



# 99'er Online

September 1984 Edition

P.O. Box 11983  
Edmonton, Alberta  
Canada T5J 3L1

TO: (

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# THE EDMONTON 99'er COMPUTER

## USERS' SOCIETY



Date / /

- New Membership Application
- Renewal of Membership
- Change of Address

NAME \_\_\_\_\_  
last first initial

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- |   |                  |                          |
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| Single or Family membership                           | \$20 (12 months) | <input type="checkbox"/> |
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\* Please note that all membership money should be in CANADIAN FUNDS.

\* May we release your name, address and telephone number on a club roster, to companies and other clubs?

YES  NO

### FOR OFFICE USE ONLY

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## 99'er ON LINE, SEPT/84

99'er ON LINE is the news letter of the Edmonton Alberta TI 99/4A User's Group. All material contained in this news letter may be published in other news letters provided that source and author are identified; we welcome co-responce from all TI User Groups and will extend the same courtesy.

Mail intended for this news letter should be addressed to:

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ST. ALBERT, ALBERTA  
CANADA  
T8N-2G6

All other co-responce should be addressed to:

EDMONTON USER'S GROUP  
P/O BOX 11983  
EDMONTON, ALBERTA  
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### OFFICERS

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### DISCLAIMER

All information published in this news letter is, for the most part, the fruits of the labours of amateurs; therefore, we cannot guarantee that the information presented is always correct.

### REGULAR MEETINGS

Regular meetings of the Edmonton User's Group are held on the second Tuesday of each month on the 8<sup>th</sup> floor of the General Services building of the University of Alberta from 7:00 till 10:00 PM and are open to all members in good standing. Non-members may attend their first meeting free of charge.

The Executive Committee meets monthly also and members may attend these meetings as observers or to address a particular issue. Please arrange with one of the officers listed above if you wish to attend.

### ADVERTISING

Commercial advertising space is available in this news letter at the following rates:

FULL PAGE ---- \$20.00  
HALF PAGE ---- \$15.00  
1/4 PAGE ---- \$10.00

Please discuss your commercial needs with Paul Helwig at the next meeting or write to the P/O Box above.

Members may advertise their personal computer related items for free but are asked to limit their ads to 20 words. Please mail your ads to the EDITOR'S ADDRESS, see above, or hand it to him at the general meeting; ads received by the 15<sup>th</sup> will appear in the next news letter.

### NEXT MEETING

The September meeting will be held Tuesday, Sept 11<sup>th</sup> at 7:00 PM at our **NEW LOCATION**. Yes! We are moving! Many thanks are due to Dr. Beck for arranging the use of two rooms in the General Services Building at the University of Alberta. The building is located on campus east of 91<sup>st</sup> Street, just north of the Stadium Car Park at 116<sup>th</sup> Ave. (If you know where the Jubilee or the "ButterDome" is, go north 1 block!) We will be meeting in either room 821 or 849 on the 8<sup>th</sup> floor. Please note that the meeting will start at 7:00 PM sharp.

We are looking forward to welcoming you to our new facility. Again, many thanks to Dr. Beck for helping us find a new home.

### BOB'S NOTES

Some summer notes from Bob Chapman:

The winner of the last contest we had in May was Michal Jaegermann. He created a very nifty program to check the validity of Social Security numbers. H. Knopke came a very close second.

If there is interest in continuing these contests, please let me know.

I recently bought the TI EDITOR ASSEMBLER package from TEXCOMP. They advertise in the Home Computer magazine. I ordered by phone and at first they give you a very lengthy recorded sales pitch (at long distance charges yet!), then you leave them your order plus charge card data. They say they will call back if they experience any trouble. In about 2 weeks the order arrived! I was very pleased with the service. The cost was \$38.75 US plus postage.

Does anyone out there have a program to work out the payment schedule on a Canadian (not US) mortgage with the interest calculated "semi-annually, not in advance"? If so, please see me.

I recently acquired the CorComp 32K Memory Expansion card for my PE Box. When using the SIZE command, the values are the same as the TI 55 card. The indicator lamp on the card has stopped working, so I'll let you know about warrantee service later. There are fewer I/C's inside than the TI equivalent so power consumption is probably reduced.

Bob Chapman, 8/84

EDITOR'S NOTE: A late entry for the contest was received from our one-and-only member from Saskatoon! Unfortunately, the contest had already been judged and awarded. The entry was most impressive and we certainly appreciated the extra effort this member put out.

PS to Saskatoon -- the error you pointed out was due to your trusty Editor's untrusty ability to add two numbers together! You think my spelling is atrocious? You should see my bank book!

