TPUG News

Volume 1, Number 5

President's Report

Well, here it is not 5 months after I said I would never do another 4 day show, and guess what? I did another 4 day show!

On April 9th, Gord Hunter made me aware of the fact he offered TPUG a booth at the Computer EXPO he was arranging, at the International Center, beginning Thursday April 23 through Sunday April 26. I was a bit hestitant, considering the 2 weeks we had to prepare, and that the April 17th weekend was Easter, so people would be involved in family oriented festivities. Nonetheless, I accepted his kind offer, and forged ahead, in my indubitable fashion.

Paul Kreppenhofer, our disk distribution manager, altered the World of Commodore C64 Show disk (we took off the Shareware program FASTCOPY, and some PRINT SHOP graphics files, and in their place put in A program we got from Jim Butterfield called SPACE MOVIE).

James Kokkinen produced a C128 Show disk on extremely short notice. We thank him profusely!

And when Adam White (Amiga Librarian) and I met ever so briefly Wednesday night (10:30 pm) before the show, he said "What, you have no Amiga Show Disk? You will have one Saturday, when Syd (Bolton, the other Amiga Librarian) and I are in the TPUG Booth." Bless him, he was true to his word. He apologized that the disk was not quite full (75% full?). Thank you Adam! I understand he is going to add more to it, and release it as a disk of the month.

I must say, the co–operation I received from the Hunter Group Inc. was enough to sway me into Computer EXPO. I must thank **Gord Hunter**, **Cameron MacDonald**, and **Irmeli Koskinen** of the Hunter Group Inc. staff. They worked hard, well and pleasantly, and deserve a full round of applause.

Paul and our C128 meeting co–ordinator George Davis set the booth up, making innumerable trips from the TPUG offce to the International Center.

We had decided to not bring the PETs and the 4040 drives, but instead use the C128 and the 1541 and 1571 drives to copy any disks we may have to duplicate. Of course, we forgot our copy program, so borrowed a SUPERKIT 1541 program from Transactor (costs about $30.00). I was impressed with it. It allows one to use 2 disk drives to copy, by designating one in software as device 8 the other as device 9. This program transfers the contents of a full C64 disk in about 40 seconds, using the two drives! It takes sllightly longer, I understand, with one drive. We thank the Transactor for letting us borrow this nifty program at the show!

Speaking to George Skinner, the C128 co–ordinator, he was pleasantly amazed that this program would also copy the CP/M programs we had on hand, a problem we have been 'adequately' coping with at TPUG. Now we know how to do it even better!

The team of show people responded admirably. Not one turned me down! In fact, I got 2 more names to add to my list, something I am sure other show booth organizers are always hoping for.

Let me thank publicly now, **the Show Booth team**: Warren Sanderson, Craig Cringan, Harry O'Dell, Max Long, George Hamin, Mike Donegan, Carl Epstein, John Easton, George Davis, Pat Gardiner, Henry Cote, George Skinner, Oleh Krisa, Frank Hutchings, Paul Kreppenhofer, and our new people, H.J. Hartman, Peter Hodgins and, of course, our Amiga Librarians, Syd Bolton and Adam White. Without these people, the Show Booth would not have survived, and TPUG could not have welcomed 58 new members to the fold. I thank you from the bottom of my heart. Especially the clean–up crew, who helped so admirably, when we were all so tired.

I was truly amazed at how well we did at the show. Meyer Toole, our second (lots of show experience) VP, had led me to believe that the show would probably attract about one third of the crowd (i.e. 10,000 people) we had entertained at the W of C show last December. So I was expecting 39 new members to sign (renew), by his expectations; (over 55 by my expectations. Have I ever told you I was an overachiever?) According to the Hunter Group Inc., 19,500 people did go through the turnstiles.

Well, when Carl announced the figures last night at the Board meeting, Meyer almost fell off his chair! We signed up over 55 new members!

There are other people to thank. First, after the Show Team, is Meyer Toole. He supplied us with FREE Quantum Link intro packages, so we could give one to each new (renew) Member. When we realized we were running out of the Quantum Link packages, Meyer sent more to the Show on Friday. However, they managed to get to the wrong booth, so TPUG never received them. Those who were registered on Saturday got the paper in their 'sign up' packet, to "send this away and you will receive your FREE Quantum Link package."

On Sunday, I went around asking the Commodore dealers if they had received TPUG's shipment of Quantum Link packages.

When I asked **Janet Dowdell**, of Video Variables, 1535 Bayview Ave, Toronto, if she had received TPUG's Q–Link order, she said not. When she realized we had nothing to give the members as "freebies" to sign up with, she immediately offered a box of C64 programs (Mail Controller by ORBYTE) to give the members. The extra were to go to a meeting as door prizes. TPUG thanks Video Variables, and Janet Dowdell.

Susan Hill, of Smart Screens in the Exchange Tower, Box 174, First Canadian Place, Toronto, lent us 20 Quantum Link packages.

Thank you, **Desk Top Computers**, for the loan of the extension cord, and for the use of the phone Saturday, in my frantic search for our missing shipment.

I couldn't find a cash register, at the price I wanted to pay (squeek, squeek). **Bernard J. Thompson**, of MR. T Sports Ltd., 1043 Weston Rd. Toronto, offered us his, but we could not accept the entire cash register. We took the cash drawer instead, and it worked out well. Thank you, Mr T Sports Ltd.

A thank you goes as well, to **Electronics 2001**, 4736 Yonge Street, Toronto, for donating shopping bags to TPUG so the new members had something to hold all the freebies we gave out (including each edition of the TPUG magazine we had at the show).

Did I tell you that we got over 55 new members? TPUG extends a hearty welcome to our new members. If there is any way I can be of any help you, do feel free to let me know.

Thank you very much, all those that contributed in time, in effort and or equipment for making our booth at Computer Expo so successful.

In Memoriam

Pat Gardiner died suddenly, unexpectedly, May 20, 1987. He will be missed greatly.

