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 !4A/TALK!  
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from DataBioTics

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|Performance.....B|
|Ease of Use.....B+|
|Documentation.....A+|
|Value.....A-|
|Final Grade.....A-|
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4A/TALK is a terminal emulator type of program. It requires Console, 32K card, Disk system, RS232, Modem, Extended Basic module, E/A module, or Mini-Memory module, TI or CorComp Disk Controller (unsure of Myarc compatibility). Optional is a printer. This program has TE2, Xmodem, and ASCII capabilities. It also includes two unique features not found on ANY other terminal program. A Disk Cataloger and a Delete file option from online mode! The disk cat also has a option to highlight a file on the disk, so the name can be used for up or downloading.

**Performance:**

The program worked flawlessly in all phases of operation. It could not be crashed by the user in any manner that I tried. The only complaint is that the program is so large the Buffer space is only 8K. This 8K is used for ALL phases of transfers But there is a graphical representation on screen to show how large the buffer is at all times in ASCII mode. But on the other hand the 8K is also used for TEII and XMODEM transfers, so this gives the drives a break!

**Ease of Use:**

The program has an onscreen help listing(control-7) that can be brought up at any time! Every prompt is in menu choices, so you have a way of backing out of a miscue keystroke. There is a configure file to set up a default file and an autodialer file to list your most frequently called numbers and access them using a smart modem! There is also a Disk Cataloge function that allows you to read any disk on screen. Also included is a Delete file function, from an on or offline mode.

**Documentation:**

Is FANTASTIC! I could give this program to anyone and they could make connect on the first try! The documentation covers every aspect of the program and then some! The docs alone are worth the price. there is nothing left to the imagination!

**Value:**

If you do alot of ASCII reading, this program may be cumbersome! But for TE2 or Xmodem it will be a worthwhile investment!

**Final Grade:**

I downrated this program solely on the 8K buffer for ASCII. I realize because of the program size it is impossible to have a larger buffer. Even Fast-Term would have only a 11K buffer if both files (TE2 and Xmodem) were loaded. Also I thought that there should be a mode of operation to dump the buffer when it is full. At least it doesnt erase the buffer like Pterm! Another inconvenience is using ASCII uploading. The program only has a line at a time option There is no provision for send all of the data automatically!

**Ordering Info:**

DataBioTics  
 P.O. Box 1194  
 Palos Verdes Estates, Ca. 90274  
 419.95

The above review was downloaded from CompuServe.  
 Submitted by :Mark Gibson

LOREN QUERN IS ALWAYS BRINGING FIFTY TIDBITS OF NEWS - AT THE MAY MEETING HE HAD FOUND A LOCAL SOURCE FOR 13" AMDEC COLOR COMPOSITE MONITORS REDUCED FROM \$350 TO \$79 ON CLOSEOUT. A QUICK TRIP TO LABELLE'S PRODUCED SUCH A DEVICE. THIS WILL FREE UP MY 13" COLOR TV THAT I HAD BEEN USING ON THE TI FOR USE IN THE REC ROOM. AT LAST CONTACT THEY HAD SEVERAL LEFT, BUT PROBABLY NOT FOR LONG.

EACH NEWSLETTER COSTS ABOUT \$.50 TO PUT OUT; \$.22 POSTAGE AND \$.03 1/2 PER PAGE FOR PRINTING. OF YOUR \$12 YEARLY DUES, ABOUT \$6 GOES TO PROVIDING A MONTHLY NEWSLETTER TO YOU AND THE OTHER \$6 GOES TO MAILING NEWSLETTERS TO OTHER GROUPS ON AN EXCHANGE BASIS, SUPPLYING THE NONPAYING CLUB OFFICERS WITH NEWSLETTERS, AND GIVING NEWSLETTERS TO HONOR MEMBERS, SUCH AS GALLAGHER AND PETERSON, IN RETURN FOR THEIR INFORMATION, PROGRAMS, AND SUPPORT. (ANYBODY USING GALLAGHER'S DOS? NEAT STUFF.)