## FLOPPY DISK STORAGE

by: Thomas Island

This article is about doubling the storage on Floppy disks. Single sided disks run around \$28.00 locally and we get only one side to use on the so-called "single-sided, double-density" or "SSDD" media. But, what about the other side? Can it be used for data storage? I think some understanding of "Single-Sided" is needed before continuing.

1. Early Floppy Disk drives for home computer use had a single read/write head to keep drive construction and maintenance costs down.

2. Manufacturers guarantee only one side of a Single-Sided disk because one side alone has been tested. Salesmen tell me that only the one side has been coated with a solution that is essential to data integrity.

3. In fact, both sides are exactly alike! The difference between a "SSDD" disk and a "DSDD" (Double-sided, Double-density) disk, other than cost, is that the "SSDD" disk has been tested on both sides!

Reasons 1 and 2 sound reasonable but that number three! Why, it's a bummer to let a perfectly good, albeit untested, side go to waste! But how can you use it? Ever try loading a disk upside down -- you won't get far. I consulted my friend Wally explaining my desire to "Double Side" my disks. To my surprise, he had the answers!

His tools to do the job are a single hole paper punch, scotch tape, pencil, and a template -- simply a jacket from an old floppy. The tape is applied to the bottom of the punch to catch punchings before they fall inside the jacket. Using the pencil and template, he traced the square write protect notch on the opposite edge of a new disk as well as the small round hole near the large center hub hole on both sides. Slipping the hole punch between the jacket and the disk, he then punched the small hole, flipped the disk over, and did the back side (don't punch right through the disk itself!). Then, he notched out the new write protect notch. The right and left sides of the diskette were now mirror images of each other. The disk was then initialized on the "good" side then turned over and initialized on the back. Behold! Two disks for the price of one!

A note of caution! I use the unwarranted side for backups only as I feel it will last longer if not in constant use. On the other hand, I use "DSDD" disks (which must also be punched as above) for regular use. After 6 months usage, I've had no problems with my double sided disks.

### ECONOMY

Regular use: DSDD Dysan at \$46.00 for ten yields 20 sides at \$2.30/side when double sided.

Backup use: SSDD Dysan at \$28.00 for 10 yields 20 sides at \$1.40/side.

The money saved alone has made the effort worth-while and I don't have to rearrange the furniture to make way for disk storage containers or search umpteen disks for my files.

EDITOR'S NOTE: I too have been double siding my disks (cheaper quality than Dysan) without trouble for over a year. At work, we are using an IBM PC which requires DSDD disks (360K drives). We tried an experiment with a box of ten cheapies from London Drugs (SSDD) and initialized them. The IBM DOS returns the total number of bytes unavailable. Out of the total 3.6 megabytes (10x360K=3.6M) available, we lost 32K! Further investigation showed that 28K of these were on the manufacture's **GOOD SIDE**!

## PROGRAMMING HINT

by: Bob Burley

If your system is limited and you would like to store a large amount of data, try just entering them as data statements placing as much data as possible in each statement and nearly filling memory space, leaving room at the start for a small program. The short programs should be worked out in advance so that you can structure the data statements correctly. The data statements should be saved separately to save space. If you have a disk system and X-Basic, you can use the merge option to add the individual subroutines into the data statements as you need them.

The short routines could consist of one for printing to the screen, printer, or modem. Another could sift through the data according to parameters you define and print the results of the search. In this application, the data statements should be saved separately in case the need arises to create another file from the same data base but with different specifications.

It would be best to keep the same number of elements in each set of data statements to keep your reading program simple and short. This will also make it easier for you to find and change data statements when you need to update your base.

### MEMBERSHIP DUES

As decided by the membership at the June meeting, the dues structure has been changed. The 12 month fees when paid will entitle you to all privileges for the operating year; ie Sept 1'st to August 31'st the following year or portion thereof. The six month fee is available to cover the periods of Sept 1'st through Feb 28'th or March 1'st through Aug 31'st. Student rates are now available to those who possess a valid student card and who are full time registered students of a recognised school.

Family, 12 months,	\$20.00
6 months,	\$15.00
Student, 12 months,	\$15.00
6 months,	\$10.00

### LITTLE GEM

Suppose you have an assembly language file loaded into an EXTENDED BASIC program, and you decide to run the program a second time. There's no need to load the assembly language file again, since as long as you haven't turned off the computer or issued CALL INIT, the assembly language routine is still in memory. How to do this? Simple. Say you have a line in your program like this:

```
150 CALL INIT::CALL LOAD("DSK1.OBJ")::CALL LINK("DATA")
```

Instead of that, try something like this:

```
150 ON ERROR 2000::CALL LINK("DATA")
|
|
2000 CALL INIT::CALL LOAD("DSK1.OBJ")::RETURN 150
```

This procedure will set an error trap so that the assembly language file will only be loaded if it's necessary!

