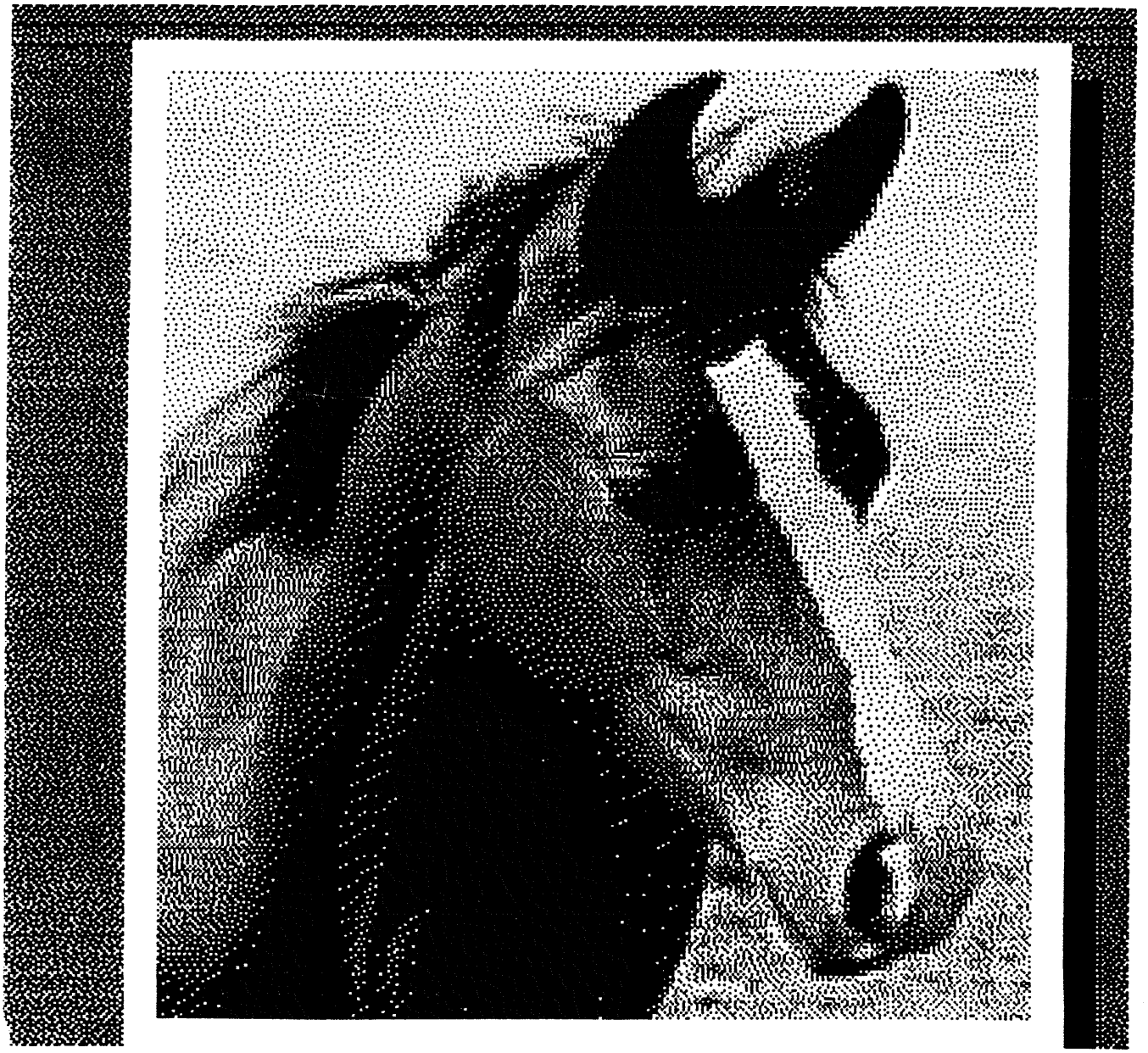
SINC-LINK

SEPT-OCT '93 VOL 11 #5



TORONTO TIMEX-SINCLAIR USERS CLUB

SINC-LINK

SEPT-OCT '93 VOL 11 #5

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THE TS2068 & ZX-81 GROUP MEETS ON THE FIRST WEDNESDAY OF EACH MONTH AT 14 RICHOME COURT, SCARBOROUGH, ONT. 7PM START.

THE QL SIG WILL MEET AT 586 ONEIDA DRIVE, BURLINGTON, ONT. 7PM START. NEXT MEETING TO BE ANNOUNCED.

SINC-LINK IS PRODUCED ENTIRELY ON SINCLAIR AND TIMEX-SINCLAIR COMPUTERS.

