



Edengaton

SASKATOON TEXAS INSTRUMENTS COMPUTER CLUB

AUGUST NEWSLETTER

NEXT GENERAL MEETING AT:

SASKATOON REGIONAL COMMUNITY COLLEGE,
ROOM 114, 145 1ST AVE. N., 7:00PM

AUG 12TH, 1985

SEPT 9TH, 1985

OCT 7TH, 1985

NOV 4TH, 1985

DEC 2ND, 1985

MAIL ADDRESS: 407-2010 22ND ST. W., SASKATOON, SASK., S7M 0V1.

WE DISCUSS AND REVIEW NEW PRODUCTS FOR THE TI 99, WHILE PROVIDING TECHNICAL SUPPORT FOR ANY PROBLEMS THAT A MEMBER MAY HAVE. WE ALSO SUPPORT A SOFTWARE LIBRARY AND HAVE REGULAR CONTACTS WITH OTHER GROUPS IN CANADA AND THE UNITED STATES. OUR MEMBERSHIP FEES ARE VERY REASONABLE FROM \$10.00/SINGLE TO \$12.00/FAMILY. IF YOU WOULD LIKE TO BECOME A MEMBER OR REQUIRE MORE INFORMATION, CONTACT:

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DEAN JAMIESON 373-3548

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KEN READ 384-2844 (BBS)

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STICC BBS

OUR BBS IS OPEN 24 HOURS A DAY, SEVEN DAYS A WEEK (WITH THE EXCEPTION OF DAILY MAINTENANCE), AND CAN BE CONTACTED AT (306) 384-2844. KEN READ IS OUR SYSTEMS OPERATOR, AND BARRING ANY PROBLEMS, CAN ALSO BE REACHED AT 382-2527 (VOICE), THE SYSTEM OPERATES AT SEVEN BITS, EVEN PARITY, AND ONE STOP BIT.

THE TELECOMMUNICATIONS FIELD, NEXT THING TO BEING THERE. (THERE GOES OUR DISCLAIMER!!!).

EDITORIAL

THAT HAD TO BE THE SMALLEST SCHEDULED MEETING I HAVE EVER ATTENDED. A TOTAL OF FIVE PERSONS MANAGED TO ATTEND OUR LAST MEETING IN JULY. I REALIZED THAT THE REASON WERE BASED ON IT BEING THE FIRST DAY OF THE EXHIBITION, BUT THEN WAS ANYONE REALLY (EX)CITED? NO PROBLEMS THOUGH, WE CONTINUED OUR MEETIN AS PER USUAL. IN ORDER TO APPEASE THE PEOPLE WHO ATTENDED, I GAME THEM 10 FREE COPIES (PACKAGES FROM MY PILE OF GOODIES. THE DELIGHTFULLY ACCEPTED. OH WELL, SEE WHAT YOU MISSED???

SO WHAT'S NEW? HM... WHERE SHOULD I START? WELL, THEY ARE AS FOLLOWS: HARDWARE AND MODULE MODIFICATIONS (YOU CAN MAKE YOUR OWN MODULES); BBS SYSTEMS (ZYOLOG) RUNNING ON 10 MEGS WITH TEII TRANSFERS, GRAPHICS, SPEECH AND MUSIC; CES NEWS; HOW TO PROGRAM A MODULE; NEW CARDS (TRIPLE TECH) WHICH COMBINES A CLOCK/CALENDAR, 64K PRINTER BUFFER, AND TI SPEECH SYNTHEWIZER; NEW CARD (MORNING STAR) GIVING 288K RAM POSSIBILITY; PASCAL / FORTH / ASSEMBLY IDEAS, HINTS AND REVIEWS; SPRITES IN BASIC; ALL THIS AND MORE, JUST CHECK OUT OUR ARCHIVES OR AT LEAST

INQUIRE!

WELL, SEPTEMBER IS FAST COMING AROUND THE CORNER AND WITH IT, COMES THE "COLLECTOR". YEP, ITS TIME TO PAY THE OLD DUES ONE AGAIN. SINCE THERE HAS BEEN NO CHANGES IN OUR FEE STRUCTURE, IT THUS REMAINS AT \$10/SINGLE, \$12/FAMILY. SO PLEASE REMEMBER TO SUBMIT YOUR FEES AT THE SEPTEMBER MEETING. THANK YOU.

