

TPUG Newsletter

Views and News of Toronto Pet Users Group, Inc.

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(416) 253-9637

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Comments from the PREZ

Election

The Newsletter contains instructions for voting for new Directors of the Corporation. Note that although we are incorporated, the operation is non-profit. All the current efforts are done by volunteers.

The Directors are elected for a two year stint with every year half coming up for election. Since the club began again last year, most directors were on the board for the first time. So the present "half" is rather small. Those with the right to vote and nominate/elect are "regular" members. One way to vote is to send in your proxy and permit someone to vote for you.

Directors changed policy and presently there is mostly one class of membership with one fee charged to all new members. So almost all will become regular members with voting privilege. Two are honorary and a few are Directors.

Many will note from the mailing label that their membership expires in April. Most of these were extended because we felt that former services were poorly executed and this was a way of correcting the problem. You may receive an early renewal notice. We are holding our own now, but postage and Newsletters do cost a lot. The renewal helps to cover the various costs for this service.

Speaking of problems, some mail went astray. If you have a problem which is of our making please write us so that we may solve it. For some months letters did not get answered and the addressee never saw the incoming mail!

Anyone purchasing the WriteStuff from us who had a problem, contact us immediately -- a bad disk drive created reading problems on some of the disks. It took a while to find this out.

This year has been an uphill climb - volunteers do slip up. We do try harder! Yours truly has worked on a new data base which is hoped will speed up our record keeping. Others are on the disk distribution and so on. It is amazing how much time it takes to process orders and get them in the mail. Stuffing sessions for the Newsletter also keep us busy.

What would you like to see in the Newsletter? Comments will help.

I have found that there is a continuing growth of new users of the old PET series. I can offer material for these venerable usables. One fellow is looking for a serial/parallel interface - serial to IEEE. Any source out there? Also cables for these machines. What is your source? They make good word processors with 80 column green screens and a pixel between lines of text. I am using one as I write this.

Did you know that ASCII characters (standard text characters) are seven bit creations? The actual throughput in 16 and 32 bit computers tends to be little faster in word processing as they usually compact characters to fit in the broader memories. Then to get the characters they must be uncompacted. Besides even a fast typist is a slow operation, as far as the computer is concerned.

For users of all
Commodore Computers :

* PET/CBM

* SuperPet

* B-128

* VIC 20

* Commodore 64

* PLUS-4
* C-16

* Commodore C - 128

* AMIGA

* PC -xxx

* Registered products of
Commodore Business
Machines, International

Table of Contents

President's Comments.....	1
Members Comments.....	2
Orphans 'n Such.....	3
News Breaks.....	4
Meeting Schedule.....	4
BBS Info.....	4
Butterfield.....	5
Annual General Meeting.....	5
Guest Comments.....	6
Education.....	8
Library updates.....	9

The Westend Reports:
January 18 1990

Michelle Hyland

*Jim Butterfield Goes
"Heavy Metal"
or
Creative Fiddling With Midi*

Jim Butterfield does it again, giving the Westend members a fascinating demonstration of MIDI creativity. Using a Yamaha PSS-680 keyboard, an Amiga 1000, a guitar styled portable keyboard, and supporting software (Deluxe Music Construction Set & a Sequencer Demo Package), Jim demonstrated that it is no longer necessary to "mortgage the farm" to enjoy the creative versatility of a MIDI system.

He then demonstrated the capabilities of the Yamaha PSS-680 without the MIDI interface. For \$267 in the USA or \$500 in Canada it is an impressive instrument in its own right. It can combine 100 Voices (Piano, Harpsichord, Flute, etc.) with 100 rhythms (R&B, Waltz, Rock, etc.) in seemingly infinite permutations.

There are some limitations encountered with a lower priced keyboard. First of all, it is not capable of "velocity sensing". The analogy used was that with a piano how you strike the keys denotes the qualities of the sound, firm sharp fingering produces a short loud sound, a softer touch on the keys produces a softer tone. This ability in an electronic keyboard is commonly referred to as "velocity sensing".

Secondly, the lower priced keyboard is not capable of downloading to the MIDI system different waveforms. For example, some people may remember the old coffee commercial which featured a melodious coffee percolator. With a higher priced keyboard, it is possible to "sample" a sound, such as a tap dripping, your dog barking, etc., which is then converted into a waveform, which can then be stored & manipulated by the computer.

Using a sequencer Demo package, Jim demonstrated for us "The Baby Elephant Walk" complete with elephants trumpeting and Tarzan providing background vocals.

We then explored a MIDI software package called Deluxe Music Construction Set. What I found impressive with this par-

ticular software is how the music was displayed in standard music notation, with the ability to manipulate 4 instruments or voices, directly from the computer.

I can see a lot of potential for this program if used to instruct music students in "sight reading" sheet music. Using a Demo piece of music, we were treated to some classical music, which Jim used to demonstrate "on screen" sound editing.

The guitar styled keyboard (for lack of a better name) is an interesting instrument, it has a guitar shape and may even be worn with a neck strap. At this point the similarities to a guitar ends. It has a small sized "keyboard" and control switches to alter the sound. Compared to the Yamaha it is limited. In that the Yamaha is more "interactive" e.g. it is possible to feed sound from the Yamaha to the computer or from the computer to the Yamaha. The guitar keyboard is only able to send information to the computer, but not receive it. At \$90 CAN, it can be a bargain basement introduction to MIDI. Both keyboards can be used independently.

Jim rounded off the demonstration by playing his rendition of OLD MAN RIVER trying different rhythms; swing, waltz, bluegrass, R&B and Rock, the later accompanied by calls to "Get Down". When all is said and done, it was a most enjoyable evening and a good time was had by all.

Thanks Jim, Whats next?....
A MOHAWK HAIRCUT?????....

Intro-Cad

In the Jan./Feb'89. newsletter Paul Atchison wrote an article on Intro-Cad for the Amiga, even though I don't have an Amiga I was a bit angry at the end of the article where he (Paul) compared Into-Cad to AUTOCAD on a price basis.

First I must say you don't compare Into-Cad to one of the best CAD programs in the world. I can find Shareware CAD programs (DANCAD) that is better than Intro-Cad. AUTOCAD is for professionals and Institutions (I.e. schools, collages, university and business). Yes AUTOCAD costs a lot, but it is worth it if you know how to use it.

Paul Griffith
PS. if you mail out 3000-4000 letter every two months why not sell space to computer stores.