RICH JURGENS HAS JOINED THE CHICAGO USERS GROUP AS A NON-ATTENDING MEMBER AND HAS RECEIVED A FLIPPY DISK OF BASIC AND X-BASIC PROGRAMS WHICH WILL BE SHOWN FOR A DEMO AT THE JUNE MEETING. YOU MAY WANT TO THINK ABOUT DOING THE SAME THING. THE CHICAGO GROUP NEWSLETTER (READ BOOK) IS PROBABLY THE BEST IN THE COUNTRY. I FINALLY JOINED BECAUSE I WAS SPENDING A FORTUNE PHOTOCOPYING ARTICLES FROM THEIR NEWSLETTER THAT OUR CLUB GETS ON AN EXCHANGE BASIS.

IF ANY OF YOU ARE INTERESTED IN WHAT THE TREASURER'S POSITION IS LIKE, LET ME ELABORATE. ASIDE FROM WRITING THE OCCASIONAL ARTICLE FOR THE NEWSLETTER, THE FUN STARTS ABOUT A WEEK BEFORE THE MONTHLY MEETING WITH THE POSTER RUN. WE USE 16 SEMI-PUBLIC BULLETIN BOARDS IN GRAND FORKS AND EAST GRAND FORKS- SHOPPING MALLS, GROCERY STORES, PUBLIC LIBRARIES, AND A BARBER SHOP. THE POSTERS ADVERTISE OUR CLUB AND REMIND MEMBERS OF OUR SECOND-TUESDAY-OF-THE-MONTH MEETINGS. WE HAVE FOUR FULL PAGE POSTERS WITH VARIOUS MESSAGES THAT ARE CHANGED PERIODICALLY. CHECKING AND CHANGING POSTERS EACH MONTH TAKES ABOUT AN HOUR AND A HALF AND BURNS ABOUT 2 GALLONS OF PETROL (NOT REIMBURSED). FOUR OR FIVE DAYS BEFORE THE MONTHLY MEETING OUR PRINTER, DOCTOR EVANS, DELIVERS THE STACKS OF NEWSLETTERS TO ME. I THEN COLLATE, STAPLE, AND APPLY ADDRESS LABELS AND STAMPS. THE CANADIAN EXCHANGE NEWSLETTERS ARE PLACED IN ENVELOPES AND SEALED. I THEN REVIEW THE MEMBERSHIP LIST AND WRITE "YOUR MEMBERSHIP IS DUE" ACROSS THE FACE OF THE APPROPRIATE NEWSLETTERS. MEMBERS THAT ARE IN ARREARS RECEIVE A MEMBERSHIP RENEWAL NOTICE INSTEAD OF A NEWSLETTER FOR 3 MONTHS. THEY ARE DROPPED FROM THE MAILING LIST AFTER THE FINAL NOTICE. THE NEWSLETTERS ARE THEN DIVIDED INTO 2 CATEGORIES - OUT OF TOWN MEMBERS AND OTHER USER GROUPS (ALMOST HALF OUR MEMBERS LIVE OUT OF TOWN), AND IN TOWN DELIVERIES. THE OUT OF TOWN STUFF IS MAILED OFF AS RAPIDLY AS POSSIBLE. ALL OF THIS KILLS A GOOD 4 TO 5

HOURS. NEXT I CLIMB INTO MY VEHICLE AND HAND DELIVER TO THE 25 OR SO IN TOWN MEMBERS - ANOTHER 1 1/2 - 2 HOURS AND 4 GALLONS OF UNREIMBURSED GAS. FINALLY COMES THE 2ND TUESDAY OF THE MONTH MEETING WITH THE ASSOCIATED MEMBERSHIP RENEWALS, NEW MEMBERSHIP RECEIPTS, MEMBERSHIP LIBRARY CARDS TO MAKE OUT, ORDERS TO SEND IN, BILLS TO BE PAID, AND THE OCCASIONAL LETTER TO WRITE. ALL IN ALL, IT COSTS ME BETWEEN \$5 AND \$10 A MONTH TO BE TREASURER. IF THIS

SOUNDS LIKE GROUSING, IT'S NOT. I LOVE IT. I WOULDN'T GIVE UP ONE SECOND OF HASSLE OR DEADLINE WORK FOR ANYTHING. WORKING WITH THE MEMBERS OF THIS CLUB IS A VERY REWARDING EXPERIENCE. I JUST WANT TO SAY THANK YOU. RICH JURGENS

DENNIS, HOW ABOUT A FUTURE ARTICLE ABOUT OUR HARD-WORKING PRESIDENT?