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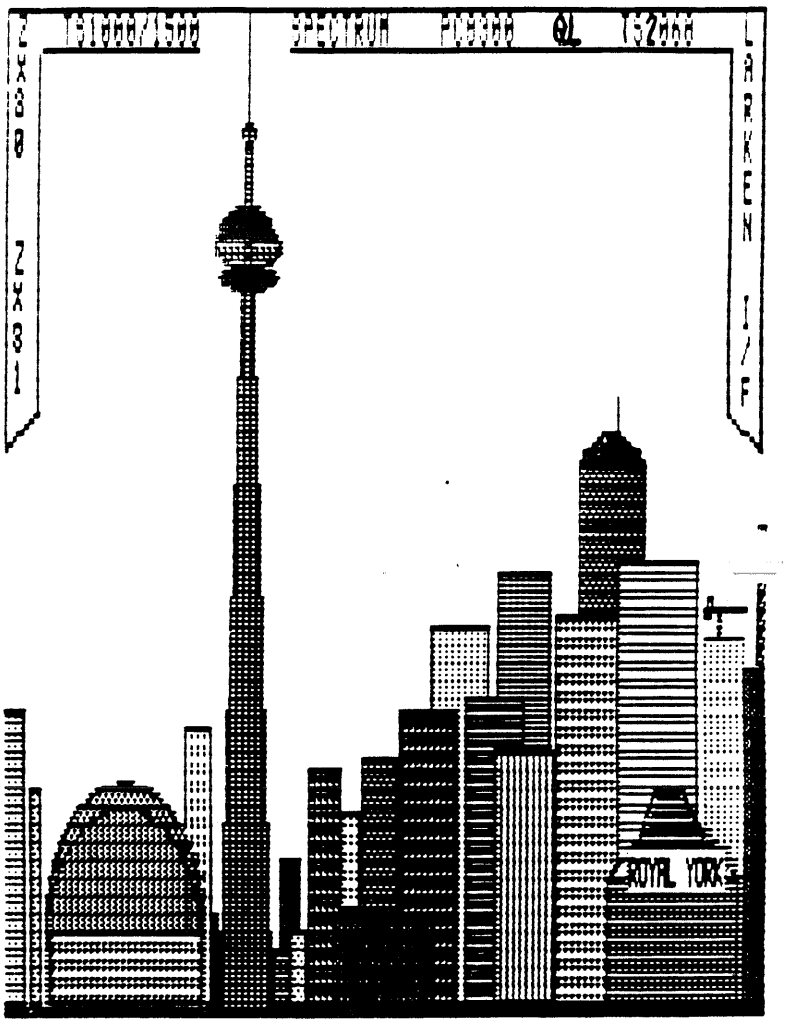

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TORONTO TIMEX-SINCLAIR USERS CLUB

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GUEST EDITORIAL

Once again the newsletter is late. In part, the delay has been caused by the fact that we have received very few articles from the TS1000 and 2068 membership and we felt that we could not put together an issue representative of the overall membership of the club. If you look at the composition of this issue, 17 pages were written by QL users (8 by Hugh Howie), 7 pages from 2068 users (two articles), and 1 page from TS1000 users (me). I think we can all agree that of the three computers used in the club, the QL continues to generate the most activity and interest among its owners. However, there are still a lot of TS1000 and 2068 owners out there, and we would really like to hear from you. To be a bit melodramatic, the life of this newsletter depends on YOU.

With the exception of Hugh Howie and Bill Lawson, the executive members use 2068s or Ts1000s. We are finding it very difficult to maintain our enthusiasm when the majority of the members of the club are not participating in the continued well being of the club. Paying your dues is not enough. This club will NOT fold because of lack of funds, but it will not continue in its present form for very long if you do not respond. Active participation from all members in maintaining the standard of excellence that we have attained in the newsletter would be a welcome boost.

Our editor, Jeff Taylor, and the rest of the Executive thank those writers, both members and nonmembers, who have submitted articles, and look forward to seeing more of your efforts published in future issues of SINC-LINK.

Rene Bruneau, President 1993

KILL THE NEWLETTER? - KILL SINC-LINK?

by Hugh Howie.

On receiving the July/August issue of SINC-LINK, (on August 6th no less), I was astounded to read the comments of our secretary that our prestigious and most looked for newsletter was perhaps going to be discontinued.

I am very sorry to see this in print. I am sorry that the newsletter is so late in coming out those days. I am sorry there is such a lack of contributers that makes those statements possible. I am sorry to see the club in such straights that it is on the verge of folding, and that is what our secretary means; the club is on the verge of folding if we do not get more contributers! We must remember that it is SINC-LINK that links this club together. It is the newsletter that links any club together. I do not know any widespread organisation that does not rely on some sort of paper communication to keep its members happy and interested.

In a club as strong in members as we are, it is unbelievable that we can not get enough material to fill 30 pages once every two months.

The reason that the newsletter is a bit late at times is because our editor keeps hoping for more material to fill out the pages - he waits and waits - but nothing comes in. Now how is an editor to build a newsletter if he has nothing to work with? I have said in this publication, as also in others, that more material is required. We need more input, and on a regular basis also.

I am unhappy that our secretary is able to say that he is going to fold the newsletter. Kill one, kill all! George Chambers was the instigator in the birth of the club many years ago, and it would be a pity if he were to kill it.

Since becoming a member, I have seen many others clubs fall by the wayside, and in each and every case the folding was preceded by an urgent plea for more INPUT from the members. I guess the plea fell on deaf ears as it was soon announced that those clubs were folding. Do you want that to happen here?

I once was proud to say that I belonged to the biggest and best in North America. Can that still be said?

I have done my bit to keep this club and its newsletter in action. I have done all I can - and so have many others - officers and members have all done a good job, and are still willing to do a good job, but we need something to work with.

In all our membership it is hard to believe that no one anywhere, has nothing to write about. We can tell of our successes and our failures. What we do for this that or the next thing. Solutions - problems - questions - information - what is good equipment and what is bad. Good programs and bad.

Many years ago the QL was pronounced dead, today the QL is more active than it ever was. There is more action in the provision of good hardware, and more really good software available than at any time in the QL's history. A machine which had such a poor start has developed into a machine which is second to none in its ability. So why do we not take more interest in it?

Do you not like what you see in our newsletter? If so, why not write and tell us so that we can improve the content. If you don't like what you are getting then write something of what you would like and we will be only too glad to print it.

Finally, I have heard no mention other than the comment of our secretary, that the newsletter is going to fold. If anyone has the power to say that, it should be the Editor. I know that our editor has problems in filling space, but he has not as yet said anything like that, not to me at any rate. And although he may be a bit frustrated on occasion, I do not think he is going to say "lets fold".

You folks out there, if you want a newsletter then it is up to you and only you to provide your own newsletter.

