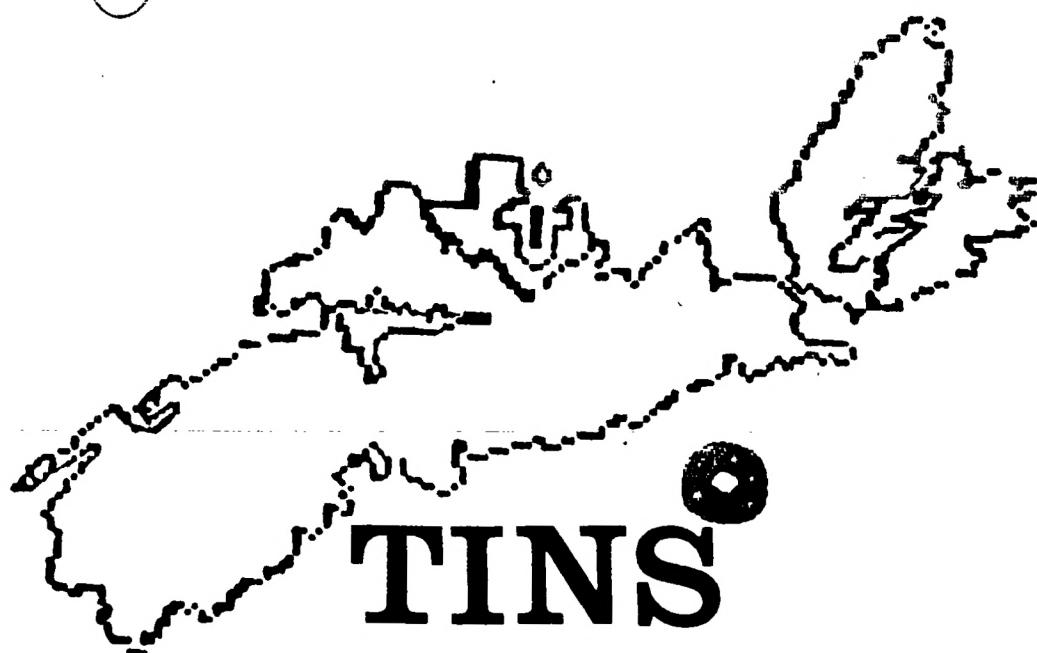


TEXAS INSTRUMENT USERS GROUP



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Dec 84
issue 3:1

NEWSLETTER

**Computers Don't Get Mad.
They Get Even !**

A crash course in computer care. By: **PERFECTDATA**™

One of these days, your computer is going to get fed up. Tired of choking on a daily diet of fingerprint oils, dust, cigarette smoke particles, hair, carpet fibers, and loose oxide buildup.

When that happens, it can begin to tell lies. Or lose data. Or even suffer a breakdown, with its expensive repair bills.

How can you avoid all those headaches? Here is the simple key:

Preventive Maintenance

You brush your teeth.
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oil in your car. That's PM,
too.

When it comes to your computer, consider this:

To protect your **big** investment in hardware and software, the best **small** investment you can make is a few minutes a week of preventive maintenance... ideally, with quality computer care products from **PerfectData**.

We've given those computer life-savers the name **Careware**. Give them a try.

The sensitive read-write heads of your floppy-disk drive actually ride in contact with the rotating disk. Contamination on either the heads or the disk is enough to cause misreading, loss of data, or damage to the disk or the drive's heads, with the resulting repair or replacement cost.

How do you prevent those woes? With periodic use of a head cleaning kit that uses "wet/dry" cleaning process. It

is the only cleaning method recommended by most major disk drive manufacturers. It was invented by PerfectData.

You just moisten a portion of the lint-free cleaning disk with the kit's proprietary cleaning solution. As your drive spins the cleaning disk, the moistened portion passes under the read-write head to loosen contamination. Then the dry portion of the spinning disk quickly and effectively wipes that contamination away. This cycle is repeated for the 30 seconds required to clean the heads thoroughly.

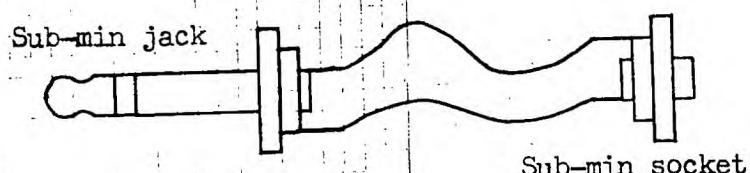
If your going to spend hours reading your video display..the kit has cleaning materials for the screen.

Your printer giving furry little characters..the kit has a solution for that. Also for the platen and casing of the printer.

See this kit and other
smaller versions at **Basic
Computer**, Young St. Halifax.

An excellent investment in
the protection of your
equipment.

CASSETTE RECORDER CABLE
ADAPTER



For those cassette users who have found that their recorder will not work properly when used with their TI99/4A, here is a solution to one of the common problems.

If the on/off controls of your recorder are not activated by the computer, the problem probably lies with the remote jack. In some of the recorders on the market the polarity of this remote jack are just the reverse of what is needed by your computer.

In order to rectify this problem all that is required is a reversing of the connections at one end of the cable. Rather than tamper with the cable supplied, to interface with the recorder, it is adviseable to make a small adapter as diagrammed above.

The jack and socket indicated are subminiature, 2 conductor $3/32"$, and available quite readily. (Try Sector Software in Dartmouth) The diagramme indicates that the leads are reversed from one to the other end. Use a 35mm film case to hold **SOCKET.**



Is the expense of buying a modem, RS232 card and terminal programme really worth it ???

This is a question I have asked myself several times in the past. The answer became very clear during a recent interchange on DATAPAC with the Univ. of Manitoba.

Within the space of two days, I was able to read a request for an exchange of buttons, answer the request and receive a detailed list of the buttons available, send of a return list and receive confirmation that the buttons had been posted. By the time I had realized that this was indeed happening, the buttons had arrived in the mail. If this is an indication of what we can expect through electronic mail.....we all should participate.

EDITORIAL

LAW and SOFTWARE

There have been quite a few articles lately concerning the legal aspects of handling software.

Most of the cases have been about "pirates" and the evils of copying programmes that have proprietary claims against them. The authors and producers of software have occupied the centre stage with suites and countersuites. Each claiming rights under various laws and statutes.

One such article was recently published in "Computer Shopper" (Dec issue). It was written by L.J. Kuttner and goes into the various protection devices used by manufacturers to establish their "copyright".

