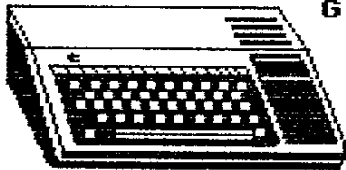


GUILFORD 99'ERS NEWSLETTER



SUPPORTING THE TEXAS INSTRUMENTS TI-99/4A COMPUTER



GUILFORD 99'ERS UG
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GREENSBORO NC
27488



TO:

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The Guilford 99'er Users' Group Newsletter is free to dues paying members
(One copy per family, please). Dues are \$12.00 per family, per year. Send
check to: LF Jones, 3202 Canterbury Dr., Greensboro, NC 27408. The Software
Library is for dues paying members only. (George von Seth, Ed.: 292-2035)
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OUR NEXT MEETING

DATE: June 5, 1990 Time: 7:30 PM. Place: Glenwood Recreation
Center, 2010 S. Chapman Street.

Program for this meeting will be a demonstration of how to
customize your own programs. By changing disk drive accesses and
other things, you can make a program conform to your system and
get the most out of the programs you have. See you there!

MINUTES

The May meeting of the Guilford 99'er Users' Group was held on the 1st at the Glenwood Recreation Center on Chapman Street in Greensboro, N.C. Due to the severe thunderstorm that occurred before the meeting, President Bob Carmany delayed the start of the meeting until 7:55 P.M. but only 6 members braved the storm. The minutes were accepted as given in the newsletter and only the treasures' report was given orally.

OLD BUSINESS: There was no old business discussed.

NEW BUSINESS:

President Carmany informed members that Lutz Winkler of San Diego has had a six bypass operation and is back with us in the TI world. Our prayers and good wishes for a speedy recovery are with Lutz.

Members present agreed to wait until the June meeting to conduct the auction for the two keyboards and book that Herman also donated that is by Millers Graphics and is titled EXPLORER. The volume also includes a disk and Herman says that it contains anything you would ever want to know about the TI. Tony Kleen contributed 3 manuals for the TI to the group and they are at the Center whenever anyone wants to borrow one for a month.

The program was conducted by Tony Kleen and was to be about his RAVE ramdisk which decided it did not want to be demoed and gave up the ghost just before Tony was to demo it! However, with much testing by Bob, Tony, and Bill, it was decided that only the memory had been lost and hopefully no component damage had occurred. I have not heard of any ill effects from Tony so it is assumed that this was true. Tony passed out sheets to members showing his progress in his TI/BASE program called side-by-side. Thanks to Tony for a very good demo.

After the program, Bill Woodruff added some software to the club library and the meeting was adjourned at 9:15 P.M.

Respectfully submitted,
L.F. "Mac" Jones, Sec./Treas.
Guilford 99'er Users' Group

RAMBLING BYTES

by "Mac"

In spite of a vicious storm that swept eastward across Greensboro and surrounding towns, a few brave souls and my thanks

to them for their efforts. As for me, I sat in the parking lot for about 15 minutes waiting for a lull so I could dash inside. While I sat there, hail about the size of small marbles was hounding off my car. I was thinking of the reports about base ball size hail that some counties were reporting and I wonder how the cars survived that.

I haven't heard from Tony since the meeting when he "trashed" his RAVE ram disk but I hope it was nothing serious. As I have never owned a ramdisk of any nature, there was very little that I knew about it but some of the members who do have them seemed to think that it was just a loss of the memory in the card and nothing very serious. Tony didn't bring the loading instructions with him as the capacitor that holds the memory is supposed to hold it for a week and he didn't think he would need them. Anyhow, we still got a good demo of Tony's side-by-side program he is writing in TIBase.

There were no offers from the members that were there for the program at the June meeting but I talked with Bob recently and he thinks maybe he can come up with something interesting. I keep thinking Bob will talk more like Crocodile Dundee but apparently he just wasn't in Oz long enough! Ha!

I noticed an ad in MICROpendium from Baker Software that is offering Super Mario Brothers for only \$9.50! Where were they about 2 years ago?! I used to pay that much a month to keep my grandson happy at the Putt Putt arcade. I tried everywhere to find that game for the TI but to no avail. Then Santa brought him a Nintendo so that was solved. Now, lo and behold, here it is! For those of you who are still having to pay a quarter to play this interesting game at the arcade...sounds like a good deal to me.

Those yard sale TI's are still out there. A friend brought one by just the other day that he had picked up at a sale Sunday. He has no knowledge what so ever about just what a TI99 is but he knew I had one and was in the group so he brought it over to see if he could use it at all. It had a HUNT THE WAMPUS cart in the port and a speech plugged into the I/O port. There also was a wierd looking tape player included but it had a tag on the cord that proclaimed it was for a Commodore. Of course the plug was a lot different from the TI. I was glad to check it out for him and we found the console to work fine and also the speech worked with my EXBasic cart plugged in. Of course his unit was sans the modulator and I explained to him the need for one if he ever uses it with a tv. I also explained to him he would have to have either a TEII or EXBasic cart if he wanted to use the speech. Another thing he must have is a TI cable for his tape recorder to work. I could not stress on him the power he actually had in that little black and silver console. He will just have to find out, as I did, just how powerful it really is. You find out when a beginner starts asking you questions about the TI just how much you really have picked up over the years and really didn't know you were so smart!!

One good thing about retirement is that you can be there for someone that does need advise on the TI and even minor repairs. Things that I use to have to sit aside until I had more time to do are now done at the time they need doing. One of the things I like to do is when I pick up another console is to remove the power board and install the power switch on the side of the console along with a re-start pushbutton. This removes all of the heat from under the grow port and puts the power board away from the console somewhere out of sight in the back of the workspace. The only heat you get is just a little from the cart that is plugged in which is not very much at all. The next thing I do is replace the resistor in the video section that gives me better resolution on the characters on the screen. I generally use 330 ohms which seems to be about the value needed to take the shading from around the letters.

By the time you get this newsletter Mother's day will have come and gone. I hope you sent your mom a nice card if you are one of the fortunate ones who still can enjoy her company. We seem to forget as we age just how much they really have given up for us to have the special things we thought we wanted!

Until the June 5th meeting, take real good care of yourself and enjoy the good Times.

CUSTOM PROGRAMMING

By Bob Carmany

One of the most annoying problems with some of the "off-the shelf" programs is that they don't necessarily fit your system. It is really something that is easy to fix (in most cases) and it will give you a bit of a chance to do some "program engineering" on your own.

Since I'm incurably lazy when it comes to customizing a program, I try to let the computer do most of the work. After all, that's what it is there for --to make things as easy as possible! Let's start with XB programs.

1) Extended BASIC program alterations

A short XB program doesn't present much of a challenge. The easiest way to go about changing a disk access, for example, is to simply go through the program line-by-line and change the necessary code. In a program of 100 lines of code or less, changing DSK1 to DSK4 doesn't take much time.

Long XB programs present a bit more difficult problem. Simply going through several hundred lines of code can be a

tiresome process. Why not let the computer do most of the work. A while back, I wrote a bit about programming with a word processor. One of the TI-Writer clones (F'WEB, for instance) will do very nicely. Besides the word processing program, you will need XLATE or a similar program to turn the text file back into a runnable program -- but I'm getting ahead of myself!

The first thing to do is to load the program into memory. Then, to take advantage of the power and simplicity of F'WEB, we need to turn the program into a D/V 80 file. Another easy task! All you have to do is LIST the program to disk. Simply type LIST "DSKx.FILENAME" where "x" is the drive number followed by whatever name you choose to give the output file. Now, you are ready to start!