## TRANSLITERATE COMMANDS

by David Reed

PAGES 2-4

I have had my TI system for about two years now, and wanted to expand my system, so I bought a printer. Great!!! Well, little did I know the trouble I was getting myself into, especially if you're a newcomer like me. Up until now about the only thing I could do was list. But we all know this one, right? That wasn't enough, I wanted more. So from here I entered the world of TRANSLITERATE COMMANDS. Using the transliterate command, you can set certain characters on the keyboard so that whenever these characters are encountered, the printer will be set in a certain typestyle. The following are examples of some transliterate commands you could use.

NAME	COMMAND ON	COMMAND OFF
EMPHASIZED	TL 23:27,69	TL 105:27,70
DOUBLE STRIKE	TL 91:27,71	TL 93:27,72
SUBSCRIPTS	TL 60:27,83	TL 94:27,84
ITALICS	TL 33:27,52	TL 63:27,53
EMPHASIZED ON AND DOUBLE-STRIKE	TL 123:27,69	TL 93:27,72
ITALICS	TL 123:27,69	TL 123:27,70
DOUBLE WIDE	TL 35:27,67,1	TL 37:27,87,0
COMPRESSED TYPE	CTRL+SHIFT+0	CTRL+SHIFT+1

Using the transliterate commands above, if you want to print in EMPHASIZED, you would type a "!" before the text you want printed in emphasized, then format the document. When it is printed, all of the text following the "!" will be in emphasized. The "!" will not be printed. These typestyles stay set until they are turned off or changed by another command, or the printer is turned off.

Example, TL 23:27,69 ... printer codes, check your printer manual for ASCII codes, see your TI manual for transliterate command. Some of these typestyles can be combined and others cannot. Check your printer manual for those which can be combined.

BRANCHING ON TWO VARIABLES SOME LESS THAN OBVIOUS HINTS ON EFFICIENT PROGRAMMING

Many problems have more than one correct solution. For instance, how to branch to one of six locations depending upon a particular combination of two variables. For reasons of memory and speed efficiency, we needed the absolute minimum number of variables and lines of code. The two variables involved were X and Y. X could be equal to either 1, 2, or 3, and Y could equal either 2 or 17.

The problem: How to combine X and Y in such a way as to have the total equal 1, 2, 3, 4, 5, or 6.

One solution to this problem is to temporarily change Y to either 0 or 3, then Y can be added to X to achieve the desired output. This can be done with a series of IF-THEN statements of a "dummy" variable for Y. However, the number of lines and extra variables required in this solution proves to be excessive.

Upon re-reading the ON-GOTO information in the User's Reference Guide, one will find when the numeric expression is evaluated, the result is reduced to an integer. By re-reading information about the INTEGER function, we will discover that the function rounds the fractional values down. This means that a positive fraction which is less than 1 will yield an integer result of 0 and a decimal number of 3, plus a fraction will yield 3. We now have a possible solution.

Dividing Y by 5 will yield 0.4 when Y=2 and 3.4 when Y=17. When those numbers are added to X, the result will be 1.4, 2.4, 3.4, 4.4, 5.4, or 6.4. When the computer reduces the result to an integer, the expression will evaluate to 1, 2, 3, 4, 5, or 6, respectively.