It is a well written article that should be translated into Canadian jurisprudence. There is little enough information in this country on the subject. The field is wide open for a group of eager legal-beagles to make their mark on the industry.

Questions of "box-top" contracts, the placing of statements on product boxes that constitute license agreements, conditional sales agreements and other forms of contracting that are appearing on the software products, should be given a close look in the light of Canadian law and the Canadian Constitution.

To what degree has the "pirating" developed? Are we raising all of this noise over a very small percentage of the commercially available programmes, or has the

pirating developed into a major threat to the manufacturers? Is the little boy who has copies of programmes that he has collected, as bubble gum cards, but can't yet use, a thief? Is the business man who tries out a pirated copy of an expensive programme, to determine its worth before committing his resources, a crook?

Most of the programmes and applications that have appeared in library lists that I have had the opportunity to see have been simple programmes that would have very little commercial value. The attractiveness of these "BASIC" programmes is limited. The programmes that appear in most of the "mags" are of a similar value...interesting at first glance..but of little value in the market place. If they were commercially attractive, they wouldn't have been offered to a magazine.

What we need is either a thorough study into this matter as it pertains to Canadians...or a good test case before the courts.

If the former is not forthcoming, the latter surely will be.

Send your comments to the Editor.

[NL]

REMARKABLE BOOK

SALE

<input type="checkbox"/>	Computer Graphics with 29 ready to run Programs. TAB books. D. Chance \$8.00
<input type="checkbox"/>	34 More tested, Ready-to-run game programmes in Basic. TAB books. D.T. Horn \$8.00
<input type="checkbox"/>	Most of the books where originally priced at between \$20 and \$30.
<input type="checkbox"/>	The books are in "mint" condition and are written in Microsoft Basic. Compatible with most computers with little or no modification.
<input type="checkbox"/>	I have finished with the information that the books contain, converted to disks, and no longer have a need for them.
<input type="checkbox"/>	Machine & Assembly Language TAB books. D.C. Alexander simple approach to learning fundamental programming techniques! \$8.00
<input type="checkbox"/>	1001 Things to do with your personal computer..TAB books M. Samasch. \$8.00
<input type="checkbox"/>	Game Playing with Basic Hayden books. D.D. Spencer [soft cover] \$5.00
<input type="checkbox"/>	SS Advanced Computer progs in Basic. TAB books. W.S. Watson \$8.00

Rather than see these good sources of information and ideas gather dust on my shelves, I am offering them to those who cannot afford the high prices of the book stores at these ridiculously low prices.

Prices do not include postage. Add \$2.00 for postage of individual selections. Postage will be paid if bulk purchase of books is made.

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Transportation

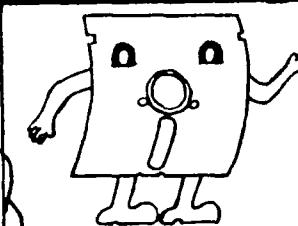
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LAW AND THE COMPUTER

The following was gleaned from the UMBBS. If nothing else, it provides for some interesting reading, and just goes to show why SYSOPs have to be on their toes. It is also interesting to note that another BBS in CA was closed down, and gear confiscated when they were advertising copywritten software for trade/sale.

[TIBBS]

Creation Date: 84/10/24
Created By: RAYMOND HALL
 Userid#(489)
Subject: GENERAL Description: -
POLICE SEIZE BBS EQUIP
Forwarded from P.dBMS -
Lakeside, CA

The following is a transcript of John Dvorak's column in the Sunday October 7 issue, San Francisco Examiner-Chronicle.

John Dvorak
Periscope

KEYSTONE KOPS CAPER - COMPUTER COMMUNITY

It was supposed to be the computer "crime" of the year. It will turn into an embarrassment for everyone.

It started with a May 16 Los Angeles Police Department raid of an innocuous computerized community bulletin board in Grenada (sic) Hills. The cops were prompted by Pacific Bell to bust a guy named Tom Tcimpidis (pronounced Sim-pedis). Somehow, somebody posted a telephone calling card number on his system.

Basically, anyone hooked into a computerized community bulletin board can post messages that can be read by others on the system. All it takes is a home computer coupled to a modem, which links the computer to the

telephone line, and the password. State law prohibits board users from posting telephone credit card numbers and calling card numbers. (That's what the telephone company gives you to charge calls nowadays.)

In fact, it's a felony if someone posts a number on your bulletin board because it's considered a conspiracy. If you're the operator of the board and you post the number yourself, it's only a misdemeanor. You don't even have to know who posted the number to be charged with a felony. That's what happened to Tcimpidis, or so it seemed.

This case has become *the* cause celebre of the microcomputer community. The L.A. Times, L.A. Herald-Examiner, InfoWorld, the Associated Press have written stories. And like falling dominoes, users and operators of the thousands of bulletin boards around have found out about the shutdown, and everybody is mad as hell at the phone company.

A lawyer's special interest group involved in computers is preoccupied with the case. Lawyers are volunteering their time to defend Tcimpidis. Among other things, they say there's a freedom of speech issue. If you run an open community bulletin board, are you as the owner responsible for all its contents? The whole Pac Bell approach seemed like much ado about nothing. Hey, there was only one card number posted, and Tcimpidis says he didn't even see it.

OK, so it's a big deal. But everyone, and I mean everyone, has screwed up like nothing I've ever seen. Sure, the

applicable law is a disaster. But is this the case to rally around? Let's start out with the fact that the owner of the number posted on the bulletin board knew Tcimpidis and Tcimpidis knew him. This is a critical fact that has been overlooked by the police, the media, the angry computerniks, the attorneys, the district attorney, everyone. Why? Because nobody bothered to call the number that was posted and see who the heck this guy was!

So I did.

I did it because I checked the bulletin board and it looked pretty harmless. (There are "phone phreak" boards that do carry a lot of questionably legal information.) So I called the number and got hold of a fellow named Murray Krow of Murray Krow Productions, a video production company in Los Angeles. Hey, what do you know—Tcimpidis works in video, too!

It turns out that Tcimpidis worked for Krow back in March—just before the number was posted on Tcimpidis's board. According to Krow, Tcimpidis was hired as a video engineer by a subcontractor named Terry Donahue to work on a production for IBM, some industrial training tape. Krow claims, he "had trouble with Tcimpidis." There were "technical errors" that luckily turned out not to be a problem. Krow indicated that he wasn't satisfied with Tcimpidis, and Tcimpidis hasn't worked for Krow since.