Use (R)eplace(S)tring to find and replace the disk access or other bit of code to the specifications of your system. You can easily type /DSK1/DSK4/ for example to find and replace that disk access. The editor will ask you if you wish to replace each of the occurrences as it finds them throughout the program/text file. When you have made all of the changes, the text file must be returned to a runnable program.

A program like XLATE will do the job very nicely. It is a simple matter to follow the screen prompts with the result being a program with all of your changes neatly made. The end result is that you have avoided the hassle of going through a long program line-by-line to change a few bits of code and the computer did most of the work.

II) A/L Program Alterations

Assembly Language code requires a bit more effort but the results are much the same. In fact, in a pinch, you can use the first part of this technique for XB programs as well. You will need a disk sector editor. John Birdwell's DISK UTILITIES package is excellent because it has a "String Search" option that operates in both Hex and ASCII modes. Again, we are going to assume you are changing DSK1 to DSK4.

Go to "File Utilities" and then "String Search". Follow the screen prompts for filename and disk drive number. Enter "A" for ASCII mode and type in DSK1 at the first prompt and DSK4 at the second. The program will find the occurrences of DSK1 and give you the option of changing each of them or all of them. Just press CNTL-W when you are through with the sector and enter at each of the sector, and byte prompts and the code will be written to disk. Again nice and easy ---maybe!

One of the drawbacks to using a disk sector editor is that they are VERY unforgiving! An error in choosing the proper changes can render the program inoperative. If you have never used a disk sector editor, get someone more experienced to make the alterations for you until you feel comfortable about using it yourself.

A new way to make changes to A/L code has recently appeared by way of RAG Software (AKA Roy A Green). In his recently marketed MULTIPLAN update, he included a program called RAGPATCH. It uses a couple of source code files and writes the changes directly to the target A/L file. The source code is fully commented and all you have to do is change the drive accesses and program colors (in the case of MULTIPLAN) to ones that will suit your system. The whole process takes about five minutes and that includes reading the docs and source code to know what you are doing. In fact, there are several bits of source code for changing programs other than his MULTIPLAN updates included in the package. The source code is program-specific and the only drawback is that someone will have to write the specific source code to suit the program you wish to alter before you can effect the changes using RAGPATCH. THE RAGPATCH program is a "universal" program, though, and can load the changes into any A/L program given the right source code file.

In short, there are several ways to alter a program to suit your own needs and it need not be a difficult process. Especially if you let your computer do most of the work. Stop by the meeting for a demo of several ways to customize your programs.

CALL LOADS

CALL LOAD(-24578,0) For storage of D/F files in EXPMEM2 with MiniMem
CALL LOAD(-24578,8) For storage of I/F files in EXPMEM2 with MiniMem
CALL LOAD(-24578,16) For storage of D/V files in EXPMEM2 with MiniMem
CALL LOAD(-24578,24) For storage of I/V files in EXPMEM2 with MiniMem
CALL LOAD(-27648,x,x,x,x) Speech chip locations
CALL LOAD(-30945,0) Creates a white edge character
CALL LOAD(-31572,x) Varies keyboard response
CALL LOAD(-31730,33) Quits Extended BASIC to Master Title Screen
CALL LOAD(-31740,x,x,x,x) Loads Sound chip. Sound continues until a CALL SOUND, INPUT or ERROR.
CALL LOAD(-31744,x) Continues last sound. 0= Loud 15= Quiet
CALL LOAD(-31745,0) Freezes screen and blanks screen (restore with FCTN-).
CALL LOAD(-31748,x) Set cursor blink rate (value 0 to 255). 1 is normal.
CALL LOAD(-31788,160) Blank screen on next keypress.
CALL LOAD(-31788,192) Disable sprite motion and automatic sound.

CALL LOAD(-31788,224) Normal operation.
 CALL LOAD(-31788,225) Magnified sprites.
 CALL LOAD(-31788,226) Double sized sprites.
 CALL LOAD(-31788,227) Magnified, double sized sprites.
 CALL LOAD(-31788,232) Multi-color mode (48 X 64 squares).
 CALL LOAD(-31794,x) Timer for CALL SOUND (x= 0 to 255).
 CALL LOAD(-31804,x) Set cursor blink rate (0 to 255).
 CALL LOAD(-31804,0,36) Quit Extended BASIC to Master Title Screen.
 CALL LOAD(-31806,-32) Continue sound.
 CALL LOAD(-31806,0) Enable sprite motion, Quit key, and sound chip.
 CALL LOAD(-31806,16) Disable Quit key.
 CALL LOAD(-31806,30) Stop sprite motion and disable Quit key.
 CALL LOAD(-31806,32) Disable sound chip.
 CALL LOAD(-31806,48) Disable sound chip and Quit key.
 CALL LOAD(-31806,64) Stop sprite motion.
 CALL LOAD(-31806,96) Stop sprite motion and disable sound chip.
 CALL LOAD(-31806,128) Disable sound chip,Quit key, and sprite motion.
 CALL LOAD(-31808,x,y) Double random number generator (requires RANDOMIZE).
 CALL LOAD(-31860,4) Go from Extended BASIC to console BASIC after NEW and cannot use Memory Expansion.
 CALL LOAD(-31860,8) Automatic RUN "DSK1.LOAD" and restart of Extended BASIC.
 CALL LOAD(-31866,x) Does not allow the full access of 32K (x=1 to 159).
 CALL LOAD(-31868,0) No RUN or LIST after FCTN-4.
 CALL LOAD(-31868,0,0):: Memory Expansion off.
 RUN "DSKx.xxx"
 CALL LOAD(-31868,255,231):: Memory Expansion on.
 RUN "DSKx.xxx"
 CALL LOAD(-31873,x) Start printing at column x (x= 3 to 30).
 CALL LOAD(-31877,x) 32= sprite coincidence, 64= 5 sprites on a row.
 CALL LOAD(-31878,x) Turn off sprites (x=# of sprite, if x= 0 then turn off all sprites).
 CALL LOAD(-31879,x) VDP timer (x= 0 to 255).
 CALL LOAD(-31880,x) Single random number generator (x= 0 to 99). Requires RANDOMIZE.
 CALL LOAD(-31884,x) Change keyboard mode (x = 0 to 5).
 CALL LOAD(-31885,255) Execute BYE.
 CALL LOAD(-31888,63,255) Turn disk drives off. Use NEW to free memory.
 CALL LOAD(-31888,55,215) Turn disk drives on. Use NEW for buffers.
 CALL LOAD(-31931,0) Unprotect Extended BASIC program.
 CALL LOAD(-31931,2) Set command ON WARNING NEXT.
 CALL LOAD(-31931,4) Set command ON WARNING STOP.
 CALL LOAD(-31931,16) Set command TRACE.
 CALL LOAD(-31931,64) Set command ON BREAK NEXT.
 CALL LOAD(-31931,128) Protect Extended BASIC program.
 CALL LOAD(-31952,x) If x=55 then Memory Expansion is off else it is on.
 CALL LOAD(-31952,x,x,x,x) Line number table in Memory Expansion.
 CALL LOAD(-31961,51) Quit Extended BASIC to Master Title Screen.
 CALL LOAD(-31961,149) Automatic RUN "DSK1.LOAD".
 CALL LOAD(-31962,0,32) Execute power up routine--does not close files.
 CALL LOAD(-31962,33,111) Go directly to TI BASIC.
 CALL LOAD(-31962,99,114) Automatic RUN "DSK1.LOAD" and restart of Extended BASIC.
 CALL LOAD(-31962,101,190) Execute LIST from command mode only.
 CALL LOAD(-31962,100,155) Execute RUN.
 CALL LOAD(-31962,100,124) Execute NEW.
 CALL LOAD(-31962,100,126) Execute CONTINUE command--from command mode only.
 CALL LOAD(-31962,100,128) Another LIST command from the command mode.
 CALL LOAD(-31962,100,130) Execute BYE--closes all files.
 CALL LOAD(-31962,100,132) Execute default NUM command when running program ends.
 CALL LOAD(-31962,100,136) Execute default RESEQUENCE command.
 CALL LOAD(-31962,160,000) Generates a colorful Title Screen.
 CALL LOAD(-31962,160,04) Executes RUN without prescan.

