
U3             2 DIS/VAR  80 U
```

EXTENDED BASIC DISK LISTING

```
TIEXBASIC  Free  157 Use
Filename   Size Type/No
---------- ---- --------
ARC          33 PROGRAM
BT           28 PROGRAM
CHARA1        5 PROGRAM
DU           33 PROGRAM
DV           33 PROGRAM
DW           29 PROGRAM
EXB          34 PROGRAM
EXB1         34 PROGRAM
EXB2         34 PROGRAM
EXB3         34 PROGRAM
EXB4         34 PROGRAM
EXB5         34 PROGRAM
GPL          27 PROGRAM
GPM          34 PROGRAM
GPN          26 PROGRAM
GPO          24 PROGRAM
GPP          18 PROGRAM
LOAD          8 PROGRAM
LOADBT        6 PROGRAM
MG           33 PROGRAM
MH           20 PROGRAM
```

FILE "MENU"

```
CLS
ECHO OFF
ECHO ..............................MENU
ECHO ================================================================
ECHO
ECHO .....A____Editor-Assembler  JJ's Menu - Judy
ECHO .....B1___TI Basic  EA - Myarc's GPL unmod.
ECHO .....B2___TI Extended Basic(Clint's)  JJ's Menu
ECHO .....B3___Myarc's Ext. Basic II  JJ's Menu
ECHO .....B4___Myarc's Advance Basic (MDOS)
ECHO .....W1___Funnel Writer  EA  JJ's Menu
ECHO .....W2___Myarc's My-Word  JJ's Menu
ECHO .....W3___Clint's QD Editor (MDOS)
ECHO .....W4___Press!
ECHO .....M____Multi-Plan
ECHO .....P1___Myarc's My-Art (MDOS)
ECHO .....P2___TI-Artist  JJ's Menu
ECHO .....P3___Mac-Flix  JJ's Menu
ECHO .....P4___Picture-Transfer (MDOS)
ECHO .....U1___Hyper-Copy (MDOS)
ECHO .....U2___File-Zap, sector editor (MDOS)
ECHO .....(N)ext Menu ***************
ECHO MDOS Commands: FORMAT, COPY, ERASE, DIR, DISKCOPY, TYPE, CLS, RENAME
ECHO .....LABEL, ATTRIB(+/-P), CHKDSK, VOL, MODE, CON, PRN
ECHO ================================================================
```

FILE "W3"

```
CLS
ECHO
ECHO "To load a file after loading QDE use Ctrl G"
ECHO "To name output file after editing use Ctrl N"
ECHO "To save a file after editing use Ctrl S"
ECHO "The QDE help-file is QDEHELP"
ECHO "On return to MDOS for menu use N or P"
ECHO
PAUSE
QDE
```

FILE "MENU1"

```
CLS
ECHO OFF
ECHO ..............................MENU1
ECHO ================================================================
ECHO
ECHO .....U3___CALENDAR (MDOS), calendar for month shown by clock
ECHO .....X____
ECHO .....U5___AREACODE (MDOS), telephone area code -> geographic location
ECHO .....U6___PATCH (MDOS), adds mouse input to GPL, see PATCHDOC
ECHO .....U7___UNPATCH (MDOS), removes mouse input to GPL, see PATCHDOC
ECHO .....U8___UNTAB (MDOS), removes tabs from text file, see UNTABDOC
ECHO .....X____
ECHO .....D1___TI-BASE, runs from R
ECHO .....X____
ECHO .....X____
ECHO .....X____
ECHO .....X____
ECHO .....P4___Picture-Transfer (MD
ECHO .....P5___FixGif (MDOS), see R
ECHO .....U1___Rapid-Copy (MDOS)
ECHO .....U2___File-Zap, sector editor (MDOS)
ECHO .....(P)revious Menu ***************
ECHO MDOS Commands: FORMAT, COPY, ERASE, DIR, DISKCOPY, TYPE, CLS, RENAME
ECHO .....LABEL, ATTRIBUTE(+/-P), CHKDSK, VOL, MODE, CON, PRN
ECHO ================================================================
```