Krow told me that he never lost his calling card or had it stolen. During a shoot, though, the card number got used by all the staffers and maybe 100 or so calls were

WHERE'S THE BEEF?


The problem is that we have found the beef but don't know who owns the bull. Anyone knowing the origin of this "bull", that was on a program of music entitled "YELLOWROSE", please let us know.

made on it. According to Krow, it is possible that anyone could have used the card.

Soon after the number was posted on the bulletin board, Krow got a phone bill with a couple of weird calls to Australia and Israel and a lot of short, unexplainable five-minute calls. "It was less than \$100 worth of phony calls," Krow told me. Krow didn't remember when the bum calls took place. Pac Bell can figure it out.

Krow was flabbergasted that his number appeared on Tcimpidis's bulletin board. (Actually, Pac Bell did call him, but Krow at that time said he didn't recognize Tcimpidis's name.)

When I confronted Tcimpidis with this unusual coincidence, at first he didn't remember working for Krow. "Doesn't ring a bell," he said. He did remember working for Donahue on the IBM job, though. When I got more specific, then he remembered Krow. He recalled the shoot at some boring management-oriented video. He said he doesn't know anything about any "technical errors" and has worked for Donahue since then.

Tcimpidis goes on to say that he, too, is shocked by the coincidence, claiming that he didn't know the number belongs to Krow until I told him.

Tcimpidis also claims that soon after he was shut down he checked a bunch of other bulletin boards and found the same number posted on one of them. The date of the posting, according to Tcimpidis, was 45 days earlier than the posting on his board. (Tcimpidis was raided after his message was on his board for 70 days.)

Tcimpidis surmised that since Krow was passing the card around and making hundreds of calls, anyone could have noted the number. After all, the video technician community is loaded with computer-types, right?

Why didn't Tcimpidis see the message on his board? "It got by me," he said.

But who cares, anyway? The cops sure don't. They resent doing Pac Bell's dirty work and certainly haven't been very diligent in gathering material on which to build a case. When they raided Tcimpidis's house, they left evidence behind and took the wrong diskettes. The district attorney's office can't make up its mind what to do. And all along, the media weekly parrot Chuck Lindner's (Tcimpidis's attorney) complaints about the phone company. (One L.A. Times reporter called Tcimpidis to find out why Tcimpidis was busted for running a prostitution line from his bulletin board. Great reporting.)

What it comes down to, and this is pathetic, is that this is a high-profile case that could turn out to be a big zero because of trumped-up felony charges, Keystone Kop antics, buck passing, and dubious coincidences. This isn't the case for thousands of users and hordes of gung-ho lawyers to get behind. It's been too poorly handled by everyone to be a good test case for anything.

More importantly, it's liable to cause a legislative ruckus. Well-meaning zealots, who lack a basic understanding of simple microcomputer technology, are going to try

(to) pass laws that are far worse than the current statute (Cal PCS02.7.). Stir into this witch's brew a naive and technophobic public with the dull-witted, antsy and technologically naive politician, and you've got trouble in River City.

The answer is, of course, a sincere effort at self-policing these boards by the people who run them. Unfortunately, there has been no real movement in that direction. And here is the response from Tom Tcimpidis's attorney, Chuck Lindner:

10/7/84 From Chuck Lindner:

Everyone....This is important!!! Please give this message maximum distribution on all BBS systems. There is an article by John Dvorak in the sunday San Francisco "Chronicle" & "Examiner" that Tom Tcimpidis apparently worked as a television engineer for a producer named Murray Krow. It appears that it was Krow's number that was the att credit card number used....Tom denies knowing it was Krow's number....I have interviewed Tom and am satisfied that he is telling the truth....Now, for the hard part....Because of Mr. Dvorak's revelation (which we did not know), I am compelled to disclose defense evidence....We have absolute and utterly concrete evidence that Mr. Krow's credit card was in circulation on the los angeles BBS network, on numerous boards, more than a month before it found its way to Mog-Ur, and well prior to Tom's working with or meeting Mr. Krow....Mr. Dvorak regrettably thought he was solving a mystery. Unfortunately, as a defense attorney, I could not tell him



all of our evidence before trial...But since he has chosen to create innuendoes clear Tom's name...The defense of Tcimpidis and Mog-Ur will proceed as before. I would appreciate it if this message could find its way to Mr. Dvorak.

CHUCK LINDNER (213)-688-4435
ATTORNEY FOR TOM TCIMPIDIS

Please be careful in interpreting this item, as the laws are very different in Canada, especially with regard to felonies, fraud and other legal issues of a similar nature. R.H.

COMING SOON...Canadian laws,
as they apply to software and
the field in general.

[NL]

FINALLY ! MEMBERSHIP CARDS

Due to the magnanimous actions of one of our members, we have finally obtained membership cards. These cards are being distributed to those members who have paid at least $\frac{1}{2}$ of the annual membership fee. Expect yours at the next meeting.

For those who wish to remain as "corresponding members", send a self addressed, stamped envelope along with your membership fee (\$16) to:

TINS
321 Iony Hill,
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B4E 1M6

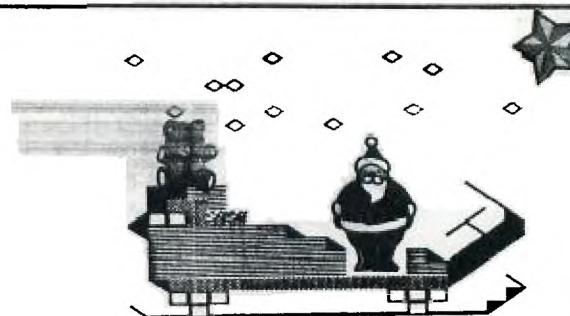
99

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BEST WISHES FOR A HAPPY CHRISTMAS
&
A Bright & Successful 1985

Florence M. Parsons

SQUAWKING

Disconnecting !

This month, I would like to restate the excellent hint that was presented in Oct issue of MICROPendium.

There are some things one should never do with a computer. ("....") One should never hang up on an electronic bulletin board or telecommunications service without signing off in the proper way. Just hanging up the phone on The Source, for example could result in extra charges because you will continue to be billed for the connection until the host computer finally figures out you're no longer on the line. This can take upto 20 minutes.

With local bulletin boards this procedure could be even more essential. Hanging up without properly signing off could case a fatal error in the BBS programme. It may cause the BBS to lock up, thus locking out other users. Some systems require operator intervention to correct this type of error. If it were to happen on a Friday evening, you could sabotage the board for the entire weekend.