CALL LOAD(-31962,255) Automatic RUN "DSK1.LOAD" and restart of Extended BASIC. Command mode only.
CALL LOAD(-32112,8) Searches disk ???
CALL LOAD(-32114,2) Random garbage.
CALL LOAD(-32114,13) Screen goes wild.
CALL LOAD(-32116,2) Random characters on the screen.
CALL LOAD(-32116,4) Go from Extended BASIC to console BASIC after NEW. Cannot use Memory Expansion.
CALL LOAD(-32187,9) 0 Line number.
CALL LOAD(-32188,1) Change color, generate syntax error.
CALL LOAD(-32188,127) Change color, generate breakpoint.
CALL LOAD(-32572,1) Produce distorted keyboard response.
CALL LOAD(-32572,128) Disable keyboard.
CALL LOAD(-32630,0) Master Title Screen without graphics.
CALL LOAD(-32699,14) Stop TRACE.
CALL LOAD(-32699,16) Start TRACE.
CALL LOAD(-32699,128) Protect Extended BASIC program.
CALL LOAD(-32730,32) Quit Extended BASIC to Master Title Screen.

CALL PEEK (PRES)

Another summer is upon us and, as usual, computing time diminishes proportionately with the rising temperature. Of course, there is always the temptation to sit in the air-conditioned comfort of the den and fiddle around with the TI for awhile. Diminished computer time also means diminished input for the newsletter. Please help George out and take a few minutes to write an article for YOUR newsletter.

There is still a trickle of new stuff for the TI around. For example TIVIEW (on the BBS) is a neat little program that allows one to look at pictures created for the Amiga. What next? There are currently programs to view just about any pictures available from the IBM to Amiga. It amazes me that our orphan can do all of these "impossible" things!

In my poking about with QUEST, I uncovered what Ron Kleinschafer called a "bloody great grasshopper" of a program bug. With his usual splomb, Ron whipped together a fix in record time. In all, it is the second revision of the DSR program that I have gotten from Ron since I got back from Oz in March. As impressed as I am with the card itself, I'm more impressed with the responsiveness Ron shows to users of the QUEST card.

Speaking of QUEST, I have found that the RAMdisk "disease" is just short of being fatal. George and I hope to have a couple of boards to work on in the near future. All of that lightning storage space is awesome. I even contemplated pawning the wife's jewelry to get another one but she "talked" me out of it!

Rumor has it that Tony McGovern is also coming out with a revision of F'WEB ---Vn 4.3. I understand that most of the changes will be in the 80-column version but Tony has never been one to neglect the 40-column version as well. If memory serves me, it was about two years ago that he released the "definitive" version of F'WEB. It's programmers like Tony that keep the TI alive and well by pushing the machine to its ultimate limits.

How many years has it been since TI pulled the plug on us? The doomsday "prophets" gave the TI 3 months after Texas Instruments cut the 99/4A adrift. There are still several hundred Users' Groups alive and well and ours is one of the oldest!!

FOR SALE

1 - 32K PEB card. Ugly but works just fine --\$30 takes it! Contact Bob Carmany at the meeting or leave a message on ROS. Will consider a trade for an RS232 card or other TI gear as well.


