DieHard
the
flyer for commodore 8bitters
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2

Writers, Programmers, Countrymen!
contributing authors:
Brian L Crosthwaite

Within...

Greetings Earthoids!

A Commentary On the Simple Pleasures of a Stressful Life compiled by: Brian L Crosthwaite

Well, this month, we've got some new features; Just So Stories, the life and times of the average computerer. (Computer, before the war, was defined as a person that computated stuff, so to be myself, I decided on computerer instead of computerist, user, end user, so on and so forth- weird). Got any writers dying to take the stage, the only criteria is that you put the word computer in it at least once, (In a sentence that has to do with the story). We've got a **table of contents**, called Within. Maybe next month it will be entitled Tableau of Contentments, one never knows.

There's to be a Dear Editor column, so write in with questions, requests, rambleings. We have a column destined to be short lived, yet kind of exciting; Shh It's a Secret. Why? Well how many secrets about commodore computers do we really know? Well, maybe not that few...

In addition to these (and others, as I am not

exactly writing this as the Flyer rolls off the press), we have geoTips, WP tips and others. So enjoy, and if you've got something you'd like to share- by all means share it. (Something to do with commodore computers or computing in general, please, no more pictures of naked, young, voluptuous blonde females covered in whip cream dancing with jellyfish)!

Last month POKEs & PEEKs. I didn't get a chance to try all of them out, and I didn't type any into the computer from the final printout. What does this mean? It means there could be mistakes (what, moi, make a mistake? I know as hard as that is to believe). Now, before you throw the Flyer down in disgust, vowing never to read again- know that in the early years of the 64, I had no disk drive, no cassette and consequently no brain cells. But I still, not only typed everything into it I could get my hands on, I programmed as well. (I wrote all my good ones worth saving down in a notebook, that has be come the start of my library). I got real good, and I mean **real** good at copying data statements. I have an average of one mistake every two or three five-column programs. I must have had too much time. What I'm talking about here are the program listings in magazines that go from the top of the page to the bottom, with two or

three columns per page. Not a bad track record, as far as accuracy goes- think your lender does that good? Probably not, they always screw up the dates on those adjustable interest loans. Of course, when I write something down with a pen or pencil... well if you've ever seen my writing, you'd know why I type everything. This of course, doesn't stop me from making typos when I'm just typing, but when I say "pok" you probably know what I'm saying. This precision-accuracy thing has been limited to the coping of programs. After all, no retrievible permanent memory, all those pokes, those famous look ups... (Just a quick question, has anybody ever **really** thrown their computer out that second story window)?

If you find a mistake, let me know, we'll print a correction. If you used a different poke to do the same thing on the same machine, it's cool, computers are weird that way. By the way I have a zillion of these things I've collected over the years, (along with a pile of dust, I need to get out more) so, we wont run out this month, maybe next. Hay, send them in, there may be only 65535 locations on a 64, but we're talkin all **commodore** 8 bits.

I'd like to apologize for saying the word **Amiga** last month, some of you got offended, I scared some of you, and for

that I am sorry.

Say, speaking of the A-word Tenex has them for $299.95.

This Flyer is supposed to support **PET**, **SuperPET**, **CBM**, and **VIC**. If you have one, let us know. Right now the Flyer is heavy on the 64 side, and probably will be because of the popularity, the fact they are still being made, and it will always be my favorite. Hay, I have a SID stereo cart., and life is incredible. However, if I find out that there are some early **commodores** out there then I'll gladly give any info I can. I do have info, I just don't have the computers.

Earthoids? Like earth, but not earth... Not really, Fire Sign Theatre fans know what I'm talking about- I was just saying, "Hi!"

Forum of the Mind

When I use my computer, it stimulates a place in my brain. I think I'm addicted to it.

There is a difference between a person who solely uses software packages and a person who solely programs. One is a User, the other is an abuser.

Adjacent Smices

Just So Stories
Baby Toe Typing
compiled by
Brian C. Crosthwaite

Being a stay at home Dad has some obvious advantages. I get
to not go to work, let my hair grow long and play with my
baby. Ok, ok, I've always had long hair- but, not a baby.
Antony is 1 year old and has more energy than a
thermonuclear device. If you had the opportunity to stay at
home and act like a moron and get smothered with kisses-
you'd do it too! Let's face it kids think those parent
things learn things real fast. Antony turns his head
sideways and it's only a matter of moments before both me
and my wife have our heads turned sideways. This, he thinks
is cool. He has taught us a new trick, and we picked up on
it so fast.

Now, things aren't all peaches and cream, there's the
changing of the diapers.... Antony also has an escape
artist within himself, and it is constantly trying to get
out. He will slip out of his stroller's straps and he can
move the barricade to the kitchen. You might say he gets
around- even when he's not supposed to. And break maneuvers
he can do, a dancer or wrestler could take a lesson or two
from him. If you aren't holding him tight when changing his
diaper he's gone!

He's also a bit conniving. When you hold him and he want's
to go off somewhere, he'll reach for someone else, you hand
him over and he trys his little escape routine on them and
if that doesn't work then he reaches for the next person.

He want's to type on my computer. Not as much as play with
my sound equipment, but he will do the pick me up thing,
which is nice, makes me feel wanted. I pick him up and he
leans forward to the keyboard. His keeper is in my studio,
this way we can be together even if I have some writing to
do. I usually windup playing with him instead of writing,
but hay, my computer doesn't giggle when I tickle it's back,
at least not very much.

After the initial reaching for the tape equipment struggle,
he goes for the keyboard again. I give him his bottle and he
sits back in my arms with his bottle in his little hands. He
seems settled and seems content with his bottle, then his
leg slowly stretches out and his toes point out in a sly but
feeble atempt to touch the keyboard. I could picture him in
twenty years in college with either his coffee or a beer
(you know those crazy college kids [he better be 21]) in his
hand's typing with his feet to get that thesis done.

It's totally logical, his Dad gets to play with that toy, so
why can't he. It's loaded with buttons and we all know how
much babies love buttons!

Getting work done under these conditions is next to

impossible. I got sick a few weeks ago, I was so sick all I could do was stare at the wall. This was bad, most of my energy was spent taking care of the little one. He unfortunately spent most of the time in his keeper or crib, for I didn't have the energy to chase him around or play with him. I thought for sure he was going to hate me forever. I did manage to get some serious writing done though. It seemed easier to put the little energy I did have into writing. Antony on the other hand didn't mind playing in his keeper. At least not at first. Well, I finally got well after three weeks, and I decided I need to spent more time with my family *and* more time writing.

HOW? I already had Thursdays off, Antony spends them with his grandparents, I could sometimes sneak off while my wife watched her soap to type. If I could put up with Mia's soap I could be with her and Antony. (Yes every one in my family has an Italian name but me). By not going off into my studio anytime (unless my wife is napping), I can spend more time with them on the weekends. OK- less studio time means more family time. What about the writing? My wife gets up at 6am, I used to sleep in till 6:20am or so then get up after she showers. NOW, I get up at 4am on Monday, Wednesday and Friday. I have a cup of expresso and boot everything up then start writing. Sometimes, on those nights I can't get to bed until after 10, I don't get up early, I do my usual.