```
ECHO "Place Picture Transfer disk in drive #2"
ECHO "Existing Geneve Ramdisk (DSK5. or C:) will be destroyed"
ECHO "If not desired then Ctrl C and then at MDOS prompt:"
ECHO "B:<enter> then PICT<enter>"
ECHO "On return to MDOS for menu use A:<enter> then N or P<ent
ECHO
PAUSE
&AUTOEXPT
```

FILE "P4"

FILE "U1"

```
CLS
ECHO
ECHO "Existing Geneve Ramdisk (DSK5. or C:) will be destroyed"
ECHO "If not desired, then Ctrl C and then at MDOS prompt HC-TI<enter>"
ECHO "On return to MDOS for menu & TI-mode use A:<enter> then X<enter>"
ECHO
PAUSE
&AUTOEXHC
```

FILE "W1"

```
CLS
ECHO "Place the Geneve Funnel-Writer disk in drive #2"
PAUSE
B:GPL DSK2.EAG
```

```
CLS
ECHO "Place the Geneve Multi-Plan disk in drive #2"
PAUSE
B:GPL DSK2.MPC
```

AUTOECEC FILE

```
ECHO ON
PATCHMDOS PFILE114
MODE 80
TIMODE
RAMDISK 96
ASSIGN C=DSK5:
A:
EPSON/R
MENU
MODE B5
MODE F16
```


FILE "M"

From Page 11

```
DELAY   DEC   R3
        JNE   DELAY

        DEC   R4              * DO UNTIL R4=Ø
        JNE   LOOP2

        MOV   @RETLOC,R11     * RETURN
        RT
        END
```

COPOLA CORNER
Your club library update
By Wayne Anderson

Disk Labeler 99 Version 2.Ø allows more than 46ØØ different printing possibilities. This makes it more versatile than any other labelling program which I have used.

It would be difficult to describe all the options which are available in this short column. However, my favorite is the ability to omit some filenames present on the disk from the label itself. For example, if you are labelling a disk with multiple-file programs, it is possible to include only the name of the "main" program files. In addition, descriptions of the files may be added to the label.

For a more complete review of Disk Labeler 99, read Tom Arnold"s column in the February edition of TI FOCUS.

Disk Labeler 99 runs from Extended-BASIC.
CAT# EØ256/ARC SIZE 26.ØK

Extended Basic Tools (XB*TOOLS) is a group of programs that will help you write, revise, debug and analyze X-BASIC programs. You may, for example, produce a list of variables with line number references, compress a program to save space and to increase speed, change the names of variables and delete, move or save blocks of lines in a program.

Documentation is extensive. The program autoloads from X-BASIC.
CAT# EØ258/ARC SIZE 43.ØK

1ØØØ WORDS is a utility program for use with TI-Writer and TI-Artist. It converts picture files to DV/8Ø files. The files created may then be printed through the Text Formatter. This allows you to produce documents with both graphics and text.

You do not have the selection of fonts as in other programs, Picasso for example, and text and praphics may not be mixed on the same line. However, if you are satisfied with sections of graphics alternated with sections of text then 1ØØØ WORDS gives you that capability.

1ØØØ word runs from option 5 of E/A or option 3 of TI-Writer as "WORDS".
CAT# EØ26Ø/ARC SIZE 48.ØK

Hockey is a fun, two-player, computer adaptation of Canada's favourite winter sport. You play four-on-four for three, 1Ø-minute periods plus an overtime if necessary. High score, and I mean HIGH score, wins.

The game requires two joysticks and will run as "LOAD" from X-BASIC or as "L/" from the load-and-run option of E/A.
CAT# AØ258/ARC SIZE 36.3K

The McGoverns from Australia have come up with version 4.13 of FUNNELWEB containing fixes for the inevitable problems that "bug" programmers.

The most significant change comes for those of you with 8Ø columns (a Geneve or AVPC card from DIJIT etc.). In this version the command line in the editor is a different colour than the rest of the screen and the use of colourful windows in the show-directory adds interest to the normal, dull display.

The 4Ø-column version comes complete as
CAT# AØ143/ARC SIZE 121.ØK

If you wish to get an 8Ø-column display you will also require the files in
CAT# AØ143*/ARC SIZE 17.ØK

A REVIEW - REFERENCE Harry Sparks
Ti Focus Contest Entry #2

In my review of XB*TOOLS by Jim Swedlow which is issued as FAIRWARE, I alluded to a file called REFERENCE. Jim states, and I quote here from his doc's-"REFERENCE produces a list of key items and a reference list for each one. Listed are line lengths, variables, line number references (GOTO, etc), subprograms (built-in and user) and DATA and DIM lines. A suggested pre-scan variable list order is also printed. You can print any combination of items."

Set-up is same as COMPRESS. If you have a Ramdisk use it. Just remember to change in Jim's files DSK1 to whatever drive you have your RD emulate. Your file saved in the following format; SAVE DSKx.REF,MERGE for REFERENCE to access. You can give the same file name to the menu query of your original program. As a demonstration, I ran a small 18 sector game through the REFERENCE programme. It is printed below. You can see that it would be very useful for debugging a file or even Heaven forbid, making your programme more efficient.

REFERENCE 7.1

REFERENCE prints information
helpful in programming and
debugging.