Shown here is the algorithm submitted. Three alternate ones are also shown to illustrate the space and efficiency savings when using the ON-GOTO numeric expression. Submitted algorithm: 100 ON X+(Y/5)GOTO 200,300,

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400,500,600,700 200 (Code for X=1 & Y=2)
: 300 (Code for X=2 & Y=2)
: 400 (Code for X=3 & Y=2)
: 500 (Code for X=1 & Y=17)
: 600 (Code for X=2 & Y=17)
: 700 (Code for X=3 & Y=17) ***** ALTERNATE NO. 1
100 IF Y=17 THEN 120 110 ON X GOTO 200,300,400 120 ON Y GOTO 500,600,700
***** ALTERNATE NO. 2 100 D=0 110 IF Y=2 THEN 130 120
D=3 130 ON X + D GOTO 200,300,400,
500,600,700 ***** ALTERNATE NO. 3 100 IF Y=17 THEN
130 110 IF X=1 THEN 200 120 IF X=2 THEN 300 ELSE 400 130 IF X=1 THEN 500 140 IF
X=2 THEN 600 ELSE 700 *****
    
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LOCAL BULLETIN BOARDS

NAME/LDC/SYSOP	PHONE # / HOURS	SYSTEM TYPE	COMMENTS
The Frozen Banana Grand Forks, ND Art Hebbeler	(701)-746-5932 24 hrs	Amiga	New BBS-PC on the Amiga - 2/86 2400/1200/300 baud
ADVENTURE BBS Grand Forks, ND Scott Carlson	(701)-775-8828 24 hrs	Comodore 64	Adventure games 300 baud
MPCNET Grand Forks, ND Gary Spielman	(701)-795-4212 4:30pm-8am M-F 24 hrs weekends	IBM-XT	5 on-line games 2400/1200/300 baud
RBBS-UND Medical Grand Forks, ND Robin Staehler	(701)-780-3228 24 hrs ?	IBM-XT	Medical BBS 1200/300 baud
RBBS-UND Plant Grand Forks, ND Robert Moeckel	(701)-777-2252 4:30pm-7:30am M-F 24 hrs weekends	IBM-XT	New board in 1/86 1200/300 baud
T. I. BBS Grand Forks, ND Mark Gibson	(701)-775-0388 9am-5pm Saturday & Sunday	Texas Inst.	New board in 2/86 300 baud 7/E/1
99er BBS Grand Forks, ND Rick Alston	(701)-594-4303 7am-5pm Tuesday & Wednesday	Texas Inst.	New board in 3/86 300 baud 7/E/1
Town Crier-G.E.F. Emerado, ND Tony Vickers	(701)-594-5429 5pm-10:30pm M-F&Sun 11am-10:30pm Sat	TRS-80 Model 4	New board in 12/85
The TRACK Emerado, ND John Kays	(701)-594-5234 8pm-7am M-F 7am-5pm Sat&Sun	C-64	New board in 4/86 Automotive BBS
TYMNET Grand Forks, ND N/A	(701)-746-0344 24 hrs	Mainframe	Access to Dow Jones; Comuserve, NewsNet; and more.

FUNLWRITER is a super word processor program that works like the TK WRITER and T.I. WRITER except when you wish to look at a disk directory. This is one of the features that has proven most useful to me since it enables you to enter the SHOW DIRECTORY mode while in the EDIT mode! This is especially useful when you have a disk with several files on it and you forget the file name you wish to load. Simply type in SD while in the command mode and enter a single digit number. When it asks for the drive number you don't even have to type "DSK". This and many other useful programs are available through the MAD HUG USER GROUP SOFTWARE LIBRARY for the T. I. 99/4A home computer. To exit this feature simply press ENTER and you are placed in EDIT mode again WITHOUT having to reload the EDITOR as is the case with TK and T.I. Writer. I have just begun to use this new program from our friends down under in Australia, and I suspect it will replace the word processor programs I have been using. My rating, EXCELLENT!

NOTE: The 99er BBS will be down for a while to allow for upgrading the system to support file transfers and expand other areas. One of those inexpensive DSDD Drives will be the heart of the upload/download files area so watch for information on startup and support the T.I. BBS in the mean time. These T.I. BBS's are here for you so get out and check COMPUTER SHOPPER for an inexpensive Modem. We users will help you set up for Telecommunications.