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970 CALL POSITION(#1,HAWY,HA : 1320 END : 1660 SCORE=0 : 1930 PRINT "ON LEVEL 1 YOU C
WX):: IF HAWX<15 THEN 990 : 1330 BY=136 :: BS=0 :: YS=-3 : 1670 IF K=89 OR K=121 THEN C : AN SHOOT AT THE HAWK AT ANY
980 IF HAWY<15 THEN 990 ELSE : 0 : ALL CLEAR :: GOTO 110 : TIME AND YOUR EFFECTIVE 10 POINT
860 : 1340 RETURN : 1680 END : S FOR EACH HAWK YOU SHOOT.
990 FOR SP=4 TO 12 : 1350 BY=128 :: BS=-20 :: YS= : 1690 CALL CLEAR : AFTER YOU"
1000 CALL DELSPRITE(#1,#SP) : -20 : 1700 CALL SCREEN(2) : 1940 PRINT "HAVE DOWNED 10 H
1010 NEXT SP : 1360 RETURN : 1710 FOR I=2 TO 8 : AMKS WITHOUT RUNNING OUT OF C
1020 NC=NC-1 :: GOTO 410 : 1370 L$="SECOND" : 1720 CALL COLOR(I,I*2,2) : HICKENS (YOU START WITH 7 CHI
1030 B=0 : 1380 D$="HAS STARTED ITS DIV : 1730 NEXT I : CKENS) YOU GO TO LEVEL 2"
1040 CALL SOUND(100,110,0,-7 : E" : 1740 PRINT TAB(8);"***** : 1950 PRINT
,0):: CALL SPRITE(#12,40,16, : 1390 CALL CLEAR : ***** : 1960 PRINT "ON LEVEL 2 THE 6
BY,240,BS,YS) : 1400 CALL DELSPRITE(ALL) : 1750 PRINT TAB(8);"* : UN WILL NOT FIRE UNTIL THE H
1050 RETURN : 1410 CALL CHARSET : * : AWK HAS STARTED ITS DIVE
1060 CALL DELSPRITE(#12) : 1420 DISPLAY AT(10,1):"YOU H : 1760 PRINT TAB(8);"* CHICKEN : . EACH HAWK SHOT ON LEVEL 2
1070 CALL SOUND(-100,150,2,- : AVE REACHED THE ";L$;"LEVEL : HAWK *" : IS WORTH 20 POINTS."
7,2):: SCORE=SCORE+SC : OF PLAY. NOW THE HAWK CAN BE : 1770 PRINT TAB(8);"* : 1970 PRINT
1080 CALL MOTION(#1,0,0) : SHOT ONLY AFTER IT ";D$ : *" : 1980 PRINT "ON LEVEL 3 THE 6
1090 BIRD=BIRD-1 : 1430 PRINT "PRESS ANY KEY TO : 1780 PRINT TAB(8);"* BY : UN WILL NOT FIRE UNTIL THE H
1100 IF BIRD=0 AND LEVEL=1 T : CONTINUE PRESS '0' TO QUI : *" : AWK HAS TAKEN A CHICKEN.
HEN 1370 ELSE IF BIRD=0 AND : T" : 1790 PRINT TAB(8);"* : A HAWK SHOTON THIS LEVEL IS
LEVEL=2 THEN 1460 ELSE IF BI : 1440 CALL KEY(0,K,S):: IF S= : *" : WORTH 40 POINTS."
RD=0 AND LEVEL>2 THEN 1490 : 0 THEN 1440 : 1800 PRINT TAB(8);"* RAY W. : 1990 PRINT
1110 CALL PATTERN(#1,96) : 1450 LEVEL=LEVEL+1 :: CALL C : SPEER *" : 2000 PRINT "PRESS ANY KEY"
1120 FOR DEL=1 TO 5 :: CALL : LEAR :: IF K=91 OR K=113 THE : 1810 PRINT TAB(8);"* : 2010 CALL KEY(0,K,S):: IF S=
MOTION(#4,0,0):: CALL LOCATE : N END ELSE 120 : *" : 0 THEN 2010
(#4,CHY,CHIX):: NEXT DEL : 1460 L$="THIRD" : 1820 PRINT TAB(8);"***** : 2020 CALL CLEAR
1130 CALL PATTERN(#1,100) : 1470 D$="HAS PICKED UP A CHI : ***** : 2030 PRINT "ON ALL LEVELS TH
1140 FOR DEL=1 TO 80 :: NEXT : CKEN" : 1830 PRINT :: PRINT :: PRINT : ERE WILL BE 15 POINTS DEDUCT
DEL : 1480 GOTO 1390 : 1840 PRINT " WRITTEN IN EXT : ED FROM THE SCORE WHEN A HAW
1150 CALL PATTERN(#1,136) : 1490 FOR A=1 TO 10 : ENDED BASIC" : K STEALS A CHICKEN WITHOUT
1160 CALL MOTION(#1,20,0) : 1500 READ FAN(A) : 1850 PRINT : BEING SHOT."
1170 CALL POSITION(#1,HY,HX) : 1510 NEXT A : 1860 PRINT " DO YOU NEED IN : 2040 PRINT "ON LEVEL ONE YOU
1180 IF HY>160 THEN CALL DEL : 1520 DATA 323,626,828,929,10 : STRUCTURENS? : LOSE FIVE POINTS IF YOU SH
SPRITE(#1)ELSE 1170 : 00,555,888,444,222,323 : (Y/N) : OOT A HAWK AFTER IT HAS TAK
1190 GOTO 410 : 1530 FOR A=1 TO 10 : " : EN A CHICKENON LEVEL TWO YOU
1200 CALL CLEAR : 1540 CALL SOUND(100,FAN(A),2 : 1870 ACCEPT AT(24,16)VALIDAT : GAIN FIVE POINTS."
1210 CALL DELSPRITE(ALL) : ) : E("yYnN"):Y$ : 2050 PRINT
1220 CALL CHARSET : 1550 FOR DEL=1 TO 10 :: NEXT : 1880 IF Y$="Y" OR Y$="y" THE : 2060 PRINT "USE ARROW KEYS T
1230 PRINT "GAME OVER--PLAY : DEL : N CALL CLEAR :: CALL CHARSET : O MOVE GUN UP AND DOWN AND
AGAIN?(Y/N)" : 1560 NEXT A : :: CALL SCREEN(4):: GOTO 19 : USE '0' TO FIRE GUN OR USE
1240 IF SCORE>HISCORE THEN H : 1570 CALL CLEAR : 30 : JOYSTICK NUMBER ONE."
ISCORE=SCORE : 1580 CALL CHARSET : 1890 IF Y$="n" THEN CALL CLE : 2070 PRINT
1250 PRINT "YOUR SCORE=";SCO : 1590 CALL DELSPRITE(ALL) : AR :: CALL CHARSET :: RETURN : 2080 PRINT " PRESS ANY KEY
RE : 1600 PRINT "YOU WIN. PLAY AG : 1900 IF Y$="N" THEN PRINT "R : TO BEGIN"
1260 PRINT "HI-SCORE=";HISCO : AIN?(Y/N)" : ELEASE ALPHA LOCK TO USE J : 2090 CALL KEY(0,K,S):: IF S=
RE : 1610 PRINT "FINAL SCORE=";SC : OYSTICKS." : 0 THEN 2090 ELSE RETURN
1270 CALL KEY(0,K,S):: IF S= : 0RE : 1910 PRINT "IF ALPHA LOCK IS :
0 THEN 1270 : 1620 IF SCORE>HISCORE THEN H : RELEASED THEN PRESS ANY K :
1280 SCORE=0 : 1630 PRINT "HI-SCORE=";HISCO : EY TO BEGIN" :
1290 LEVEL=1 : 1640 CALL KEY(0,K,S):: IF S= : 1920 CALL KEY(0,K,S):: IF S= :
1300 IF K=121 OR K=89 THEN C : 0 THEN 1640 : :: CALL CHARSET :: RETURN :
ALL CLEAR :: GOTO 110 : 0 THEN 1640 : :
1310 IF K=78 OR K=110 THEN 1 : 1650 LEVEL=1 :: RESTORE :
320 ELSE 1270 :

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SEA STALKER

(C) Infocom

hints by Skybird

WELCOME to Sea Stalker! Let's hope you can not only find out who the Traitor to the Aquadome is, but that you'll be able to find the Underwater Terror!

You start off at your Private Lab & Test Tank. Little bits to help you here include:

Computestor: A machine for troubleshooting your inventions (and of course that's what you do for a living!). To use it just type >Ask Computestor about (and type in your item).

Security Scanner: if you're on the property & you're not wearing a special identification badge you're caught!

Electrical Panel: The lab receives its power thru this panel located in the corridor just East of your lab.

Circuit Breaker: even this adventurer knows what this is!

Videophone: This is your communications device. You can look at the person you are communicating with and will answer it by turning it on, then turning the knob to tune it in.

You'll meet Tip Randall (your closest pal), Commander Bly (a tough cookie but good looking), Mick Antrim (if you want to know anything about nuclear power, undersea navigation or communications he's the guy to ask), Marv Siegel (sonar gear specialty), Bill Greenup (scuba diver specialty), Walt "Doc" Horvak (scientist, marine biochemistry), Sharon Kemp (inventors assistant & you could think of her as your own sister in a way), Amy Lowell (Navy Frogman School, here as a summer job), and Dr. Jerome Thorpe (scientific genius, & an article about him in the Science World magazine). Watch it! One is a traitor !!

Your sub (Scimitar) will get you where you need to go! Here you need to know about:

Throttle: Yep, controls the speed of the Scimitar. Set Throttle to Slow and she travels one sea square each turn. Set Throttle to Medium and she will travel two sea squares per turn - on Fast she'll go three sea squares per turn, and of course Setting Throttle to Stop does just that.

Depth Control: directs the Scimitar's automatic guidance system to keep you a certain depth below the water's surface. Changes depth by 5 meters for each sea square that she moves thru.

Joystick: turns the Scimitar to face any of 8 compass directions.

Auto Pilot: all operating controls go into automatic when this is set except Throttle.

Reactor-Catalyst Capsule (Reactor Lever): the secret to the Scimitar's power is its midget plasma-fusion reactor. For it to work a catalyst capsule must be put into the reactor & pushed with the reactor lever.

Engine Start Button: Can you guess?



Now, on your sub you have the following equipment and controls:

Brass Search light (lights on automatically when your sub descends beyond the depths of sunlight penetration); **Sonarscope** (works like radar and shows you solid objects within 2500 meters in any direction); **Sonar Phone** (underwater communications), **Depth Finder** (uses echo soundings to determine depth - orange light means within 10 meters, red light indicates 5 meters and you'd better do something quick!), **Test Button** (troubleshooting circuitry activated by pushing a test button), **Engine Compartment** (is located thru an access panel - watch it here!), **Emergency Oxygen Gear** (a canister for those who like to breathe! wear it around your neck and turn the valve), **Extensor Claws** (are remote controlled and you can: Take, Drop, Aim or Shoot).

Aquadome Equipment:

Emergency Survival Unit in two parts: Alarm activated when your sub runs low on oxygen and a needle that jabs you and wakes you up if you've passed out {ouch!}.

Aquatic Dart Gun - each dart has a tranquilizer and can be shot at a fish or large animal to make it drowsy.