Notice to new owners of SuperPet and CBM 8296 machines

TPUG has copies of the Waterloo LANGUAGE DISKS (3 in 4040 format) as supplied with the SuperPet on original purchase.

TPUG has the EXECUDESK disk (8050 format) as supplied with the CBM 8296 on original purchase.

These disks are an integral part of the operating systems of the above machines and since Commodore insists on referring owners of these machines to TPUG for service, we have added these somewhat proprietary (and also virtually unobtainable) disks to our library - all part of the TPUG mandate of service to our members.

Membership Information

- Regular (attends meetings)\$25
- Associate (Canada)\$20
- Regular (U.S.)\$25 US
- Associate (U.S.)\$20 US
- Regular (overseas air)\$45 US
- Board of Directors 1989**
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- Ken Poulton vice president
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- John Easton(416) 251-1511
- TPUG Office**
-(416) 253-9637

Computing On A Budget?*Michelle Hyland*

In a previous newsletter, we read of a Montreal based company called "Progeni Inc.", a company that has a reputation for supporting "Orphan" computers.

The following is indeed good news for those of us who find it inconvenient to visit "La Belle Province", Progeni has opened an office in Toronto!

The people there are quite helpful. We browsed through the "Back room" and were pleasantly surprised by the selection of used computer equipment available. We were informed that their current stock is limited, due to space limitations and that if what we wanted was not in stock, it would be a matter of "a few days" to have it shipped from Montreal.

Progeni supports all Commodore/Amiga, Apple/Macintosh, Atari, IBM and compatible computers. They buy, sell and trade complete systems, components, parts, software and peripherals. New and used. I found their prices reasonable.

Tell 'em TPUG sent you

Progeni Inc.
3268 Yonge St.
Toronto, Ontario
M4N 2L6
(416)322-6512

How to get there:

Progeni is located 4 blocks North of Lawrence Ave on the West side of Yonge St., above Joe Franklin's Men's Wear.

TIPS AND HINTS FOR C64/4040 USERS - Al Farquharson**1541 Rattle**

If you have a 1541 and don't like the rattle of the drive in some programs, use the following program:

```
10 rem anti-rattle program
20 Print chr$(147)chr$(14)"Installing anti-rattle program"
30 open15,8,15
40 print#15, "m-w" chr$(106)chr$(0)chr$(1)chr$(133)
50 close 15
60 print "done!"
70 end
```

Note the chr\$(147) clears the screen, chr\$(14) gives us lower and upper case.

Chr\$(142) gives graphics and upper case. You can find the correct number for most characters by typing PRINT asc("*") and the computer will tell you the number. Substitute your character for the '*'. Try Print asc("a") then "A" and you will get 65 for "a" and 193 for "A". If you type PRINT chr\$(65) you will see the letter "a"! Perhaps a useful hint.

Ever wanted to put double quotes in a Print statement? Try:

```
100 print "My name is "chr$(34)"bob" chr$(34)
Don't forget to RUN it.
```

4040 drive pretends it's 1541/1571

One problem when writing and formatting (NEWing) a 4040 to behave like a 1541/1571 is that the sync marks written to the drives is not quite the same. I have created disks for the 1541 on a 4040 which will work fine, both write and read on the single drives for the c64/128. I believe it should work for you. Use a "PET" connected to the 4040 drive, or some serial/IEEE interface from a C64 to the 4040 to talk to the drive.

```
10 rem change sync bits/make 4040 better for 1541/1571 use
20 print chr$(147) chr$(14) " Convert 4040"
30 open15,8,15
40 print#15, "m-w" chr$(157)chr$(16)chr$(1)chr$(8)
50 close 15
60 print"Do not use this for regular 4040 use/ RESET Drive"
70 print "done!"
80 end
```

I have used this program with no problems. Try it for yourself. Some have used 4040 formatted (NEW) disks in the 1541/1571 and both written/read afterwards in the single drives with no problems.

Video Ram

- review by Mike Harvey, Arizona Commodore Users Group.

Many of you have been asking what video RAM is? Video RAM is an area set aside in memory for the 128's video screen attributes. Each pixel on the screen is stored in video RAM. For the 80 column screen, approximately 1K of memory is used for screen memory and either 4K for the character ROM or 8K for bit-map data. Think of video RAM as a 'bank' in which screen data is stored and retrieved.

Normal video RAM is 16K, but if you use Basic 8, you need 64K of video RAM to take full advantage of the program's graphics capabilities. Until recently, those of us wanting 64K of video RAM in our 128 either had to buy a 128D (which comes from Commodore with 64K of video RAM) or pay a technician at a computer store to replace them for us.

Software Support International recently released a 64K upgrade kit for the 128. This upgrade kit allows easy installation of a 64K chip. Simply remove the 128's cover, RF shield and old

video chip (8563), and install the new 64K chip into the old socket where you removed the old chip. Replace the RF shield, screw the cover back on, and Bingo! - 64K of video RAM in less than 20 minutes. You can remove the upgrade and reinstall your old chip at any time just as easily.

The video chip upgrade sells for \$49.95 (plus \$3.50 s&h) and is an excellent way to upgrade your 128 safely and easily.

Solderless 64K Video Ram Upgrade

Software Support International

Suite A-1

2700 NE Andresen Road

Vancouver, WA 98661 phone (206) 695-9248

Note - Rumor has it that Commodore Canada Repair Centre in Toronto can provide this upgrade for (\$49.40). Programs known to support the 64K Video Ram are .. SKETCH PAD 128, NEWS MAKER 128, BASIC 8, BASIC 8 TOOLKIT, SPECTRUM 128 and MAVERICK V2.0 (in 64 mode)

Progeni Inc.
Computers



Buy - Sell - Trade

APPLE - AMIGA - IBM
MACINTOSH - COMMODORE
ATARI

New and Used
Computers, Peripherals
and Parts

Montreal Office:

- 995 Decarie
St. Laurent, P.Q. H4L 3M7
Cote Vertu Metro Stn
phone (514) 745-3123

Toronto office:

- 3268 Yonge Street
Toronto, Ontario M4N 2L6
phone (416) 322-6512
Coming soon to downtown Ottawa

**Quantity discount on
TPUG Disks**

On orders of 20 or more Amiga Disks, TPUG offers a 40% discount to members. That works out to \$5.60 per disk and applies to all Amiga disks in our library, TPUG, FISH and AMICUS series. (Postage extra)

This same discount also may be applied to our regular library disks (5 1/4") with a resultant cost of \$4.00 per disk in quantities of 20 or more in one order. (Postage extra)

Meeting Schedule

C-128: First Tuesday of the month.