Antony naps from 10am till 11am and again from 2pm till 3:30pm- perfect time to continue my articles. I fell better, I'm not sleeping too much nor, too little, and I get to be more of a Dad than ever.

READY.

Writers Wanted!

Programmers, infomaniacs, and anyone who can write... If you've got some great tidbit of mind blasting info to share, share it through DieHard. You'll get your name in lights and a free issue (or two, if it's **really mind blasting**). We can't pay you the big bucks like RUN or COMPUTE, but we may someday. If you write programs and have a few you thought were cool but, thought no one else would- you just may be right- or you may be dead wrong. See It's Coming, elsewhere in this issue for my address, for mailings only- don't come to my house

But, why would I **give** my program to some rink-a-dink little tech Flyer, when I may score the **BIG BUCKS** form some other magazine? Well, besides the free issue, you're name in lights, (I'm a buy Idaho kinda guy), you might be good, and I know I'm good and hope to charge **REAL MONEY** for this magazine someday! When that happens, I'll be paying people for their submissions, if I use them. If I've seen your work, I'll probably look at your's first, you get picked sooner, you get paid sooner, you become a regular... I think you get my drift.

Now, you're going, "what makes him think he can pull it off? RUN used to be monthly, now it's smaller than DieHard!?!?" This is what I want to do when I grow up. I have the technology, I'll soon be employing video digitalization and full color into the spread, because, it's going to be on disk. Hopefully in less than a year. And if I have to, I can do it by myself, but one point of view gets old real fast and if that happens I won't grow, I'll slowly drown in a slew of my own ideas! You can't kill me this way, I'll die if I stop learning!

Ideas are what this is all about and if you've something to say here are a few places to say it:

geoTips; POKEs & PEEKs (SYSs & WAITs); ML; WP tips; PRoGrams; Just So Stories; Dear Editor

Disk me at the address given in It's Coming, p## and place the appropriate department after ATTN.

WP TIPS
COMPILED BY
BRIAN L. CROSTHWAITE

1. Look here first.

2. Using single sheets with geoWrite is always a great combination as you can use some real nice paper. But, after your page is printed, geoWrite is waiting and your paper out light is flashing. "Ah," you think, "I'll just put the next page in, press on line and geoWrite will instruct me to ready the printer, I'll press <RETURN> and continue." You do it and the entire form feeds through and is spit out! Now, you've got to put another sheet in- WAIT! REWIND. Back to the part about placing the paper in, do that but, leave the pressure lever on the platen off and/or leave the bail arm off, this way when you press on line and the platen spins the paper stays put! Then make sure everything is squared up nice and the bail arm is down or the pressure lever is on **then** hit <RETURN>.

3. Remember I said stay away from *italics* in geoAnything? Well, some font's handle *ITALICS* ok. Some rather well. If you insert a word in italics place at least three spaces in before the word after the italics to avoid getting part of the first letter in word after the insert. Then go back and remove the third most space. When you just type a word in using italics place 2 or 3 spaces after the word *Before* you go out of italics mode to avoid getting the last part of the last letter destroyed. Sometimes, these things go away and sometimes you quadruple strike a document to find the italics crapped out on you. One of those compact program things, you know.

4. Did you know that it is the standard to place two spaces after the end of a sentence? Sure you did, but you are constantly forgetting to do so. Search and Replace to the rescue! {You'd think I use this feature once in a while}. Use partial word. Search for: "._", replace with: ".__". Believe it or don't- this works. If you're sure there is only one space after all periods hit ALL, other wise use the check first feature. c= v on geoWrite. See your word processor's manual for details.

5. I find that a medium color screen with dark characters is easier on the eyes than a black screen with white letters or a white screen with black letters- in 80 columns, and in 40 columns, although in 40 I don't tire with the white screen and black letters because, I am usually looking at the black letters. Make sense?

Got a question? Got an answer? Some little tidbit of info about WP. Share it. See It's Coming elsewhere in this issue to learn how. I've got several WPs that I use or used to use regularly. I have tried so hard to stay away from what I call typesetting, plugging in formatting code, but If you ask, I'll look into it.

READY.

Giving Credit Where Credit Is Due
Δ LITTLE LATE
It's About Time!

The first picture in our last issue was downloaded from Q-Link, unfortunately the Artists name is lost from our memory banks. The Pic- NCC1701 over Valcon, depicts just that.
It is our policy to print the name or Authors and Artists when ever possible. So, if you submit anything from the PD, try to get the creator's name along with it.

READY.

And Now For Something
Compleatly Different
(the least we could do-
had to)

I suppose it could be called "Trick of The Month", but then, who's gonna pull it? It could be coup de soleil, but something makes Polaroobos incombatible with the 1541! Anyway, here it is-

Do you have an **MPS 803**, or any early **commodore** printer with two, count 'em, two serial ports? Is it barried in some closit somewhere ever since you bought that inkjet, laser, or just plain expensive printer? USE it! Make it device 4, and your real "nice" printer device 5. Do all your rough drafts on device #4, using, of course that paper with the highly noticable preferations. When your absolutely ready to print, print to device #5, with the real nice paper. Hay- don't forget, only an idiot prints on paper once and throughs it way, at least for rough drafts. Always recycle!

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geoTips
compiled by
Brian L Crosthwaite

1. When using geoPaint and you want to flip text over for greeting cards and the like, use mirror x then mirror y. If you use the rotate you will lose the original shape as well as well as any text that doesn't fall within a square.

2. If you want to rotate something place a square, using constrain, around the object. Use the square as guide lines to place the edit box.

3. Use the draft mode on printouts that are rough drafts, imagine that... and have your printer setup to do the fast-least-ink-using-possible mode. On my MPS 1270 inkjet that's the courier font- dip switch 2 on, in Epson mode 1.

4. In geoPub you can use fonts in any size. Use the graphics text centering option, even if it won't fit on the screen your text will be placed on the document. Be fore warned, some fonts just will not make the adjustment, only one I tried failed it was Edgar Allan, it turns to dots at most sizes, although some did work.

5. Update frequently. Although when you're typing like crazy, geoWrite will continually update, like when you go over a page break, or the buffer gets full. The slower you are working the more you need to update. I enter the above tip and want off to sometime I was printing off of my 128, but I updated before I left, as I'm about to do now, as my document is done printing...

6. Looking for something? Been putting your disks in the drive, one at a time, or trying to read the directory printout that your cat tried to eat in search of that geoFile? Now, I know the manual sucks and was obviously written by Alterians, or Martonnas, who never ever used GEOS, but on page 298, Appendix D there is a map of all the original programs in their original locations. It even tells you how much space is free and how much is used, as well as what page (on the desktop silly) the program can be found on.