From the keyboard of

RICK ALSTON

\*\* THE 99er BBS \*\*

RICK ALSTON

BOOK REVIEW: COMPUTE'S TI COLLECTION - VOLUME ONE

Reviewed by Dan Boyce

This is one of the first COMPUTE books that I purchased and is the one I have been able to use the most. Several of the articles have been published in COMPUTE magazine, but many were written just for the book.

The book is divided into 7 chapters which cover the following:

Chapter 1 has articles on: \*TI features  
(Getting Started) Write Your Own Games  
\*Easy Editing  
All About the Character Set

Chapter 2 covers: \*TI BASIC One-liners  
(The Basics) \*CALL KEY Hints  
All Sorts of Basic Sorts  
Searching Algorithms  
Transferring Variables in TI Extended BASIC  
Computer Visuals  
\*Using a Printer

Chapter 3 includes: \*\*Mailing List  
(Applications) Statistics for Nonstatisticians  
TICalc  
\*Financial Interests  
A Mini Data Base Management System  
TI Word Processor

Chapter 4 has the following games: Trap  
(Recreation) Duck Leader  
Freeway 2000  
The Chase  
Thinking  
Bowling Champ  
Worm of Bemer

Chapter 5 offers: TI Graphics Made Easy  
(Sound and Graphics) Animating TI Displays Without Sprites  
SuperFont  
Sound Maker  
Sound Shaper  
The Mozart Machine

Chapter 6 covers: A Beginner's Guide to Sprites  
(Sprites) Sprite Editor  
Runway 180: Using Sprites in Extended BASIC

Chapter 7 (Utilities) are: TI Disk Deleter  
Master Disk Directory

The \* indicates the ones which I have used as I began to learn some BASIC programming. The \*\* indicates one I have keyed in and modified to use for US addresses. It is not a bad mailing list program. I believe Dennis uses one very similar to it for the club newsletters. I have copies on disk. I could use some help finding the bug I ahve in the sort routine. Either I entered it incorrectly or perhaps there was a typo. Otherwise it works well. I just wish that COMPUTE had these programs available on disk, or perhaps they do. I have not called to check. I would recommend this book.

TI NEWS FROM THE MAILBOX by Dan Boyce

Well, MADHUGGERS, since Dennis asked me to write something for the newsletter, AND since the wife and kids are at Grandma's house, I have no excuse for staying off the keyboard.

I would like to wander through some of the goodies in the hardware and software areas that I have seen appearing in the magazines and newsletters since last meeting.

The biggest happening is DSDD Disk Drives. Rich Jurgens went out on a limb and ordered some DSDD take outs "AS IS" from LOLIR Electronics at \$30 each. Astute purchaser that he is, Rich had the good fortune to have all of them work just great. With the cat partly out of the bag, several of the TI Writer SIG attendees proceeded to descend upon LOLIR and wipe out their supply. These folks are waiting to see how is their AS IS. Do not despair, you who missed out. The new COMPUTER SHOPPER has \$40 DSDD Drives (Working) advertised by Nuevo Electronics Corporation, POB 209, Richmond, TX 77469, Phone 713-341-6001. Maybe they are not wiped out as the ad is hidden in the classified section-but not so cleverly that the IAM reader missed it. Other COMPUTER SHOPPER goodies I noticed were F-Box extender cables for \$21.95 and Axiom GP-550 NLQ Printer with parallel interface for \$139. Call Rich or I for details or hustle out and buy COMPUTER SHOPPER. This issue is worth it for the super TI article on using CALL-KEY. It explains it as well as anything I have read to date.

The new MICROpendium is out and is full of good stuff as usual. There is an excellent review of GRAM Kracker which makes me wish I had the \$ to get one soon. There is a long article on building a SUPER KEYBOARD for all you solder and tinker folks. There is news of release of TIBBS as freeware (fairware) by author Ralph Fowler. I also enjoyed a couple of user contributions in a Label typer program and an 8 line XB program which simulates the "BOING" demo AMIGA does. And of course there is lots more hardware and software on which you can spend your dollars. Check it over at the meeting or better yet, subscribe.