## FILE PROTECTION WITH DISK FIXER

By Tom Hall and Michal Jaegermann

For people who have acquired the DISK FIXER, here is some interesting information regarding file protection which you can play with using DISK FIXER.

Each file name occupies its own sector in the disk directory, with the file name beginning at byte 0 of its sector. Byte >C (hex C, decimal 12) of each sector will contain the following information, depending on the file type and protection status:

FILE TYPE	UNPROTECTED	PROTECTED
1 DIS/FIX	>00	>08
2 DIS/VAR	>80	>88
3 INT/FIX	>02	>0A
4 INT/VAR	>82	>8A
5 PROGRAM	>01	>09

This information can be changed directly using the Alter Data function of the DISK FIXER, but the values in the table above were taken directly from the disk directory by observing changes to byte >C both before and after protecting the files with the Disk Manager.

Another bit of information which you may find interesting: files are placed in the directory in the order in which they are added to the disk, NOT in alphabetical order as they appear when listings are obtained. The actual ordering of file names is done in Sector 1, the Directory Link Map. If you look at this sector with the DISK FIXER, you will see a series of numbers. These numbers refer to the sector number of a directory entry, and these numbers are arranged so that their corresponding file names are in alphabetical order. So: this is how you get your alphabetical file listings; the controller software merely reads the string of hex data in sector 1, looks up the corresponding file name, and voila! there's your alphabetical listing!

Also interesting is how EXTENDED BASIC writes its own protection on a program file when you specify the PROTECTED option while saving a program to disk. The first word (2 bytes) of the actual file itself (not the directory listing, but the physical location of the first sector of the program file itself) contains a certain value when the file is saved in the normal way; when the same file is saved using the protected option that word will be logically reversed; in other words, if you examine the contents of that first word both before and after the protection feature is added, you will find that the two values (which are in hex) will add up to zero. So all you need to do is to flip the bits in that first word, and you have instant extended basic protection (or have it removed!!).

## MINEF 2049'er

by: Richard Chapman

Miner 2049'er is a solid state module that goes into the side port of the console; which means if you have a PE Box, you have to unplug the cable.

The game goes like this: Mounty Bounty Bob is trapped in an old radioactive mine. You have to help Bob claim all of the eight different screens while avoiding the mutant organisms by running away or hopping over them. There are also various articles left by previous miners that you can collect for extra points.

I have no real gr. . . . about this game except that the tune at the start, "Lamentine", is poorly done. There are, however, some good ideas such as the transporters

(as in Star Trek) which beams you to different levels.

In all, it is a very good game and I recommend it to anyone. If you are interested in Miner 2049'er, it goes for about \$50.00 at the Games Gang.

## FOR SALE

Moonbeam Software's Strike Force 99, Astromania, and CavernQuest. Also, Wizard's Dominion. All are cassette and need X-Basic. \$15 each. 459-0817.

## ON APATHY

Inspired by: Voiced concerns at the June meeting and an editorial in the news letter of the Central Pennsylvania 99/4A User's Group.

Apathy: without emotion, lack of concern, lack of interest, listless condition, unconcern, indifference. (Webster, 1982)

The above condition is highly contagious and will affect the hardest of groups if not contained and constantly fought. Our group, as it presently stands, has been in operation now for a year. It rose from the cremation ashes of the former Edmonton User Group which died a horrible death caused by creeping apathy. Not everyone in this group has this malady, but it can be catching and when enough people catch it, then this group too will be finished. We have well over 100 members in the group but it seems only eight or so actively participate. I can't believe that the rest of the membership are all automatons waiting to be spoon fed! Of course, not all of us are leaders and the leaders we do have cannot always make the correct decisions. If you have an idea, SPEAK UP! You too have a right to assist in directing this group and a right to be heard. Granted, we are in a better position than our predecessor but we must have your input to stay strong and viable.

Naturally, not all of you are comfortable standing up in a large group and speaking up; most of us are not either. But there are other ways to contribute: write a letter to the news letter, join one of the committees, participate! Don't wait for us to come to you; we won't know about you till you dig in. There must be almost unlimited imagination within our group; why else did you all have the vision to buy a computer?