7. geoWrite keyboard shortcuts. Now, we all know the ones you see from the menus, but, there are some that you don't see and unless either memorized the manual you probably forgot these on the ruler:

C=n	left justify
C=d	double space
C=e	center
C=j	full
C=k	single space
C=m	1.5 space
C=r	right justify

characters

```
<C=><-->
<C=><@>         ¯
<C=><#>         ~
<C=><^>         |
<C=><:> or <[>  {
<C=><;> or <]>  }
<C=></>         \
```

For the complete list see pg 189 of the GEOS manual.

8. The Graphics Grabber is one of the most under-used geoApps, there is. Apparently. Yes, even I too am guilty of this treachery. There are some good programs out there to convert from one form to another that fabulous pic. I've heard and read about problems with some converters not quite getting all the info. I opened up the Grabber when I first happened upon it and saw Newsroom (ah most are dorky cartoons), Print Shop (...I don't even have that...), and PrintMaster (printshot?). What a bummer! Think again Brian, LOADSTAR is full of incredible Print Shop graphics, I have literally thousands of them at my disposal! And those maps on the Newsroom are incredible! Printshot? You get the idea. The Grabber works, and works well. Use it.

9. Need to make an entire document UPPER CASE? Or maybe lower case? Instead of deleting and retyping everything, use search- C=s. go from a to a, placing a on top, A on bottom, and click on ALL. Don't use <RETURN>, that'll take you the long, one-at-a-time routine. Be alert, if you go too fast or space out you might replace all your "a"s with "A"s and then you may as well find a bridge over a rough, deep, river, or a tall building, a fast train, or hammer and nail. You can't use recover, as this process searches than disk, than rewrites the screen.

10. Hate that side to side scrolling, waiting for the screen to update? Try all new MARGIN SET, yes MARGIN SET is more than just a disk free cola, it's a mental institution! Take the right M and move it over to the 5.1 spot on the ruler. Than type your document. When you're done go to the last page and select C=v than move the M back. Go to the page before that, collect $200 and do the same, until you've done the whole thing. Plan on writing a 2000 pager?!?!? You need an Amiga! Ignore that thunder clap, and I didn't mean it really, in this case I'd go to a different WP. I recommend any 80 column job you can get your hands on. Paperback Writer is what I have. It's old and is still blows geoWrite away! But then convert it to geoWrite for those fantastic fonts, and because this is a GEOS column, you have to use GEOS, and, and...

11. Cursor movement. Still moving the cursor one spot at a time, tired of mousing around, when all you want to do is move the stupid cursor to the end of the line you were just typing? Well nine times out of ten (as well as 4 out of 5 dentists recommend) this works, when you're at the last line cursor down twice, you should be at the last possible character on the screen. (Why do they call that damn, SOB, a cursor?)

12. Use the largest mouse pad you can find!

13. Got a 1581? Use it. Set your REU as drive A, 1581 as drive B and 1541 as drive C. Boot up off of the 1581, copy into the REU your applications, fonts, desk accessories, et cetera. Then, if you need to access a 1541 disk just swap with the drive your not copying to. I recommend RUN's GEOS Companion disk, you'll find a program to make a 1581 boot for GEOS and one for GEOS128. Also incuded is a program to copy batches of files with one double click. {One double?}

14. You decide to live on the edge, you load everything into the REU and you're just flying! Ten pages in less than five minutes! Suddenly- nothing! NOTHING. Everything just freezes and you think the keyboard would make one hell of an airborne missile! Ah, but wait, you had that reset switch installed, or your board has one or your computer has one- use it- DON'T power down! Use RBOOT to get back to the system. Look at your file, chances are everything is ok. Let's face it even though GEOS is a programming marvel, that same tight compact code sometimes is what brings the whole system down. But it's usually not as bad as it seems. Even if your file was on disk. Most major crashes don't seem to put a bad seed in the files like you'd think. I have seen my fair share of NATURAL VIRUSES, I've had geoSpell freak out on several copies, leading me to think it was my computer going to the big chip bag in the sky, only to find that after replacing the geoSpell with the one on the original disk that it wasn't anything more than some bug that got in, probably through the gateWay. {I still use gateWay, but it has more baits than a bug box}!

15. When adding words to your personal dictionary, if your word is not the root, and you want to include the root as well as other variations, do this: when the first window appears after you click on ADD, hit the DEL key to get rid of the non-root portion of the word. Then proceed to the next window. This way you don't have to backspace every time you click on an ending for your word.

Got any geoTips? send them in. {See It's Coming, elsewhere in this issue}.

READY.

_____

Sponsors Needed

OR

How To Help Cover Printing Costs
And Maybe Stir Up Some Business For Yourselves

This is the Flyers second issue. Everyone I showed the first one to was pretty excited about it. If enough programs are submitted to the Flyer it will turn into a Spinner. What's a Spinner? A disk. The goal is to eventually make this a regular publication, that can be subscribed to. At present it is a Flyer, not monthly, not weekly, daily, quarterly- it just comes out when it's got enough stuff. So far this has been monthly, maybe.

Small ads- quarter page or so $5 / Full page $10

There's no special bank account yet, that's when DieHard becomes a business, right now the funds go to cover paper, ink, printing at print shops and maintenance, if any. Send your add or what you want your add to say and any preferred font. If I have one close I'll use it. If you have your add on DISK geoWrite, geoPub or geoPaint can be used, or just about any WP.

Brian Crosthwaite
ATTN Flyer ad
908 N 7th Street
Boise ID 83702

DON'T COME TO MY HOUSE!
Make all checks payable to Brian Crosthwaite

READY.

It's coming.

Where did it come from? Where is it going? What is it? DieHard,

the Flyer for commodore 8bitters. Actually the subscription. Not yet. {Oh...grown} Why not? the interest is here, someone even asked me where to sign up to subscribe. Here's why. Material. Oh sure, I suppose I could write my way to fame and fortune, but I have a life, and I think everyone would bore of my slant all the time. Different points of view ad what's great about people, this country, physics, just about anything you can think of, to a publication. Send me your submissions, if I like them and publish them you'll get a free issue {or back issue, it you prefer}. If I really like it you'll get two! If you submit and get published all the time, you'll wind up being in the door. And if the Flyer takes off like planned you'll be a professorial writer! And you'll be able to quit that boring 63 a year job you spent seven years in college to get! Seriously we need programs and articles. Tech heavy until the masses tell us to mellow out. Submissions less than half a page double spaced can be on hard copy. All else must be on a 1541 disk, in either an ASCII or PETASCII sequential file, or WP file, geoWrite is preferred. Make sure your name is on the disk AND in the FILE. If you want the disk back write RETURN DISK on the top of the disk label, and enclose 3 29¢ stamps, if applicable.

If you send a program, enclose documentation, {SEQ files ok}. I need to know what the program does. At this point you can send in PD programs, no shareware, or anything copyrighted. All other programs must be your own original work.