New Amiga Librarians

I am really pleased and excited to announce that TPUG has two new Amiga librarians and, thus far, three TPUG Amiga disks, (A)TAA, (A)TAB and (A)TAC – (A) for Amiga, T for TPUG. Syd Bolton and Adam White assumed responsibility of the Amiga librarianship the first week of April. Syd presented us with (A)TAA, a program he wrote, so it is a really unique TPUG disk, the day he became librarian. (A)TAB followed two weeks later, in time to be presented, as well, to the April 16 Amiga West meeting. The third (A)TAC, was ready for the May 21 Amiga West meeting. I understand (A)TAC contains some of the programs from the (Amiga) Computer Expo show disk Adam White prepared, at such extremely short notice. If you have any Amiga questions, do not hestitate to contact Syd or Adam, either by the spoken word or the written word.

Of course, if you have any public domain Amiga programs to share with the other members, via the TPUG library, do send them in to TPUG, c/o Amiga librarians. The past policy of thanking you by returning a disk of your choice (assuming your contribution is accepted) will be maintained as a small token of our thanks.

While on the subject of library disks

Thank you for your disk orders. Joy and the office staff ask me to pass this on to you. PLEASE make sure, on your disk order, to indicate what MACHINE it is for! (P)–PET, (V)–Vic, (C)–C64, (Y)–C128, (X)–CPM, and (A)–Amiga. If you do not indicate what machine, by any method, the staff assumes it is for the C64, and that's what you'll get!

In the last issue, the article "Teach Your Commodore To Teach" mentioned a program called "PI/CAL" but did not specify the disk it's on, which is (P)AAB for the PET version, and (C)AAL for the C64 version.

Lastly, TPUG carries the entire COMAL library. For more information, write to "COMAL Librarian, c/o TPUG" at our Willowdale address.

Elections Fall '87

Are soon going to be upon us. It is perhaps time to entertain thoughts about running for office. If you do not want to take on this awesome responsibility, then perhaps someone you know does? If so, drop us a note at the office. Remember, only 'regular' members can vote or run for office!

Anne E. Gudz, President TPUG 1986–1987

TPUG Opens Order Desk and Member Support Center on QuantumLink

by Jane Parris and David Bradley

If you have a Commodore 64 or 128, and you would like to interact with your fellow TPUG members all across the United States and Canada, the TPUG section on QuantumLink is the place to be.

To get onto QuantumLink and make use of all the wonders to be found there, you must have their terminal program. If you do not already have it, call Customer Service at 1–800–392–8200 (USA), or 1–703–883–0788 (Canada) and for $9.95 they will send you a starter kit. QuantumLink software is also available at computer stores such as Electronics 2001 in Toronto, and is being given away with certain modems such as the Commodore 1670 and the Volksmodem 6480. It is also on the back of the GEOS disk that is included with the Commodore 64C. If you do not have a modem and want to purchase one through QuantumLink, be sure to tell the Customer Service Representative and they will fill you in on what modem(s) they sell and how they sell them.

The standard QuantumLink Software will work with the following modems:

Commodore 1670
Commodore 1660
Commodore 1650
Commodore 1600
Taihaho TH–002
Hesmodem II
Mastermodem
Mitey Mo
Westridge
Telelearning
Microbits MPP–1064
Volksmodem 6420
HES 1
HES 2A
Hayes or Hayes Compatable

If your modem is not on this list, ask the Customer Service Representative what setting you should use. If you have a Volksmodem 6480, you will need a special version of the QuantumLink software which is available from the modem manufacturer, Anchor Automation.

Once you have the software and the modem, you are ready to go on QuantumLink. The first time you use your QuantumLink disk, you will be asked for some information, which will be stored on the disk for later use. This will include the type of modem you are using and the phone number your modem should dial to access QuantumLink. You will find the access numbers in a booklet that comes with your QuantumLink software. You can change this information at any time.

After entering the required information, you will be connected to QuantumLink, and asked to complete an online sign–up application. QuantumLink will ask you for your billing information and then you will be asked to complete a short "interest questionnaire". After completing this relatively painless procedure, you will be greeted with the QuantumLink opening screen which allows you to move your cursor to the area you want to enter. Your choices are: The People Connection (Online Conferencing), Customer Service, Just for Fun, Commodore Software Showcase, The Mall, News and Information and last, but certainly not least, The Commodore Information Network.

Once you enter the Commodore Information Network (CIN), a menu will appear, giving you several options, one of which is "User Group Support Center". Move your cursor to this option, press F1, and voila! This is where you will find the special TPUG area. Inside this area you will find sections for Messaging, Ordering Disks, Joining TPUG, leaving direct mail for TPUG, viewing TPUG articles, reviews and news from the TPUG Insert and Conferencing, not to mention the Database area where you can download your favourite TPUG programs for the Commodore 64, and the Commodore 128. (Support for other machines such as the PET, the Vic, the Plus/4, the Amiga and the C16 is presently in the works). The TPUG area is being maintained by David Bradley (DavBradley) and Jane Parris (JaneParris), and is frequently visited by the TPUG President Anne Gudz and TPUG Staff so that they can help answer any questions or problems you might have.

The basic charge for using QuantumLink is $9.95 a month, plus $3.60 per hour for any "plus time" you use. Some services are included in your basic monthly fee, but others, such as the TPUG area, are billed as "plus time". These rates are for either 300 or 1200 baud. At this time QuantumLink does not offer 2400 baud service.

QuantumLink has a lot to offer. It is **very** easy to use and, being software driven, requires no special terminal program or settings to make sure everything goes smoothly. Even downloading is a cinch – all you need to do is find the file you want to download, and choose the "download this file" option. QuantumLink does the rest, from naming the file on your disk to telling your what percentage of the file has been downloaded so far. A bell sounds to signal the end of every download. There are no passwords or commands to memorize. You just have to choose a USERNAME (you can have up to five of these, each with up to ten characters; they can be changed at any time). Then you use the menu system to get from one area to another. Telecommunications has never been simpler.

Besides the TPUG area, QuantumLink services include:

Eaasy Sabre(TM):	Airline Reservations
	Hotel Reservations
Online Shopping:	Compustore
	Express Music
	Roses by Mail
Learning Center:	Online Tutoring
Trivia	
Electronic Mail and Online Messaging	
News	
Special Interest Groups	
New Product Information Network	
Online Conferencing and Games	

It's very nice to have an online service devoted to the needs of Commodore users. You will find many well known Commodore experts such as Jim Butterfield and Jim Oldfield giving conferences in the QuantumLink Auditorium, tutoring in the Learning Center and posting advice and information on the Message Boards.