In some cases, as with the UMBBS there is an autorecovery procedure that is initiated when a fatal error occurs. If you were to find yourself in an unfamiliar part of the service, and none of your command words seem to help, dont give up. With the UMBBS, I have found that I have been dumped to the TSO on occasion and after using many commands to no avail discovered that all I needed to do was type the word "LOGON" to get myself back into the BBS. Hanging up and inappropriate commands can cause problems even with this sophisticated system. If all else fails...use the proper log off procedure...log back on from DATAPAC and leave a

short message to the sysop detailing your experience and the results. Sysop doesn't want to know about problems that are now history...just current difficulties.

TIBBS

Lets not forget our own workhorse in the metro area. Terry Atkinson is the sysop for TIBBS [Texas Instruments Bulletin Board System] in this area, usually referred to as the "Bullboard".

Terry has been doing a great job running this service and has been very helpful and understanding with newcomers and novices. The service is available on a 24 hour basis at 902-434-3121. All gendres of computers are welcome to participate in the board, however it is strongly flavoured with TI.

Unlike some of the general purpose boards that we hear about that will allow just about any form of transaction, up to and including those that are of questionable legality, this board is scrupulously honest. Any pirating, abuse of individuals, or any other action that might be considered offensive or illegal is energetically discouraged.

Its a good, clean, down-home bulletin service. Run by an individual that is devoting a lot of his time and most of his equipment to the service of others.

Thanks, Terry, keep up the good work.

Personal Record Keeping

Further to our letter to the editor in Nov. issue...

"You don't want to play it too close to the vest with the Personal Record Keeping cartridge, according to Robert Hamsher, pres of the Airport Area Computer Club of Coraopolis, Penn. Although the manual warns users to leave 2 percent of the available record space unused, many may try to use all of the available memory. The computer can lock up when this is done.

Those using cassette for data storage with the PRK should leave even more space unused if the records are to be outputted to a printer. Hamsher recommends that 30% of the available space remain unused in this instance. Otherwise, he notes, the console may lock up.

[MICROPendium, Oct 84]

DOUBLE Random Numbers

The address for a two byte random number seed that generates two different random integers with values from 0 to 255 is -31808.

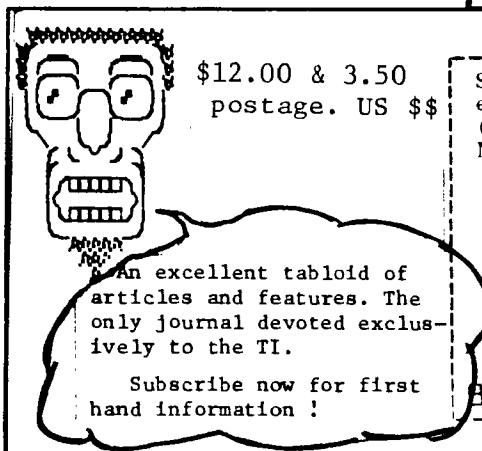
For example:
100 RANDOMIZE::CALL PEEK(-31808,A,B)::PRINT A,B::
GOTO 100

will generate a continuous series of random pairs.

This might be quite useful in the random movement of sprites, it will be very fast, at least.

CALL PEEK(-31808,A,B)
CALL MOTION(#1,A-128,B-128)

[Niagara Region NJ]



Send me the next 12 issues of MICROPendium. I am enclosing _____ in a check or money order in U.S. funds. (Texas residents add 5.125% sales tax.) Mail to: MICROPendium, P.O. Box 1343, Round Rock, TX 78680.

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LOGO PROGRAMMES

Sample of the logo programmes found in "TI LOGO"
by Harold Abelson, Byte Books, available at Atlantic News.

```
TO POLY :SIDE :ANGLE          Try Side=50 Angle=160
FORWARD :SIDE                  60     80
RIGHT :ANGLE                   20     40
POLY :SIDE :ANGLE              100    156
END
```

```
TO POLYSTEP :SIDE :ANGLE
FORWARD :SIDE                  Try
RIGHT :ANGLE                   | Side1 30 30 25
END                            | Angle1 60 90 190
                                | Side2 60 50 50
TO TWOPOLY :SIDE1 :ANGLE1 :SIDE2 :ANGLE2 Angle2 210 135 200
POLYSTEP :SIDE1 :ANGLE1
POLYSTEP :SIDE2 :ANGLE2
TWOPOLY :SIDE1 :ANGLE1 :SIDE2 :ANGLE2
END
```

```
TO POLYSTEP :SIDE :ANGLE
FORWARD :SIDE                  Try:
RIGHT :ANGLE                   Side=1 1 5 5
END                            Angle=45 45 120 144
                                Increment=1 3 3 3
TO POLYSPIRAL :SIDE :ANGLE :INC
POLYSTEP :SIDE :ANGLE
POLYSPIRAL (:SIDE + :INC) :ANGLE :INC
END
```

```
TO DESIGN
FORWARD 20
RIGHT 90
FORWARD 20
RIGHT 90
FORWARD 10
RIGHT 90
FORWARD 10
RIGHT 90
FORWARD 20
RIGHT 90
FORWARD 5
RIGHT 90
FORWARD 5
RIGHT 90
FORWARD 10
END
```

```
TO DESIGN4
DESIGN
DESIGN
DESIGN
DESIGN
END
```

```
TO CRYSTAL
DESIGN
LEFT 45
STRAIGHT 25
CRYSTAL
END
```

```
TO JENGU
DESIGN
REPORT 4DESIGN
DESIGN
LEFT 90
JENGU
END
```

```
TO INSPI :SIDE :ANGLE          Try
POLYSTEP :SIDE :ANGLE          Side 10 10 7 7
INSPI :SIDE (:ANGLE +10)       Angle 1 10 3 5
END
```

These are just a few of the more interesting geometrical designs contained in the book. There are many pages of instruction and example throughout this worthwhile work. For those with LOGO 1 or 2 it will provide programming ideas and instruction.