F. X. GASTON

SOFTWARE LIBRARY

A NEW STORE JUST OPENED IN SASKATOON CALLED SOFTWARE LIBRARY. THEY ARE CERTAINLY WELL EQUIPTED IN SOFTWARE INCLUDING OUR TI. YOU WILL ALSO FIND MANY MAGAZINES INCLUDING THE HOME COMPUTER MAGAZINE. THE PROPRIETOR IS KEN SINCLAIR WHO IS VERY ANXIOUS TO HELP PROMOTE OUR BRAND. HE HAS MANY CUSTOMERS INQUIRING ABOUT THE TI AND IN THE NEAR FUTURE, KEN MAY BE STOCKING ITEM SUCH AS EXTENDED BASIC, ETC. VISIT HIM TODAY AND SHOW YOUR SUPPORT.

I CAN ONLY SAY "SUPPORT THE SMALLER BUSINESSMAN, SINCE THEY ARE THE ONLY ONES WHO CAN DO SO FOR OUR COMPUTER".

TIMELINE

WE WILL NOW BE TRADING NEWSLETTERS WITH THE SHER-TI U.G. OF SHERBROOKE QUEBEC. THEIR SPOKESPERSON IS RAYNALD MAKINEN.

TI OF NOVA SCOTIA (TINS) IS ANNOUNCING THAT THEY WILL BE PARTICIPATING IN THE TIMELINE USERS GROUP. WELCOME TO TUG, TINS!!!! SEE YOU ON THE SYSTEM.

AS MORE AND MORE PEOPLE JOIN, I BEGIN TO ONCE AGAIN RECEIVE MANY INFORMATION IN REGARDS TO OUR TI COMPUTER. HOPE IT KEEPS UP.

FOR THOSE OF YOU WHO ARE NOT FAMILIAR WITH T.U.G., IT IS A DATAPAC BASED BBS WITH ON LINE GAMES, MANY BOARDS, ELECTRONIC MAIL, CONFERENCES, 10 PORTS, ETC. ONE NICE THING ABOUT THE SYSTEM IS THAT THE SIGN UP FEE IS ONLY \$15.00 PER YEAR, AND ONLY 3.6 CENTS PER MINUTE FOR 300 BAUD OR 10 CENTS FOR 1200 BAUD. THIS IS ALSO PAYABLE BY CHEQUE OR MONEY ORDER. IF YOU REQUIRE MORE INFORMATION, JUST CONTACT ME, FRANCIS GASTON.

ADDING A NUMERIC KEYPAD

BY NORMAN RIGER

FROM OXON U G

ORIGINAL FROM MSP 99

MY PROCEDURE INVOLVES SELECTING A SURPLUS KEYPAD THAT HAS TEN SEPERATE SPRING TYPE SWITCHES, EACH WITH TWO TERMINALS.

BOTH TERMINALS OF EACH MUST BE ACCESSIBLE AND NOT PERMANENTLY CONNECTED TO THE TERMINALS OF A DIFFERENT SWITCH. THEY ARE FOUR ROWS OF SWITCHES ON THE THE STANDARD KEYPAD. THERE IS NO GROUND CONNECTION ON THE KEYBOARD OF THE TI99/4A AND THERE SHOULD BE NO GROUND ON THE KEYPAD SELECTED FOR THIS PROJECT.

TURN THE COMPUTER UPSIDE DOWN AND REMOVE THE SEVEN RECESSED PHILLIPS SCREWS USED TO FASTEN THE BOTTOM. CAREFULLY PULL OUT THE ON/OFF SWITCH UNTIL IT COMES OFF AND THEN REMOVE THE BOTTOM. A FIFTEEN CONDUCTOR RIBBON CABLE CONNECTS THE KEYBOARD TO THE PROCESSOR PRINTED CIRCUIT BOARD (COVERED BY A METAL SHIELD). ONLY SEVEN WIRES ARE NEEDED TO CONNECT THE KEYPAD AND THERE ARE SEVERAL METHODS POSSIBLE.

A CLAMP TYPE CONNECTOR CAN BE ATTACHED TO THE RIBBON CABLE (USE AN OHM-METER TO MAKE SURE THAT ADJACENT CONDUCTORS DON'T BECOM SHORTED TOGETHER). IT IS POSSIBLE TO DISCONNECT THE RIBBON CABLE CONNECTOR FROM THE PROCESSOR PRINTED CIRCUIT BOARD AND PLACE AN ADDITIONAL CONNECTOR BETWEEN THEM WHICH CONTAINS THE SEVEN WIRE REQUIRED. THESE METHODS HAVE THE ADVANTAGE OF REQUIRING NO SOLDER CONNECTION ON EITHER THE KEYBOARD OR THE PROCESSOR PRINTED CIRCUIT BOARD. ANOTHER POSSIBLE METHOD IS TO SCRAPE SOME OF THE INSULATION OFF OF THE REQUIRED CONDUCTORS IN THE RIBBON CALBE AND SOLDER DIRECTLY TO THEM.