```
A Print Variable Names?     Y
B Print Subprograms?        Y
C Print Built-in Subs?      Y
D Print Line References?    Y
E Print DATA's and DIM's?   Y
F Print Line Lengths?       Y
G File Name DSK3.REF
H Program:SCHMOO

P Proceed
Q Quit
S Save Defaults
```

Hit "P" to proceed and sit back. You could first hit "S" which would save defaults to the CONFIG file. This would give you the same defaults each time but they can be changed by hitting the corresponding letter if for instance you wished only to print DATA DIM. Oh yes-turn your printer on!!!!
Below is the hard copy I got using the above menu.

SCHMOO REFERENCES

SCHMOO Line Lengths

```
Line #  100 110 120 130 140 150 160 170 180
Length    8 116  85 136  85 144  30 111  92
Line #  190 200 210 220 230 240 250 260 270
Length   42  18  86 111  83  84  84  84  84
Line #  280 290 300 310 320 330 340 350 360
Length  150 143 160 104 153 126  14  56  42
Line #  370 380 390 400 410 420 430 440 450
Length   48  91 156 150  27 116 127  15  15
Line #  460 470 480 490 500
Length   59 114  96  11  13
```

SCHMOO Variables

VARIABLES IN MAIN PROGRAM

```
20 REFS 100 190 210 300 300 300 300 310
320 320 320 320 330 350 350 370 390 420
430 430 470 470 470 480 480 480 480 480
490

A 6 REFS 160 190 190 330 330 340
B 4 REFS 160 160 190 330
C 6 REFS 190 190 190 200 210 430
D 4 REFS 320 320 330 470
E 4 REFS 320 480 480 480
F 4 REFS 320 470 470 480
G 2 REFS 320 330
H *** WARNING *** ONLY ONE REFERENCE *** SEE
LINE 320
```

And so on down to Y.

MAIN PROGRAM PRE-SCAN VARIABLE ORDER

```
Name H W Y G I() N R E X M O Q
Refs 1 2 2 2   2 3 3 4 4 4 4 4

Name D F U K J B P L A T C V
Refs 4 4 4 4 4 4 4 5 6 6 6 6

Name S @
Refs 12 29
```

SCHMOO Subprograms. As above a list of all subprogrammes giving number of occurences and line # in which they are found.

SCHMOO Line Numbers. Shows all line numbers that call another line and the programme lines in which this occurs.

Then DATA's and DIM's are shown by line number.

```
SCHMOO * 41 Lines * Size 3592
26 Variables Referenced 133 Times
15 Subprogrammes Referenced 54 Times
13 Line Numbers Referenced 17 Times.
```

This was done fairly quickly as it was a fairly small programme but you can see that this type of print out can help you track things down. You may not use this programme every day, but when you need it, you need it NOW. It will be in the Club Library. Please don't forget the authour. His name and address are on the DOC's.