Send something in.

930807

Q L I P S

by Hugh Howie

Recently I had occasion to be writing to one of our members, sending him some library disks he had requested. Unfortunately he had been using a catalogue which was long out of date. I was still able to give him what he requested, but he was asking for individual programs, and this creates a bit of a headache to me.

Last year I decided that I could only (for the sake of my own sanity) provide complete disks and not individual programs. And this I attempted to do for my friend, but as he had only sent a small number of disks, I had a problem; not insurmountable, but still there, so I added some prefixes to the titles and managed to get two disks onto one, and I told him how to remove them to make disks of his own which would still conform to the TorQLib Library disks without the prefixes. (Are you still with me?)

In my letter I explained how by using TK2 he would have no problems re-naming when copying the programs to their proper disks.

I was not sure as to the expertise of the person I was writing to, and I made the comment that "I was probably teaching my granny how to suck eggs"

My friend replied humorously, saying that I had the gender wrong, and that he was a grandfather, and that he was unaware he was related to me.

This gave me some thought, as I believed everyone knew what I was saying or trying to say; so I got out various books of learning (so-called) and was unable to find any reference to my statement. There was no reference to "teaching my granny how to suck eggs!"

My interpretation of this statement is that it alludes to trying to instruct the expert in the basics. And what is more basic than sucking eggs? A wonderful source of food, and not only that, it is a country boys dream of yore, to build a collection of birds eggs, and to do that you had to have a knowledge of how to suck eggs to get the innards come out and leave the outards to be saved as part of the collection. So you just had to know the gentle art of sucking (or blowing) eggs. Even my granny knew how!

But in my books of knowledge there were plenty other references to eggs and as I read I got interested in the subject.

I found that Shakespeare had written about the weasel and the ease with which a weasel sucks eggs. So perhaps somewhere along the line 'granny' had been substituted for 'weasel'.

Further on in my research I came across a probable answer to the question "What came first the hen or the egg?"

Well, Samuel Butler once stated "A hen is only an egg's way of making another egg" So that takes care of the question as to which (what?) came first; it was the egg. No?

As one cartoonist put it in a caption under a picture of a dejected rooster bemoaning lifes caprices, "Yesterday an egg - tomorrow a feather duster"

Christopher Isherwood had this to say:-

> The common cormorant or shag
> Lays eggs inside a paper bag
> The reason you will see no doubt
> It is to keep the lightning out.
> But what those unobservant birds
> Have never noticed is that herds
> Of wandering bears may come with buns
> And steal the bags to hold the crumbs.

Now that still does not really answer my original statement about my granny. I can only rationalise that it is some kind of colloquialism I picked up somewhere on my travels. As to whether it is well known I have no idea.

I still maintain that it is very apt in certain circumstances especially when trying teach the expert how to do something.

If you have read this far you are probably wondering just what this is all about. I really don't know! I guess you could say something just egged me on.

930728

Copied from the Sept 1993 issue of the LISTing Newsletter from the Long Island Sinclair/Timex Users Group.

THE KILLER EMULATOR FROM HELL by John Pazmino

By now the supplies and sources for Sinclair hardware are quite dwindling. It is tough to introduce newcomers to Sinclair for the general lack of apparatus to outfit them with. On top of this is the pervasion of the IBM type of computer among the vulgate which works fiercely against adopting Sinclair as a new platform.

What to do? In the UK, where Sinclair still rules in the 8-bit computer world, there were efforts to work a software solution: Turn the IBM into a Sinclair. In principle this is easy because the Z80 CPU architecture has been emulated on the 8088 (and higher) chips thru software. Many readers will remember, and perhaps still have, the CP/M emulators on the early IBM rigs.

However, emulators for the Sinclair have been, well, ech!. Why? Mainly they are written by Sinclair folk who on the whole are unversed in IBM. In deed, some Sinclair emulators are nothing but the Z80 code of the Sinclair ROM shoved into a Z80 CPU emulator. This was for many years not cricket becasue the code was the property of Sinclair and then Amstrad.

There's a physical barrier, too. Except for the very first IBM PC, issuing simulataneoulsy with the Sinclair ZX-81, the IBM has no innate means of receiving input from a cassette. Some emulators simply gave up at this obstacle and work only with type-in programs.

Well, now in this merry year of 1993 comes the Killer Emulator from Hell, a Sinclair emulator for the IBM that does everything a Sinclair emulator should do and does it right. This new emulator, Z80, is a shareware creation from Europe.

Shareware, not lucreware.

This point is crucial. For in early 1993 Amstrad, who holds the rights for the Spectrum and QL, formally threw the code for the ROMs into public use. That is, anyone may now copy and distribute the original ROM code in their own products PROVIDED that these products are noncommercial. Commercial use of the ROM code is still prohibited. Ergo, altho Z80 does have woven into it native Sinclair code it is copasetic and quite kosher.

Z80 dissolves the above -- and many many other -- problems in bringing the Sinclair to the IBM. It comes on an IBM stiffy with 720K of files. They rehydrate to about 2M on your harddisc. Two megabytes! That's, um, more than thirty Spectrumsful! What ARE all these crazy files!? Relax, already. Most of the files are sourcecode and litterature. **You can shiv them, after printing** or **copying them off**, leaving 'just' 330K of working files. That's STILL about five Spectrumsful of stuff. For emulating a Spectrum?

They toto in uno are a symphony of several Sinclair systems: the Spectrum 48K model, 128K model (with pixel graphics and multichannel sound), Interface 1 (with serial ports), Sinclair and Kempston joysticks, Multiface 1 (with memory capture), tape loading indicator, Z80 dissembler and monitor, header-reader, screen editor, RAMdisc, swoppable ROMs, Microdrives, Disciple discs, and (of course!) tapedrive. All of these are provided via software in quite perfect replication of the original hardware gadgets. Thus, the complete inability to attach native Sinclair accessories to the IBM is much overcome by building the most crucial ones right into the emulator.