MY METHOD IS TO SOLDER THE SEVEN WIRES DIRECTLY TO THE PRINTED CIRCUIT BOARD IN ORDER TO SAVE THE COST AND TROUBLE OF FINDING ADDITIONAL CONNECTORS OR RUN THE RISK OF DAMAGING THE RIBBON CABLE. THE END OF THE RIBBON CABLE CLOSES TO THE JOYSTICK CONNECTOR IS PIN ONE AND THE END CLOSEST TO THE I/O PORT CONNECTOR IS PIN FIFTEEN. MY METHOD INVOLVES SOLDERING EACH WIRE AND RUNNING IT THROUGH ONE OF THE VENTILATION SLOTS IN THE BOTTOM OF THE COMPUTER. BREAD TIES MAY BE USED TO PROVIDE STRAIN RELIEF FOR THE WIRES.

PIN TWO OF THE KEYBOARD CONNECTOR SHOULD BE CONNECTED TO ONE TERMINAL OF THE SWITCHES ON THE KEYPAD FOR TH 6,7,8,9 AND 0 KEYS. PIN SEVEN SHOULD BE CONNECTED TO ONE TERMINAL OF THE SWITCHES FOR THE 1,2,3,4 AND 5 KEYS. AT THIS POINT, EACH OF THE TEN SWITCHES ON THE KEYPAD SHOULD HAVE A CONNECTION TO ONE TERMINAL WITH THE SECOND TERMINAL STILL UNCONNECTED.

PIN EIGHT ON THE KEYBOARD CONNECTOR SHOULD BE CONNECTED TO THE ONE AND ZERO KEYS ON THE KEYPAD. PIN NINE IS CONNECTED TO THE FIVE AND SIX KEYS. PIN 13 IS WIRED TO THE 2 AND 9 KEYS. PIN 14 GOES TO THE 3 AND 8 KEYS. THE LAST CONNECTION IS FROM PI 15 TO THE 4 AND 7 KEYS. CHECK THE KEYPAD TO BE SURE THAT ALL TWENTY TERMINALS ARE CONNECTED CORRECTLY!!

BE CAREFUL TO AVOID COLD SOLDER JOINTS AND SOLDER BRIDGES BETWEEN ADJACENT CONNECTORS. A GROUNDED (THREE WIRE CORD) SOLDERING IRON IS RECOMMENDED FOR THE PROTECTION OF THE SENSITIVE COMPUTER CHIPS. REPLACE THE BOTTOM OF THE COMPUTER ALONG WITH THE SCREWS AND THE ON/OFF SWITCH. IF ITS NECESSARY TO REMIND YOU THAT THE COMPUTER SHOULD BE TURNED OFF AND

UNPLUGGED DURING THE MODIFICATION PROCEDURE, IT'S RECOMMENDED THAT YOU HAVE THE JOB DONE BY A QUALIFIED ELECTRONICS TECHNICIAN. THE MODIFICATION DESCRIBED IN THIS ARTICLE HAS BEEN PERFORMED SUCCESSFULLY AND REQUIRES NO ADDITIONAL HARDWARE OR SOFTWARE OF ANY TYPE.

TWO PROGRAMS IN ONE
BY GRAHAM HILTON ENGLAND

HAVING TWO PROGRAMS IN MEMORY AT ONCE. YOU WILL NEED THE 32K RAM AND EXTENDED BASIC.

1. SELECT EXTENDED BASIC
2. OLD THE FIRST PROGRAM. IT WILL GO INTO 32K
3. CALL PEEK(-31952,A,B,C,D).
4. PRINT A;B;C;D. NOTE DOWN THESE LINE NUMBER TABLE POINTERS.
5. MAKE 32K INVINCIBLE WITH CALL LOAD(-31868,0,0) WHICH DISABLES THE 32K MEMORY.
6. OLD THE SECOND PROGRAM. IT WILL GO INTO VDP RAM.
7. WHEN FINISHED RUNNING, NEW, AND RESTORE THE 32K RAM USING CALL LOAD(-31868,255,231).
8. RELOAD LINE NUMBER TABLE POINTERS CALL LOAD(-31952,A,B,C,D).
9. NOW RUN THE PROGRAM IN 32K.
10. YOU CAN EVEN QUIT OR BYE OR EVEN SWITCH OFF THE CONSOLE WITHOUT LOSING THE PROGRAM IN THE 32K.

TRIUMPH OVER FUNCTION QUIT
FROM TINS, ORIGINAL FROM 9900 U.G.