Don't forget the function of this news letter. Got an idea, a gripe, a problem, a solution that you think is neat, something to say anonymously? Send me a note; as long as it concerns computing or our group, I'll see that it gets published and I'll protect your name if you wish. Can't spell you say? Your grammar is worse? Don't worry about that! My job as Editor is to make your ideas look good.

I have found that in general you will tend to get out of things what you put in plus interest. As Editor of this news letter, I have had a whole wealth of information made available to me that I would never have realised by simply being a member at large.

The above is my opinion of course but I am willing to change if others fighting the Apathy Disease care enough to join by paying a little more than just their membership fees. I pay mine too, and for that I get the privilege of pounding a keyboard 12 hours a month! But it is worth it. Try it!

## TI CARE PACKAGE

During the summer, a package of goodies arrived from TI. It contained disks full of ~~TI~~ ~~NEWS~~ for those of you who own TI WRITER, MULTIPLAN, and TI FORTH.

TI WRITER now has true lower case letters on the screen. Also, that dad-ratted form-feed preceeding a print out has been eliminated. Your humble Editor sure likes the lower case --- proof reading is much easier.

MULTIPLAN was given better cursor control by adding key repetition; you can now scroll the cells vertically and horizontally. Also, it has been speeded up somewhat.

The TI FORTH package contained two disks with the complete Assembly Source Code of the Forth Kernel.

These enhancements are available to all members free of charge on your own media. Arrangements will be made at the September meeting.

Effective April 2, 1984 TI appointed a mail order firm to handle all their 99/4A products. Peripherals and accessories are out of production so some quantities are limited. For a catalog, write to:

TRITON  
P/O BOX 8123  
SAN FRANCISCO, CA 94128

## A DISK DRIVE FROM RADIO SHACK

by: Thomas Island

You need a disk drive? I bought the TRS80 Model 111/4 Drive 4 with Serial # 26-1161 for \$399.00 (Can) at their Computer Center at 12310 Jasper Ave. They threw in the connecting cable for 5 bucks (retails for \$26). Prices quoted are from their 1984 RSC-10 TRS-80 catalogue. It is most important to mention this is their regular price! You will not find a comparable price in town.

The OSDD drive has a white case that stands vertically and it serves as my second drive standing beside my PE Box. It looks exactly like the drive in the PE Box except for the case and TRS-80 label (which can be peeled off).

Our Disk Memory Manual explains how to remove a termination resistor in drive 1 before hooking up a second drive (page 4, #4). Naturally, my #1 drive didn't look like their diagram so I just went ahead and hooked up the TRS-80 drive. To my surprise, everything worked just fine and has for 4 months now. (Editor's note: From my own experience in playing with that resistor, if things are not just right, either the first or second or both drives will not work. Sounds like Tom's resistor was missing from the start!)

The benefits of a second drive are inestimatable. Word processing, TI Assembler, and Forth operations are much smoother. The TRS-80 drive is fast and quiet. I have no doubt a bare drive would fit the PE Box.

The drive is double sided but even with Disk Manager II, side two cannot be accessed because of Disk Controller Card restrictions. (A modification kit is available in the States to upgrade the Disk Controller. Check one of the last issues of 99'er magazine --Ed).

## SEPTEMBER MEETING

A partial agenda of items for the Membership Meeting, Sept 11'th at 7:00 PM sharp. Please note the new time and location as noted in this news letter.

1. 2 films have been arranged on computers and computer graphics.
2. Collection of your dues.
3. Cassette tape deck maintenance and repair workshop.

4. General business and announcements.
5. Our own coffee supply -- bring your quarters! (Hey! Apathy Fighters! We need a volunteer to fill the new club position -- Custodian Of The Urn).
6. Set up of special interest groups: X-Basic, Forth, Basic Skill Development, and any thing else you people are interested in.
7. Question and answer period.
8. Problem corner.

In addition to bringing yourself, invite a friend who has a 99/4A. Talk to former members you know of who dropped out. This is going to be a different deal than in the past. You will get your \$20.00 worth! (Speaking of which, don't forget to bring it).

If you have spare subscription cards to Home Computer Magazine, please bring them in. Donations to the library are gratefully received.

Do we have a cartoonist out there who can provide rib splitters for the news letter. Any one have a collection of computer jokes or anecdotes for the Editor?

Remember --- new time and new place. See you there.

SEE ALL THE EMPTY SPACE HEAR? SEE THE MISSING PAGES? YOUR PROGRAM LISTING, ARTICLE, ADVERTISEMENT, GRIPE, CARTOON OR WHAT EVER COULD BE RIGHT HEAR FILLING OUT THIS NEWS LETTER.

TAKE AN ANTI-APATHY PILL AND LET'S START PARTICIPATING!