The emulator receives its original input from cassette only. This requires a cable connecting the IBM parallel port to the cassette deck, with some circuit bits along the way. The emulator has clear instructions for making this cable and it took me an afternoon to build it, including a stopoff on Canal Street to get the parts.

If you in giddy delirium shoved Z80's disc into your IBM without

between Sinclair's CR-only and IBM's CR/LF line terminations. All these conversion use the IBM file as the working medium.

The Microdrives are mimicked on IBM file. There are eight 'microdrives' in the emulator, the maximum capacity of the original Interface, and each 'cartridge' is an IBM file. You 'slot' a microdrive by allocating a file to a drive. Ah!, to use a new cartridge you must 'format' it ("FORMAT "m";3;<name>"; hey!, those extra IBM keys ARE cool!). This creates a new IBM file 137K long with 126K of 'tape'. Two of these fit on a 360K floppy or five on a 720K stiffy. Once you format a emulated cartridge you can work with it exactly as you would a physical cartridge. You even pull a 'catalog' of the file and 'erase' stuff from it!

The Disciple disc is, too, cloned in Z80, altho the United States never enjoyed this system. Again, the IBM file is the working medium. Being that on stateside we deal with many minor disc systems, can Z80 handle, say the Zebra system? Now comes the freako part. The code for the Disciple system is excisible from the primum corpus of the emulator. YOU CAN REPLACE IT WITH THE OPERATIONS OF YOUR PECULIAR DISC SYSTEM. Yes!, you may ultimately junk the hardware of the Zebra system and run everything from the Zebra code you wrote into Z80.

The total supplantation of Sinclair's physical media with IBM files lets you jettison just about every disc and cartridge utility in sight. With your stuff in IBM files you can apply any and all of the IBM file utilities on it. Farewell, Cartridge Doctor! Vale, KopyKat!

Wait a minute!!! What happens to all those luscious Sinclair cartridges and discs in those milkcrates? Since you simply can not feed them to the IBM you must revert to the original tapes. Load the files into Z80 from the tapes and save them onto the emulated disc or cartridge. WIthout such prime tapes you may have one revolting job before you! You must transfer the disc or cartridge files back to cassettes and then procede as just described.

Communications thru the emulator use the cloned serial ports of the Interface 1. Remember my series a year back on PostScript on the Sinclair? (Yesyesyes, I know, LISTings missed out the fourth and final part.) Now you can actualize this by running Z80 on an IBM fitted with a PostScript printer. But there's a weirder prospect, attainable with Z80: Pass data from the Spectrum to an other IBM program. You in this case do not need a PostScript printer; use your existing printer! You run a PostScript software emulator like Emulaser or GhostScript on the IBM and send Spectrum generated PostScript files to it. Ugh! such disgustingly gorgeous output. From a Spectrum. FROM A SPECTRUM!

Because the emulator is European the presumption is that you use the serial port for printing and the instructions detail conversing with a printer thru it. In the US printers are routinely hung from the parallel port and the serial port is the avenue to a modem. Hence, in making the cassette cable, include a 'Y' connector or A-B switch so the printer and cassette can coexist. To accommodate the possibility of a parallel printer, Z80 allows a redirection of output to LPTx.

However, there is a clumsiness in using the printer, one of the [very] few downpoints of Z80. The LPRINT, LLIST, and COPY commands do not fire characters directly to the attached printer. You have to first open a channel to the printer ("OPEN #3,"t"") and then send output to that channel. I already wrote, via Internet, to the author about this and suggested that he make LPRINT, LLIST, and COPY send output to a DOS printer driver of the sort included with word processors. If he can work this into a future edition of Z80 you'll be printing to whatever device you got attached to the IBM.

What the deal about other ROMs? You recall that the American flavor of SPectrum, the Timex 2000, has a dockport into which an external ROM plugged to override the onboard ROM. Also, when the Zebra

making the connector, chill out! Z80 comes with seven ready-to-run Spectrum programs. Nothing fancy, some games and utilities.

I can not here elaborate on the very many details of this emulator. That would amount to describing the entire Spectrum world! I here highlight a few major features. This emulator, for starts, in fact does what every Sinclair fan sweats in sleep for: IT BODILY TRANSFERS TAPES TO DISC. Yes, it takes the files from tape and mirrors them on a regular IBM file. And this file to the emulated Spectrum quacks and flies and waddles exactly like the original tape. The major positive(!) difference is that you never 'spot' or 'rewind'. This feature alone virtually eliminates the 'tape loading error' from a tapefile that failed to catch. It'll pass around again in, oh, a millisecond for another go. Each 360K disc holds several, depending on length, cassettes of programs.

With Z80 you may choose between a replica of a cassette OR AN ORDINARY IBM FILE. That is, you may load from EITHER the emulated tape OR from an IBM file that contains the program in DOS form! Hand up? Yes? Sure, Z80 converts the one kind into the other!

You over there? Voce alta, de favore. OK, you have several short tapes or programs and you want to combine them on one cassette. What a magilla on the real Sinclair! Load from one tape; swop tapes; spot it; save to it. Swop for the next tape ... . With Z80 you merely knit together the separate 'tapes' in any order you want and get one consolidated new 'tape'. Yes, that right. Uh, let's continue, please?

These grand goodies so far are alone enough to justify the nuisance of reaching overseas for this emulator. In one weekend you can put your entire Spectrum collection onto disc WITH ABSOLUTELY NO MODIFICATION OF THE ORIGINAL CODE. You 'bung the tape' by specifying the tape's IBM file, do a LOAD and the 'tape' goes ahead and loads.