Brian Crosthwaite
ATTN Sub
908 N 7th Street

Lying To My Computer
compiled by
Brian L Crosthwaite

We all do it once in awhile, have to, and shamelessly too, that tiny white lie, told to reassure the computer that doing something not usually done is ok. I've done it. Had to. I wanted to copy some files with **Star Copier**. My Final Cartridge was plugged in, I was in a hurry, and the way the copier works, I can read and write to the 1581 without crashing the system. I've even loaded a program or too with the FC off of the 1581, knowing well they both hate each other. But, I got away with it.

My computer lies. To it's monitor. 1701. RGBI out, plugged right into the front of the monitor, it's not like it's behind it's back. ...well maybe it is, the cable is in the back.

Programmers trick the video display into displaying more than 8 sprites, they lie to the VIC chip, often confusing it into displaying a high resolution screen and a text screen at the same time! Are there no government regulations on such fraud?

These lies lead the computer to do things it can't really do. Giving it a false sense of self worth, leading to illusions of grandeur. **IPaint**- now there's a lie, you can fool the monitor to believe it is inferior at displaying a 128's resolution. It then strikes out and lies to you- yes you, it trys to fool you into thinking the program is capable of some 64,000 different colors!

Lies, filthy lies. What's next? Modems telling mainframes that it's a terminal calling. Hard drives that make the computer think it's

accessing a 1541. **Commodore** printers that act like they're an Epson or an IBM. Nothing but, lies. What ever happened to the honest days of computing, back when software piracy was out of hand and and protection schemes were so elaborate that is the user typed one wrong code everything on that $75, non-refundable, non-exchangeable disk was wiped out? That's why they call that little blinking square a cursor.

Where does the maddness end? Paralel interfaces plugged into serial ports. Pet emulators. Did you know the 64 is a 4 bit micro that is double compilled!?! More lies! Lies, lies, lies.

READY.

LIFE IS HARD
BY
BRIAN L
CROSTHWAITE
Remember When...

Do you remember 1982? That's the year it happened. I mean, I knew what they were, what they looked like and once in a blue moon I wondered about them. The one I remember the most required assembly, I mean totaly, not like a bookshelf you buy at K-Mart, you had to know something about what you were getting into.

I remember the beginning of the transition. It was Christmas and my brother, who lived in Polka-Tato, Idaknow, had come for the holidays to my parent's house here in Blazzay. The gift was to my Dad, but it changed _my_ life. It was an already assembled version of one of those I'd seen in magazines. It was a **Timex Sinclair 1000**. No one knew how to program it, although my

brother knew a little about PRINT statements.

1963. Summer session at BSU. I remember well, I just decided to change my major from art to electronics (I should have stayed with art). I had moved from the dorms to my folks house for the summer. It seems to me that my decision to go to summer school was a last minute kind of a thing. I took M-216, BASIC programming, from Professor Kerr, one of my favorite minds of the academic world.

I was a natural for programming. At times I felt like I didn't know what was going on, I think the loan amortizations and accumulators blew some circuitry in my brain.

I'd drive my bug to the stadium parking lot, hop on my skateboard with my ears plugged into Throbbing Gristle, the Police or Bach. Life was hard. I had a great password on the **HP3000**, Umbra. I don't know if Kerr knew I was into astronomy through ESP or general academia.

One day, shortly after I had logged on (LOGO is what we called it back then, sorry Urtle), this guy had come up and we shot the breeze for awhile. He started off by asking me if I was having any problems. Later, I had found out that he would help people by sitting down at their terminal, log them off and say, "ok, let's start over. Now, what's your password..." Later he'd acquire a large chunk of their allocated memory, that he'd add to his. He said he was going to get a computer called the **commodore 64**. Videon had them for $230, on sale for $100 off, plus the company was offering a rebate at the same time of $100- He'd get a computer for 30 bux! Well, he was misinformed, the computer was around $250, it was not on sale and this **Commodore** company had

no rebate. Maybe he thought I'd heard of this computer and would somehow show him some sort of info on my file, by distracting me. This guy is probably pulling in the big bucks somewhere doing programming, or doing time for hacking into some mainframe with caller ID.

But, this computer he talked about was intriguing. I had to pursue this and find out more. The people at Videon said the computer had no software and wasn't compatible with the VIC and was doomed to an early death, I should buy an Atari or VIC20. The Atari's had no resident language back then you had to buy a cartridge that came in a box that was bigger than the box the computer came in.

Well, the best info, and most honest came from the guy who worked the electronics counter at KMart. (Strange that after KMart dropped the **commodore** line he vanished). He said the same thing, except that I should buy it because it was a better machine than anything around. He told how the VIC20 had the same start, no software, but lot's of potential. He wasn't the typical salesperson, he wasn't a salesman in the cloquial sense, he knew electronics and he knew the history of the market. He was right.

A couple of weeks passed and my Dad and I went back and bought it. $218. I remember stopping at a grocery store downtown, I stayed in the car and read most of the manual.
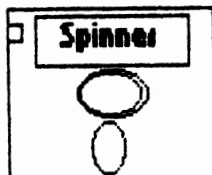
1994. Sping session at ISU, studying electronics and writing programs that I couldn't save, except to write them down. A late Christmas present from my Dad had been sent to where my brother worked. A datasette! Finally storage and retrieval. Aside from a waveform demonstration for

a class, my computer did mostly art. Mathematical art. Simons' BASIC was my programming tool and hires helper.

I'd always done things on my computer but, commercial software for cassette was next to nil and soon became nil. Two years later while away at school in Coure 'de Alene, my Dad bought me a disk drive for my birthday, however he didn't send it up to me. Just as well, I had too many distractions at the time, I was doing lots of audio work and wildlife photography. (Thanx Dad).

The next semester I was a Theatre Arts major at BSU and my computer world was still a slow opening...

LOADSTAR was probably the biggest step, now that I had a disk drive. I had subscribed to the **Commodore Magazine**, (then later **Compute!'s Gazette**, and then **RUN**). I hated typing in long listings even though I was real good at it. The **Commodore Magazine's** listings were on **LOADSTAR**, so I subscribed. The door

flew wide open.

A couple of years later, I got a Banana Gorilla printer (1986), with a word processor from DAK. How could I have survived all this time without a printer?!

I now have a 128D, 128, SX64, 64, 3 VICs, 16, Atari 800xl, TS1000, 1500, 2 TI99/4As, Odyssey2, Laser50, Tomy Tutor, MPS803, 1250, 1270, Banana Gorilla, VIC1520, Atari1020, 3 datasettes, Atari cassette, Tomy cassette, FSD-1, 1581, 1701, 1660, M3, 3 TAC2s, 2 commodore joysticks, paddles, Atari paddles, joystick... oh yes I have a calculator.