The "49er" Prospecting Bazooka - useful for prospecting in undersea rock formations. Fires a hollow tube that bores into rock. Fired by a diver from a shoulder-held position.

Sea Cat - an interesting little craft that crawls along the sea bed like an underwater bulldozer. Has a main body that crawls and a rear power pod that propels it. Has a single rocket pod atop it that can be fired ahead of the craft.



DON'T FORGET to find or use: Reactor; Hydrojet; Tranquilizer; Dart gun; Bazooka; Syringe; Fine Grid; Electrolyte relay; Black Box; Diary; Tool; last but not least The Traitor and The Snark ! Good luck !

You feel the seat press harder against you, and the hydrojet gets louder. You're now travelling at a speed of 2 sea squares per turn . . .

Your score is 100 Points out of 100 in ??? turns . . . This score gives you the Rank of Famous Adventurer !

Bob Carmany, Pres. (855-1538)
Mack Jones, Sec/Treas (288-4280)
BBS: (919)621-2623 --ROS

Emmett Hughes, Vice Pres. (584-5108)
Bill Woodruff, Pgm/Library (228-1892)

+++++
The Guilford 99'er Users' Group Newsletter is free to dues paying members (One copy per family, please). Dues are \$12.00 per family, per year. Send check to: LF Jones, 3202 Canterbury Dr., Greensboro, NC 27408. The Software Library is for dues paying members only. (George von Seth, Ed.: 292-2035)
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OUR NEXT MEETING

DATE: July 3, 1990 Time: 7:30 PM. Place: Glenwood Recreation Center, 2010 S. Chapman Street.

Program for this meeting will be a demonstration of the newly released version of TI-BASE. This version is 3.0 and is another step in the evolution of the "perfect" data base for our little orphan. Our resident expert Tony Kleen will present the demo.

MINUTES

The June meeting of the Guilford 99er Users' Group was held on Tuesday the 5th at the Glenwood Recreation Center on Chapman Street in Greensboro, N.C.

There were 6 members present.

The meeting room was being used by the voter personnel so we met in an alternate room. President Carmany called the meeting to order at 7:54 P.M. as it was evident no more members would arrive.

OLD BUSINESS:

1. Bill says the club drive that was to be a second drive for the club is now "eating" disks. He made a motion that the club scrap the drive as it seems to be beyond repair.
2. Tony says he may have an extra Shugate drive that the club can use and he would check it out and let us know at the next meeting.
3. Tony advised that only the DSR was lost on his Rave ramdisk and there was no electrical damage done. The accident happened when Tony plugged his card into the club's P-Box last May and it shorted against the P-Box.
4. Bob mentioned that there was an excellent article on the 3-slot P-Box in the Hunter Valley newsletter a few years back if anyone was interested in a smaller box.

NEW BUSINESS:

1. The Secretary read letters from Lynn Gardner of the PUG and also Paul Fischer from Austria. Lynn was nice enough to inform us that the BBS number that I had given earlier has been changed. The new number is (412) 341-4820. Thanks Lynn!
2. The members elected to answer the letter from Austria and to send Paul the programs he wished. We await his reply.
3. The auction was held as planned. The MG book and disk was purchased by Tony Kleen and the two TI keyboards were taken by Bill Woodruff.

The program was given by Bob and included ways to change drive numbers in a program by using a DV/80 file. Bob showed the old way by having to execute each line number and changing the drive number compared to the much faster DV/80 way. A good demo Bob and thanks.

Tony agreed to have the program in July and will pertain to his TI-Base interests.

The meeting was adjourned at 9:00 P.M.

Respectfully submitted
L.F. "Mac" Jones, Sec./Treas.
Guilford 99er Users' Group

CALL PEEK (PRES)

If you have been following the "expanding your TI" stuff in MICROpendium, you will notice that the May issue dealt with RAMdisks. They belonged somewhere in the scheme of things after modems and such. I would have to disagree with that. If I were starting again from scratch, a RAMdisk would be the first purchase after a PE-Box, disk drive, 32K card, and a printer interface. That's right, even before a modem or any of the other "extras". The increase in overall speed and flexibility is astonishing!

RAMdisks are really amazing!! My Quest has opened up new horizons (pun intended) for me. Everything is so much faster and more convenient. Using a program like SPELLCHECK or MULTIPLAN is no longer a marathon affair. But, I still can't overcome the insurmountable drawback that they present --- sheer, raw greed! That's right, if one is good, just think what you could do with two of them! Anyway, by the time you read this, I should have in hand a second Quest for me PE-Box. I even have it on good authority that one will soon be on it's way to George as well.

The software keeps rolling in from Oz. The latest is Tony McGovern's latest version of Funnelweb. Version 4.30 is another upgrade of this fine program. I did manage to find one bug in the program but only through abusing it as much as I could. In normal use, you will probably never discover it so I'll keep it a secret for now.

Most of the improvements are in the 80-column version but there are some significant changes in the configuration program as well. For example, you can now choose an immediate load of DISKREVIEW, USER LIST, or the FW file. Your choice will boot at load and be the first thing that you see on the screen. It makes customizing the program more flexible and powerful.

It also now boots a clone of the C2 (E/A side) character set from FW. If you don't like that particular character set, alterations can be made with an appropriate sector editor to the FW file itself. See the article a bit later in the newsletter for the details.

It is another excellent programming effort from Funnelweb Farm!

RAMBLING BYTES

by "Mac"

Since the heat has finally set in for good, there just isn't a whole lot of hacking going on around the Jones household! It seems that there is just so much needing to be done outside that when darkness does finally come, I am just too bushed to "pute".

There is one thing that I had not tried on my TI and that is SD when using FW. I really don't know why I hadn't because it sure beats loading the DM and then having to go back to FW after finding out what was on disk. I don't know how many of you, like I, just never bothered trying SD, but we have been really missing out on a good thing. At the beginning of FW if you just type SD (show directory), you will be asked which drive. Just type in the number of drive you wish to be catalogued and it will be done for you. I really can't say why I was not using this feature, but you can bet I am now. I have Bill to thank for the tip on using it.

Another thing that I hadn't tried was what Bob was showing us the last meeting. That was how to go into a program and change one or more things such as disk drive numbers by using a DV/80 format. Before, I would break into the program with F/4 and then using the F/X, go through the program line by line to change statements that I needed changing. With the DV/80 format, you can let the computer do this for you. It gives you the option of changing one or all of the statements needing changing. So you see, an old dog can learn new tricks after all!!

We got an interesting letter from Austria from Frank Fischer wishing to get programs for the TI and Geneve. We really couldn't tell from his letter just which programs he wanted as he listed quite a few from MICROpendium that we don't know whether he wants or has. He says he has a father in chikago (sic) and would like to get friends over here as the TI'ers are limited there. I do know that they have some very good programmers over that way.

Since the young lady next door has come home from college for the summer and is out in a bathing suitless strap, my keyboard letters seem to be changing places on the keyboard and is ruining my typing skill! I find that I am more human than hacker so I had better go out and see if there isn't something that needs doing in the yard, or garden, or something!! Anyhow, see you at the July meeting and enjoy the good TIaes.

CHARS AND F'WEB

by Bob Carmany

I have never been completely happy with the character set that is loaded when F'WEB is used to assemble source code. I had altered the word processing character set long ago but the other was one of those "I'll get around to it" jobs. Finally,

the introduction of Vn 4.30 forced me to do something about it. This version, it seems, loads a character set very similar to the C2 set loaded by the PROGRAM EDITOR. So, unless I wanted to look at those characters whenever the FW file booted (which really isn't too bad) I had to do something about it. It is a matter of personal taste -- sort of like the inverse video control characters that I added to the word processing character set.