REMEMBER THE TURNING OFF OF FCTN QUIT? THE CALL LOAD WAS (-31806,16). HOWEVER, WHAT IF YOU DIDN'T DO THAT OR YOUR COMPUTER LOCKS UP AND YO ARE FORCED TO GO TO THE MAIN TITLE SCREEN. THERE IS HOPE. YOU REQUIRE 32K, AND E/A, MINI-MEM, OR XBASIC. YOU CAN ALSO DO THIS WITH THE CORCOMP DISK CONTROLLER CARD FROM BASIC.

THERE ARE 2 LOCATIONS IN THE PAD THAT ARE POINTERS TO THE FIRST AND LAST LINES OF A PROGRAM. THESE VALUES ARE THE ENDS OF THE LINE NUMBER TABLE. EACH ENTRY IN THE LINE NUMBER TABLE IS 4 BYTES. 2 FOR THE LINE NUMBER, AND 2 FOR THE LOCATION WHERE THAN LINE NUMBER IS IN MEMORY. THE LINE NUMBER AND THE ASSOCIATED STATEMENTS ARE IN DIFFERENT LOCATIONS IN YOUR COMPUTER.

WHEN YOU FCTN QUIT TO THE MAIN MENU ONLY THE POINTERS AND OTHER VALUES IN PAD (CPU RAM IN YOUR CONSOLE) ARE CLEARED. EVERYTHING ELSE, LINE NUMBER TABLE AND STATEMENTS ARE STILL UNTOUCHED IN TE 32K RAM. THIS IS TRUE AS LONG AS YOU DON'T POWER DOWN THE EXPANSION MEMORY.

THE FIRST THING TO DO IS PERFORM A CALL PEEK ON YOUR RESIDENT PROGRAM AS FOLLOWS:

CALL PEEK(-31952,A,B,C,D) AND PRINT A:B:C:D. COPY THESE VALUES ON A SHEET OF PAPER FOR LATER REFERENCE. DO THIS FROM THE IMMEDIATE MODE RATHER THAN IN A PROGRAM. NOW, IF YOU FIND YOURSELF AT THE TITLE SCREEN FOR WHATEVER REASON ALL YOU HAVE TO DO IS CALL LOAD(-31952,A,B,C,D) USING THE VALUES YOU INITIALLY PEEKED, OF COURSE. ENTER LIST AND VOILA! THE PROGRAM RIGHT WHERE YOU LEFT IT.

(ED. THIS IS THE GOOD PART!!) IF PERCHANCE YOU HAVE MODIFIED YOUR PROGRAM SINCE YOU PEEKED THE INITIAL VALUES DON'T FRET TOO MUCH. ALL YOU HAVE TO DO IS DECREASE THE 2ND BYTE BY 4 (WHAT WAS PEEKED AS VALUE B) FOR EACH LINE NUMBER YOU ADDED. IF YOU DON'T REMEMBER HOW MANY LINES YOU ENTERED THE PROCEED BY TRIAL AND ERROR. IF YOU HAVE DELETED THE BEGINNING PART OF YOUR PROGRAM THEN DECREASE THE 4TH BYTE BY 4 (WHAT WAS PEEKED AS VALUE D).

THE BEST THING TO DO WITH THIS INFORMATION IS TO PUT IN A SMALL 3 OR 4 LINE SIMPLE PROGRAM AND EXPERIMENT WITH IT UNTIL YOU HAVE THE FEEL OF WHAT IS HAPPENING.

CORCOMP ANNOUNCES NEW PEB CARD
FROM MICROPENDIUM

CORCOMP INC. IS INTRODUCING A NEW CARD FOR THE P.E.B THAT PROVIDES A CLOCK/CALENDAR, 64 K PRINTER BUFFER AND A LOCATION ON WHICH TO ATTACH A TI SPEECH SYNTHESIZER BOARD. CALLED TRIPLE TECH, THE CARD CARRIES A SUGGESTED RETAIL PRICE OF \$130 (US). THE CARD IS EXPECTED TO BE READY FOR SHIPMENT THE END OF JULY. (ED. - TEX COMP IS CARRYING THE CARD FOR \$109.95 (US) AT A SPECIAL INTRODUCTORY PRICE!!!)

THE CLOCK/CALENDAR IS ALSO AVAILABLE AS A STAND ALONE UNIT THAT PLUGS INTO THE SICE OF THE 99/4A CONSOLE. CALLED 9900 CLOCK/CALENDAR, THE SUGGESTED RETAIL PRICE OF THE UNIT IS \$81. IT INCLUDES A LOAD INTERRUPT SWITCH THAT CAN BE USED WITH SOME THIRD PARTY SCREEN DUMP PROGRAMS. (ED. - TEXCOMP HAS THIS UNIT AT THE INTRODUCTORY PRICE OF 69.95 (US)).