Archaic Computer
The Store of the Past
compiled by
Brian L Crosthwaite

What is Archaic Computer? A spot in the universe designed to make you not feel so bad about that **state-of-the-art TI99/4A** that you bought at the leading edge of technology... and ah, still use.

Here's the stuff- **FIRST** you'll see a review of a piece of software or hardware that comes somewhat out of the dark ages. **Then** at the end of the review, we'll give you the suggested retail price (original), the **price** now (yes-**now!**), and the name and **address** of the place that is still selling it, and an overall rating. Ratings are:

●●●●● Excellent
●●●● Great
●●● Good
●● Not so good
● Sucks
- MegaSucks

Visible Solar System
1983 Commodore Business Machines

For the **commodore 64** and **VIC 20.**

This is a neat one, the graphics are jagged and crude to say the least, and the information is not quite accurate, making this the cartridge of the true collector. If you like the early, or hay-day-years programs this is kinda cool.

The manual cover sports two men in space suites resembling those from **2001 A Space Odyssey**, one is pointing up and neither are looking in that direction. Inside, the story of you being a

commander of a spaceship on a journey through our Solar System sets up the basic premise for the main section. The manual is short and sweet, all controls are listed as well as an explanation of each, except moving the camera ahead and down, there is a blank space before it like something was meant to be there. I think this is automatic and you have no control over this. The program is pretty easy to use and I hacked my way through the VIC20 version, I didn't have a manual for it. You do have to do some hacking as the manual is kinda sketchy.

I hoped, with the 64 version, I'd learn how to see ALL of the planets. But, I think here is wherein the catch lies, the VISIBLE solar system. The name suggests to me that the system becomes visible in the program, I'm wrong- it's what can, at one time or another, be seen with the naked eye- or not.

You start with an opening screen with a start F1, kinda prompt, with planets in the program orbitting the sun in unrealtime. Pressing <F1> takes you to the map of the visible solar system. From here you can enter altitude and the location of your craft to view orbits, which is real cool, these two factors dictate what you see. The animation is jumpy, but the orbital ratios seem fairly realistic, if they are in fact accurate. Of course what you see are planets orbitting at velocities much greater than they are, but this keeps the orbits from being boring as the big planets take longer and you have to watch a while to see them on the screen sometimes, depending on your altitude. The planets travel on dotted lines created with a character resembling that of the period, kind of crude, but hay it's not too bad.

Hit <O> then <P> brings up the planets, this is where the

animation gets real good. Although the edges of the planets are stair stepped, the rotation and satellite orbit animation is smooth and very, very, well done. You can only view earth, Mars, Jupiter and Saturn, while the orbits mode includes Mercury and Venus.

Pressing number keys from 1 to 7 gives you the Planetary Computer, giving you information on the first seven planets. From here you can also compare planets using <A> to bring up the plant you want to compare.

Most of the information, at least half, is reasonably accurate, and more is given in the manual, where it also touchs on asteroids, comets and meteors. As for the rest of the planets, you'll have to join Star Fleet, as they are totaly the Invisible Solar System even at vast altitudes.

I give this a ♦♦♦♦♦. However, if it just came out, I'd give it a ♦♦. I mentioned some of the information was wrong when they published the program in 83, and some information is omitted. I could have given them this info., even back then. No one takes credit for this program, I couldn't find an authors name anywhere. (Oh yes, I would have given it a ♦ back in 83).

Visible Solar System
♦♦♦♦♦
Tenex
Computer Express
56800 Magnetic Dive
Mishawaka, IN 46545-7481
sug. $39.95
$4.95

READY.

Q: I have a Timex Sinclair1500, I can't see the screen worth a doodly darn, the computer doesn't have an RF switch and the channel it works on is 2. Do I need to smash the computer with a sledge hammer?

A: Na, just set your TV for channel 3, plug in your TS then press <3>. Too simple, most hackers never find this out. Need some info to use a 16k expander on this 16k computer? I have it all ya gotta do is ask.

Q: Hay! I have a Commodore MPS 801 and I can't see anything it prints, and I'll be damned if I'm going to spray it with WD40, a lubricating substance that, not only does not evaporate, but can dissolve pieces in the print head! Help!

A: Shh, not so loud! You're right about the WD, the stuff that drys is propellant that makes the stuff sprayable. I don't recommend it either. Try a new ribbon (that is what you're asking here- right)? Tenex has them for $7.95. See previous article for their address if you don't have it already.

Ok, so I wrote the letters, we're new.
"Q"s about the ancient? "A"s welcome.
Postcard us.
Brian Crosthwaite
ATTN: Q&A
908 N 7th Street
Boise ID 83702

READY.

TRADERS CORNER

Got something to trade? Need
something? Try here, maybe a
reader out there has just what
you want or need. Send a
postcard to:

Brian Crosthwaite
ATTN: Trader's
908 N 7th Street
Boise ID 83702

Don't come to my house.
These are **not** classifieds.

READY.

PRG

Compiled by
Brian L Crosthwaite

Here is the section you've all been waiting for! Last month, PRG had no name, no article, no technical, nothing, except, a small program for the MPS 1270. THIS month, we have programs for the VIC20, C-16, C64, and C128. Any programs that you'd like to submit will be considered for future publication. If you've got something good submit it! Stamp out apathy- participate in reality! This is your Flyer, and it's you, who'll make it great! So submit. The worst that could happen is your program will erase someone's hard drive, destroying their life's long work and they'll hunt you down and rip your head off- so what you'll become a programmer's martyr, people will look up to you, hanging there, in that tree. But, you utility could save someone thousands of hours of work, or bring a smile to an orphan somewhere, or save the planet, you just never know how these things will turn out! You'll have your name in lights, a feeling of pride, and most important- you'll get a free issue (or two!) of DieHard! All for sweating in front of that hot computer all day! Send all submissions to Brian Crosthwaite, ATTN PRG, 908 N 7th Street, Boise ID, 83702. And remember- don't come to my house, I don't have an office yet, it's really embarrassing...

Any hay- type carefully, if you make even the tiniest of mistakes you'll have to stay after and clean the chalk boards with your tongue. These programs are available on disk for $5 (same address), so you might just want to type them in and save your self some cash.