The TPUG section has been online since early April and is growing steadily. If you have any questions or comments leave an online message to JaneParris or DavBradley.

Lazy Days

by Jim Butterfield

I've said it before, and I'll say it again: the best programmers have a lazy streak. They are not *totally* lazy (or I suppose they wouldn't program at all), but instead have a form of "creative laziness" that leads to excellent programs. I often think that it's the urge to save work that makes us call upon computers in the first place.

And the best programs are written by programmers who go to great lengths to save themselves work. I know several hobbyists who will happily spend an hour devising code that will save them five minutes of programming drudgery.

Perhaps an example might help. If a starting programmer is asked to print the word "HELLO" three times, he or she might code:

```
100 PRINT ' 'HELLO' '
110 PRINT ' 'HELLO' '
120 PRINT ' 'HELLO' '
```

An experienced programmer will immediately realize that the above is too much work, and will recode as follows:

```
100 FOR J = 1 TO 3
110 PRINT ' 'HELLO' '
120 NEXT J
```

Three lines of drudge-coding have been replace by three lines of brilliant (well, not bad) code. Three lines replaced by three lines? Where's the saving?

We could set up the example with the target as 50 lines, and show a great economy of writing, but we don't need to. Even though the "improved" code takes up roughly the same amount of memory, and runs very slightly slower, it's better. Here's why: the programmer has solved the *general* problem of how to PRINT "HELLO" any number of times. If, during the programming process, the number changes, it's a trivial matter to change the 3 in line 100 to any desired number.

Every time we go from the specific task to a more general solution, we write "better" programs. It's hard to explain if you haven't been there, but it feels good to write code like that. And as we learn (if we learn right), we learn how to take the more general approach to the task.

Even in early stages of learning to program, things go better if you see your way to "lazy" shortcuts. Every time you write a line of code similar to one you have previously written, the alarm bells should go off: isn't there a way to save this duplication?

The steps come easily. Simple repetition goes into a FOR/NEXT loop, of course. But suppose what we're repeating is not exactly the same?

We often forget that laziness can lead to creative things. Perhaps a lazy porter invented the wheel. . .

As a simple example, suppose we are asked to print a sequence of numbers. As beginners, we might code:

```
100 PRINT 10
110 PRINT 20
120 PRINT 30
```

At first glance, a beginner might reject the idea of a loop. After all, each line is different, isn't it? But as the idea of using a variable is developed, alternate code comes about:

```
100 FOR J = 10 TO 30 STEP 10
110 PRINT J
120 NEXT J
```

There are many variations of the above method. We could take J from 1 to 3, and PRINT J*10.

That seems okay for orderly sequences of numbers, but it seems that many repeated sequences won't work that way. Take the following partial program:

```
100 PRINT ' 'JANUARY' '
110 PRINT ' 'FEBRUARY' '
120 PRINT ' 'MARCH' '  ... etc.
```

A little more insight into programming techniques reveals a couple of possible approaches to doing the job. You might write:

```
100 DATA JANUARY, FEBRUARY,
      MARCH, ... etc.
110 FOR M = 1 TO 12
120 READ M$
130 PRINT M$
140 NEXT M
```

Or, if you need to use the month names over and over again, we achieve a new plateau in laziness and save the months in a string array, coding:

```
100 DATA JANUARY, FEBRUARY,
      MARCH, ... etc.
110 DIM M$(12)
120 FOR J = 1 TO 12
130 READ M$(J)
140 NEXT J
```

...and later in the program, we'll write:

```
520 FOR J = 1 TO 12
530 PRINT M$(J)
540 NEXT J
```

Think of all the work we're doing to save work. Yet the program is better. It looks better, *feels* more professional, and it is better organized.

And the better you organize your work, the more you'll be ready to take on bigger tasks. The loops, subroutines and tables you organize make your program "compartmentalize" better.

If you've done quite a bit of programming, you likely know all this stuff. You've probably forgotten how difficult those early steps were ... and how delighted you were to discover a way to save work so you could do more work on a bigger program. (Some kinds of laziness seem to be self-defeating).

But the part we often forget is that laziness can lead to creative things. Perhaps a lazy porter invented the wheel, and other great inventions came about in the same way.

So nurture those lazy instincts. They may lead to superior work on your computer.

TPUG Programming Contest

1st Prize
100 blank diskettes or 25 TPUG disks
Winner: Larry Ireland
c/o Domtar Building Materials
Engineering and Tech. Dept.
Caledonia, Ontario

2nd Prize
50 blank diskettes or 10 TPUG disks
Winner: Bret Dobbin
Winnipeg, Manitoba

3rd prize
25 blank diskettes or 5 TPUG disks
Winner: James Duggan
North Bay, Ontario

Thanks to all who participated and, if you didn't win, better luck next time around.

Anne Gudz, TPUG President 1986-87

Gunship from Microprose
Helicopter simulation for the Commodore 64

Review by Tom Jones

If helicopter simulations sound dull to you, it is probably because you have never seen one as good as **Gunship**. Microprose's arrogant use of the phrase "THE helicopter simulation" is, in my opinion, warranted.

NOTE: The reviewer has worked as a helicopter flight simulator technician for the US ARMY in Europe for the last four years and flown all type of simulators, including the AH1 COBRA, which closely resembles the AH64 APACHE helicopter on which the **Gunship** *program is modelled. The US ARMY APACHE simulator, incidentally, is not yet deployed worldwide as of the end of 1986 excepting the prototype. It utilizes over a dozen Interdata 32 bit computers running realtime in parallel.*

The most impressive aspect of **Gunship** is the effort made to achieve uncompromising realism with a 64K 8 bit machine. The flight characteristics The most impressive aspect of **Gunship** is the effort made to are in fact pretty close to the real thing, including correct "feel" in situations like flame–outs, autorotations, tail–rotor malfunctions, and ground effect. Engine startup procedures are correct, and the take–off "feels" realistic. The cannon and missile also cause the correct "bucking" of the aircraft with its disconcerting effects on flight control. Full instrumentation, reminiscent of **Soloflight II** (also by Microprose) includes large round–face speedometer, altimeter, vertical speed indicator, and the "Ball" or attitude indicator. A smaller round compass helps you orient yourself, but the primary navigation aid is an Inertial–NavComputer map similar to the one in **F15 Strike Eagle** (again by Microprose). This is not due to a lack of originality on Microprose's part, but because most aircraft use modular instruments of similar design. (The fact is that the real AH64 APACHE makes do with a less sophisticated type of Navigation aid known as "doppler ground radar", but many pilots believe Microprose is not incorrect in projecting that the APACHE will eventually be fitted with the more costly Inertial Nav system.)