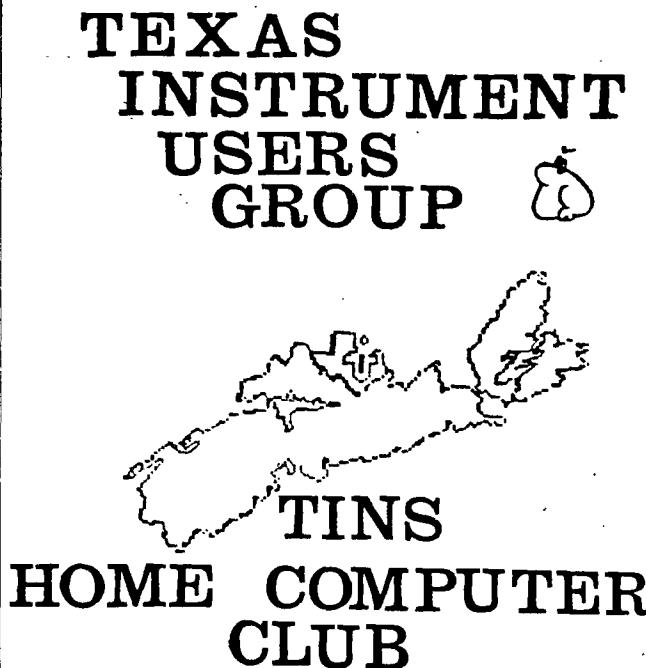
[NL]

How about that...

Charles E. Roberts of
Springfield, Missouri, wrote:

"At the last meeting of the Users Group here in Springfield, I mentioned that I used my printer while writing a program in BASIC. Some knew what I has been working on and know I needed every bit of the basic RAM I could get. Not one of the members i talked to know how to do this without losing 2K by having the PEB turned on, so I assume most other users do not know how to either. It's simple. Do not turn on the PEB until after you power-up the computer. Although you cannot use the disk drive you can address the RS232 without any loss of RAM."

[MICROpendium Sep 84]



Send self-addressed, stamped envelope to

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Lr. Sackville, N.S. B4E 1M6
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Regular membership \$12.00 per year.

For those unable to attend the monthly meetings, we are offering a "correspondence membership" that includes the monthly newsletter, at \$16.00 (12.00 for NL + \$4.00 post)

This is the last newsletter for the 1984 calendar year. It seems like a very good time to reflect upon what has happened in the outgoing year, and have a look at the future of the club.

This year has seen the old executive re-instated under the leadership of a new club president. Tim MacEachern, the past president, has had to step down due to personal commitments. He has indicated that he will remain with the club, helping out wherever he can.

The two years of Tims presidency have seen the club survive against some of the biggest odds possible. The withdrawl of TI from the home computer market, the loss of TIs position in the home computer hierarchy, and the subsequent dwindling of interest amongst users, were some of these obstacles. Through Tims efforts and the efforts of his executive, the club has managed to survive.

Now, on the dawn of a new day in the life of the TI 99/4A, the club is on the verge of very promising new lease on life. People from all parts of Nova Scotia are phoning, and writing in to ask about the club and how to join.

With this increase in interest, it is our responsibility to look at our structure and adjust it to accommodate the interests of these new members. Most people have the basics of the machine mastered, but very few of our members are skilled enough to be called advanced. To this end we must look at establishing interest groups within the club.

All of this is very well to say....but who is going to do the legwork. Each interest group must have a person around whom to rally. Without this individual, the group will not function. While no-one likes to volunteer for these leadership positions, they are essential to the group. An individual who accepts the position for the formation of such a group need not feel that he/she has taken on that position for life. Once the group is off-and-running, so to speak, the members will select one of their numbers to direct the group. Usually, this will take place without direct intervention.

Before we can call PHASE ONE a success, we need people to organize the following interest groups into active units:

BASIC (instruction and programming techniques)
XBASIC (logical progression from BASIC)
EXOTIC (other languages)
COMMUNICATIONS (all means of communications with computers)

once we have these subgroups established, we can look at other interests. We must maintain a continuous state of flux if we are to serve all of our members..

So far our newsletter has had three successful issues. The input into this tabloid has been disasterous. Two or three people have been the only contributors to the paper.

Without your 2 cents worth the newsletter will not survive at its present level. At present we have the best looking newsletter of all of the samples I have seen. In order to keep it at that level, I am doing most of the research and writing. I would very much like to see more input from the members. The latest estimates I have received for the printing of the newsletter are in the vicinity of \$1.40 per issue. If the present method of printing can be continued there will not be an increase in the costs to the subscriber. If, However, we are forced to resort to other printing methods, then the price will have to be increased to cover these costs.

IMPORTING COMPUTERS AND HARD/SOFTWARE

One of the most efficient and cost effective ways of building up your computer system and software library is to order directly from the producer or the distributor of these goods. After all, why pay an extra "middle man" for virtually nothing. Since the greatest majority of distributors are located in the U.S. of A., "most" of the goods must come through Canada Customs. I say "most", because personal experience has shown that very small articles of little monetary value are sometimes passed directly through Canada Post without charge.

When trying to determine if the "sale" of an item advertised locally is a "good deal", you must also consider "how much would it cost me to import the same item from the USA?". Hopefully, this article will take the mystique out of ordering articles outside Canada.

The first thing you must recognize, is that the cost of ordering through the U.S. is that Customs officials base the value of duty and tax at a CANADIAN value, so the cost of the item is first converted to Cdn funds. So, when considering a purchase, you should phone the bank and get the current exchange rate. The next thing Customs does, is determine which "category" the item fits into. There are different rates for different categories. They then compute the amount of duty and tax [Federal Sales Tax (GST)=10%]. Now they put the information onto a card, and mail it out to you. All you have to do, is go to customs and pick it up. (They accept cheques, but not VISA...YET).

Lets calculate an example.

Say, for round figures that the exchange rate is 25% and the duty on a particular item is 5%, and FST is 10%. The item you ordered cost you \$100 (US). First, convert to CDN funds. $100 * 1.25 = \$125$. Duty is then applied on this figure $125 * 1.05 = \$131.25$, and then FST is applied to the new total; $131.25 * 1.10 = \$144.38$. The total cost, then, of the item is \$144.38 CDN. Then add on the shipping charge (usually nominal) to arrive at your total cost of ordering the item through the US, rather than purchase locally.

One small consideration: Can you wait for the article to arrive, and is the cost difference worth the wait. (Allow 2-6 weeks for delivery, generally 3 weeks or so).

Below is a list of items and their applicable duty. FST is 10% on all of these items except where noted.

(see below for further description of software items)

Documentation (without adverts)
no duty no tax, (with adverts)
no duty.