Unplot! Ever done those hires BASIC programs that were so cool, but wanted to unplot one, dot-not the whole entire byte? Below are both plot and unplot formulae for any computer. You got to calculate BY & BI the normal way, P is the plot-type: 1 for plot, 0 for unplot.

```
0 REM UNPLOT FORMULA
2000 END
2010 :1=PLOT:0=UNPLOT
2020 :
2030 :
2040 IFP=1THEN POKEBY,PEEK(BY)OR(2↑BI)
2042 IFP=0ANDPEEK(BY)=(PEEK(BY)OR(2↑BI))THENPOKEBY,(PEEK(BY)-(2↑BI))
```

This program is a very basic Fibonacci sequence generator. The Fibonacci sequence is formed by adding the last number in the sequence with the number before that. It starts; 0, 1, 1, 2, 3, 5, 8, 13 and so on. The first number seems obvious, 1, it's a good place to start. The second 1, however is the idea of one as in the start of the sequence. It's the first 1 that's the hard part, not so hard what [N] plus one equal two? What do you add to 1 to get one? Is the series a line, or a ray? most mathematicians believe it to be a ray, (has a finite point at a start and goes on forever, so to speak), if it was a line there would be a number you could add to 1 to make 1- 0.

```
Then, 0+0=0, but,
        ↑ ↑
      0+0=0 so the sequence would never get started...
0+1=1
|  1+1=2
|  |  1+2=3
|  |  |  2+3=5
|  |  |  |  3+5=8
|  |  |  |  |  5+8=13
|  |  |  |  |  |  8+13=21
|  |  |  |  |  |  |  13+21=34
|  |  |  |  |  |  |  |
0  1  1  2  3  5  8  13
```

This program runs on the C-16, C128, and PLUS4. To change the scaling factor change the 1000000000 in line 1040.

```
1000 A=0:B=1:C=0
1010 L=160:GRAPHIC2,1
1020 FORZ=1+20TOL+20
1030 C=A+B:A=B:B=C
1040 V=159/(1000000000/A)
1050 PRINT,"X="Z-20,"Y="A
1060 IFV>159THENV=159
1062 IFV<0THENV=0
1070 DRAW1,Z,158-0TOZ,159-V
1080 NEXT
1090 GETQ$:IFQ$=""THEN1090
1100 GRAPHIC0
```

DANGER! DANGER! This PRG plots a radio-active warning sign on your C-16, PLUS4 or 128 screen. Just to show your family and friends that that 128D has POWER! The program was written on the C-16 to run with other graphics that were black, white, yellow and green- so the COLOR statement that was added latter, may need some adjustment for your machine.

```
1 REM DANGER! COPYRIGHT 1992 BRIAN L CROSTHWAITE
1000 GRAPHIC3,0:COLOR2,3:REM MAKE PLOT COLOR RED, you may need to change this
as it may need to say COLOR3,3, if you change the PLOT TYPE.
1010 XM=319:XM=XM/2:XC=XM/2:PT=0
1020 YM=199:YC=YM/2:CM=3
1030 XF=XM/YM:YF=YM/XM:J=5
1040 FORR=0TOXCSTEPJ
1050 BOXPT,XC-R*XF,YC-R*YF,XC+R*XF,YC+R*YF,0,0
1052 CIRCLEPT,XC,YC,R*XF,R*YF,0,360,0,1
1060 PT=PT+1:IFPT>CMTHENPT=0
1070 NEXT:PT=0
1080 DO:DL=DL+J
1090 PAINTPT,XC,YC
1100 PT=PT+1:IFPT>CMTHENPT=0
1110 IFDL>=XCTHENEXIT:ELSELOOP
```

Did you know that the keyboard graphics on the VIC20 are a little different than those of other commodore 8bits? Because the original VIC chip only displayed 22 columns, the matrixes of the character sets are a little different. The prime example are the V, N, and M graphics- X, /, and \. They are only one dot in width. The 64's, 128's, 16's, and 4's are three dots across! The VIC's keyboard graphics all line up without any funny square gaps along the edges. This next PRG shows the X, /, and the \ in a furry fill animation of sorts {what ever that means}, that looks best on the VIC20. If you have a 20 as well as another model try it on both, you'll see the difference, that little VIC puts on quite a show. Press the <1>, <2>, <3>, and <4> keys randomly from time to time after running the program. I've included the changes for the 64, 128,16 & 4 so you can run this on these machines as well. Enjoy!

```
1 P=86:REM 1234 BY BRIAN L CROSTHWAITE COPYRIGHT 1992 LEOSOFT FOR THE VIC 20
10 POKE36879,8:PRINTCHR$(147):REM CHANGE TO POKE53280,0:POKE53281,0(64 & 128):
POKE646,1 (64)/POKE241,2(128):POKE65305,1:POKE65301,1:POKE1394,2 (16 & 4)
1000 DX=1:DY=1:X=1:Y=20
1020 S=7680:C=38400:REM S=1024:C=55296- 64 & 128:S=3072:C=2048- 16 & 4
1030 IFX=21ORX=0THENDX=-DX:REM CHANGE 21 TO 39 FOR 64, 128, 16 OR 4
1040 IFY=0ORY=22THENDY=-DY:REM CHANGE 22 TO 24 FOR 64, 128, 16 OR 4
```

```
1050 X=X+DX:Y=Y+DY
1055 GETA$:IFA$="1"ANDX<20THENX=X+1
1056 IFA$="4"THENP=86
1057 IFA$="2"THENP=77
1058 IFA$="3"THENP=78
1060 POKES+X+22*Y,P:POKEC+X+22*Y,1:REM CHANGE 22 TO 40 FOR 64, 128,16 OR 4
1090 GOTO1030
```

Well, as you know, and probably have suspected for a long time the VIC20 is far superior to all IBMs, mainframes and PCs alike. But, all your friends are going you should by a 486, or an Amiga, or a Mac. Even that old game machine, the 64, runs those fancy shmancie Mandelbrot programs. Well, here are the 90s, for your VIC20. VIC Mandelbrot is a simple Mandelbrot that is simply that-simple. No colors just B & W. But, it fits into the unexpanded VIC {imploded?}, and takes a few hours to run. Make sure your printer is ON, it will automatically dump to printer the 64 x 64 picture upon completion of the last dot plot.

```
1 REM VIC20 MANDELBROT, TOO COOL CONVERTED, AND BROUGHT TO THE VIC BY BLC
2 POKE52,20:POKE56,20:CLR:REM 64 X 64
3 GOSUB1000:XM=63:YM=63:REM 1000 SETS UP HIRES SCREEN
10 XL=-2.25:XR=.75:YB=1.5:YT=-1.5:DX=XR-XL:DY=YB-YT
20 SM=3:CT=44:FORX0=XLTOXRSTEPDX/63
30 FORY0=YTTOYBSTEPDY/63:P=X0:Q=Y0
40 A=X0*X0-Y0*Y0+P:B=2*X0*Y0+Q:C=0
42 R=A*A-B*B+P
50 I=2*A*B+Q:C=C+1:A=R:B=I:IFR<-3THEN70
60 IFR<SMTHENIFC<CTTHEN42
70 IFC=CTTHEN220
80 X1=INT((X0-XL)/(DX/63))
90 Y1=INT((Y0-YT)/(DY/63))
100 X=X1+31:Y=Y1+31:GOSUB2000:REM PLOT ROUTINE
220 NEXTY0,X0
230 GOSUB10000:REM PRINT ROUTINE
999 END
1000 POKE36869,255
1010 FORI=7168TO7679:POKEI,0:NEXT
1020 POKE36879,8:PRINTCHR$(147)
1030 FORI=7680TO8185:POKEI,160:NEXT
1040 FORL=0TO7:FORM=0TO7
1050 POKE7680+M*22+L,L*8+M
1060 NEXT:NEXT
1070 RETURN
2000 CH=INT(X/8)*8+INT(Y/8)
2010 RO=(Y/8-INT(Y/8))*8
2020 BY=7168+8*CH+RO
2030 BI=7-(X-(INT(X/8)*8))
2040 IFX<XMANDX>0ANDY<YMANDY>0THENPOKEBY,PEEK(BY)OR(2↑BI)
2050 RETURN
10000 HIGH=23:WIDE=22:ROM=2↑15:ADR=36869:OPEN4,4:PRINT#4,CHR$(8)
10020 SIZE=((PEEK(36867)AND1)+1)*8:SC=PEEK(648)*256:UC=PEEK(ADR)/8AND1
10030 CH=(1-UC)*ROM+(PEEK(ADR)AND7)*1024:LIM=INT((5+WIDE*8)/6)*6
10040 FORL=0TOHIGH*SIZE-1STEP7:FORC=0TOLIM:A=0:X%=C/8:BIT=2↑(7-C+X%*8):
FORR=LTOR+6
10050 Y%=R/SIZE:CC=PEEK(SC+X%+Y%*WIDE):MEM=CH:IFUCTHENIFCC>127THENMEM=ROM:
CC=CC-128
10060 IFR<HIGH*8THENIFPEEK(CC*SIZE+MEM+R-Y%*SIZE)ANDBITTHENA=A+2↑(R-L)
10070 NEXTR:PRINT#4,CHR$(128-(C<WIDE*8)*A);:NEXTC:PRINT#4:NEXTL:CLOSE4:RETURN
```