Bar–type gauges typical of new aircraft today are used for the two fuel tanks, rotor torque, both engine RPMs, and rotor RPM. The weapon and threat displays are reasonably accurate in depicting a "Heads–up display" and the helmet–guided TAD aiming device. Only the old reliable (but alas unguided) folding fin rocket (FFAR) still needs the fixed sight of the heads–up display. The Hellfire missile is laser–guided and the Sidewinder air to air missile is infra–red homing. The powerful 30mm cannon fires at whatever the pilot is looking at when activated, thanks to the TAD. The APACHE also has a telescopic sight in the ship's nose to acquire targets for any of the weapons. The pilots can fly and shoot nearly as well on moonless nights using the latest night visual aids. They really can see in the dark without eating carrots.

As you might expect, the bad guys aren't taking all this lying down! When their radar–guided anti–aircraft guns and guided missiles start coming up at you, it is nice to see some counter–measures on the dash panel. The threat display simulates a real instrument that shows where sources of search and tracking radars are relative to your craft, as well as any detected missiles. To thwart them, you have radar jammer, IR jammer, flares and a chaff dispenser. Failing that, you may have to outfly them. (It is interesting that the use of the AIM9L Sidewinder air–air missile on helicopters to defeat enemy aircraft is contrary to the official US Army and Air Force doctrine, but in agreement with the expectations of a lot of pilots once full scale hostilities commence.)

The screen artwork is good, and includes some nice high–res screens to add interest to the game. "Point and click" techniques are used to control most of the options, including selection of the pilot, area of the world, and type of missions he wishes to fly. The weapons are selected at the start of each mission by pointing at the missile and dragging it to the wing–store position. The amount of fuel and ammo are user selectable also. This allows you to tailor your load to the carrying capacity of the helicopter, which varies with climate. When you add a new pilot (you) to the roster, he must start as a sergeant and work himself up.

Initially you start at the practice firing range at the army training centre (at Fort Rucker), where they fire blanks, and work up through missions in Vietnam, Central America, the Middle–east and Germany to higher ranks. Recklessness in volunteering for dangerous missions or gung–ho suicide charges is soon tempered by the discovery that once a pilot is listed as killed in action you can no longer continue to use that name on the roster. He is dead and the points stop there. Back to the firing range, sarge.

The package includes the protected disk (both sides), a keyboard overlay, and the usual excellent Microprose manual. Sage and salty advice from some of the last pilots to face fire without a parachute livens up the flying lessons and directions. For $24.95, it's a bargain, and for $10.00 you can get a backup.

Destroyer from Epyx
Naval simulation for the Commodore 64

Review by Michael J. More

The advertisement for this Epyx product shows a destroyer which appears to be heading for the deep six. And unfortunately the program lives up to these expectations. Epyx has tried to design a game based on the **Dam Busters** and **Silent Service** concept. Destroyer has the potential to be a winner but it fails.

The biggest problem with **Destroyer** is the method of changing battle stations. It requires two letters plus the Return Key (three keystrokes) to access another station. That compares to one for **Silent Service** or **Dam Busters**. I suppose this was necessary to access the thirteen stations. How else could you attempt to replace all 325 crew members? The other problem is that the two letter code remains until replaced by another. I managed to accidently Abandon Ship in a winning game by hitting the wrong button following Navigation (NA). Not the game's fault but disappointing nevertheless.

The difficulty in changing battle stations is aggravated by the need to switch stations so often. Most stations lack the necessary information for you to operate successfully. It appears at times as if you have replaced the entire crew and must run from station to station in order to fight the ship. While at the Depth Charge station you must fire blindly as you approach the target. By the time you return to the Sonar screen you discover that the enemy submarine is out of range. You maneuver to sail over him again and at the last second dash to the Depth Charge station and fire again. After a few tries at this you'll give up and shut off the computer.

I tried to reduce the load by putting the Helm Control on Automatic. This is difficult as the map area is too small and you run the risk of going aground or sailing off the edge of the world. The two other options available are Pursuit and Evasive Action. Pursuit only works for submarines and you must still change between the sonar and depth charge screens in order to locate the enemy. Evasive Action makes it difficult for the enemy to hit you but it is also hard to keep your sights on him while you're going through random gyrations.

The scenarios are laid out so that you need only a few battle stations for the introductory missions but progressively more as you advance. Unfortunately I found the early levels boring and the later levels too hectic. There are three levels of difficulty but the higher levels merely add more enemies. You end up trying to jump between several stations in order to engage one target while the remainder of your weapons fall silent.

The graphics throughout the game are excellent and are probably accurate renditions of the various parts of the Fletcher class destroyer. The instructions are well written although they do have to be studied a bit as there is a great deal of information to remember. Historically the data provided on the Fletcher classes destroyer is fairly accurate. The class went through a number of changes and the ships in the game represent the design at the end of the war.

Realism suffers from the number of enemies that appear at one time, particularly in the higher levels. There is also no indication of the type of enemy ship; is it a battleship or only an armed barge? Destroyers are not particularly powerful warships and usually operated in squadrons of with heavier ships. It is likely that a single destroyer would soon follow the advertisement and be sunk.

Epyx has an excellent idea here but I think it needs to be reworked to make it easier to concentrate on the game and not on the computer. If I may make a suggestion Epyx: perhaps it would have been better to simulate the operations of a smaller vessel with fewer battle stations; say a PT boat. As it is I cannot recommend **Destroyer**.

Sinbad and the Throne of the Falcon
from Mindscape Graphics Adventure for the Amiga

Review by Syd Bolton

Princess Sylphani has discovered that her father has been replaced by a falcon. The physicians all say that he is no longer human. The Princess has learned that if this be a spell, it must be broken soon, or her father will be permanently trapped as a falcon. Knowing this, Sylphani summons the Mighty Sinbad. You left for Damaron right away, vowing to protect the Princess you have known so long, and to figure out how to rescue the monarch.