Contact - George Skinner - (416) 255-8538 (mornings)

Amiga Central: Second Tuesday of the month.

Contact - Paul Kreppenhofer - (416) 234-1067

C-64: Fourth Tuesday of the month.

Contact - Wilf Meissner - (416) 789-4335

All of the above meetings commence at 7:30 p.m. in the York Public Library, 1745 Eglinton Ave. W. (just east of Dufferin), in the Auditorium or Story Hour Room.

Westside and Amiga West: Third Thursday of the month at Alderwood United Church, 44 Delma Drive. Delma Drive is just west of and parallel to Browns Line, south of the Queen Elizabeth Highway, north of Horner Avenue. From the west, exit QEW at Evans Avenue, east on Evans to 2nd stoplight, south on Gair to Delma Drive. From the north or east, follow signs from QEW or Hwy. 427 to Browns Line, exit right to Evans Avenue, turn south on Gair (first stoplight) to Delma.

Contact - Bill Cumberland (416) 278-7687

TPUG BBS

PunterNet Node 2

(416) 273-6300 (Mississauga)

(416) 733-2933 (Toronto)

24 hours a day, 7 days a week

except weekdays noon to 5 pm. EST

the password is no longer necessary*

TPUG on Quantumlink

The TPUG SIG is located in the Commodore Information Network's User Group Support Center



Y'r Editor's Notes

My apologies!! What can I say? This newsletter is long overdue. I won't bother you readers with all the details, but procrastination (reporters and editors) certainly plays a strong part - a condition we fight every day in our attempts to perform with volunteers what used to be done with a paid (sigh...) staff.

And now the bad news is that perhaps y'r editors access to this wonderful Laser Printer is coming to an end - it has been announced at work that management, in the interests of economy (???) has decided to discontinue the Desktop Publishing services currently supplied by our unit. This has meant retrieving the printer from some executive secretary's office after hours to continue completion of this issue - not fun!

The good news is that we have a GEOS fanatic in the person of Michelle Hyland in the wings, just shivering in the anticipation of publishing a real live Newsletter!

Time will tell how we work it all out, but rest assured we realise that you, the members, have clearly indicated the need for a newsletter on a regular basis - we hear and we shall respond!

TPUG Newsletter is published bi-monthly by the Toronto Pet User's Group (TPUG), Inc., the world's largest Commodore Users' Group. TPUG is a non-profit corporation dedicated to the service and support of owners and users of Commodore computers. All rights to material published in TPUG Newsletter are reserved by TPUG, Inc. and no material may be reprinted without written permission except where specifically stated. When reprinting, please credit TPUG and the author.

The Upgrade Path

Jim Butterfield

Maybe you recall that old poem about a youth, who bore mid snow and ice a banner with a strange device. The banner said, "Excelsior!". No, it wasn't an ad for a computer manufacturer; I'm told the word means "Onward and Upward!". And it seems that we are being urged to upgrade .. hardware, software, anything that frees us from our money.

GEOS would like me to switch to version 2.0 of their system. Gold Disk has now suggested two paths by which I can upgrade PageSetter: to Professional Page (except I didn't have enough memory), and now to PageSetter 2. NewTek wants to invite all Digi-View owners to move up to Digi-View Gold. All such upgrades are priced .. well, not low, but modestly.

Excelsior!

I seem to have a history of following a multi-stage upgrade path. Take Electronic Arts, for example. In 1987, I paid a supplement to get "unprotected disk" versions of two of their products. In the past year, both the products have gone from version II to III, and each has called for another \$50 - plus a rather obscurely noted \$7 for postage and handling - to move up. Similarly, my Lattice C has passed through two \$75 upgrades, and I get occasional hints that a new one might come soon, and that I should really get C++ and explore the exotic world of object-oriented programming.

It's a good thing. But sometimes I feel like the Red Queen, running as fast as I can to stay in one place.

The same thing is happening on the hardware front, although Commodore owners are a little more protected than most. In the hard world, upgrades seem to be a matter of throwing out your old machine and buying a fresh one. The PC compatible path has been especially dizzying. Junk your PC in favour of an XT .. then an AT .. then a 386. All in a few years, with other things like graphics adaptor boards mixed in to help the confusion. The humble 64 owner might upgrade to a 128, but is largely free from these temptations. The Amiga has had a path that moved from the 1000 to the 500 and 2000, and then to the 2500; but the pace seems slower.

Printers are a great temptation; they have improved so radically over the past

six years that it would be easy to junk the old clunker and move to a new one .. and not too expensive, either. Heck, I'd be embarrassed to tell you what I paid for the "original Commodore printer", the 2023, back in the early days .. the amount would buy several computers today.

But back to the software question. What about all these upgrades?

They are a Good Thing in my view. The software owner gets a relatively inexpensive way to get the new version. The software house, using its warranty card mailing list, should get a high response from users if their product was found useful in the first place. They also get a quick installed base; and the money they receive is uncut by distribution costs.

It's also a way to attract a market that would not otherwise be there. If you have paid, say, \$199 for a copy of CatGut 3.0, you would be reluctant to shell out a comparable amount for version 4.0 .. the old one would make do for quite a while yet. But a \$50 upgrade is much more tempting.

I suspect that retailers don't mind the direct-sale upgrade too much. In many cases, it would not be a lost sale. And it's nice, in a "friendly" store, to have users appear to help you on the fine points of a new product. Satisfied users bring in new buyers.

How do you prove that your're upgrading? Some software houses accept the warranty card that you mailed long ago as sufficient proof. Others want you to rip the cover from your old version and send it in.

This cover-ripping method has another aspect. In principle, you can no longer dispose of the old software. The theory is: you may only resell the "complete" package, and once the cover is gone, it's not legal to pass the old software along. This legal point may not be scrupulously observed by many users, but I suspect that the software houses won't be hurt too badly. If the ripped copies go to users who find the old software a delight, they will be strongly motivated to go out and buy the newest version when their budget allows.

So .. if you like the original programs, it's a good idea to support the upgrade path. Providing your budget permits it, of course. You'll do a favour to yourself, the software house, and likely others such as Commodore and the retailer. Excelsior! No, Eureka! Sorry, I meant: Excelsior!