THE COMPANY IS ALSO RELEASING A 32K MEM EXPANSION UNIT CALLED 32K MICRO. THIS UNIT PLUGS INTO THE SIDE OF THE CONSOLE. THE CLOCK/CALENDAR AND 32K MICRO MAY BE DAISY CHAINED BY THE USER. THEY MEASURE 5 X 5 X 2-1/2 INCHES.

THE CLOCK/CALENDAR DISPLAYS YEAR, MONTH, DATE, DAY OF THE WEEK, HOURS, MINUTES, AND SECONDS. IT FEATURES A CRYSTAL CONTROLLED OSCILLATOR THAT IS ACCURATE TO .002 PERCENT. IT IS BATTERY BACKED AND WILL OPERATE FOR MORE THAN SIX MONTHS WITH POWER TURNED OFF. IT IS ACCESSED THROUGH BASIC OR XB.

THE 64K PRINTER BUFFER IS "VIRTUALLY COMPATIBLE WITH ANY PRINTER". IT INCLUDES 64K OF MEMORY, A COPY FUNCTION FOR IMMEDIATE DUPLICATION OF PRINTOUTS AND A CLEAR FUNCTION TO

EMPTY THE BUFFER.

THE TRIPLE TECH CARD ALSO HAS A LOCATION FOR ATTACHING THE SPEECH SYNTHESIZER BOARD. THE USER REMOVES THE BOARD FROM THE SYNTHESIZER, PLUGS IT INTO TRIPLE TECH AND PLUGS THE CARD INTO THE PEB.

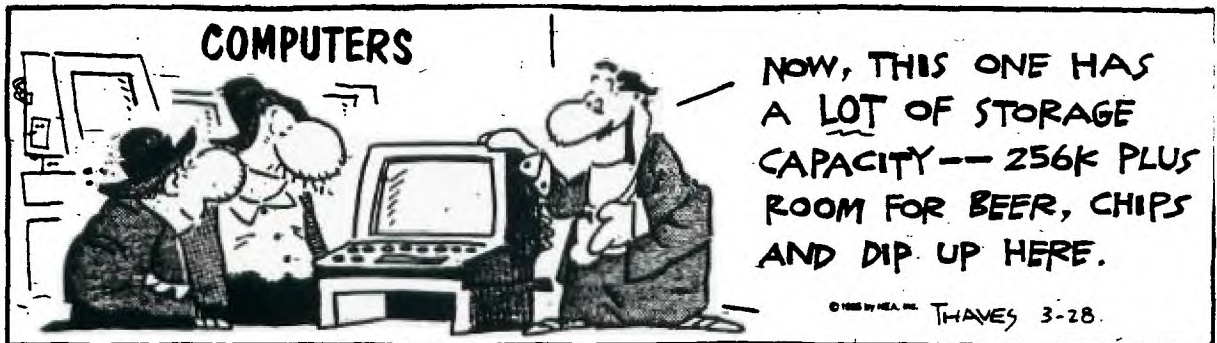
FUNNIES FROM EDMONTON

THE WORLD'S GREATEST COMPUTER WAS POWERED UP FOR THE FIRST TIME LAST WEEK. IT IS SO POWERFUL THAT FOUR CRAY COMPUTERS ARE USED JUST TO INPUT DATA INTO IT!!! THE MEMORY IS SO LARGE THAT ALL OF MAN'S ACCUMULATED KNOWLEDGE IS STORED IN JUST 10 PERCENT OF THE AVAILABLE SPACE. OF COURSE, SPEECH RECOGNITION AND SPEECH ARE JUST TWO OF IT'S MANY FEATURES.

AFTER POWERING UP THE BEAST AND TESTING IT OUT, THE WHITE JACKETED COMPU-WIZARDS PROUDLY ANNOUNCED THAT THE MACHINE WAS READY FOR IT'S FIRST QUESTION. IMMEDIATELY THE GREAT ARGUMENTS AROSE OVER THE SUITABILITY OF THE VARIOUS QUESTIONS THAT WERE POSED. SOME WANTED TO PRESENT MATHEMATICAL THEOREMS FOR VALIDATION WHILE OTHERS WANTED TO TEST THE LATEST VIDEO GAME FOR THE ULTIMATE THRILL. FINALLY, IN THE MIDST OF ALL THE HUB BUB, THE JANITOR QUIETLY SLIPPED UP TO THE MAIN CONSOLE AND, TAKING THE INPUT MICROPHONE INTO HIS HANDS, HE CALMLY ASKED THE ULTIMATE QUESTION THAT HAS PLAGUED MANKIND SINCE THE DAWN OF HISTORY: "IS THERE A GOD", HE ASKED?