Software (general notes)

The value for duty and tax is assessed ONLY on the cost of the DISK or CASSETTE or MODULE, and NOT on the cost of the software it contains. Customs has a set cost estimate of \$7.00 per disk, so 10% FST is assessed on the

\$7. For example, take a disk based program has cost you \$100 CDN. You are assessed a tax of approximately \$0.70 for the disk only. The same applies to cassette based programs, except a duty is also applied. (I forget the value of cassettes

Another note...if you can get the supplier of the software to separately list the cost of the program from the cost of the diskette, customs are most accommodating. They will charge you tax on the "new" value. For example, using our \$100 software above, say the originator listed the disk cost at \$1.75, and the program at \$98.25. You would pay only \$0.18 ($10\% \times \1.75) for that item. From experience, few companies are willing to do this, of course, there are exceptions such as TENEX and TEFYCOMP.

The reason that a disk is assessed at a \$7.00 rate, is that it was estimated at that price several years ago (when disks DID cost that much), and they just haven't gotten around to changing it yet.

MODULES are essentially the same. If you can get the module cost separate from the program it contains, you pay tax on only the module cost.

An excellent example of this was when I got a deal on a TI-WRITER. The approx cost was \$94.50 CDN. Customs, in their ignorance, charged me 9.5% duty and 10% FST on the WHOLE \$94.50. When I asked them to open the parcel and re-evaluate it's contents, they did so without hesitation, and here's the result:

Since I had a catalog (listing a game cartridge at \$9.95), they charged me 3.9%+10% for that. Then, the 10% (on \$7.00) for the diskette. Since the remainder was documentation and program cost, I paid only \$2.12 duty and tax as apposed to the \$19.32 they had originally charged me.

SPEECH USING THE TE-II

The use of speech on the TE-II is very simple, but of no practical value. I consider it a novelty, at best.

At any rate, it is nice to show-off the capabilities of the TI99/4A to your braggard friends who own a C-64 and the like. So, to that end, I will endeavour to show you how it is done in the most simple of terms.

1. USING THE TE-II

Accessing the speech capabilites of the TE-II can be accomplished in one of two ways. The first is the direct mode, and the second is by first preparing your text off-line, and then using the auto-logon feature of TE-II to upload the text file. (See previous newsletters on how this is accomplished). You can do the latter in one of two ways. The first is by hooking-in to a pal to upload the demo. The second is by merely selecting half-duplex option, and auto-uploading the text WITHOUT hooking-in to anyone. You may have to experiment a little with the above statements to see what works best for you. For example, your modem may do the echoing back, or perhaps you must use the RS232/2, etc. Again, the best way to learn this is to EXPERIMENT.

Here's the syntax:

FCTN R (escape)
B (capital B)
FCTN V (del char)
FCTN R (escape)
((open parenthesis)
& (ampersand)
"TEXT" (text to be spoken)
FCTN R (escape)
) (closed parenthesis)

The hex code for the above is:
1B14717F11B1281261TEXT11B129

That's all there is to it. You can insert the text to be spoken in place of "text" and if you do not wish the actual text to be printed, then just replace the ' with a ' (FCTN 0), and the text will be spoken but not displayed.

A short basic program which would accomplish the same thing, is:

```
100 OPEN #1:"RS232"  
110 PRINT #1:CHR$(27);";6";  
    CHR$(127); CHR$(27);";(";"  
    "YOUR TEXT";CHR$(27);")"  
120 CLOSE #1
```

2. USING TI-WRITER

If you are fortunate enough to have the TI-WRITER, these special characters can be processed directly from the keyboard and added throughout your text when necessary. To enter/exit the special char mode, a CTRL U is necessary, and the format would look like this:

CTRL U (enter spec char mode)
FCTN R (escape)
CTRL U (exit spec char mode)
B (capital B)
FCTN V (del char)
CTRL U (enter spec char mode)
FCTN R (escape)
CTRL U (exit spec char mode)
((open parenthesis)
& (ampersand)
"TEXT" (text to be spoken)
CTRL U (enter spec char mode)
FCTN R (escape)
CTRL U (exit spec char mode)
) (closed parenthesis)

The same rules apply, as above.

The main, and most important thing is to remember to close off your routine with the close parenthesis. If you for-

get to do it, or do it in the wrong order, you will lock up your computer and the remote computer you are sending to.

One more note of importance. If you are using speech, you must incorporate a delay to give the receiving station a chance to SPEAK the line before the TE2 sends out any text. See previous articles on incorporating delays into your text.

NEXT MONTH: Graphics with the TE-II

Terry Atkinson. [TIBBS]

TIGERCUB TIP

Tigercub Software distribute these tips to clubs for promotional purposes.

The complete (as received) TIGERCUB catalogue is available at the club meetings for members to scan.

This little utility routine, while quite easy to understand has not yet been introduced to the club.

How many times have you taken the TI-WRITER module from the command port and then found yourself wondering what a particular file is all about.

Perhaps you don't own a TIWRITER and want to view these DISVAR80 files you have been coming across.

This TIGERCUB TIP will help. It has been modified slightly by the editor from the original version, and is in extended Basic

```
10 CALL CLEAR::INPUT"File name?"  
DSK1.":F$::DIM B$(150)::OPEN  
#1:"DSK1."&F$  
20 A=A+1::INPUT #1:B$(A)::IF  
EOF(1)=1 THEN STOP ELSE PRINT  
B$(A)::GOTO 20
```

BACK TO BASIC

LOTTO 649

Editor:

The Lotto 649 programme as listed in the Nov newsletter has a couple of faults. The RND statement does not perform properly and the line printing of the results is not correct.

Perhaps this could be corrected in the Dec issue.

Len Tufts
Dartmouth NS

Len:

You where quite correct. The programme was at fault. The screen title should have been "Lotto 649", the colon before Validate in line 230 is not proper, the asterisk is line 270 should have been a "+" and the statement in line 420 was incorrect.

Here is a reprint with those errors corrected. Hopefully we will now generate winning combinations.

[NL]

```
180 DIM K(49)
190 RANDOMIZE
200 CALL CLEAR
210 DISPLAY AT(3,10):"LOTTO
649"
220 DISPLAY AT(23,1):"HOW MANY
TICKETS? (6-MAX)"
230 ACCEPT AT(23,26)VALIDATE
(DIGIT)BEEP:N
240 FOR M=1 TO N#4 STEP 4
250 GOSUB 340 :: GOSUB 410
260 FOR I=1 TO 12 STEP 2
270 DISPLAY AT(6+I,N+M-5):K(I)
280 NEXT I
290 NEXT M
300 DISPLAY AT(24,1):"ANOTHER
CARD?(PRESS Y/N)"
310 CALL KEY(0,KEY,ST):: IF ST=0
THEN 310
320 IF KEY=89 OR KEY=121 THEN
200 ELSE CALL CLEAR
330 STOP
340 RESTORE 370 :: FOR I=1 TO 49
350 READ K(I)
360 NEXT I
```

```
370 DATA 1,2,3,4,5,6,7,8,9,10,
11,12,13,14,15,16,17,18,19
380 DATA 20,21,22,23,24,25,26,
27,28,29,30,31,32,33,34,35
390 DATA 36,37,38,39,40,41,42,
43,44,45,46,47,48,49
400 RETURN
410 FOR S=1 TO 49
420 A=INT(RND)+1
430 H=K(S)
440 K(S)=K(A)
450 K(A)=H
460 NEXT S
470 RETURN
480 END
```

have it stored in records in a file on disk or cassette. When the information is needed it can be called back into the memory, used, edited and sent back to storage. This will permit you to handle very large files quickly and efficiently.