The F'WEB docs said that FW loaded a character set similar to C2. OK, I can handle that!! Step 1 was to look at both character sets and see if the individual characters that I objected to looked the same in both cases. They did! Next, I had to find a way to see what the character looked like and simultaneously what the hexadecimal code for the character was. Wayne Stith's CHARA/FIX program was just the ticket! Step 2 consisted of renaming C2 to CHARA1 and looking at the individual "offending" characters and writing down the 16 character hexadecimal code for each. I reasoned that if the characters in the FW file looked the same, the hex code should be identical as well. Step 3 consisted of altering the chosen characters and writing the new codes under the old ones.

All of the preparations had been made. I had shortened the "hook" on the numbers "2" and "3", altered "5" and "9", and made "D" and "S" a bit more pleasing to my eye at least. Now, it was time for the actual alterations. The character codes, I had reasoned, should be unique within the FW program. I used John Birdwell's DISK UTILITIES and used FIND STRING to find the "old 16 character hex code for the first character --- in my case "2". The character code 3B44440810207C00 was indeed unique. I used REPLACE to change it to 3B44040810207C00 which shortened the "hook" at the top of the character. <CTRL>-W took me to the "write" mode and a couple presses of <ENTER> wrote the new code directly to the FW file. Each of the chosen characters was changed in turn by the same method.

The final step was to go back and alter the C2 file as well. I decided not to use CHARA/FIX to re-write the C2 file because it created a 9-sector file instead of the more compact 5-sector file used by F'WEB. Either length can be used but I was a bit pressed for disk space on my Quest. With C2 finished, I had my completely customized version of F'WEB 4.30.

HARDWARE MOD

The following download came by-way-of Delphi:

May 8, 1990

Tales of a Power Supply

Ever noticed your PEB gets really hot? Wished for a hard drive mounted in the PEB but know your PEB power supply can't handle it? Tired of your GENEVE LED winking out and your GENEVE and HFDC cards slowly turning brown around the power regulators?

I've been worried about it for quite some time... Tony Lewis advised me a while ago that the PEB power supply wasn't really designed for all of these new cards and drives which are being mounted in them. After losing a power supply (and sending \$50.00 to TI to get a new one) I decided that the way to go was to replace the power supply totally with a new "switching" supply.

TI designed the power supply around the technology of the time. The power supply is a "linear" supply. That means that your PEB has inside a huge power transformer, with simple regulating circuits that provide the power to the bus in the 11 computer.

A switching supply avoids the huge transformer and heat problems by switching the power on and off very quickly (this has caused some interesting problems in offices that contain a large amount of PC based equipment). Switching supplies are very cheap due to their wide applicability to PC's.

One mistake (in terms that it has caused untold grief for board designers of the PEB) is that the TI linear power supply is underpowered and generates too high a voltage for the cards on the PEB bus.

This is what the TI PEB manual says the voltages going to the PEB bus should be out of the power supply:

BROWN - +16V

YELLOW - -16V

GREEN - +8V

BLACK - GROUND

Per the TI design, the cards that you plug into the PEB must drop these voltages to something they can tolerate with their circuits:

+16V drops to +12V

-16V drops to -12V

+8V drops to +5V

This isn't too bad, but the actual voltages I measured coming out of the TI supply were even higher than listed (I measure +20V instead of +16V, etc.). The drop in voltage means the cards must get rid of the excess energy somehow, and that means HEAT.

Also, the power going to the floppy drive(s) is inadequate for two full height drives, or even one 5 1/4" hard drive. I wanted to mount a 5 1/4" drive along side a 1/2 height floppy drive or a complete self-contained machine.

A New Supply

=====

Browsing at the Trenton Computer Fair (in pouring rain) I found a Highlandbrand new power supply for \$50.00. Not a bargain, but I didn't want to trust this project to a used supply or one without a guarantee. The supply I picked up came mounted in a metal case ready to drop into an IBM AT compatible. Because it was mounted in a metal case, it came with a few extra goodies, like a new power connector for the back of the PEB and a low-voltage (and quieter) fan.

The supply I picked is a 200 watt supply, which I decided would have enough for my PEB with full complement of cards.

I started this project on a Sunday evening by opening up my PEB (I have a spare so I wasn't too worried about destroying this PEB) and removing the following from the left hand power section of the PEB:

- a. Power Transformer (remove four nuts)
- b. Terminal Strip (remove two nuts)
- c. Power Connector (unscrew two screws)
- d. Power Supply (remove two screws and unsolder wires to PEB bus)
- e. Fan (remove four nuts)

I kept all of the wiring to the front power switch and to the fuse (new model PEB's seem to have removed the fuse on the rear of the PEB). I carefully cut two wires from the front power switch and soldered the 120VAC power connections to the power plug which goes to the new power supply.

Working on the new power supply, I unscrewed the low voltage fan and mounted it to the back of the PEB (after cleaning everything in the PCU, amazing how dirty it gets after six years) using the four nuts which held the previous fan. I unsoldered the 110/220 VAC switch on the power supply and soldered the wires together (to force 110vac) and taped the wires to prevent a short.

Deciding how to mount the new power supply took much of my time. I finally decided to use the plastic vertical mounting unit from the old TI PEB power supply, and drill a couple of holes and mount the new power supply board to it. The new power supply then mounted vertically in the same manner as the old power supply.

Fortunately the new power supply came with disk drive connectors (four to be exact). I removed one of the disk drive cables (cut it off).

The power supply also comes with connectors which are intended to plug into an IBM PC Compatible motherboard. I also cut these off and removed all of the wires except for the wires which had the voltages:

+12V

-12V

+5V

ground

I then soldered these wires to the bus in the same place as:

+12V went to BROWN

-12V went to YELLOW

+5V went to GREEN

GROUND went to BLACK

(Warning: If you decide to try this yourself, try and make sure that the cables going to the drive connectors are long enough to run behind the cards in the PEB. Mine were a bit short but ere still usable).

Next came the hard drive. I just mounted a hard drive and a floppy drive side by side in the PEB and ran the cables out of the box before putting the whole thing back together.

Card Modifications

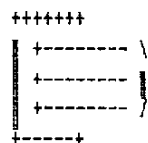
=====

Here is the nasty part of the power supply changeout, every card that you plug into the PEB will require a modification and the card without the modification cannot be plugged into a standard PEB without blowing out the card (time for a nice big caution sticker on the card).

The modification is quite simple, and is because the cards no longer need to do their own power regulation, the power on the bus (+12V, -12V, and +5V) is the right power that the cards need to run. The modification involves jumpering out all power regulators on the boards.

One way to do this is to remove all power regulators and then jumper across the contacts. I choose a simpler way which lets me remove the modification in the future if I so desire (remember also, at this point I wasn't quite sure this was all going to work!).

The power regulators have three prongs connected to a square body, and are usually located near the bottom of the card (usually one or two right next to the LED which sticks out the front):



The middle connection is ground, and should be left alone. I made up small jumpers for the outer two connections, and soldered all of them on the PC-side of the board.