Please do understand that this is utterly NOT a 'RAMdump', 'memory capture' or 'snapshot'. Z80 does this, too, as an altogether separate function. In the tape mirror each file of the tape is actually in the IBM file and you even use the (included!) header-reader to see them. What's more, the header-reader browses the tape and loads ANY tape file you want. You don't have to let the tape run thru to load the program way off at the tail end. Hmmm, a random-access cassette tape.

The Spectrum keyboard is exactly mapped to the IBM keyboard. You use all the keywords and tokens. Being that the IBM has no Sinclair keytops, you popup a Sinclair keyboard diagram. It's really a rather faithful depiction of the chicklet Spectrum with the corner colorband and all that. There is no such mapping for the Spectrum 128K becuase this model does not use keywords and tokens. You type in everything litteratim with all the regular IBM keys.

Besides the replicated Spectrum keys, the extra IBM keys are energized. You, for instance, get the <=> symbol by <sym<L>> or by just punching the <=> key. Either the IBM <alt> or <ctl> keys stands for the Sinclair <sym> key. I do see a danger in this convenience! Play with the Spectrum-in-IBM for a while. Then go back to the real Spectrum. Where the eff is that <[> symbol!?

The numberpad is the cursorpad, the Sinclair joystick, or the Kempston joystick -- as you wish by selection. The cursorkeys work, too, for editing the command line. <esc> is the EDIT key, as is <sft<1>>; <bsp> and <del> do DELETE along with <sft<0>>.

The IBM functionkeys are the adit to the emulator's forest of functions, with <F1> being the general 'help' feature and <alt<F1>> popping up the Spectrum keyboard layout.

When you do a screensave ("SAVE <name> SCREEN$"), THE SCREEN$ FILE CAN BE SHARED WITH OTHER IBM PROGRAMS. What?! Uh, you see, this emulator converts a Spectrum SCREEN$ file into a GIF or PCX file! You share textfiles, too, with other IBM programs by a conversion

disc system is fitted to the Timex, its own ROM is paged in when a disc command is issued. Well, you can set up a battery of ROM files and let the emulator bank off of them (one at a time).

How? There are two methods. The first is to get the ROM code into an IBM file and then point Z80 at it when igniting the emulator. This bypasses the default ROM file. The other is to patch [a copy of] the default ROM file with code for the new ROM and let Z80 go and think it's drinking up the same old code.

By now your throat is dry, your glands are leaking, your hairs are dropping out. TELL ME, UNCLE!, UNCLE!, WHERE IS THIS Z80 THINGIE!! Send off 15 British pounds to B G Services, 64 Roebuck Road, Chessington, Surrey KT9-iJX, England and ask for the Z80 Spectrum emulator for IBM computers. I did this and got my emulator in 12 days flat. To pay from the US I just took my ordinary check and wrote it out for "fifteen British pounds" payable to "B G Services"; it went thru smoothly. Plastic is not [yet?] accepted. B G Services is a Spectrum outlet and it'll enclose a sheet for its other items, too.

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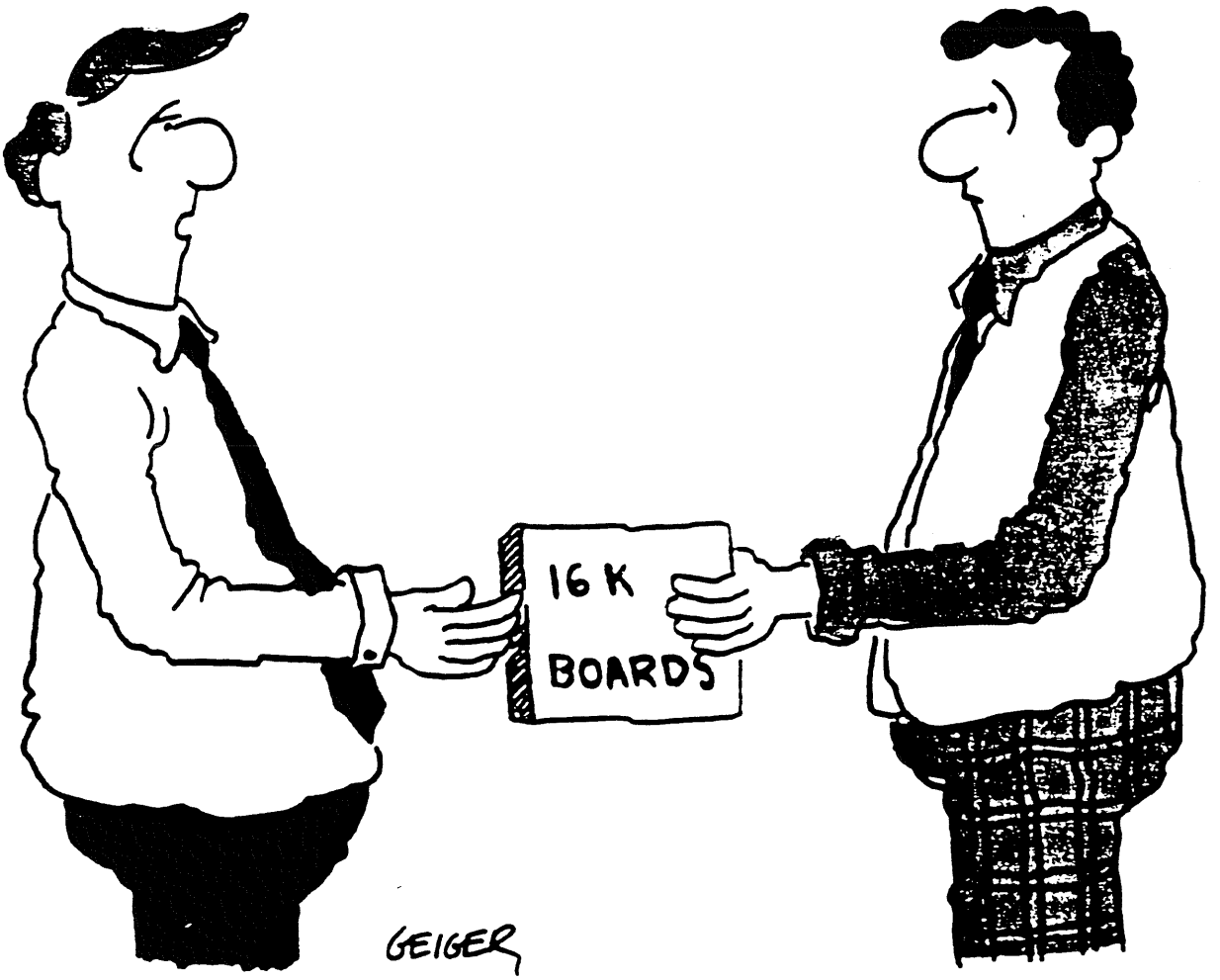