That's the setting for Cinemaware's third software release for the Amiga. Their first, **Defender of the Crown**, will probably be the most remembered game ever, but **Sinbad** might just overtake that position.

The opening screen allows you to skip the introduction (a thoughtful inclusion), play the introduc-

tion, or go directly to the game utilities. The introduction shows Princess Sylphani discovering her changed father, and then shows you some story background. The game utilities allow you to load previously saved games and continue where you left off. After the intro, you are taken to a screen with a large hourglass on the right side of the screen. The sand slowly trickles downward, giving you an indication of how little time you have. You can go from there to a map of Damaron or a map of the world.

The map of the world will probably be where you spend the majority of your time. Here, you can move the mouse to any location on the map, click and hold the left button, and a lens will appear giving you the information on the map in greater detail. You can move the lens around as well. The right button gives you two drop down menus. The first one gives you a list of all the current locations you can travel to, aboard your boat (named the *Sabaralus*) or on foot. The second menu gives you a list of people that you can have conversations with, with those present at your current location being highlighted.

Conducting dialogue with four main characters will be vital to your success. Libitina, the Gypsy, the Genie and the Shaman all have vital information, but you must approach each differently to get what you are after. Each character has a way of distracting you, and keep in mind that you can't always reproduce a previous dialogue the next time you play.

With the aid of the *Sabaralus* and her crew, you will venture around a world that has different climates and vegetation. This game contains dozens of detailed and beautifully drawn background scenes, each relevant to the location in the world that you currently are in. Throughout the world, you will encounter many dangers and challenges.

Swordfighting is a vital skill to master. Each creature you fight will use different tactics against you, as you must do with them. Your most formidable opponent will no doubt be the Black Prince, who is out to dethrone the Caliph. The graphics and sound in this part of the game are incredibly well done, and really give you the feel of swordfighting, from the clash of your sword to the splatters of blood.

The Black Prince, who is out to dethrone the Caliph, will throw many enemies in your way. Pteranoxos's (long–forgotten demons that will inform the Prince of your location if they escape) will attack you now and then; you must draw your bow and aim with precision to defeat this foe.

Your camp may be raided at times by the dreaded cyclops. There are several to watch out for, in different parts of the world. You are forced to fight them in their cave, and only a well placed shot with your sling will shatter the eye of one of these beasts. Magic works well with these creatures, a small hint that I will give to you. If you kill the cyclops, you may find many starving survivors who may be added to your crew. A good, plentiful crew on the *Sabaralus* is very important, especially to fend off occasional attacks by pirates.

The Black Prince is constantly trying to attack the castle at Damaron, and you must not become so involved with the other aspects of the game that you forget to examine the map of the city. There you will see the placement of your armies, and can redirect them to counter the armies of the Black Prince. If the Black Prince invades the castle, you will be whisked back to Damaron for a battle to the death.

There is so much to this game that it cannot all be put into a review. From the incredible realism of shattering earthquakes, to the sea–sick feeling of searching for shipwrecks in stormy waters, to the fantastic ritual of being placed under Libitina's spell, this game excels in all areas. The sound and music are just fantastic, to say the least. The amount of graphics that are packed onto the game's two disks is just unbelievable. Although they aren't the superb graphics of **Defender**, done by James Sachs, they are more extensive and, with those added special effects, you don't feel as if you're losing anything. The main strong point is **Sinbad**'s depth of play. Unlike **Defender**, you will not solve this one after playing it ten times. I have yet to get a better rating than 38 out of 100, and that's after playing it well over a hundred times!

With **Sinbad**, never will you get the same game twice. Creatures and clues are located in different areas each time (although they have their limits) and, of course, you won't be guaranteed a win every time you meet the cyclops, or have a swordfight, even after playing a hundred times! **Sinbad** is by no means easy to master, and it will keep you playing for hours upon hours. Don't forget to turn the lights out, and turn up the speaker.

Sinbad and the Throne of the Falcon. *Distributed by: Mindscape Inc. 3444 Dundee Road, Northbrook, Illinois 60062. Suggested retail price: $56.95 (Cdn.). Contains 2 copy–protected disks. Requirements: Amiga, 512K, Joystick, External Drive recommended, but not necessary.*

Disk Correcting Utility

by George Davis

Probably a number of new users and new programmers, (and new users soon to become new programmers) of the Commodore 64 have wondered about the need for, and the use of, some of the utilities in the TPUG library. Some of the most confusing are those which are used to change the records on the disk. These are called **Disk Doctor**, or **Diskview**, or something like that.

Basically, the purpose of these utilities is to permit you to get right into the data in the file on a disk and change one or a number of bytes in a file.

This may sound quite innocuous, but the ability to do just that kind of manipulation is very dangerous.

I was an EDP auditor, and one of my responsibilities was to be able to assure my clients that their computer systems, programs and data were tamperproof. That is, that the controls which were used within their computer room (which usually housed a large IBM mainframe) were such that nobody could get into their programs and data and change them. Unfortunately, one of the utilities supplied by IBM was a program called **SuperZap**. This program gave anybody with access to the program and files the ability to get into the actual bits and bytes of the file and to make whatever changes he wished. Changes could be made to both program and data files. To further compound the problem, absolutely no record was produced automatically of any change made to the file.

As a result, **SuperZap** was the auditors' nightmare.

However, when I later became the manager of a small computer installation in our own office, one of the first utilities which I asked the supplier to get for me was a **SuperZap**-type program. I had found that the programmer had made a slight error in his program, and the only way to correct the records was to go right into the file and change the data as it existed on the disk.

Since most of us are using our 64 for personal applications, and since we are the only ones using the machine, we don't have to worry about controls and auditors. BUT we do have to worry about Data Integrity. What is on the file does have to be correct.

What will it do?

First of all, I would like to point out that I am not a very sophisticated programmer. I avoid Peeks and Pokes (mainly because I don't know how to use them.) I use strictly Basic, no machine language, no fancy compilers. I am vaguely aware of RAMs, ROMs and BAMs, and couldn't care less about them. If my Basic program works, I'm happy.

Now that I have written and run some applications on my own 64, I have found that the only way to correct certain types of mistakes is to use this type of utility.