TPUG Annual General Meeting

Alderwood United Church, 44 Delma Dr.
(South of Queen Elizabeth Way, West of Browns Line (Hwy. 427 extension))
Thursday, April 12, 1990 - 7:30 p.m.

Tentative Agenda

1. Call to order
2. Adoption of Agenda
3. Approval of Minutes of 1988 Annual General Meeting
4. Report of President
5. Auditor's Report
6. Report of Nominations Committee
Election of Directors and Officers
7. Expression of Thanks
8. Presentation of 1990 Budget
9. Appointment of Auditors
10. Ratification of by-laws
(fee structures)
11. Other Business
12. Adjournment

Nominations Committee submissions -
subject to ratification and correction

Tentative new officers:

Michelle Hyland
Ernie Chorney
Harry O'Dell
Art Evans
Dan Forget
Joyce Manson
John Easton

Present officers completing 2nd term:

Bill Cumberland
Richard Bradley
Steve Punter
Ken Poulton
Al Farquharson
Paul Kreppelhofer
Ian McIntosh
Walter Melamet-Vetter

Proxy Form:

If unable to attend the Annual General Meeting, feel free to submit your PROXY in a form similar to the following:

I, _____ do hereby constitute and appoint _____ (here you may appoint any qualified TPUG member or choose to name one or several of the current officers not currently up for re-election) Attorney and Agent for me, and in my name, place and stead, to vote my PROXY at the TPUG Annual General Meeting, April 1990 according to the vote to which I am entitled if personally present.

Dated -
Signature -
TPUG Member # -

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CAVAET

I just bought WordStar 4.0, CP/M at a FOG (First Osborne Group) "garage sale", and got the printer update disk. It took me a day or two to figure out that this disk is a 360k MS-DOS disk! If you try to read this disk under CP/M, you get a false file, "preview in A" which confuses CP/M no end.

Finally I did a format analysis using the program in the Abacus/Data Becker 1571 book and got "double sided 9 sectors/track 512 bytes/sector" and I guessed "MS-DOS". Later, I read this fact in an old FOGHORN, in a letter from someone who finally figured it out by guessing "maybe they mistakenly sent me the disk for the MS-DOS version" and tried to read it in a clone.

There are 2 files on the disk - a readme file which confirms that this is the CP/M version, and the printer overlay. The latter is 150k, so you can't use a program which tries to read the whole file into the computer! The public domain CP/M RDMS program works fine.

I suppose if you get a random 5 1/4" disk and can't figure out what it is, it can't hurt to try to read it as a 360k MS-DOS disk,

given the huge number of clones. Disks should always be labeled with their format!!!

CPM HINT

To get the CP/M files onto CP/M disks without using a transfer program, one method is to read them into memory at \$11c00 on the 128 in 128 mode and then boot CP/M and execute save.com twice. This assumes that you don't have a profile.sub or other auto-exec stuff on your CP/M boot disk.

HUMOR

The 1581 has 2 "secret message" commands, "b-?" and b-*. The former gives an error message 79 with the designers' credit; the latter is a dedication to one of the designers' wives, with error # "7=" [sic]. The latter error number is derived as follows - error numbers are usually binary coded decimal, so error 73 is \$73 internally. This error number starts off as \$7a, and then when it is converted to ASCII, ":" follows "9".

There is one use for these - you can use them to check for a 1581 since any other drive will give an error 31 (syntax error).

Technical Facts:

1) OPEN only talks to the serial bus peripheral if the file has a name.

2) CLOSE talks to the serial bus peripheral if the secondary address is less than 128. (BASIC default is 255) In Commodore 128 mode, if the secondary address is 15, and the device is greater than 7 (a disk drive) and the microprocessor carry flag is set, CLOSE will not talk to the disk drive. This prevents the disk drive from closing all open files. CLOSE never complains

about "device not present" but only sets the status byte. This makes "CLOSE" a useable way of figuring out whether a disk drive or printer is on line or not - even in BASIC 2. However, be sure to give a secondary address when you open the file!

3) The 1581 has two "author's ego" commands, "b-?" and "b-*". The first forces disk error 79 and the error message gives the names of the 1581 designers. The latter gives disk error number "7:" and is a dedication to the wife of one of the designers. (The "7:" is an attempt to translate a bad binary-coded decimal number, \$7A,

into ASCII.) Since these commands give syntax errors on other drives, they are an easy way to distinguish the 1581 from other drives.

4) The 1541 and 1571 both have their IRQ vectors at \$FFFE pointing to \$FE67. Since the 1571 has two modes, the first instruction of the 1571 IRQ routine is a jump-indirect through RAM,

```
JMP ($02A9)
   OR $6C,$A9,$02
   OR 108,169,2
```

Thus, by looking for a 108 at \$FE67, we can find out if the disk drive is a 1571.

DISKDRIV**Joel Rubin**

The following program will find all disk drives on line and determine whether they are 1541's, 1571's or 1581's. It will do so in a way which will probably survive most disk drive ROM changes.

```
100 REM FIND ALL 1541'S 1571'S 1581'S
110 DIM D%(3): REM 0=DEVICE 8, .. 3=DEVICE 11
120 FOR I=0 TO 3
130 OPEN I,8+I,0 : CLOSE I : IF ST GOTO 300
140 REM IN THE ABOVE LINE, YOU CAN USE ANY
    SECONDARY ADDRESS
150 REM 15 MAY NOT WORK ON THE C128.
    (SEE "CLOSE" KERNAL CALL IN C-128
160 REM PROGRAMMER'S REFERENCE GUIDE)
170 OPEN I,8+I,15,"B-?": INPUT#1,E,E$,T,S
180 IF E=79 THEN D%(I)=1581 : GOTO 300
190 PRINT#1,"M-R" CHR$(254) CHR$(255) CHR$(2):
    REM READ IRQ VECTOR
```

```
200 GET#1,A$,B$
210 REM IF A 1541/1571 THEN IRQ VECTOR IS $FE67
220 IF (A$CHR$(254) OR B$CHR$(103) THEN D%(I)=-1
    : GOTO 300
230 PRINT#1,"M-R" A$ B$ CHR$(1)
    : REM READ FIRST BYTE OF IRQ ROUTINE
240 GET#1,A$: IF A$=CHR$(108) THEN D%=1571
    : GOTO 300
250 D%(I)=1541
300 NEXT
400 FOR I=0 TO 3
410 PRINT "Device" 8+I " Is ";
420 IF D%(I)=0 THEN PRINT "not present." : GOTO 500
430 IF D%(I)=-1 THEN PRINT "not a 1541 or 1571."
    : GOTO 500
440 PRINT "a " D%(I) " ."
500 NEXT
```


Partition is a C'128 program which makes partitions on a 1581. It works faster than most such utilities because, instead of doing a low-level format of a 30-track partition, it just uses b-W to write the directory information to the directory track of the partition, as per the column.