Thanks for the memories.

QL Woes

by

N.A. Pashtoon

In Vol. 10-6 (Nov.-Dec.'92), and Vol. 11-3 (Mar.-Apr. '93) issues of SINC-LINK mention is made of problems some of the QL users are experiencing. In the paragraphs to follow I will relate my experience in solving similar problems.

I) In the Nov.-Dec. '92 issue Bill Lawson has mentioned a myriad of symptoms of his malfuctioning QL system. Let me hope that he has resolved and sorted out the problems he was facing. The symptoms he has mentioned, and a few more, applies to approximately a dozen QLs in my user group (CATUG) and my own. These problems invariably surfaced when a daughter board with Minerva or an alternative QDOS EPROM was installed on the QL. To solve these problems, proceed as follows:

a) All the important integrated ciruits on the QL are socketed. Computers from LISA to first shipments of ATARI ST and other computers were plagued by unreliable operation because of this. The same is true of QL. Many times the microdrive problems and blanking unreliable video is directly traceable to the ZX8302 and ZX8301 chips. Note that these two ICs are CMOS, and static-sensitive. At least touch a metal object with your fingers before you touch the ICs. When you open your QL, it is advisable to spray the pins and sockets of these ICs, as well as the other socketed ICs with a "tuner cleaner", such as Radio Shack #64-3320, or equivalent. After spraying, use a flat-bit screw driver, or a butter knife to displace slightly upwards, from both ends, the ICs in their sockets. Spray again, and press the integrated circuits back in place. This cleaning should be good for at least a year.

b) As mentioned earlier, many users who had fully functional machines, started having problems when they installed a small EPROM daughter-board inside the QL. So what happens under these circumstances? After carefully studying the problem in about a dozen cases, I concluded that the problem is caused by hairline cracks in the copper traces of the daughter board. How are these hairline cracks caused?

After watching my user group members, and my own practice of how do I normally install the daughter-board on the QL mother-board, it became obvious that we were responsible for causing the problem. To explain, normally we would first install the daughter-board by pressing on the corner of the board, and then press-in the EPROM. Here both the procedure as well as the order in which the task is performed is wrong. Why?

The daughter-boards we were using, (to keep costs down, this is true of all peripheral boards, and the QL mother board), are of a very flimsy construction, with very thin copper traces. As the figure shows, two sockets are installed side-by-side, with approximately 0.2" spacing, one socket used for the EPROM is an ordinary dual-leaf socket, and the other one a machined socket. The pins of the machined socket

protrude, and is fitted in the ROM socket on the QL mother-board. In order to install two sockets side-by-side one has to saw-off the stabilizing plastic bridges (two or three) which every socket has. The consequence of this is that when you want to install an EPROM in the normal socket, it flexes the socket rows sideways, so much so, that some times it is not possible to install the EPROM. This flexing causes the hairline cracks in the copper traces on the back of the daughter-board. Belatedly one discovers that in order to install the EPROM, one has to hold the two rows of the socket pins of the normal socket vertically by one hand, and then fit the EPROM in the socket. We discover this after we have already caused damage to probably more than one trace.

The second mechanism causing the cracks, is the way we normally install the flimsily made daughter-board, by pushing on the corners of the board. This method of installation causes too much pressure on the corner pins of the machined socket, and possible hairline cracks.

As such, the suggested procedure for installation is to first install the EPROM on the daughter-board, while holding the normal socket in a vertical positiion in one hand, thus avoiding the flexing of the pins of the normal socket. Second, install the daughter-board on the mother-board by pressing on the top of EPROM, thus causing the pressure to be equally distributed on all the pins of the machined socket.

All these hassles could have been avoided if the boards were properly manufactured. For example, metalization both on top and bottom of the daughter-board would have helped. Most importantly, instead of using a low cost machined socket, the use of DIP socket carrier (say Digi-Key #ED6028, $3.26) would have totally solved the problem. In this case you will have the benefit of machined pins, with the pins flush on top, thus allowing the normal socket straddle the socket carrier pins on top, without the stabilizing plastic bridges being sawed-off. But as you can see, this will almost double the price of the daughter board.