THERE WAS A MOMENT OF STUNNED SILENCE IN THE CROWD OF REPORTERS AND SCIENTISTS. OF COURSE! WHY HADN'T THEY THOUGHT OF THAT? THE COMPUTER CALMLY SPUN DISKS AND BLINKED IT'S LIGHTS FOR A FEW MOMENTS AND THEN SUDDENLY THE ROOM WAS PLUNGED INTO DARKNESS AND A DEEP VOICE BOOMED, "THERE IS NOW!"

FRANK & ERNEST



QUICK TRANSFER
FROM MICROPENDIUM

TERMINAL EMULATOR II IS A WONDERFUL PROGRAM, BUT WHEN IT COMES TO TRANSFERRING DATA VIA ELECTRONIC BULLETIN BOARDS IT IS A BIT ON THE SLOW SIDE. THAT'S BECAUSE IT OPERATES AT 300 BAUD.

HOWEVER, THE TRANSFER RATE CAN BE SPEEDED UP CONSIDERABLY WHEN TRANSFERRING BASIC OR EXTENDED BASIC PROGRAM VIA PHONE LINES. ACCORDING TO LARRY PROKOCKIS OF THE NORTHCOAST USERS GROUP, WHICH IS AFFILIATED WITH THE CLEVELAND AREA 99/4A UG, THE FOLLOWING METHOD CAN SPEED UP FILE TRANSFER BY UP TO FIVE TIMES WHILE STILL OPERATING OUT OF A 300 BAUD MODEM.

FIRST, BOTH THE SENDER AND RECEIVER MUST SELECT TI BASIC. THEN LOAD THE PROGRAM TO BE SENT INTO MEMORY AND TYPE SAVE RS232, BUT DO NOT PRESS ENTER YET. THE RECEIVER SHOULD TYPE OLD RS232. WHEN YOU ARE READY, SWITCH OVER TO THE MODEMS AND PRESS ENTER. THE RECEIVER SHOULD WAIT ABOUT 5 SECONDS AND THEN PRESS ENTER ALSO. BOTH USERS SHOULD SEE A NUMBER, CORRESPONDING TO THE NUMBER OF BLOCKS OF THE PROGRAM, AT THE TOP OF THE SCREEN. THIS NUMBER WILL SLOWLY COUNT DOWN TO ZERO, AT WHICH POINT THE TRANSFER IS COMPLETE. SINCE THE PROGRAM IS LOADED DIRECTLY INTO MEMORY, THE RECEIVER MUST REMEMBER TO SAVE THE PROGRAM TO DISK OR CASSETTE.

THIS APPROACH SEEMS TO WORK ONLY BETWEEN TI HOME COMPUTERS.

TID BITS

- FROM DAN PARROTT OF SMAUG OF GRAND BAY, ALABAMA. 100
CALL CLEAR;: CALL SCREEN(2) 110 CALL INIT 120 DIM
A1(28),A2(28) 130 FOR A=1 TO 28 140 CALL SPRITE(#A,46,16,98,
128) 150 A1(A)=SIN(A/4.456) * 40:: A2(A) = COS(A/4.456):: NEXT
A 160 FOR A=1 TO 28 :: CALL MOTION(#A,-A1(A),-A2(A)):: NEXT A
170 GOTO 130

- A QUOTE FROM THE EDITOR OF COMPUTER SHOPPER. "THERE IS NO GROUP OF USERS MORE ENTHUSIASTIC THAN THE TI 99/4A FANS CONSIDERING THEY HAVE BEEN 'ON THEIR OWN' FOR SO LONG WITH ALMOST NO CORPORATE SUPPORT IS AMAZING". - STAN VEIT.

- FROM CENTRAL IOWA UG OF DES MOINES, IOWA OFFERS A FEW SUGGESTIONS FOR CREATING INTERESTING SOUND EFFECTS USING THE TERMINAL EMULATOR II CARTRIDGE. USING THE PROGRAM THAT APPEARS ON PAGE 37 OF THE TEII MANUAL YOU CAN CREATE THE FOLLOWING SOUNDS. STEAM LOCOMOTIVE: "KKKKKKKK" OR "QQQQQQQQ". HELICOPTER: "UUUUUUUU" OR "WWWWWWW". SMALL PLANE "VVVVVVVV" OR "YYYYYYYY". MACHINE GUN "JJJJJJJJ". SEWING MACHINE "XXXXXXXX".