Uses For the b-R and b-W Commands on the Commodore 1581 Disk Drives

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Writing in his 1581 Guide (available from Software Support International) D.W. Martin suggests that the 'b-R' and 'b-W' commands on the Commodore 1581 Disk Drives might be used for purposes of copy protection or to read foreign disk formats, such as the Amiga format. However, there are far less esoteric and more immediately useful ways to use these commands.

Back in the ancient days of PET, Commodore changed and improved its lowest density 5 1/4" disk format. The old 2040 drive became the 4040 disk drive. The 4040 could read but not write 2040 disks. If a 4040 saw anything other than an "a" (\$41) on byte 2 (counting from 0) of the directory header sector (track 18, sector 0), it would "think" that the disk must be a 2040 disk, and refuse to write on it. (Actually, it would only refuse to write if you used such commands as save, open to write, "u2", short new, et alia. You could still write to the disk if you used the job cue with, perhaps, disastrous results. But, if you insisted on bypassing the protection, that was your problem.)

Users and third-party developers began to use this "soft write-protect" for other purposes, such as copy protection. Of course, it was no problem for hackers, but, as with most forms of copy protection, it did slow down people for a day or two. Commodore continued to provide this soft write-protect on its other disk formats. However, it never again used it for quite the same purpose. For example, in cases where there are two kinds of disk drives, one of which is single-sided and one of which is double-sided, the "DOS version byte" is the same. (e.g the 8050 and the 8250 both use "c") Some people have had problems with the 4040 and 1541--they use slightly different header gaps. Thus, in some sense, they are "write incompatible". However, there is no similar system used to prevent you from writing, with a 1541, on a disk formatted on the 4040, or vice-versa.

The 1581 uses "d" (\$44) as its DOS version byte. If you are in the root partition, and byte 2 of track 40, sector 0 is not \$44, then you cannot write on the disk using the usual methods. However, "b-W" will work just fine, and thus serves as an alternative to the job cue method. So far, not very interesting. But, now, let us consider the 1581 partition system. A 1581 disk can be broken into subdirectories, or partitions. If you are in a partition, then you cannot write on the disk unless byte 2 of sector 0 of the first track of the partition is \$44. Also, you cannot read or write, using "u1", "b-r", "u2", and "b-w", to tracks outside the partition whether or not the partition is soft write-protected. But, you can write anywhere on the disk using "b-W", whether or not the partition or disk is soft write-protected, and you can read anywhere on the disk using "b-R". Thus, you can access the main directory on track 40, for example, from within a partition.

The ability to write when a partition is soft write-protected makes for one very important use for the non-hacker. Ordinarily, when you create and enter a partition, the partition is soft write-protected. To create a directory partition, you have to do a full format. This takes some time, and, besides, you have to be very careful that you are in your partition -- if, by mistake, you are in the root partition, you might end up formatting the whole disk! But, using the "b-W" command, you can just write the first few partition directory sectors, and voila--your partition is formatted.

On Commodore GCR drives, when you do a full format of a disk, you write the two-character ID to the header of every sector on the disk. There exist some programs which appear to change the ID of a disk, but if you take a disk with changed cosmetic ID, and do a short format (open 1,8,15,"n0:new") you will find that the old ID, as if by magic, reappears. However, on the 1581, an MFM drive, the ID appears to be merely cosmetic. The booklet which came with the 1581 contains no mention of error 29, the error which shows up on other drives when one sector has a different ID from another. If you change the cosmetic ID on a 1581 disk and do a short format, the old ID does NOT reappear--the new cosmetic ID is there to stay. Thus, if you want to make a partition with a different ID from the main or root partition, there is no need to do a full format--just write the cosmetic ID's to the appropriate places on the appropriate sectors.

As a matter of fact, if your 1581 is device 9, and you are inside a newly created partition which begins on track 1, and you wish to create a partition directory with name "partition" and id "jr", you just have to do the following:

```
100 open 2,9,2,"#":open 1,9,15,"b-p:2,2"
110 print#2,"d"chr$(187)"jr";
120 print#1,"b-p:2,22"
130 print#2,"jr"chr$(160)"3d";
140 print#1,"b-W:2,0,1,0":gosub 200
150 print#1,"b-W:2,0,1,1":gosub 200
160 close 2:print#1,"n0:partition":gosub 200:end
200 input#1,e,e$,t,s:if e then print e;e$;s:stop
210 return
```

In other words, you write just enough to sectors 0 and 1 of the directory track to tell the disk drive that the partition is not write-protected and that the partition id is "jr", and then you do a short format. This is a lot faster than doing a 30-track long format.

C-64 or 128 ???

by Jim Butterfield

When you program, it is frequently essential to find out what machine the program will be running on. An example of this would be customizing a routine to take advantage of a C-64 or C-128 when it is run. Therefore, you test memory to tell which machine:

PEEK (64444)

141 = C-64

255 = C-128

If you are in a C-128 and want to control the display width, you:

PEEK (215)

128 = 80 column

0 = 40 column

If you find yourself in the wrong width, you can set the other with:

PRINT CHR\$(27);"X"

*Computer Foundation for Handicapped Children
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COMPUTER FOUNDATION FOR HANDICAPPED CHILDREN

The Foundation is dedicated to improving the quality of life for handicapped children and adults by use of personal computers. Primary objectives are communication, early learning, general education and fun.

There are programs for the non-verbal, blind, deaf, deaf-blind, retarded and severely physically handicapped in all combinations. Many of the programs can be operated with a single switch by head nodding, eyebrow lifting, a puff of air or a sound. Others are operated with a joystick, the keyboard or voice. There are many talking programs for the blind including word processors, a terminal program and a typer.

CFHC has a very large public domain disk library that is predominantly for the Commodore 64 but there is also a large collection for the Apple II series. There are separate listings for the handicapped and for education.