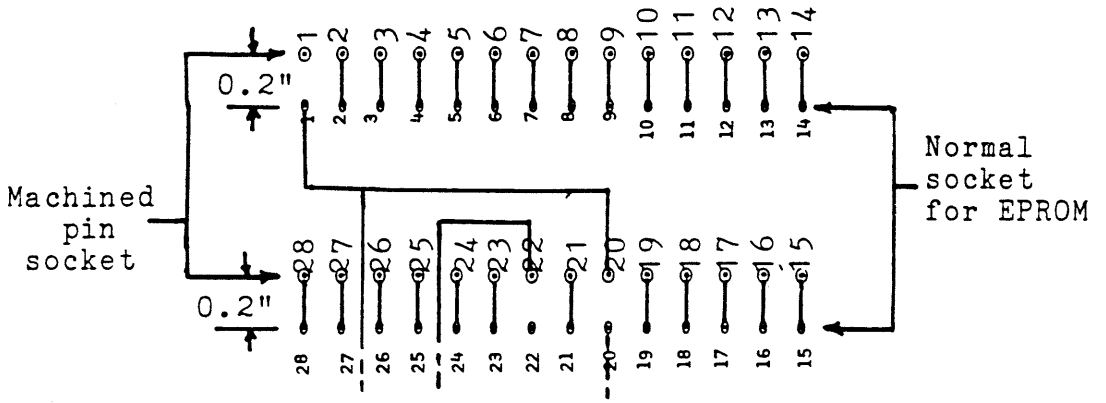


FIGURE:Partial back view of the daughter-board. The decoder IC, which on my board is a 74HCT00, is not shown.

The hairline cracks that I mentioned, are hard to see, even under a magnifying glass. Static testing by continuity measurements (using a VOM) could also be misleading. One can dynamically test by say, using a logic probe. One may even be tempted to cure the problem by putting solder globs on the affected traces. I recommend against it. The only sure method of solving the problem is, to do point-by-point wiring between the pins of the two sockets. This is much easier than it sounds. As shown in the figure, the two sockets are separated by a distance of 0.2", with all the respective pins connected by copper traces, excepts pins 1, 20, and 22. I use bare wire-wrapping (28 gauge) wire. Make a tiny hook on one end of the wire, solder it to the pin, wrap the wire on the corresponding pin of the other socket for half a loop, solder and cut the wire with a razor blade or Xacto knife at the base of the pin. Do all the 25 pins shown in the diagram. This will, with high probability, solve your problem. In the worst case you may have to duplicate all the traces on the back of the daughter-board using wire-wrap wire. Do not use a soldering iron rated higher than 15 watts.

c) A third source of the cracks, is the protrusion of the daughter-board on top of the QL mother-borad, and being pressed by the back of the keyborad. On the Samsung QLs, there is a screw on the back of the keyboard, which interferes with the top of the new EPROM that you install. One must remove this screw. Even the removal of this screw does not solve the problem, always. It is suggested that of the eight screws holding the keyboard and the base of the QL together, two screws, one in back and one in front, not be installed. These are the screws which are left of center, roughly in alignment with the ROM sockets. It is worth mentioning, that depending on the height of the daughter-board , even the mother-board can be flexed by the pressure exerted through the daughter-board from the keyboard.

II) In The Mar.-Apr. '93 issue of Sink-Link in an article by Hugh Howie, "NOTES ON QL LOCK-UPS", Hugh says, and I quote:
"I know of one person who has four QL's and is only now starting to have some success with one of them. Power Surges?"
Some QLs have exhibited this problem since its introduction into the market place. I have analysed the problem, and I believe I have a low cost solution. I suggest that Hugh inform his friend to contact me, and send me a self-addressed jiffy bag with an IRC, and I will mail his friend my solution in return mail. My address follows:

N.A. PASHTOON
940 BEAU DR., #204
DES PLAINES, IL 60016
U.S.A.