- FROM MIKE HENRY OF THE UPSTATE 99/4A UG OF ALBANY, NY.
 TO STOP THE OUTPUT OF A BASIC OR XB PROGRAM WHILE SCROLLING
 DATA ACROSS THE SCREEN. INSERT GOSUB 6000 LINE AFTER EVERY
 PRINT LINE IN THE PROGRAM. HOLD ANY KEY DOWN TO FREEZE THE
 OUTPUT ON THE SCREEN. PRESS ANY KEY TO CONTINUE SCROLLING.
 6000 REM FREEZE ROUTINE 6010 CALL KEY(3,KKK,SSS) 6020 IF SSS=0
 THEN 6060 6030 CALL KEY(3,KKK,SSS) 6040 IF SSS=0 THEN 6030
 6050 IF SSS=-1 THEN 6030 6060 RETURN.

- ZYOLOG BOARDS WRITTEN BY BRYAN A. WILLCUTT. ALL THE
 ZYOLOG SYSTEMS HAVE A WIDE VARIETY OF INFO FILES AND MESSAGE
 BASES. THEY ALL FEATURE TEII TRANSGERS, GRAPHICS, SPEECH AND
 MUSIC WHILE YOU ARE USING THE BBS! THEY ARE AS FOLLOWS: ZYOLOG
 I (808) 536-0998, 12 MEGS SYSOP BRYAN WILCUTT, HONOLULU,
 HAWAII. ZYOLOG II (714) 669-9242, ONE MEG, SYSOP MATT PETTY,
 IRVINE, CALIFORNIA. ZYOLOG III (305) 834-2530, 2 MEGS, SYSOP
 BLAINE RICHARD, FERN PARK, FLORIDA.

- FROM TECO TIME IN SYDNEY, AUST. THE WIRING OF THE RF
 MODULATOR FOR VHF/UHF OPERATION.

PIN	FUNCT	COLOUR CODE
1	+12V	RED
2	Y	BLUE
3	R-Y	WHITE
4	B-Y	GREY
5	AUDIO	YELLOW
6	GND	BLACK

- A COUPLE OF SOUND PROGRAMS. REQUIRES XB AND 32K FOR
 SOME OF THEM.

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100 CALL INIT 110 FOR A=1 TO 255 :: CALL LOAD(-31332,-A)::
NEXT A 120 FOR A=1 TO 255 :: CALL LOAD(-31332,A):: NEXT A 130
FOR A=1 TO 255 :: CALL LOAD(-31332,A):: NEXT A 140 FOR A=1 TO
255 :: CALL LOAD(-31332,-A):: NEXT A 150 FOR A=1 TO 5 160 FOR
A=1 TO 255 STEP 4 :: CALL LOAD(-31332,-A):: NEXT A 170 NEXT@
180 CALL SOUND(100,110,0) 190 FOR A=1 TO 5 200 FOR A=255 TO 1
STEP -5 :: CALL LOAD(-31332,A):: NEXT A 210 NEXT@ 220 GOTO
100
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90 CALL INIT 100 FOR A=1 TO 255 ::
CALL LOAD(-31744,-A):: NEXT A 110 FOR A=1 TO 255 :: CALL
LOAD(-31744,A):: NEXT A 120 FOR A=1 TO 255 :: CALL
LOAD(-31744,A):: NEXT A 130 FOR A=1 TO 255 :: CALL
LOAD(-31744,-A):: NEXT A 140 FOR A=1 TO 255 STEP 4 :: CALL
LOAD(-31744,-A):: NEXT A 150 CALL SOUND(100,110,0) 170 FOR B=1
TO 2 :: NEXT B
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100 CALL INIT 110 FOR C=1 TO
4 120 FOR Z=1 TO 400 STEP .8 :: CALL LOAD(-31744,Z*(-1*C))::
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NEXT Z 130 NEXT C 140 CALL SOUND(1,1000,0) 150 END

- THIS PROGRAM IS FROM TIGERCUB SOFTWARE. 90
REM 2 LINE FLAG PROGRAM BY JIM PETERSON OF TIGERCUB SOFTWARE
100 CALL CLEAR 101 CALL COLOR(2,16,5,3,16,16,4,7,7,0,1,11) 102
A\$(1)="*****080808" 103 A\$(2)="8080808080808" :: CALL
CHAR(64,RPT\$("01",8)) 110 CALL VCHAR(5,4,64,20):: FOR C=5 TO
22 :: X=1+ABS(C>11):: FOR T=1 TO 13 :: CA LL
VCHAR(5+T,C,ASC(SEG\$(A\$(X),T,1))):: NEXT T :: NEXT C 111 CALL
VCHAR(6,23,28,13):: GOTO 111