TIGERCUB finally sold some software to a user group member, yes me. I bought his NUTS AND BOLTS 1 and 2. I have only played with them a little, but they look good. I will bring the written copy of instructions to the meeting for you to look at to see if you may wish to purchase one or both disks.

I will also have my most recent 994/A National Assistance Group Newsletter there for you to look at. For the TI Writer SIG, it has a nifty little summary article on transliterate commands.

Another new program which has hit the ads and the reviews is "The BRAIN" by Datax. It is a menu driven assembly language program designed to run a host of computational routines in math, science and finance. It sounds interesting.

And if you have been looking for forms suitable for neatly recording 80 column program worksheets and for doing screen graphics, take a look at the "Texas Instruments Computer Program Writing Workbook". I will have my copy at the meeting. It was \$4.95 at Specialist IN.

## #29 DSDD DISK DRIVES

THE APRIL ISSUE OF COMPUTER SHOPPER HAD AN ADD FOR (AS IS) MPI DSDD FULL HEIGHT DISK DRIVES AT \$29. I ORDERED 4 OF THEM IN HOPES OF MAKING 2 WORKING DRIVES OR EVEN ONE WORKING DRIVE. ONE WOULD BE A BREAK EVEN POINT. IF NONE WORKED, IT WOULD BE \$116 PLUS \$6 SHIPPING DOWN THE PROVERBIAL DRAIN.

TEN DAYS AND LOTS OF BUTTERFLIES LATER, UPS DELIVERED A PACKAGE THAT WAS PROMPTLY DISASSEMBLED INTO FOUR MICRO PERIPHERALS INC. DISK DRIVES THAT LOOKED SOMEWHAT DUSTY BUT NOT BEATEN. A QUICK INSPECTION SHOWED SOME MINOR DIFFERENCE IN THE LABELING OF THE SHUNT PACK AND A DIFFERENT AND BETTER WAY OF MOVING THE READ-WRITE HEAD THAN THE SHUGART 400 SL THAT COMES WITH THE TI-P BOX. THE DISK ACCESS DOOR WAS IDENTICAL TO THE OLD DOOR, AS WERE THE MOUNTING SCREW HOLES, CARD EDGE CONNECTOR, AND POWER SUPPLY PLUG. THE READ-WRITE HEADS SHOWED SINGLE DENSITY AND DOUBLE DENSITY CAPABILITIES. UPON PLUG IN AND POWER UP WITH GALLAGHER'S DISK OPERATING SYSTEM, THE FIRST DRIVE WORKED TO PERFECTION. I WATCHED IN FASCINATION AS THE TI DISK CONTROLLER INITIALIZED THE DISK PAST 360 SECTORS ALL THE WAY TO 720. MY AMAZEMENT MULTIPLIED AS THE OTHER 3 DRIVES WERE TRIED AND ALL WORKED PERFECTLY. NEXT I TRIED READING SINGLE SIDED DISKS AND FOUND THEY WILL READ WITHOUT ERROR. THE INFORMATION I HAD BEEN GIVEN THAT DOUBLESIDED DRIVES WRITE A BIT UPON ONE SIDE AND THEN A BIT ON THE OTHER SIDE ALL THE WAY DOWN WAS FALSE. TO QUOTE FROM THE TI DISK MEMORY MANUAL:

A single-sided diskette is divided into tracks which are 40 (on some diskettes only 35) concentric circles. The tracks are numbered from 0 to 39, starting at the outside track. Each track, in turn, is divided into nine sectors. Thus, there are 360 sectors, each of which can contain up to 256 bytes of information, or 2048 bits. The sectors are numbered 0 through 359, starting with sector 0 of the first track and going to sector 359 on the last track. Each sector has additional space used only by the controller to verify sector identification and data accuracy.