Many C64, C128 and Apple II users have discovered a new and satisfying outlet for their hobby. Special Education teachers in both public and private schools need your help in using these programs for greatly improving the life quality of countless children. The Foundation furnishes disks of the programs to schools, institutions and user groups for a handling charge of \$2.50 per disk side. Ask for the free listings.

Join this growing corps of teachers, computer aides. You will probably enjoy it.

Donate your surplus Vic 20s, datasets, C64s, disk drives, monitors and printers to the Foundation. The Foundation has IRS tax exempt status so gifts are tax-deductible. The IRS tax number is 86-0588914.

For free listings and brief descriptions write to CFHC, 2645 E. Southern A326, Tempe, AZ 85282 or phone (602) 831-3519. Please specify the listings you want.

COMPUTER AIDS FOR THE VOICELESS, BLIND, DEAF, RETARDED AND PHYSICALLY HANDICAPPED

*Reprinted from KIDS COMPUTER
NEWS, December 1988
c/o St. Hilda's and St. Hugh's School
619 West 114th Street
New York, NY, 10025*

Letters to the Editor -

Dear Fellow Enthusiast:

The Commodore Five-Minus-Plus is a national user's group for the physically handicapped. Normally, we have five senses, but sometimes one or more becomes impaired and we must learn to adapt. The computer expects a human to provide a brain and to be able to use eyesight.

The first goal of our organization shall be to modify the C64 so that it provides speech output instead of only monitor output. We ask for whatever assistance your group or individual members care to assist with. Our needs are: technical assistance, the reading of programs for use on the computer, and the finances necessary for such a difficult undertaking.

Sincerely yours,
Linwood Gallagher
AABEL Business Service
PO Box 4816
ElMonte, CA, 91734

The C64 and Education

Bill Cumberland

The C64 remains the best bet in primary school education. There are hundreds of thousands of C64s in homes and schools. They get passed on through garage sales and as hand-me-downs. Few ever end up in a junk pile. Commodore knows it has a winner since it continues to market the C64-C.

The best feature of the C64 is that there are thousands of inexpensive public domain and commercial educational programs. These programs can play a vital role in helping children master language and mathematical skills.

The Commodore Ontario Educational Project directed by Frank Winter in 1981-1983 produced many public domain educational programs. A few TPUG members are updating some of the old favourites with colour, sound and improved student interaction. A catalog of the 1983 Project programs is being reprinted and will be available for \$3.00 from TPUG.

TPUG has formed a committee to focus on educational programs and techniques for applying them effectively in school and at home. We would be pleased to hear from others with a similar concern.



Disk name: tpug (C)ABF

cribbage Cribbage is a computerized version of the popular cribbage game. Uses hi-res mode graphics. Excellent program.

alignchk.v2 Alignment check, checks the drive alignment of 1541/1571/1581 drives. Enter the drive number for drives other than drive #8.

1581.diag.c64 Checks the controller chip of 1581's, to determine the controller chip number, also checks for the J1 resistor. Read the documentation file for further info

label printer1 A simple program to create labels, with screen options. This is a basic program so that it is easily modified, this program fails to use upper/lower case.

lynxette A Lynx utility, for those who find this type of compressed files, easy to use.

moon-patrol A game that uses joystick #1, to travel the moon's surface. Beware of the space ships and craters.

zix.prg A version of the game Arkanoids (TM), which uses joystick #2. A good game.

pirana A game that uses joystick "2, beware of the piranha.

cat n mouse A cat and mouse game, uses joystick #2. Prevent the mouse from

getting all the cheese, see the documentation file.

bbs-board A BBS simulation, of what a BBS should not be! WARNING some of the language may be deemed offensive! Good for laughs.

Disk name: tpug (C)ABG

rockfall boot Shareware program! An excellent game, with options such as stereo music, and your choice of .MUS files. Use joystick2

clw - pgm 1 of 8 Shareware program. A text based science fiction story, with print options.

Disk name: tpug (C)ABH

autoboot Use this program to load and run your own disks. After loading, type "run1" (RET). Follow the instructs.

printbootdata This program loads, lists and prints the BOOT.DATA seq. file formed by the above program.

writerswkshp.sda Well formed word processing and story-writing program for the 64. Includes Outliner for the story. Load onto blank formatted disk and run.

simplesda.sda As the name implies, a simple .SDA maker to help crunch the larger files into one single file. Must have ARC230 to work.

sda-only.sda Another .SDA maker. Read the docs which will be produced by loading and running the program on a blank formatted disk.

checkbook 64.sda Simple checkbook program for the 64. Load and run on a blank formatted disk as this disk has not sufficient space for all the files.

event calendar / calendar.docs Schedule your month day by day. Event Calendar lets you see whats coming up in the next couple of days or the month ahead. Read calendar.docs for more.

video library / video.docs Got a whole bunch of videos? Don't know whats on what? Well, this program will let you keep track of the darn things. Excellent for videophiles!

credit-card-ctrl / credit card.docs Annoying credit bills build up from your cards and you don't know how. Now you can keep track of the bills as well as the numbers if they are lost or stolen.

label maker q v2 Print labels for your mailing list. Can be included in your own program, such as a checkbook, or address database program.

deliver em Small little game based on the commercial game 'Paperboy'. Little tough game for the 64...

GEOS New Releases - Picture Disks**librarians - Michelle and Tim Hyland****(G) P1**

ALL FILES ON THIS DISK ARE IN GEOS 1.3 FORMAT

READ ME Doc file for this disk

DOG GeoPaint file

ALBERT GeoPaint Pic

MY PET MONSTER Several

characters from this cartoon

ICONS Sample Icons

CARD GeoPaint file

INSIDMP Converted from MACPAINT

GARFIELD PHOTOS Geos photo manager file- your favourite feline

PANDAS Digitized photo

XWING Digitized photo

(G) P2

ALL FILES ON THIS DISK ARE IN GEOS 1.3 FORMAT

READ ME Docs for this disk

CORSAIR Geos pic of this WWII aircraft

HEATHER.GEO Digitized pic

MONROE Digitized pic

ATTACK DRAGON A pic for Anne Mcaffrey fans

COMMODORE The logo

FRAZZETTA Imported from MAC, excellent pic

PRINT MASTER Photo manager file

DISK:(G) P3

ALL FILES ON THIS DISK ARE IN GEOS 1.3 FORMAT

CLIPART 1 Photo manager file

FACE SET Assemble your own faces with these parts

CALENDARS+ Every type of calendar you could think of. Clip Art.