- ANOTHER SOUND PROGRAM. SHOULD WORK ON BASIC.
100 PRINT "THIS PROGRAM
PLAYS TEMOLO": "NOTES. CHANGE VALUE IN": "LINE 150 TO 1.01 OR
1.03": "FOR MORE OR LESS TREMOLO.": " - JIM PETERSON" 110 FOR
J=1 TO 60 STEP 2 120 READ A,B 130 FOR L=1 TO A 140 CALL
SOUND(-999,B,0) 150 CALL SOUND(-999,B*1.02,0) 160 NEXT L 170
NEXT J 180 CALL SOUND(-1,220,0) 190 DATA
2,330,2,294,4,330,4,294,4,330,4,294,4,262,8,220 200 DATA
2,330,2,294,6,330,2,294,4,330,4,262,12,247 210 DATA
2,294,2,262,4,294,4,262,4,294,2,330,2,294,4,262,8,220 220 DATA
4,262,4,262,4,220,4,262,4,247,16,220

- ONE OF MANY SINE WAVE PROGRAMS.
5 CALL CLEAR 10 PRINT
TAB(10); "SINE WAVE" 30 FOR DELAY=1 TO 200 40 NEXT DELAY 50
CALL CLEAR 60 B=0 110 FOR T=0 TO 5000 STEP .3 120
A=INT(10+10*SIN(T)) 130 PRINT TAB(A); 140 IF B=1 THEN 180 150
PRINT " TI/99/4 " 160 B=1 170 GOTO 200 180 PRINT " COMPUTER "
190 B=0 200 NEXT T

- ANOTHER SOUND PROGRAM.
100 REM AUTOMATIC MUSICMAKER IN THE KEY OF A MINOR
BY JIM PETERSON 110 RANDOMIZE 120 DIM N(30) 130 F=220 140 FOR
J=0 TO 36 150 X=X+1+(X=12) 160 IF
(X=2)+(X=5)+(X=7)+(X=10)+(X=12) THEN 190 170 Y=Y+1 180
N(Y)=INT(F*1.059463094 J) 190 NEXT J 200 K=8 210
K=K-INT(5*RND+1)+INT(5*RND+1)+(K>21)*2-(K<1)*2 220 IF
(K<1)+(K>21) THEN 210 230 CALL
SOUND(-999,N(K),0,N(K)*1.5,0,N(K)*3.75,30,-4,5) 240 GOTO 210

everybodys

SOFTWARE LIBRARY

418 22 Street West Saskatoon

S7M 0R4 664-2474

The SOFTWARE LIBRARY will take in trade almost anything to do with computers as long as it is possible that someone else would find the item useful.

Preowned software, cassettes, cartridges, diskettes, rom pacs, hardware, etc., brought in to the Library are credited to members accounts at 50% of current local retail price of new items.

Everything bought in to The Software Library is then available to other members at the traded in price.

Credit in members accounts can be used to purchase any new or used software or hardware in library stock. Items not in stock are ordered in for members at 20% off list price.

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Non members can purchase used items at members cost plus 10%.

IN THE UNITED STATES BANKRUPTCY COURT FOR THE

WESTERN DISTRICT OF OKLAHOMA

In Re:)
)
 99/4 HOME COMPUTER USERS-GROUP INC.) Bankruptcy No. 85-02075-A
 THE LaFARA PUBLISHING COMPANY) Chapter 7
 LaPUBCO)
 Debtor)
 ID#73-1100538
 73-1199710

NOTICE TO FILE CLAIMS

On June 17, 1985, the date the Court gave notice of the First Meeting of Creditors, it appeared from the schedules of the debtor that there were no assets from which a dividend could be paid to the creditors. The creditors were advised that it was unnecessary to file claims in order to share in any distribution from the estate. However, it now appears that there are assets in this case from which a dividend may or may not be paid and the creditors are hereby notified and given this opportunity to file their claims.

NOTICE IS HEREBY GIVEN to all creditors, pursuant to U. S. Bankruptcy Rules 2002(c) and 3002(c)(5), that a proof of claim must be filed within 90 days after the mailing of this notice if they wish to participate in the distribution of any assets of said debtor's estate, should there be an amount realized sufficient to pay a dividend to creditors. PROOF OF CLAIM MUST HAVE COPY OF INVOICE OR STATEMENT OF ACCOUNT ATTACHED.

DATED: JULY 29, 1985

RICHARD L. BOHANON

UNITED STATES BANKRUPTCY JUDGE

MAIL ALL CLAIMS TO:
 U. S. Bankruptcy Court
 7th Floor, Old Post Office Building
 201 Dean A. McGee Avenue
 Oklahoma City, Oklahoma 73102

ED- YOU MEAN THEY HAVE MONEY?!! I'M SENDING MY CLAIM NOW AS SOON AS I CAN!!! TOO BAD THOUGH, I STILL THINK I.J.G. WAS THE BEST YET. OF COURSE, I INVESTED IN A T.E. DIDN'T I?!! SUCH LUCK!!!