Here's a skiddly-diddly. Make sure your 128, 16 or 4 hires screen has something up in the top lefthand corner from 0 to 10 (x), and from 9 to 10 (y). Then LOAD and RUN this PRG. It gives your computer something to do while you contemplate Plato's forms and integral alogarithms- ya right!

```
1 A$="CHASERS":REM CHASERS BY BRIAN L CROSTHWAITE (C)1992 LEOSOFT
2 REMARK: MAKE SURE HIRES SCREEN HAS SOME DETAILED GARBAGE IN THE TOP LEFT
CORNER, THE MORE DETAIL THE BETTER
3 REMARK: FIRST THEN RUN
4 REMARK: THIS. IT'S REALLY
5 REMARK: COOL.
100 XM=319-10:YM=199-10:DX=1:DY=1
200 XM=319-10:YM=199-10:X2=2:Y2=2
1000 GRAPHIC1
1010 FORX=0TO10:FORY=0TO10
1020 DRAW1,X,Y
1030 NEXT:NEXT
1040 FORX=10TO20:FORY=0TO10
1050 DRAW0,X,Y
1060 NEXT:NEXT:X1=X:Y1=Y
1070 SSHAPEA$,0,0,10,10:SSHAPEB$,10,0,20,10
1080 FORI=0TO999999
1082 X=X+DX:IFX>XMORX<0THENDX=-DX
1083 X1=X1+X2:IFX1>XMORX1<0THENX2=-X2
1084 Y=Y+DY:IFY>YMORY<0THENDY=-DY
1085 Y1=Y1+Y2:IFY1>YMORY1<0THENY2=-Y2
1090 GSHAPEB$,EX,EY
1100 GSHAPEA$,X,Y
1101 GSHAPEA$,X1,Y1
1110 EX=X:EY=Y
1120 NEXT
1130 GETKEY$:GRAPHIC0:LIST
```

Pokes and Peeks

compiled by
Brian L. Crosthwaite

Well, this time we have more Pokes, Peeks, Sys' and Waits.
Maybe, sometime in the future, we'll recompile them in some
intelegible order. So without further ado, here they are...

```
--+--VIC20--+--+--+--+--CBM64--+--+--+--+--C128D--+--+--+--+--C16+4--+--+--+--
```

Infinite Jump Men (for *JUMPMAN*) (hit <RUN/STOP><RESTORE> exactly 90 sec. after
RUNning, then enter)

                    POKE24015,173:POKE54296,15:SYS36864

Interlace on/off VIC20
        on: POKE36864,133   off: POKE36864,5

Error messages
Disable all messages

_ _ _ _ _ _ _ _ _ _ _ POKE157,0 _
Enable error messages

_ _ _ _ _ _ _ _ _ _ _ POKE157,64 _
Enable control messages (LOADING, SEARCHING, etc.)

_ _ _ _ _ _ _ _ _ _ _ POKE157,128 _
Enable all messages

                    POKE157,192

Detect <SHIFT> key (if x=0 then <SHIFT> key is up)
    x=PEEK(653)   x=PEEK(653)
                          BASIC1.0: x=PEEK(516)
                          BASIC2.0: x=PEEK(152)
                          BASIC4.0: x=PEEK(152)

64 CP/M
(Commodore had problems with some of the 64s working with CP/M, if you have
64CP/M-- cool, you can tell me if this works, if the computer returns a 3, your
64 may not work with CP/M, if it returns a 0 or 170, it may work-- kinda wishy
washy, but this is Commodore we're talking about. You probably think I'm just
fillin up space with this ancient tidbit, but HardCores like myself
thrive on this sort of stuff. This was, by the way, caused by the Revision 8 of
the VIC II chip-- a timing problem, the older Revision 2 or 5 chip works fine.)
                    PRINT PEEK(65408)

Clear screen line (lineno=0-24)
    POKE781,lineno:SYS60045
                    POKE781,lineno:SYS59903

Move screen line (copies 40 bytes from a specified point on the screen to
current cursor position, lo,hi represents the beginning of screen characters to
copy (lo+256*hi must be in the range 0 to 999) you know screen locations)
    POKE780,hi:POKE172,lo:SYS59990
                    POKE780,hi:POKE172,lo:SYS59848

Print IN lineno (this little SYS reports to the screen what line it is in, use
it to locate your computer's place in a program. (You have to type into the
program itself, say you want to know if execution ever reaches lines 10, 1000,
2020, and 3000, then insert the SYS in those lines and when it get's there
you'll see IN 10, IN1000 and so on as the computer reaches those lines)).
    SYS56770   SYS48578   SYSDEC("$A453")
                    on the 40/8032 SYS53027

```
--+--VIC20--+--+--+--+--CBM64--+--+--+--+--+--C128D--+--+--+--+--C16+4--+--+--+--
```

UnNEW
first try,

                    POKE2050,1:SYS42291:POKE46,PEEK(35)
                    POKE45,PEEK(781)+2:CLR
if you get an error message they try
                    POKE45,PEEK(781)-254:POKE46,PEEK(46)+1:CLR

Change number of files open in operating system (if a file is open on the disk
but you halt the program and wish to resume, the O.S. will think it's closed)
(n=number of files that need to be in the OPEN status)
     POKE152,n   POKE152,n
                              on the PET POKE174,n