For example: I have a Mail List type of program. The first time I used it I entered about twenty names and addresses, then decided to take a break, and so closed off. Later, I went back to this list and added another 15 names, then closed off again. A few days later I decided to continue setting up the list, but when I loaded it I found that I only had the original 20 names on file. I felt that something was wrong, so I added 5 names to the list, and reran the listing. Lo and behold, *still* only the original 20 names were on file. What was obviously happening was the program had indicated after the first close-off that this was the end of the listing (please note, not END OF FILE - just end of listing) and it had put some form of indicator on the file to say so. On subsequent attempts to add to the listing, this indicator had not been removed. The only thing I could do was to go into the actual file with **Diskview**, find out what the indicator was, and remove it.

Another situation which requires this type of correction comes about as follows. Let us assume that you write a program which will make up an array consisting of a number of records with (say) 5 fields in each record. In your program you have to tell the machine that each record consists of 5 fields. Generally, you separate each field by a carriage return character (**chr$(13)**). However, as you will find out, a comma also works as a field divider. So let us say that, in one of these fields as you are entering it, you put a comma between two parts of the data. The machine has no way of knowing that this comma is part of the data, so it takes it as a field divider. The result is that you shift every field after the comma into the next field. If you close the file after doing this, regardless of how many records you add to the file, you will wind up with the last record on the file containing only one field. Since you have previously told the machine that each record has 5 fields, it will refuse to load the listing, because it will continue looking for the remaining (missing) 4 fields of the last record. The only possibly thing you can do is to get into the actual data file on the disk and remove the offending comma.

Another use for the utility is to correct or change the data which you have entered into this array if you have not already written the program which will permit you to change it.

How is this done?

To use the program **Diskview 3.C**, proceed as follows:

First, of course, it is most desirable to make a copy of the file which you want to correct. This is in case you foul things up even worse than they are to begin with. In fact, it is best to copy the file onto another disk, so that you won't mess up anything on the original disk.

Load the utility program, insert the disk with the problem file, and run the program. It will tell you the name of the disk and ask you to confirm the customary device numbers. Just hit **RETURN** to continue.

It will display the main menu on the screen. This menu is:

1 Load block into computer
2 See ASCII of above block
3 Modify above block
4 Store above block in RAM
5 Write block in RAM to disk
6 Block Availability Map
7 Disk Commands
8 Trace Blocks
9 Unscratch a file

Since we want to correct a file, we first have to find out where this file is located on the disk. Therefore, hit **7** for **Disk Commands**. This will bring the Disk Menu on the screen:

1 Initialize
2 Validate
3 Format disk
4 Change disk
5 Display Directory
6 Change device number
7 Check for disk error
8 Check for BADS VBLOCKS
9 Backup (Block-by-Block)

Select **5**, which will then give you a listing of the directory, indicating the track and sector where each file on the disk starts.

Incidentally, one of the reasons I like to use **Diskview 3.C** is because it can tell you where your files start. I have used other programs which permit you to change the data, but they will NOT tell you where the file starts.

(A little bit of helpful information at this time. If you read the manual which comes with your disk drive you will find out that the 1541 disk (which is the same as the 4040 disk) contains 35 tracks, each of which contains from 17 to 21 blocks or sectors. Each sector contains 256 bytes (a byte is a character). Bytes are numbered 0 to 255. The directory is contained on track 18, leaving the rest of the blocks for data. When you save a file, the disk drive could put it anywhere in these unoccupied sectors.

Now that you know where the file starts, go back to the main menu and, if you have a large file, press **8** for **Trace Blocks**. I usually have this sent to the printer for future reference. It will then ask you "track, sector". Type in the track number, comma, sector number, **RETURN**. You will receive a listing showing (say) **20,3 19,6 19,7** etc... This is the listing of the tracks and sectors on which the file is currently stored, the first number being the track, the second number is the sector on that track. Programs and files could occupy anywhere from one to over a hundred sectors (blocks) so this listing could be fairly long.

To read the file.

You will now have some idea of where (which track and sector) on the disk the bad data is stored. Let us assume that it was a comma inserted where no comma should be. Estimate which track this error may be on (i.e. near the beginning, middle, or end of the file). You now have to load that sector into the machine. To do this, get to the main menu, and select **1**. This loads the block into the computer. As it is loading, it will display on the screen exactly what is in this block. There will be a number of symbols as well. If you didn't get the correct block, you can easily ask the program to load the next block of this program, by following the prompts on the screen.

Note the first two bytes in the file. If you are anywhere other than in the final block of the file, these bytes will contain two numbers. They indicate the next succeeding track and sector of the file. If the first byte is 0, this indicates the last byte of the file. For example, if the first two bytes are 20 and 12, this means that the file continues on track 20, sector 12. If the first two bytes are 0 and 148, this means that this is the last block, and the last byte for the file is byte number 148 of this sector.

At this stage, you may be able to spot the offending comma. If not, you can get more details of this block.

For details of block

Return to the main menu, and select 2. You will be asked if you want to see the block in DEC or HEX. HEX converts the numbers and letters to hexadecimal. If you find that it is easier to read English than hex, do as I do and ask for the display in DEC. This will display the ASCII representation of the block on the screen. Down the left hand side of the screen will be a column of numbers starting **0**, then **8, 16, 24, 32**, etc. . . to **248**. These are the numbers of the bytes, to help you identify them later. After these numbers will be a listing of eight numbers, which will be the ASCII representation of the content of the file. On the right will be an English interpretation of these ASCII numbers, row by row, so that you can compare the ASCII with the English. To get a complete interpretation of the ASCII codes, refer to the manual which came with your 64.

A close comparison of the ASCII and the decimal equivalents should show you where your problem may be, or just what it is you want to change. NOTE that carriage return is ASCII 13, space is 32.

To change data on file

If you have got this far, it is a pretty simple procedure to change the data on the disk. Return to the main menu and select **3**. You will receive an explanation of how to go about changing bytes, either singly or in groups. You will then have the file displayed to you as in **2** above, and it will ask you which byte you wish to change. You can identify the bytes by the number on the left, which is the first byte displayed on that line. Select any byte and you will be told what the byte now is, and asked what you want to change it to. Simply follow the prompts on the screen.

After making the changes, you will be asked if you wish to check your changes. DO SO. Make sure you changed the correct byte. You will then be asked if you wish to put this changed block back on the disk. If you say "yes", the corrected block will be written back onto the disk in place of the incorrect block.

And finally, after you have "corrected" your file, be sure to run any program which uses it to be sure you were right.