In the next few months, this series of articles will attempt to cover as much of the field as possible from the ground up. Since the applications of this process are virtually limitless, so to are the methods and combinations that people find to put them to. If you have an unusual, or simplified, way of using this process, let us know and we will include it in our articles.

First Step

After identifying the need for a file the next logical step is to establish the file. To do this we must first "open" the file using an "open statement".

This statement will prepare the storage device to receive the file and sets up the parameters that will govern the data that can be handled by the programme. For example, if you are going to establish a file that can be read by TI-Writer or other word processing programme, you would have to specify a format of "Display" and would normally use a maximum record length of 80 characters, but also allow the length to be variable in order to save space. Since it would be repetitive to keep detailing this information every time you wanted to use the file, it is identified by a file number (0-255) immediately following

FILE PROCESSING

Def: A file consists of related material in the form of data that can be written to, or read from an external device. The devices used may be magnetic storage devices, such as disks or cassettes, or hardware devices such as printers, screens or communications equipment.

Description: Key information is supplied when accessing a file that describes the file according to these characteristics:

- * Device containing file
- * File name
- * Format of data
- * Record format
- * Record length

With the limited memory size of your computer, you will find that it is necessary to store your programmes and records on an external device. This is the only way to retain information while the computer is off.

Proper file handling can also give you a much larger "apparent" memory size. Rather than having all of your data resident in memory, you can

the word "open" in this statement. For example, the above information translates to a statement of:

OPEN #1;"DSK1.FILENAME"
since Display/Variable 80 is a default value, as is "UPDATE" which will be explained later.

From this point on the file may be addressed using the file number and a function statement:

Statement	Function
OPEN #	prepares file/ device
PRINT #	writes data
INPUT #	reads data
CLOSE #	closes file
RESTORE #	ends process repositions you in file.

UNIT ONE:- the OPEN statement
as previously stated, in the open statement you describe the file:

device[file name[options]]

The device you use will determine what other information is required. For example, a disk file would require a file name while a cassette file would not. An RS232 driven printer would not be expected to input data, while an RS232 driven KOALA pad would.

With the RS232 interface you are permitted to enter certain options which will act as software switches to the device connected. These include such things as word size, parity, carriage returns and line feeds, stop bits etc., that will be specified in the equipment handbook.

When you specify a device in your opening statement you are telling Basic to invoke the **Device Service Routine (DSR)** with the name of the device to be used. Each device supported by the computer has a DSR that contains the instructions that will enable the computer to utilize that particular device.

On power-up the computer checks its ports to see which devices are connected to it by locating their DSRs. This info is held in memory and scanned whenever a device is specified and the filename and any specified attributes are interpreted by the DSR.

File organization: Files may be stored to disk as random or sequential files. Cassettes will only support sequential. Random files are read and written in any order while sequential files are accessed from start to finish.

When constructing a file you should consider that if the entire file is to be loaded in from disk at one time and then used within the programme, a sequential file

structure should be used. If you are using the data in bits from the disk, accessing data from different areas of the file, then random files should be used. The default is sequential.

File numbers: Files are identified by the numbers 1 through 255. File 0 (zero) should not be used as it is used by the keyboard. This number will be used to represent the file with a given set of options/parameters throughout the remainder of the programme.

Device: Any recognized and connected device may be specified, as explained above.

Mode: There are four basic uses to which the open statement can be put. These are input, output, update and append. These tell the computer whether it is to read or write.

Update: read and write to device. This is the default value.

Input: read the file but cannot write to it.

Output: write to a file but not read.

Append: add a file to an existing file. This will allow only one addition.

Record Type: Fixed/Variable. This describes whether the records that will be handled are of the same standard length or of variable lengths. If you do not require that the length of each record be the same then specify variable. With fixed, the computer will pad the end of a short line thus increasing memory use. However, if you are using relative files rather than sequential, then you must specify fixed. This allows the computer to rapidly locate a

needed record on the disk by virtue of computing physical sizes of the records.

The maximum length of records may be specified for either fixed or variable records.

Remember to close a file when you have finished or you may find your information becomes inaccessible. It will be given a length of 0 (Zero) if not handled properly.

Next Issue:
Storing and Retrieving

BACK TO BASIC

Having been away from BASIC for some time, being occupied with trying my hand at the more exotic languages, I will probably overlook some of the difficulties that people have with the language.

Your input will be appreciated. Let me know your problems. Phone or write. No query is silly or unworthy. Help us to help you. (NL)

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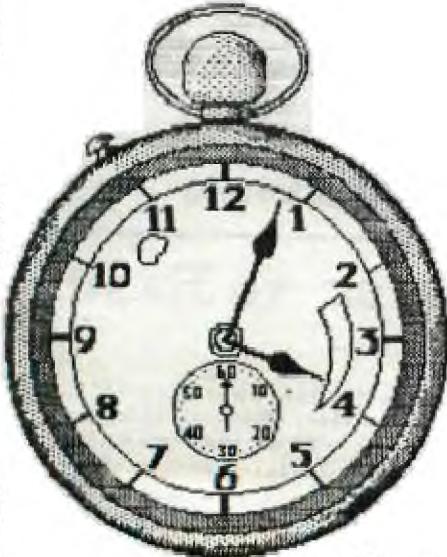
-- Dan Fersht, Activity Director of The New York Times PCUG

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-- Randy Holcomb, Computer Shopper, May, 1984, Page 99



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DICKIE-DUMP

Here is a little routine that will be of use to those with a assembly language screen dump routine. The programme was modified from one listed in Niagara Clubs newsletter. Its origins are unknown. The author was not credited...too bad..it is a good little programme.