Cassette stuff
WAIT for cassette STOP to be pressed
                    WAIT1,16
WAIT for PLAY to be pressed
                    WAIT1,16,16

Imitate the POP command found on other computers (POP removes all GOSUB
pointers to date and clears the stack, without CLRing variables)
     SYS50814   SYS42622

Reset revisited (Hardware Vector Rest to $FFFC)
     SYS64802   SYS64738
                         BASIC1.0: SYS64824
                         BASIC2.0: SYS64721
                         BASIC3.0: SYS64790

Disable quotes after input
     POKE212,0   POKE212,0
                         BASIC1.0: POKE234,0
                         BASIC2.0: POKE205,0
                         BASIC4.0: POKE205,0

Enable quotes
     POKE212,1   POKE212,1
                         BASIC1.0: POKE234,1
                         BASIC2.0: POKE205,1
                         BASIC4.0: POKE205,1

Alternative VIC keyboard peek
     PEEK(197) (the well known one)
     PEEK(203) (the not so well known one)

Table for above PEEK (this is the same for 20, 64, 128, 16 & +4, not sure about
the others)

X	Key	X	Key	X	Key	X	Key
0	<INST>	16	<5>	32	<9>	48	<POUND>
1	<RETURN>	17	<R>	33	<I>	49	<*>
2	<CRSR RIGHT>	18	<D>	34	<J>	50	<;>
3	<F7>	19	<6>	35	<0>	51	<CLR>
4	<F1>	20	<C>	36	<M>	52	<RIGHT SHIFT>
5	<F3>	21	<F>	37	<K>	53	<=>
6	<F5>	22	<T>	38	<O>	54	<↑>
7	<CRSR DOWN>	22	<X>	39	<N>	55	</>
8	<3>	24	<7>	40	<+>	56	<1>
9	<W>	25	<Y>	41	<P>	57	<ARROW LEFT>
10	<A>	26	<G>	42	<L>	58	<CONTROL>
11	<4>	27	<8>	43	<->	59	<2>
12	<Z>	28	<B>	44	<.>	60	<SPACE>
13	<S>	29	<H>	45	<:>	61	<C=>
14	<E>	30	<U>	46	<@>	62	<Q>
15	<LEFT SHIFT>	31	<V>	47	<,>	63	<RUN/STOP>

--+--VIC20--+--+--+--+--+--CBM64--+--+--+--+--+--C128D--+--+--+--+--+--C16+4--+--+--+--

Voice 3 RND on the 64. Generates a number, X=0 to 255 (you can't use this technique and generate sound at the same time you, you'll get garbage sound).

POKE54287,255:POKE54290,128 you need only do this once in the program, then you can call up you seed into x as many times as you want.

X=PEEK(54299)

Set sound volume (x=0 to 15 64, 128. x=0 to 8 16, +4)

POKE	,x	POKE54296,x	VOLx	VOLx

Which version of ROM does your 64 have? (Rex Blakeslee gave me this one- thanx Rex)!

PRINTPEEK(65408)

Warm start
     SYS65234

READY.

Well as they say in show biz-
"That's all folk!"
...or maybe more apropos-

READY.

SHHH, it's a Secret...

HAY! LET'S START A COLLECTION OF SECRET MESSAGES IN COMPUTERS- ANY COMPUTERS!

```
0 REM SECRET MESSAGES FROM THE 1581
10 U=9:REM UNIT NUMBER FOR THE 1581
20 OPEN15,U,15,"B-?"
30 GET#15,M$:PRINTM$;:IFST=0THEN30
40 PRINT#15,"B-*"
50 GET#15,M$:PRINTM$;:IFST=0THEN50
60 CLOSE15


0 REM MORE MESSAGES FROM THE 1581
10 U=9:REM UNIT NUMBER FOR THE 1581
20
OPEN15,U,15,"M-R"CHR$(1)CHR$(220)CHR
$(55)
30
FORI=1TO55:GET#1,M$:M1$=M1$+M$:NEXT
40
PRINT#15,"M-R"CHR$(13)CHR$(208)CHR$(
49)
50 INPUT#15,M2$
60
PRINT#15,"M-R"CHR$(73)CHR$(213)CHR$(
15)
70 INPUT#15,M3$
80
PRINTCHR$(63)M1$CHR$(13)CHR$(63)M2$C
HR$(13)M3$
90 CLOSE15


0 REM ROM SECRETS OF THE 128
10 BANK
15:B=DEC("63F5"):E=DEC("640B")
20
FORI=BTOE:PRINTCHR$(PEEK(I));:NEXT
30 B=DEC("7FC0"):E=DEC("7FF7")
40
FORI=BTOE:PRINTCHR$(PEEK(I));:NEXT


0 REM 128 SECRET MESSAGE
10 SYS32800,123,45,6
```
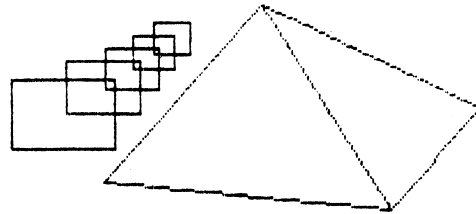
If you don't have a 128 or a 1581- you'll just have to suffer, 'cos I'm not going to tell you what they say- they're secrets! If you have any weird stuff like this you'd like to share, drop me a note at the next TVBUG meeting. (By the way this flyer is not published by TVBUG, although it's members as well as non-members are welcome to contribute to the flyer. At this point all you'll get for your troubles is a free copy of the flyer, your name in

lights, and the satisfaction of knowing some tidbit of info may have saved a computer from being thrown out someone's window.

The Last Page

compiled by
Brian C Crosthwaite

The last page, yeah here it is. Did you like this issue? Or were you looking forward to this page? What do you want? What do you need? Are there any PETs or CBMs out there? At this point, the second issue a veil of mystery clouds the what-to-expect-department here at Voyageur Studios. I know the masses are avid about 64s and 128s. Plus4 are used a lot in Northern Territories. Remember what goes around comes around. Send us a program. Someone may just need something you've got. Someone may have what you need, and you may find it right here!

A List.

Turtle Graphics II
Software Support International
2700 Ne Andresen Road
Suite A-10
Vancouver, WA 98661

Hard Drives
Sid Symphony Stereo Cartridge
Creative Mirco Designs
15 Benton Drive
P. O. Box 646
East Longmeadow, MA 01028

HANDYSCANNER 64
Rio Computers
3310 Berwyck Street
Las Vagus, NV 89121

Big Blue Reader
SOGVAP Software
115 Bellmont Road
Decatur, IN 46733

DieHard
Brian L Crosthwaite
908 N 7th Street
Boise, ID 83702

These ARE NOT advertisements.
It's just a list of HOT GOODIES
and the locations to get them from.

VOYAGEUR STUDIOS

LynnCarthy