(WARNING: These modifications should be tried at your own risk. The Guilford 99'ers assume no responsibility for the results or lack thereof from this downloaded file. In short, if you screw something up tough luck!!)

```

1 ! ACE : Assembly Object to : 120 CALL KEY(0,KY,ST):: IF S : 240 CALL PEEK(18196,A,8):: NS : 360 FOR T=1 TO 8 :: DISPLAY
Extended Basic CALL LOADS : T=0 THEN 120 ELSE CALL CLEAR : T=0 :: INDEF=A#256+B :: FOR : AT(20,1)BEEP:L$:TAB(6);"Driv
Converter 8/3/1984 : 130 DISPLAY AT(1,1):L$:TAB(5 : T=16376 TO INDEF STEP -8 :: : e error or":TAB(6);"Program
2 ! By : );"Are the Assembly":Object : NL=T :: GOSUB 870 :: NST=NST : name error":L$:L$ :: FOR I=1
Paolo Bagnaresi : s already loaded ?": " Ans : +1 :: STDEF(NST)=DEF$ :: NE : TO 100
Tel.(02)-514.202 : wer: (Y/N) N":L$ : XT T : 365 NEXT I :: CALL HCHAR(20,
Address: : 140 ACCEPT AT(5,17)SIZE(-1)Y : 250 CALL CLEAR :: A=0 :: D$= : 1,32,128):: NEXT T :: RETURN
3 ! Via J.F. Kennedy 17 : ALIDATE("YN")BEEP:RI$ :: IF : "I" : 150
20097 San Donato Milanese : RI$="" THEN 50 ELSE IF RI$="" : 260 DISPLAY AT(1,1):L$:"List : 370 CALL CLEAR
(Milan)- Italy : Y" THEN CALL CLEAR :: GOTO 3 : of DEFS to choose from":fo : 380 ON ERROR 400 :: CALL PEE
10 GOTO 40 :: DIM STDEF$(100 : 70 ELSE N$="I" :: CT$="Y" : r checking purposes":L$ : K(18194,A,B,C,D):: FINELOC=A#
): D$,N$,F$,DEF$,PB$,SC$,RI : 145 GOSUB 900 : 270 FOR T=5 TO 20 STEP 2 :: : 256+B :: NL,INDEF=C#256+D ::
$,CT$,L$,HEX$,H$,DSC$,DECC$, : 150 DISPLAY AT(6,1):L$:"Inse : FOR Z=1 TO 19 STEP 9 :: A=A+ : GOSUB 870 :: IF ASC(DEF$)=2
PROG$ : rt the diskette with the":A : 1 :: DISPLAY AT(T,Z)BEEP:A;S : 55 THEN 400 ELSE INIZLOC=DBM
20 CALL LOAD :: CALL INIT :: ssembly Object and enter":t : TDEF$(A):: IF A>NST THEN 28 : #256+DBL
CALL LINK :: CALL PEEK :: C : he object progr. name": "Na : 0 ELSE NEXT Z :: NEXT T : 390 ON ERROR STOP :: GOTO 43
ALL CHAR :: CALL HCHAR :: CA : me : ";PROG$:L$ : 280 DISPLAY AT(T+1,1):L$ :: : 0
LL KEY : 160 DISPLAY AT(22,1):L$:"era : DISPLAY AT(20,1):L$:"DEF No. : 400 CALL CLEAR :: FOR I=1 TO
30 N,AUT,A,B,C,D,E,F,b,H,I,L : se and press ENTER if you":f : ? (I-";NSI;") ":L$:"Press E : 10 :: DISPLAY AT(10,1)BEEP:
,M,N,CT,NS,LS,DBM,DBL,FINELO : AB(9);"are through" : ENTER when finished":L$ : L$:L$:" The Assembly Progra
C,LOC,INIZLOC,INDEF,NDEF,NLI : 170 ACCEPT AT(11,9)SIZE(-10) : 285 ACCEPT AT(21,21)VALIDATE : ms": " have not been load
NK,NL,NLINE,NST,KY,ST,DEC,PO : BEEP:PROG$ :: IF PROG$="" TH : (DIGIT)SIZE(-2)BEEP:D$ :: IF : ed": :TAD(10);"LOAD THEM!":L
,Z : EN CALL CLEAR :: GOTO 320 : D$(<)" THEN 340 : $:L$
40 CALL CLEAR :: CALL SCREEN : 180 DISPLAY AT(13,1):"Disk D : 290 CALL CLEAR :: DISPLAY AT : 410 FOR T=1 TO 100 :: NEXT T
(16):: FOR T=0 TO 14 :: CALL : rive ? (I-3) ";N$:L$ :: ACCE : (1,1):L$:"Are the programs l : :: CALL HCHAR(12,1,32,160):
COLOR(T,13,16):: NEXT T :: : PT AT(13,20)SIZE(-1)VALIDATE : oaded": "so far OK. ? (Y/N) : NEXT I :: GOSUB 900 :: GOT
!BP- : ("123")BEEP:N$ :: IF N$="" T : Y":L$ :: ACCEPT AT(4,20)VAL : D 150
50 CALL CHAR(128,"00282828" : HEN 130 : IDATE("YN")SIZE(-1)BEEP:SC$ : 420 !Disk-printing routine
131,"000000FF"):: L$=RPT$(CH : 190 ON ERROR 360 :: CALL LDA : 295 IF SC$="Y" THEN 320 : 430 CALL CLEAR :: GOSUB 790
R$(131),28):: H$="0123456789 : D("DSK"&N$&". "&PROG$):: ON E : rtunately in this case": "i : :: IF F$="" OR N$="" THEN 32
ABCDE" :: CALL CLEAR : RROR STOP : t's not possible to": "elim : 767 :: ON ERROR 840 :: GOSUB
60 PB$="By Paolo Bagnaresi : 200 DISPLAY AT(15,1):"Do you : inate just one program": "b : 920 :: OPEN #2:"DSK"&N$&".
Via J.F. Kennedy : want to check the":loaded : ut it's necessary to load" : &F$,VARIABLE 163 :: ON ERROR
17 20097 San Donato : program ? (Y/N) ";CT$:L$ :: : 310 DISPLAY AT(15,1):"all th : STOP :: N=0
Milanese (Milan)- Italy" : ACCEPT AT(16,24)SIZE(-1)VALI : e program(s) all": "over ag :
70 DISPLAY AT(1,1):L$:L$ : T : DATE("YN")BEEP:CT$ : ain.": "DK? (Y) Y":L$ :: AC : 440 !Address of the program
AB(13);"ACE" : :TAB(14);"by": : 205 IF CT$="N" THEN 150 : CEPT AT(19,9)VALIDATE("Y")SI : er
TAB(7);"Paolo Bagnaresi":TAB : 210 DISPLAY AT(18,1):"Does t : ZE(-1)BEEP:SC$ :: CALL INIT : 450 PRINT #2:CHR$(0)&CHR$(1N
(7);"Tel(02)-514.202": "San D : he program come back": "to Ex : 315 CALL CLEAR :: GOTO 150 : &CHR$(131)&CHR$(199)&CHR$(LE
onato Milanese-ITALY":L$ : tended Basic ? (Y/N) Y":L$ : 320 DISPLAY AT(6,1):L$:"Are : N(PB$)&PB$&CHR$(0):: N=1 ::
80 DISPLAY AT(11,1):TAB(10); : : ACCEPT AT(19,27)SIZE(-1)VA : all the programs": "loaded : GOSUB 940
"Assembly":TAB(10);"Converte : LIDATE("YN")BEEP:SC$ : already ? (Y/N) Y":L$ :: ACC :
r to":TAB(10);"Extended":L$ : 220 IF SC$="Y" THEN 240 ELSE : EPT AT(9,24)VALIDATE("YN")SI : 460 !Insert CALL INIT
90 DISPLAY AT(14,1):L$:"ACE : FOR T=1 TO 10 :: DISPLAY AT : ZE(-1)BEEP:SC$ : 470 PRINT #2:CHR$(0)&CHR$(N)
converts the Object": "of an : (21,1)BEEP:"In this case nu : 330 IF SC$="N" OR SC$="" THE : &CHR$(157)&CHR$(200)&CHR$(4)
Assembly Program into": "an E : check": "is possible "L$:L$ : N CALL CLEAR :: GOTO 150 ELS : "&INIT"&CHR$(0):: N=2 :: LOC
xtended Basic Program.": "The : 230 FOR I=1 TO 100 :: NEXT I : E 370 : =INDEF :: GOSUB 940
Assembly Program MUST be" : :: CALL HCHAR(21,1,32,96):: : 340 A=VAL(D$):: IF A>NST THE : 480 ! DEFS name printing
100 DISPLAY AT(19,1):"suitab : NEXT T :: GOTO 150 : N 280 ELSE CALL LINK(STDEF$( : 490 FOR NDEF=INDEF TO 16376
le for Extended Basic": "envi : : A):: GOTO 250 : 350 ! Error handling : STEP 8
ronment and MUST NOT": "conta : : : :
in any AORG.":L$ : : : :
110 DISPLAY AT(24,6)BEEP:"Pr : : : :
ess any key" : : : :