A double-sided diskette has 80 tracks. The tracks are numbered 0 to 39 on one side, starting with the outer track, and 40 to 79 on the other side, starting with the inner track. Each track is divided into nine sectors giving a double-sided diskette 720 sectors. Each sector can contain up to 256 bytes of information, or 2048 bits. The sectors are numbered 0 to 719, starting with sector 0 on the first track of the lower side, and sector 359 on the last track of the lower side. Sector 360 is on the last track of the upper side and sector 719 is on the first track of the upper side. Each sector has additional space used only by the controller to verify sector identification and data accuracy.

The disk controller uses sectors 0 and 1 of the first track to form an index of file locations. If those sectors become damaged and unreadable, the computer cannot locate any files on the diskette, and the contents of the entire diskette will be unusable.

THE ONLY CONSISTENT PROBLEM FOUND WITH THESE DRIVES IS CHATTERING OF THE READ-WRITE HEAD WHEN IT MOVES. AN APPLICATION OF 1/2 DROP OF TRI-FLO (A TEFLON BASED LUBRICANT) TO EACH SLIDE RAIL REDUCED THE NOISE. NO WEAR OF THE SLIDE RAIL MECHANISM COULD BE DETECTED. WITH ALL FOUR \$29 DRIVES IN WORKING CONDITION ON ARRIVAL, I THEN BORROWED JERRY POLLARD'S \$86 SG-10 PRINTER SMILE AND PLASTERED IT ON MY FACE. A CALL TO THE CLUB PRESIDENT AND DAN BOYCE PRODUCED A 3 WAY ORDER FOR MORE DRIVES (A THREE WAY BECAUSE I HAVE 2 P BOXES AND EVERYBODY SHOULD HAVE SIX DSDD DISK DRIVES - SHOULDN'T THEY? DAN ORDERD THE STUFF ON MONDAY MORNING. THE PERSON TAKING THE ORDER INDICATED THERE WERE PLENTY TO BE HAD. AT OUR REGULAR 4TH TUESDAY SIG MEETING THIS SUBJECT WAS DISCUSSED. THE GRAPEVINE TELLS ME THAT BY WEDNESDAY NOON, THEY WERE SOLD OUT. VERY GOOD MADHUGGERS. IF YOU MISSED OUT ON THIS DEAL, TAKE HEART. THERE IS ANOTHER SOURCE. CONTACT DAN BOYCE OR RICH JURGENS FOR DETAILS.

TI NEWS Program Example by Dan Boyle

When someone asks you what you do with your computer, are you honest and say spend money on it, or you do like I do and tell them about all the marvelous and wonderful things it does for you, like save time?

Well, my TI actually does save me some time and do some work for me. I am listing a program I wrote over 3 years ago to help me calculate chemical feed rates for one of the chemicals used at the Water Treatment Plant. As you may note, my output is to the TP-Thermal Printer.

This was a programming challenge in itself to squeeze all the information I wished to display on that skinny paper. It was a good learning programming exercise in that I had to learn how to use the TAB and INT statements to get the display formatted properly. I also learned to better understand the Input and For-Next statements in order to make the program flexible enough to cover various water and chemical combinations encountered in daily plant operation. It gave me a chance to play around with defining constants which would be used in various combinations in this and similar chemical feed rate programs. I also had to learn how to properly use the Open and Close and the Print# statements.

The program is not elegant and still needs polishing and refining. I hope to someday have a series of menu driven programs such as this available for the plant operators to use whenever they have to recalibrate a chemical feeder or when they make major changes in chemical feed. I have included a sample output for specified chemical feed rates and water flows to illustrate what it will do. The most important thing which it did is saved me several hours work with a calculator to do the same thing. I also believe this program would run without modification in most other BASIC as it contains nothing fancy.

I hope you can get some programming ideas from this, as simple as it is. One does not have to go to XB to get something useful done.

If you wish to play with it on PIO, just change the OPEN statement. The TAB statements will also be changed to make full use of a larger printer. Eventually, I should figure out how to format the output as a Table or Chart.