LEISURE Assorted pics from Mac Paint

CLIPART MAC+ Of interest to Sport fishing enthusiasts

MACCLIPART 1 GeoPaint file

MAC CLIPS GeoPaint file

(G) P4

ALL FILES ON THIS DISK ARE IN GEOS 1.3 FORMAT

TSCAN ART Pics digitized with Thunderscan

PIC ARTWORK GeoPaint file

DICKSMACART GeoPaint file

ARROWS+ Every kind of arrow that you could imagine

VIDEO CLIP ART GeoPaint file

CLIPART 2 Photo manager file

RLE X6 High Res pics

(G) P5

ALL FILES ON THIS DISK ARE IN GEOS 1.3 FORMAT

84 CLIPPINGS GeoPaint file of clip art

CLIPART 3 Photo manager file

CLIPART 4 Photo manager file

GEOS ICONS 219 Icons

PUBLIC GeoPaint file

SNIPS 'N' BITS GeoPaint file

PERSONAL GeoPaint file

Ed. note - There would appear to be a large gap in my files 'cause I couldn't find the rest of the AC? series up to ACN - guess we'll have to wait 'till the next issue for the remainder..

(Z)ACO Sept 89

CAL32.LBR 32k Calendar/notepad utility for CP/M & Z3PLUS/C=128
 FMAP.LBR 7k Map files on disk showing allocation units
 RENAMZ13.LBR 16k rename utility
 WATOR-KP.CZM 11k world of wator.life-like
 Z-PLAN.LBR 26k info about NZCCOM/Z3PLUS offer

(Z)ACQ Oct. 89

ZDE:Z-System Display Editor
 DBASE II Information and utilities
 The following are provided for users of D-Base II, the excellent relational database program from Ashton-Tate. Most have not been tested on the C=128, but those that have (including DB2shl21) work fine. Be sure you are using a work copy and not the original disk when using the patches. TPUG or the TPUG CP/M Librarian cannot be held responsible for damage or loss resulting from the use of patches and/or pokes to DBaseII. It is entirely up to the user to verify that patches/pokes perform as expected so test should be performed to assure yourself no adverse affects have been introduced.

A historical note: There is no DBase I. The program was developed out of personal need to keep track of football pools (so one story goes) and was developed commercially for NASA. Original name for the program was Vulcan.
 DATABASE.LBR 7k Command & Doc to help with DBaseII, use a copy of DBII
 DB-POKES.LBR 2k CMD files for DBII
 DB2PATCH.LBR 2k Patches for DBII
 DB2SHL21.LBR 28k a good menu shell for DBII
 DBASETIP.LBR 3k Tips for DBII
 DBDECODE.LBR 9k for compiled CMD files
 DBHELP.LBR 12k DBII help
 DBII-REF.TZT 20k DBII reference info.
 DBPATCHES.DZC 4k Patches for DBII/ZCPR for date/time
 DBSECUR2.LBR 17k from Gene Head, DBII aid

FONEBOOK.LBR 12k DBII phone book
 NEWBASES.AZM 7k from Gene Head, DBII aid
 READ.ME 1k See DBSECUR2 and NEWBASES.AZM

(Z)ACS Nov. 89

ALIAS#2 LBR 21K Some ALIAS files created with SALLIAS/FOR ZEX
 POKE 10 .LBR 7K load a program, change it & run it: try that in MS-DOS!!!
 POKE & GO2.DOC 4K a second file, same idea as above.
 QTERM128.LBR 14K Quick Terminal patched for the C=128, includes a script to callCanada Remote Systems, quick reference chart
 QTERM41E.LBR 45K QT with documentation, patch information, example scripts, and more, supports YMODEM BATCH 1KB and KERMIT with VT100 emulation.
 SNOOPY90.CZL 2K 1990 Snoopy calendar.
 UNZIP099.LBR 16K unzip MS-DOS zip files, uses overlays. May not support all zip formats.
 ZEXCMD5 .LBR 7K files for ZEX.Z3 memory submit replacement. Note: ZEX for Z3PLUS will be included in an upcoming disk.

(Z)ACT

Ed. Note - sorry, couldn't read this disk - see next issue?

(Z)ACU WOC 1989

-World of Commodore Show 1989
 AREACD20.LBR 11k enter telephone area code. Find out where it is throw away your phone book.
 C8WS4KEY.LBR 4k C=128 with Wordstar 4.0 key file. Load with LOAD-KEY same functions for numeric keypad as PC/compatables home, end, pgup, pgdn, etc. Uses unshifted function keys
 CBMCPM.ACS 5k Question to Commodore, answer Re:availability of 3.5 CP/M disk, not good news.
 CHEK12.COM 3k CRC calculate program. If you run this on your disk and the results don't match the numbers in the corresponding *.CRC file for the disk, then you have a data error and would need a new disk if files affected are executable, text probably would be readable

QTERM128.LBR 14k Quick terminal for C=128, docs on (Z)ACS for help, supports script language, script included to call well known BBS
 SD138B.LBR 78k Super Directory with source only. All the features you'll want, assembled for Z3PLUS on (Z)ACV
 SNOOPY90.CZL 2k Snoopy calendar for 1990
 ZACU.CRC 1k compare results of CHEK12 with the values in this file to make sure your copy of the disk is error free.

(Z)ACV WOC 1989

LSH10P.LBR 35k Logging shell, size definable window or line mode
 SD138BZ3.LBR 7k Super Directory, assembled for Z3PLUS
 ZACV.CRC 1k use CHEK12 to see if your files have the smae CRC, if not expect problems if those are executable files, CHEK12 for breif help
 ZERR13.LBR 11k Z80 error handler, works with LSH, Docs included
 ZERR13s.LBR 36k ZERR, different capabilities
 ZEX50.LBR 26k Z80 Execute in-memory submit replacement. We've long heard about ex in the CP/M 2.2 world and one of the original disappointments about getting Z3PLUS was to find this program on a "doesn't work here" list. Take it off that list, Docs included

(Z)ACW Dec 89

CRLZH11.LBR 113k I know, all right, I'll stop! Not another compression technique! Seems like war out there, doesn't it? Well as long as they write 'em we'll have to include them. This one lets you manage those LZH files you see in the MS-DOS world. Here they have the form .?Y?. We'll continue to use .LBR and .?Z? because of the range of utilities that support these meanwhile, we'll continue to keep the windows open to the rest of the computing world.
 TWOCOL.LBR 8k A little goodie to print two columns from text files
 ZACW.CRC 1k Run CHEK12 on this disk and match the results to those in this file. If there the same, great, your disk is an ex copy. If not, expect problems.