With this routine you can draw a picture on the screen to your liking. The degree of professionalism is up to you, and how much patience you have. The picture can then be dumped to printer (graphics capable) using the dump routine. My dump is courtesy of Terry Atkinson (TIBBS).

```

10 CALL INIT :: CALL
  LOAD("DSK1.XDUMP")
100 CALL CLEAR :: CALL
  SCREEN(2):: K=2 :: W=32 :::::
  CALL CHAR(88,"000000FFFF"):::
  CALL CHAR(96,
    "FF00FF00FF00FF00")
101 CALL CHAR(104,
    "FF818181818181FF"):: CALL
  CHAR(112,"010204081020408")
  ::CALL CHAR(120,
    "8040201008040201")
102 CALL CHAR(128,
    "FFFFFFFFFFFFFF"):: CALL
  CHAR(136,"80C0E0F0F0FCFEFF")
103 CALL CHAR(89,
    "000000000000FFFF"):: CALL
  CHAR(97,"0103070F1F3F7FFF")
  ::CALL CHAR(113,
    "FF7F3F1F0F070301")
104 CALL CHAR(105,
    "FFFEFCF0F0E0C08"):: CALL
  CHAR(121,"18244281422418")
105 CALL CHAR(129,
    "AA55AA55AA55AA55"):: CALL
  CHAR(137,"65ABDA8F36EB966A")
110 CALL CHAR(42,
    "00003C3C3C3C"):: CALL
  COLOR(1,14,2):: FOR C=8 TO
  14:: CALL COLOR(C,15,1):::
  NEXT C
120 FOR S=88 TO 136 STEP 8 :::
  DISPLAY AT(1,K):
  CHR$(S)&"&CHR$(S+1):: K=K+
  4 :: NEXT S

```

```

130 CALL HCHAR(2,1,32,736):::
  CALL SPRITE(#1,42,16,17,121)
  ::Y=3 :: X=16 :: CALL
  SOUND(-100,650,9)
140 CALL JOYST(1,K,S):::
  X=X+SGN(K):: Y=Y-SGN(S):::
  IF Y>24 THEN Y=1 ELSE IF Y<
  1 THEN Y=24
150 IF X>32 THEN X=1 ELSE IF
  X<1 THEN X=32
160 CALL LOCATE
  (#1,Y+8-7,X+8-7):: CALL
  KEY(1,K,S):: IF K=13 THEN
  171 :: IF S=0 HEN 140 ELSE
  IF Y>1 THEN CALL SOUND(-90,
  -2,9):: CALL HCHAR
  (Y,X,W):: GOTO 140
170 IF K=19 THEN 130 ELSE CALL
  BCHAR(Y,X,W):: CALL
  SOUND(-90,880,7):::
  CALL HCHAR (1,2,W):::
  GOTO 140
171 IF K=13 THEN CALL
  LINK("DUMP1")

```

PUZZLE CORNER

This puzzle is quite interesting. When you solve it you will have gained something more than just a few minutes of distraction.

It appeared in several newsletters but originated in the Philadelphia group.

```

100 ! LINPUT PUZZLE/BUG by
  Barry A. Traver
110 ! Questions? send SASE
  Barry Traver
120 ! 552 Seville St. Phila.
  PA 19128
130 CALL CLEAR :: PRINT
  "Linput puzzle /bug":by
  Barry Traver": :
140 PRINT " Can you figure out
  why your computer will not
  obey?" ;;
150 PRINT :"Why won't it STOP
  when you tell it to?" ;;
160 !
170 LINPUT "Want me to stop?
  (YES/NO)":M$
180 IF M$="YES" THEN STOP ELSE
  170
190 END

```

FLAG CHALLENGE

This short routine is an excellent demonstration of graphics. It unfurls the US flag (49*) across the screen. Not to be outdone by the TIGERCUB tipster...lets see if one of us can do the same with the Canadian Flag.

For those sailors, who are looking forward to the 75 anniversary in 1985...how about a white ensign unfurling ??

Send your entries to the editor. Best and more original will be printed with your bi-line.

(file transfer if able)

```

100 CALL CLEAR :: CALL
  COLOR(2,16,5,3,16,16,4,7,7)
  ::A$(1)="*****000000" :::
  A$(2)=RPT$("00",7):: CALL
  CHAR(33,RPT$("01",8))::
  CALL VCHAR(4,4,33,2)

```

```

110 FOR C=5 TO 22 :::
  X=1+ABS(C)11):: FOR T=1 TO
  13 :: CALL VCHAR(5+T,C,ASC
  (SEG$( A$(X),T,1))):: NEXT
  T :: NEXT C :: GOTO 110

```

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You get winded playing chess.
Your children begin to look middle aged.
You join a health club and don't go.
You decide to procrastinate but then never get around to it.
A dripping faucet causes an uncontrollable bladder urge.
You know all the answers but nobody asks you the questions.
You look forward to a dull evening.
You walk with your head held high trying to get used to your bifocals.
You turn out the lights for economic rather than romantic reasons.
You sit in a rocking chair and can't get it going.
Your knees buckle and your belt won't.
You begin to regret all those times you resisted temptation.
Dialling long distance wears you out.
You become intolerant of people who are intolerant.
The best part of your day is over when your alarm clock goes off.
You burn the midnight oil after 9 pm.
Your back goes out more often than you do.
A fortune teller offers to read your face.
Your pacemaker makes the garage door go up when you watch a pretty girl go by.
The little gray haired lady you help across the street is your wife.
You get your exercise going to funerals for your friends who exercised.
You have too much room in the house and not enough in the medicine cabinet.
You sink your teeth into a steak and they stay there.

(author unknown)



PASSING THE B\$

Hot tip from the letters
to the editor in Dec Compute...

We know that it is possible
to pass the variables from one
programme to another by using
the screen as a reservoir, now,
here is another way.

"In Extended BASIC, the
SIZE command returns the number
of bytes left for BASIC program-
ming and Variable storage.
Character codes for characters
from 127 to 143, however, are
stored in a separate protected
area of memory. This is why you
observe no difference in the
memory available for programming
after you define a character in
this range.

Since the area of memory
used for defining characters 127
to 143 is not affected by the
BASIC programme, it can be used
to pass variable values between
programmes. Variable data need
only be coded into a 16-char-
acter hexadecimal string (a
pattern identifier). CALL CHAR
is used to store the string
(which can hold eight bytes),
and CALL CHARPAT will retrieve
the string. For details on this
method, see "Transferring
Variables in TI Extended BASIC"
by Patrick Parrish in COMPUTE!'s
TI Collection Volume 1.