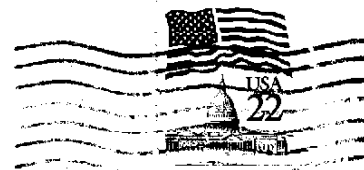
```
90 OPEN #1:"TP.S",OUTPUT
100 REM PROGRAM IS SODA ASH FEED,10-16-83, DAN BOYCE
110 PRINT #1:"CALCULATION OF SODA ASH FEED RATE"
120 REM C1 IS GRAM/MG
130 LET C1=(1/1000)
140 REM C2 IS LITER/GALLON
150 LET C2=(3.785/1)
160 REM C3 IS POUND/GRAM
170 LET C3=(1/454)
180 REM C4 IS MINUTES/DAY
190 LET C4=(1440/1)
200 REM P IS PURITY OF SODA ASH
210 PRINT "PLEASE ENTER THE % PURITY OF THE SODA ASH"
220 INPUT P
230 LET P1=INT((100/P)*10+0.5)/10
240 REM D IS THE DESIRED SODA ASH DOSEAGE
250 PRINT "PLEASE ENTER THE MINIMUM SODA ASH DOSEAGE TO BE USED,EXPRESSED IN MG.
L"
260 INPUT D1
270 PRINT "PLEASE ENTER THE MAXIMUM SODA ASH DOSEAGE TO BE USED,EXPRESSED IN MG.
L"
280 INPUT D2
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290 PRINT "PLEASE ENTER THE SMALLEST AMOUNT BY WHICH SODAASH DOSEAGE WOULD BE R
ISED OR LOWERED, EXPRESSED IN MG/L"
300 INPUT D3
310 REM F IS THE WATER FLOW BEING TREATED, EXPRESSED IN GALLONS/MINUTE (GPM)
320 REM F1 IS THE MINIMUM FLOW, F2 IS THE MAXIMUM FLOW, AND F3 IS THE INCREMENT,
L CHANGE IN FLOW
330 PRINT "PLEASE ENTER THE MINIMUM WATER FLOW TO BE TREATED, EXPRESSED IN GAL
S/MINUTE (GPM)"
340 INPUT F1
350 PRINT "PLEASE ENTER THE MAXIMUM WATER FLOW TO BE TREATED, EXPRESSED IN GPM"
360 INPUT F2
370 PRINT "PLEASE ENTER THE AMOUNT, EXPRESSED IN GPM, BY WHICH WATER FLOW BEING T
EATED IS RAISED OR LOWERED"
380 INPUT F3
390 FOR F=F1 TO F2 STEP F3
400 PRINT #1: TAB(1); "FLOW"; TAB(10); "DOSEAGE"; TAB(20); "FEED RATE"
410 PRINT #1
420 PRINT #1: TAB(1); "GPM"; TAB(6); "GR/GAL"; TAB(13); "MG/L"; TAB(18); "G/MIN"; TAB(24
; "#/DAY"
430 PRINT #1
440 FOR D=D1 TO D2 STEP D3
450 LET GR=INT((D/17.1)*100+0.5)/100
460 REM G IS FEED OUTPUT IN GRAMS/MINUTE
470 LET G=INT(D*C1*P1*C2*F)
480 REM LB IS FEED OUTPUT IN POUNDS/DAY
490 LET LB=INT(G*C3*C4)
500 PRINT #1: TAB(1); F; TAB(8); GR; TAB(14); D; TAB(19); G; TAB(24); LB
510 PRINT #1
520 NEXT D
530 NEXT F
540 CLOSE #1
550 END

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MADHUG - 99/4A  
C/O Dennis Schjeldahl  
509 Reeves Dr.  
Grand Forks, ND 58201



DALLAS TI HOME COMPUTER & USERS GROUP  
1221 HOSSWOOD  
IRVING TX 75061

THE MINNESOTA AND DAKOTA HOME USERS GROUP  
(MADHUG) WOULD LIKE TO EXCHANGE NEWSLETTERS  
WITH YOUR USERS GROUP. PLEASE INCLUDE OUR  
ADDRESS ON YOUR MAILING LIST.

MADHUG  
509 REEVES DRIVE  
GRAND FORKS, NORTH DAKOTA 58201  
DENNIS SCHJELDAHL, PRES. 701-772-6180