(Y) UAA - Utility

This disk comes from the Boston Computer Society. Although there may not be much "new" on the disk, it's nice that the files have been collected onto one disk.

DISK WIZ.80COLOR is Kevin Hisel's versatile "Disk Whiz v1.1". This program requires an 80 column color monitor.

MINIDOS.80 is an 80 column simple command-line interface for the 128. A window remains on the top of the 80-column screen to display each of the new function key definitions. The syntax follows MS-DOS conventions.

RAMDOS.BAS (and ramdos128.bin4.3) allow use of the 17xx ram expanders as a fast ram disk drive on the 128. Complete docs are in RAMDOS128.DOC

FILECOPY.BAS is another release from Commodore. Compatible with the RAMDOS, it allows copying files to and from the ram drive.

DOSWEDGE.BAS from Commodore, is also compatible with the RAMDOS software.

UNICOPY.128 by Jim Butterfield. Very useful file-copier for the 128.

UNICOPY W/1581 is a 1581 compatible version of the above.

DISKNOSER and **NERDCOPY** are two useful disk utilities, one is a Track and Sector editor, the other a file copier. Both for 80 columns.

FAST GULP COPY is a whole-disk copier that uses the 1750 512k ram expander. A single read-in from disk stores the entire disk in ram, and allows multiple copies of the disk to be written.

FANCY DIRECTORY is simply Virtual Directory. It prints a complete break-down of a disk's contents, giving start Track and Sectors, Load Addresses, etc. A printer (device 4) is required.

CHECK 1581S 177x will test a 1581 drive to see if it contains a WD1770 or WD1772 disk controller chip.

RECOVER T&S.1581 is a sector editor for the 1581 drive.

CHECK DRIVE TYPE simply tells you if your drive is a 1541, 71 (in single or double-sided mode), etc. Useful little programming routine.

HEAD CLEANER is another little spin-cleaning program that keeps your drive spinning when you use a cleaning disk.

BURST MODE DEMO does what it says.

STRING THING is a Jim Butterfield routine that allows a blindingly fast read of a disk file. Not subject to the limitations of either GET# or INPUT#.

TRANSFER CPM.V4 allows transferring of files from a Commodore GCR (normal) disk onto CP/M disks. Fairly complete documentation is displayed on-screen. A very nice utility, one that should help get a lot of folks interested in CP/M downloads.

READCBM.LBR is a CP/M equivalent of the above, allowing transfers from GCR to CP/M transfers. THIS program must be copied to a CP/M disk using TRANSFER CPM.V4 above. Once onto a CPM disk, it must be de-librariied using NULU or other CPM library utilities.

UNCR24.COM This file is also CP/M. Its used to un-crunch files with the .?Z? file extension.

DISKED3.COM is a CP/M Disk Editor. **FORMAT SIDE2.128** If you have a lot of single-sided 1541 disks, and wish to EXPAND them to double-sided disk for use with a 1571, this file formats the back-side of the disk, as if the disk had originally been formatted in double-sided mode, WITHOUT damaging data already saved on the disk!

Amiga New Releases**librarian - Paul Kreppenhofer****DEMO Disks**

- (A)D-3 Demo versions of the games Datastorm and Vortex.
- (A)D-4 Demo version of the game Battle Squadron.
- (A)D-5 Demo version of the game Persion Gulf Inferno.
- (A)D-6 Demo version of the game Sim City.

Game Disks

- (A)G-11 Game disk including Black Box, Maze, Cards o' Rama If2pcs, Wordsearch, Shanghai.
- (A)G-12 Game disk including Starchart, Conquest, Amigazer, Mastermind, Rockslide, Reversi, Fortune Cookie, Mazeman.
- (A)G-13 A disk of Flight Simulator II airports.
- (A)G-14 Disk 1 of Star Trek game.
- (A)G-15 Disk 2 of Star Trek game.

TPUG always has a complete update of current **FISH** and **AMICUS** Disks in the Library

Music Disks

- (A)M-3 A disk full of sound effects.
- (A)M-4 WarnerBro's sound demo with Bugs, Tweety, etc.
- (A)M-5 The Great Dr Awesome music disk.

Picture Disks

- (A)P-10 Disk 1 of the Walker II Demo. (2.5 meg).
- (A)P-11 Disk 2 of the Walker II Demo.
- (A)P-12 Trackball Animation.
- (A)P-13 Four Animations. (Raisin, Newtrek, Birds, Desktoy).
- (A)P-14 Disk 1 of new Newtek Demo. (1-meg).
- (A)P-15 Disk 2 of Newtek Demo.
- (A)P-16 Great space animation. (A booting, disk must be in df0).
- (A)P-17 Klingon animation, CPU speed, Baseball listings.
- (A)P-18 TOOmuch3D animation, Jrcomm94.

Utility disks

- (A)U-2 Turbo, MSDOS, Xoper, Plans, DatatoObj, DFC, Multicalc,

- Ramcopy, Pcvew.
- (A)U-3 Arc, Zoo, Pak, Warp, Diskman, Play, Virusx. 28Fonts, Amigadex, Pointers, CLIwiz, LED, tracker, Dirmaster.
- (A)U-4 MRprint, Ghostscript, Print, Parsnag, Prtdrivers.
- (A)U-5 VirusX4.0 and a variety of virus fighting programs.

WordProcessing

- (A)W-1 Wordwright62. (word processor).

Zomething else

- (A)Z-8 Disk full of little workbench hacks. (melt, vac, etc.).
- (A)Z-9 Disk full of little wordbench hacks. (jive, tilt, etc.).
- (A)Z-10 A-term6.1, Handshake, Access1.42, Azcomm, Starterm, Comm1.34, Wtp, Ahost.
- (A)Z-11 Adventure, Logo, Scheme.
- (A)Z-12 Printer Drivers. (including Gemini10, IBMColourjet, ImagewriterII, Panasonic1091, etc).

TPUG Toronto Pet Users Group, Inc.

disk order form

5334 Yonge Street, Box #116

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(416) 253-9637

Thank you for your order.

Enjoy the contents of these public domain disks.

All 5 1/4" disks cost \$5.00, Amiga disks, \$7.00

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4 _____	_____	_____	_____
5 _____	_____	_____	_____
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
9 _____	_____	_____	_____
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