Unscratching a file (which had been scratched in error) could lead to problems if anything had been added to the disk after the file has been scratched. Part of the scratched file could have been overwritten, so you may get part of the old file and part of a completely different new one.

TPUG MEETING SCHEDULE

June 1987

All meetings begin at 7:30 pm sharp, unless otherwise specified. Capitalized dates indicate that the meeting does not fall on its normal day of the month.

COMAL Chapter: TPUG Headquarters, 5300 Yonge St. (entrance at rear of building) on the fourth Tuesday of the month unless otherwise specified.
1987: June 23

Commodore 64 Chapter: Auditorium, York Mills Collegiate Institute (on the north side of York Mills Rd. between Bayview and Leslie), on the last Monday of the month unless otherwise specified.
1987: June 29

Regular TPUG meetings resume in the fall. Have a nice summer!

TPUG CONTACTS

TPUG OFFICE
5300 Yonge Street
Toronto, Ontario
M2M 5R2
416–733–2933

Membership Info:

Regular Member (attends meetings)	$35.00 Cdn.
Student (full-time, attends meetings)	$25.00 Cdn.
Associate (Canada)	$25.00 Cdn.
Associate (U.S.)	$25.00 U.S.
Associate (Overseas – sea mail)	$35.00 U.S.
Associate (Overseas – air mail)	$45.00 U.S.

TPUG BBS
(416) 273–6300
(416) 252–8481

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	Adam White (evgs.)	519/753–4034
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Sysop (voice, weekdays)	Sylvia Gallus	c/o 416/896–1446
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TPUG BBS

(416) 273–6300
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24 hours per day
7 days per week
The password is. . .

VACATION

AMIGA LIBRARY ADDITIONS

Presented by Syd Bolton and Adam White

NOTE: A change has taken place in the numbering of Amiga disks. Since we no longer officially carry Fish disks, but are presenting some of our own material, disks are now labelled starting at (A)TAA. To make reference to a Fish Disk, you have to convert it to a number. For example, Fish 1 is TPUG (A)AAA, and Fish 46 (our highest Fish disk) is (A)ABT.

A totally new catalog disk has been prepared, and includes the latest addition, (A)TAC. This catalog disk runs completely from WorkBench, as do most of the programs on the new disks (TAA–TAC).

Some programs cannot be run from the WorkBench. In such instances, a "(CLI)" will appear after the program descriptions that follow.

(A)TAA

Our first original TPUG disk contains a jigsaw puzzle game written in AmigaBASIC. To play, you must make a copy of AmigaBASIC onto the disk. The game includes nine puzzles and full documentation, and even a puzzle game generator which allows you to make puzzles from lo–res IFF pictures. Shareware by Syd L. Bolton.

(A)TAB

This disk contains 22 digitized paintings. The works of Monet, Renoir, Cezanne and others are included, as is a program to view them all in a slideshow. Very beautiful!

(A)TAC

NOTE: This disk contains some material from the Computer Expo '87 Show Disk, as well as other original material.

MacView 1.2	is Scott P. Evernden's latest version of his MacPaint file viewer. The latest version includes the ability to load IFF pictures, save pictures in MacPaint format, and even a printing option. Three new pictures included.
Convert–64	is a collection of three programs which will convert Commodore 64 picture files into Amiga IFF format. Koala, PrintShop Screen Magic, and Doodle format are supported. (CLI)
Convert–Apple	Another collection of programs to convert Apple screen images to Amiga IFF format. Author: Brian Conrad. (CLI)
Convert–ST	allows you to change ST Degas and Neochrome picture files into IFF format, which can be loaded into DPaint, etc. (CLI)
Blitz	is a super high–speed text viewing utility that utilizes the blitter chip for maximum speed. The screen scrolling must be seen to be believed! Documentation included. Shareware by Hayes Haugen.
BlitzFonts	is a nifty little program that speeds text output up in almost ANY program, including TextCraft and AmigaBASIC. Very nice! Shareware by Hayes Haugen.
ChangeKickStart.	This handy utility allows you to change KickStart versions without turning your machine on and off. A must for your WorkBench C directory!
MouseClock.	Another small clock program with a twist: your mouse pointer turns into the clock! Very handy. Author: John Huffman.
BigView.	This super program allows you to view any standard IFF picture. The neat part is that if it has dimensions greater than 320x200, the program automatically scrolls to those portions of the picture very smoothly, giving the illusion sometimes of TV! It even works on 1024x1024 screens. (CLI)
EBS–DemoFonts.	This drawer contains five pages of sample fonts from EarthBoundSoftware. From the WorkBench, you can view these, but to install the two sample fonts into your fonts sub–directory, you must enter the CLI and type "execute fontmake". (CLI+WB)

COMMODORE 64 LIBRARY ADDITIONS

Disk name: (C)AAC.TPUG.JULY86

autoboot	By pressing the ?, you can learn how to use this autoboot program with your own disks. By pressing the return key you will reboot this menu.
printbootdata	This program will allow you to print the data found in this space. You can also use this program to print disk directories.
football.boot	This two–player football simulation is just the ticket for those rainy days. You can pass, kick, fumble, even blitz in this freeware program.
inst.football	These are instructions for the football game.
bridge buddy	This bridge program should challenge even the most avid bridge player, while still fun for the beginner.
bb–rules	The instructions for bridge buddy can be found in this program.
c/ad.one	This advertising program will let you put a variety of messages on your screen. To get going on this freeware program, hit return at the first prompt.
inst.ad.one	The complete instructions are availablefrom the author. These instructions will give you a rough idea of how to use this program.
landgame1 boot	In this one or two–player game, you try to out–land–develop your opponent.
instructions	The instructions for the land–game1 program.
mazin mouse.c	Getting children to know their directions is the basis of this cute little game.

Disk name: (C)AAD TPUG OC86

autoboot	By pressing the ?, you can see how to use this program with your own disks. By pressing the return key, you will reboot this program.
printbootdata	This program will allow you to print directories of this disk or print the information found in this box.
disk log	This is a disk inventory system, with lots of options. You are allowed to process data as well as program files.
ffi	Another disk inventory program that will only allow you to process program files.
basic photo menu	This program will give you the instructions needed for the use of a 35mm camera. It explains aperture openings, speed settings, depth of field, etc.
haunted hill	You can have lots of fun with this one person shoot–em–up program that takes place in a cemetery.