```



```

500 PRINT #2:CHR$(0)&CHR$(N) : 620 PRINT #2:CHR$(0)&CHR$(N) : 745 DISPLAY AT(5,1)BEEP:L$: " : 830 ! Sub file error
&CHR$(157)&CHR$(200)&CHR$(4) : &CHR$(157)&CHR$(200)&CHR$(4) : The Assembly program ";DEF$: : 840 ON ERROR 850 :: CLOSE #2
&"LOAD"&CHR$(183)&CHR$(200)& : &"LOAD"&CHR$(183)&CHR$(200)& : : "has been recorded as a": : 850 RETURN 430
CHR$(LEN(STR$(NDEF)))&STR$(N : CHR$(LEN(STR$(LOC)))&STR$(LO : : "DIS/VAR 163 file. The name :
DEF); : C); : ": : "of this file is ";F$:L$ : 860 ! call peek DEF names
510 FOR LOC=NDEF TO NDEF+6 S : 630 FOR LOC=LOC TO LOC+20 ST : 750 DISPLAY AT(14,1):"You ca : 870 CALL PEEK(NL,E,F,G,H,I,L
TEP 2 : EP 2 : n merge this file": : "and ob : ,DBM,DBL):: DEF$=CHR$(E)&CHR
520 CALL PEEK(LOC,MS,LS):: P : 640 IF LOC>FINELOC THEN 670 : tain an Ext.8.Program":L$:"E : $(F)&CHR$(G)&CHR$(H)&CHR$(I)
RINT #2:CHR$(179)&CHR$(200)& : :: CALL PEEK(LOC,MS,LS) : xecute now in the command mo : &CHR$(L)
CHR$(LEN(STR$(MS)))&STR$(MS) : 645 PRINT #2:CHR$(179)&CHR$( : de:" : 880 PO=POS(DEF$, " ",1):: IF
&CHR$(179)&CHR$(200)&CHR$(LE : 200)&CHR$(LEN(STR$(MS)))&STR : 755 DISPLAY AT(20,1):">NEW": : PO>0 THEN DEF$=SEG$(DEF$,1,P
N(STR$(LS)))&STR$(LS); : $(MS)&CHR$(179)&CHR$(200)&CH : ">MERGE DSK";N$;".";F$ : 0-1):: RETURN ELSE RETURN
530 NEXT LOC : R$(LEN(STR$(LS)))&STR$(LS); : 760 FOR T=1 TO 70 :: DISPLAY :
540 PRINT #2:CHR$(182)&CHR$( : 650 NEXT LOC : AT(23,1)BEEP:">SAVE DSK";N$ : 890 ! Sub CALL INIT once onl
0):: 60SUB 940 :: N=N+1 :: N : 660 PRINT #2:CHR$(182)&CHR$( : ;".";SEG$(F$,1,LEN(F$)-3)&"E : y
EXT NDEF : 0):: 60SUB 940 :: N=N+1 :: I : XT":L$ :: CALL KEY(0,KV,ST): : 900 IF CT=1 THEN RETURN ELSE
: F LOC<=FINELOC THEN 620 ELSE : : IF ST<>0 THEN STOP : CALL INIT :: CT=1 :: RETURN
550 !Print DEF pointer and F : 680 : 770 NEXT T :: END :
FALM : 670 PRINT #2:CHR$(182)&CHR$( : : 910 ! Sub # of necessary pri
560 PRINT #2:CHR$(0)&CHR$(N) : 0):: 60SUB 940 : 780 ! Open file: disk drive : ntings
&CHR$(157)&CHR$(200)&CHR$(4) : 680 N=N+1 : & name selection : 920 NLINE=ABS(INT(-(FINELOC
&"LOAD"&CHR$(183)&CHR$(200)& : : 690 ! CALL LINK printing : 790 DISPLAY AT(1,1):L$:"Name : -9460)/22+(16384-INDEF)/4+3)
CHR$(LEN(STR$(8194)))&STR$(8 : 700 FOR NLINK=INDEF TO 16376 : of the last DEF": "of the A : )):: DISPLAY AT(17,1)BEEP:"T
194); : STEP 8 :: NL=NLINK :: 60SUB : ssembly programs": : "loaded : he necessary Printing": "oper
570 FOR LOC=8194 TO 8196 STE : : 870 : in memory " ;DEF$:L$ : ations with Disk Drive": : "(
P 2 : : 800 F$=DEF$&"HRG" :: DISPLAY : max 172) will be";NLINE:L$
580 CALL PEEK(LOC,MS,LS):: P : 710 PRINT #2:CHR$(0)&CHR$(N) : AT(8,1):L$:"proposed name f : 930 IF NLINE>172 THEN FOR T=
RINT #2:CHR$(179)&CHR$(200)& : &CHR$(157)&CHR$(200)&CHR$(4) : or the file": : "Max 10 chara : 1 TO 10 :: FOR I=1 TO 90 ::
CHR$(LEN(STR$(MS)))&STR$(MS) : &"LINK"&CHR$(183)&CHR$(199)& : cters ";F$: : L$ :: ACCEPT AT : NEXT I :: CALL HCHAR(23,1,32
&CHR$(179)&CHR$(200)&CHR$(LE : CHR$(LEN(DEF$))&DEF$&CHR$(18 : (11,19)SIZE(-10)BEEP:F$ : ,32):: DISPLAY AT(22,1)BEEP:
N(STR$(LS)))&STR$(LS); : 2)&CHR$(0):: 60SUB 940 : 810 IF F$="" THEN RETURN ELS : L$:"OBJECT SIZE IS TOO LARGE
590 NEXT LOC : 720 N=N+1 :: NEXT NLINK : E IF POS(F$, " ",1)>0 OR POS( : ":L$ :: NEXT T :: STOP ELSE
600 PRINT #2:CHR$(182)&CHR$( : 730 PRINT #2:CHR$(255)&CHR$( : F$,".",1)>0 THEN 800 : RETURN
0):: 60SUB 940 :: N=N+1 :: L : 255):: CLOSE #2 : 820 DISPLAY AT(14,1):L$:"Dis : 940 NLINE=NLINE-1 :: DISPLAY
OC=9460 : 740 CALL CLEAR : k drive? (1-3) ";N$:L$ :: AC : AT(21,1):L$:"# of printings
: : : CEPT AT(15,19)VALIDATE("123" : yet to be": "executed will b
610 ! Main program printing : : )SIZE(-1)BEEP:N$ :: RETURN : e";NLINE:L$ :: RETURN
: : : : :

```