Disk name: (C)AAE.TPUG NO86

autoboot	By pressing the ?, you can get the information needed on using the autoboot with your own disks. By pressing return, you will reboot this program.
printbootdata	This program will allow you to print the information that is found in this box. You can also get a printed disk directory.
disk labeler+	You can record disk content information and print labels using any one of 12 different print formats.
blackjack.3	An english and colour version of the blackjack.c2, an early pet program converted to the C–64.
baseball64.v3	A colour version of pet super baseball version 7.3.
setup64	This program allows you to set screen, background and character colours for the DOS 5.1 program.
dos 5.1 instruct	This program will print to the screen or printer, the most commonly used 5.1 commands.
wedge 64 instruc	Will print, to screen or printer, the commands for the various wedge–64 programs on TPUG November 1983 disk.
financial ratios	Calculates and describes the financial ratios commonly used in analyzing a business.
canadian flag	Prints a full colour canadian flag on your screen.
daysearch	Tells you which day of the week, any date falls on.
hangman	Fill in the proper letters before you are hanged. A newer version of the old program.
moon river	Music and words of this popular song.
euchre 1	A one player version of this popular card game.
crib	A cribbage game for your C–64.

Disk name: (C)AAF TPUG DC86

autoboot	By pressing the ? you can see how to use this program with your own disks. By pressing the return key, you will only reboot this program.
printbootdata	This program will allow you to print directories of this disk or print the information found in this box.
sales.rec listme	This program will record sales amounts and quantities by product for a number of years. The list–me program tells how to get full instructions.
chain–saw print	A machine language utility which will show any disk filing problems. To print instructions, the file name is "chain–saw.doc".
chain–saw.doc	This is the document file for "chain–saw utility".
menu.lexikos	A multipurpose educational program for use in classrooms. The teacher can change questions. Champ's names and score are saved. A complete program.
jets	Fight an aerial duel, one–on–one. A game for one player, uses keyboard.
airbattle	Similar to Jets, but the enemy sends many planes against a lone defender. A game for one player, uses keyboard.

Disk name: (C)AAG TPUG JA87

autoboot	By pressing the ? you can see how to use this program with your own disks. By pressing the return key, you will reboot this program.
printbootdata	This program will allow you to print directories of this disk or print the information found in this box.
boot.chb	A complete home or small business budgeting system. Sample files for 1999 are included. Save this program to another disk before using.
gl	This is a utility for the MSD dual–disk drive. Documentation is included. NOTE––we have not tested this program.
five card stud	An interesting game of poker. Play against Felix, Murray and Oscar. Watch out for Oscar.
hot & cold menu	Two interesting adventure–type games, in the Arctic and the desert. It will help if you read the directions.
trig functions	This program calculates all trignometric functions including inverse or arc–1. You can input either degrees or radians.
gear ratio	Enter the input speeds and this program selects pairs of sprockets and gears to produce desired output speed. A print option is included.

Disk name: (C)AAH TPUG FE87

autoboot	By pressing the ? you can see how to use this program with your own disks. By pressing the return key, you will reboot this program.
calender9.6	Note important dates (birthdays, anniversaries, etc.), then print out a calendar. Save this program to another disk before using.
bible menu	Biblical questions with sound and graphics. Fully documented.
color spell	Type in the colours that are shown on the border and spoken. Instructional program for children.
seq.filereader	A handy utility for reading and printing sequential files, particularly DOC files included with some programs.
meditation	Good music. Don't be impatient, it takes a while to load.
swan song	Good music. Don't be impatient, it takes a while to load.
space movie	Interesting sound and hi–res graphics. Don't be impatient, it takes a while to load.
vcr index tpug	An indexing system for your VCR tapes. You can add, delete, sort, etc. Save this program to another disk before using.

Disk name: (C)AAI.TPUG MR87

autoboot	By pressing the ? you can see how to use this program with your own disks. By pressing the return key, you will reboot this program.
tax86	This is the annual Ontario Income Tax program by Jim Butterfield. Jim has used some interesting new programming concepts in this program.
merriman.doc	A data–base system which allows for 300 records up to 10 field each. Will sort,print, etc. . .
war rescue	A game. Pilot a helicopter to pick up trapped soldiers. Use joystick in port 2.
bird of prey	A game. The eagle must capture the rabbits. You must fly high enough so the rabbits won't hide. Use cursor keys up/down and left/right.
screen master	Rewritten version of SCREEN MAKER. Construct a screen which can be converted to basic and filed as sequential file.
sm slide show	Displays the screens made with SCREEN MAKER.
ml data maker	Converts a section of Machine Language Code to a BASIC loader subroutine. From an old Pet routine, adapted to 64.
sub saver ml	Creates an ML program for any area of memory you desire. The ML program is used to slice subroutines from larger programs. Useful for modular hackers.
speech	Interesting and well–done sound. A speech by J.F.K.
see jj hires	Very good graphics. You can have pictures of Kirk/Spock and Caesar.
bl.run me first	Freeware! Complete bowling league statistics of teams, players, etc. Good documentation.
bl–instructions	Instructions for the Bowling League program.
max1	Graphics––– Max shakes.
max2	Graphics––– Max talks, quietly.
states of union	A quiz about the United States. See how well you can score.

Disk name: (C)AAJ.TPUG AP87

autoboot	Pressing return will only reboot this menu. By pressing the ? you can learn how to use this menu with your own disks.
printbootdata	This program will let you print the information found in these boxes and print out the directory.
ea–edit/asm.prog	This is an assembly language, pascal language etc., editor. The documentation is contained on two seq files also on this disk.
tax eh!d 2	A 1986 Canadian income tax program that makes good use of windows. Interesting, if only to look at.
new trek	Yet another star trek program in wake of star trek 4.
trek instruction	These are the instructions for the new trek program.
wheel	The number one rated wheel of fortune now available for you and your 64. For three players. Sorry you can't win real prizes.
tax 86	This is Jim Butterfield's annual income tax program. Everyone should find the way this program is written interesting. List it and see.
solitare	Here is a good little solitaire program for you.
fast format	This program will let you format a disk in about 30 seconds.
seq reader	This program will let you print sequential files. It is recommended that you use this to print the ea–edit documentation.