ZX81 RESOURCES

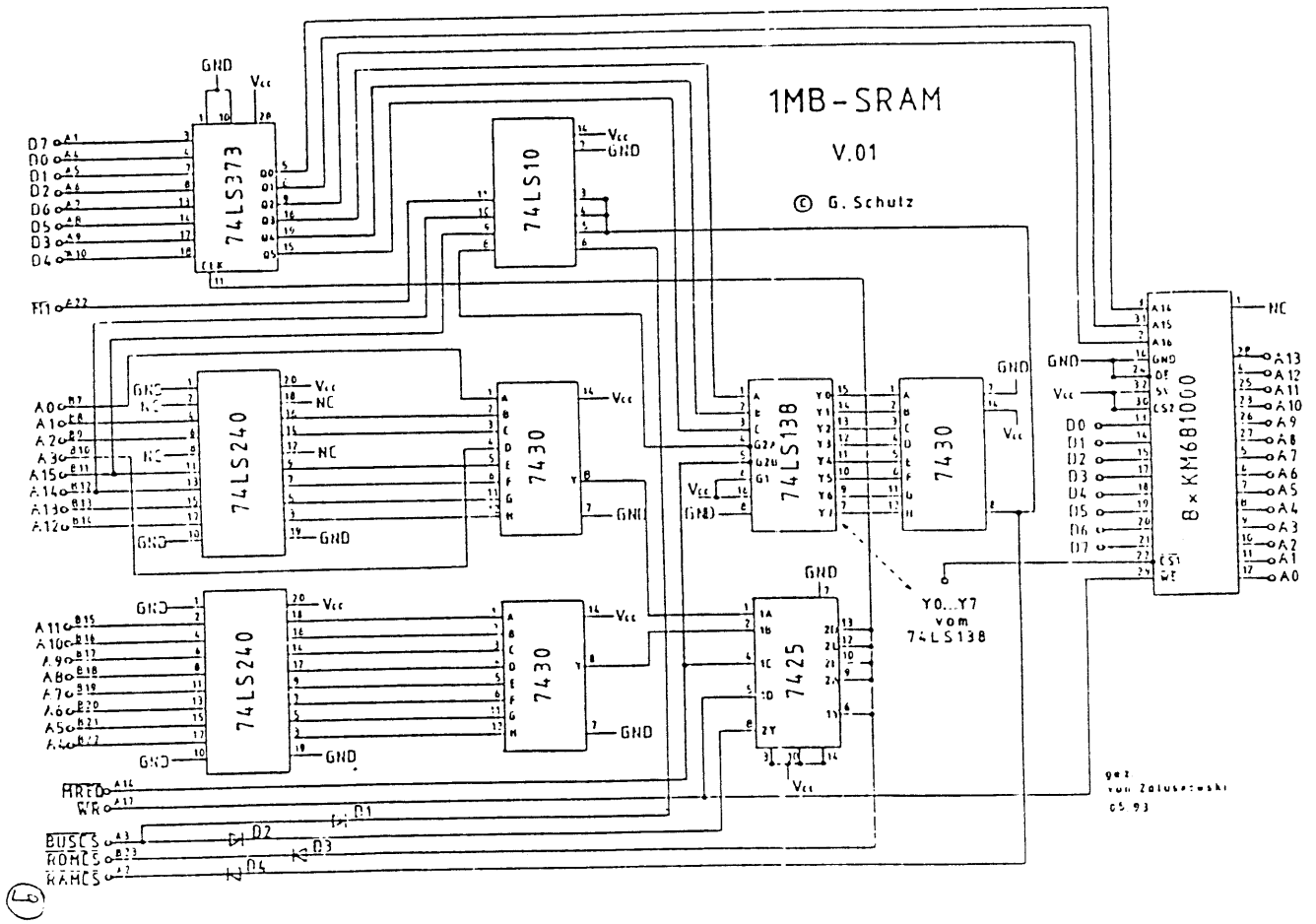
Rene Bruneau 17 September 1992

One of our members, Leo Moll, who lives in Holland, has sent us several copies of projects published in newsletters on his side of the Atlantic. One that may interest the ZX82/TS1000 group, is a 1 megabyte bank-switched nonvolatile memory board. A rough translation of the text (in german) indicates that it occupies the 48k to 64k block in 8x16k segments that can be accessed by poking the bank # into address 9. For example: POKE 9, 1. Just think... After all these years, a Ram-Disk for the ZX81'r who thought he had everything

Mr. Moll indicated that printed circuit boards were available and we are currently following up on this. We hope to obtain more stuff from Mr. Moll and will present it as it becomes available.

Planned for our Nov/Dec issue is a construction article for a simple robot control interface in response to a request from one of our members. I located it in an magazine written for the Spectrum.

1 MB BANK-SWITCHED MEMORY BOARD



QL LIBRARY REPORT

By Hugh Howie

I have spent too much time on too many other things, I have neglected my library, my library - your library, so I will now try to bring you up to date on what has been developing this last few months.

It is just about a year since I last reported on the library, so I think it timely to say something about it.

As a result of our QL membership drive last year, we were fortunate in that we had quite a few new members join our ranks. This might result in some more contributions to the library, and more use made of it also.

There are so many new things happening in the QL world, it is hard to believe that so few have anything to say, or have so few questions to ask. I also realise that many who ask questions do not wish to have their letters published because of one reason or another.

When you write to us, would you mind if we published your comments? In many cases the comments and questions asked are of very valid import to the newsletter. The question you ask may be of interest to others. I for one have had many interesting and learning hours trying to track down someone elses problem. Think about it.

Anyway, I have got away from the main topic - The Library - so back to it.

One of our new members submitted a disk with some very interesting stuff, and it was some time before I got around to looking in close detail at the disk he sent me. John Impellizzeri sent me this disk with a lot of ZIP/UNZIP stuff on it, and I had no idea what it was all about, which just goes to show how little I know about computing. Anyway I eventually got around to doing some serious work with this disk, and a whole new vista was opened up for me!

It would appear that ZIP is a method of compressing long files into short files for the purposes of transmitting them them from you to me or me to you in the shortest period of time and taking up the smallest amount of space on a disk. UNZIP puts them back into normal format.

When working the various BBS's etc., it is essential to get the info across as quickly as possible, costs rise with length of time on the phone.

This disk also has QED, QEM, Qterm (in German) also a Spectrum and ZX81 emulator so that you can run those programs on the QL. Nice with the Gold Card, but slow otherwise. Once again I have not done much with this, but as soon as I can get some programs I will see what can be done. I will be breaking this up into the Comms and Utilities sections.

I found that with ZIPPED files they took up less than half the original space on a disk. The zipping/unzipping takes only a very short time to accomplish - amazing in what it does. Thanks John for the disk, I am only too pleased to place it in the library, and hope that many more can take advantage of it. If you have anything more we would be glad to accept it. Perhaps you will get someone calling you on the BBS sometime.

I should mention that ZIP/UNZIP is a shareware program.

Another interesting thing was that Ron Blizzard sent me a disk with stuff on it for converting (for sake of a better word) a MAC pic file to the QL. He enclosed a few MAC files and it really was astounding what it does. I would suggest that anyone with access to Mac-Print files should have a look at this.

Ron Blizzard has also contributed a number of articles on his QL experiences and promises many more.

Before I forget, Ron is now the Happy Pappy of Adriana, born on the 4th of July. As also was her mother. (that was another year of course!) Some folks take independance too far. Congratulations to all concerned.

Away back long ago when I first started

QL LIBRARY REPORT

By Hugh Howie

the QL library, I was sent a program called XCHANGE, and as it was a commercial program at that time, I could not do anything with it. As time passed I was given other versions of the same program and still had to abide with my original decision. Now I am pleased to say that XCHANGE has been released to the Public Domain, although Psion still retain the copyright to it, but I have not yet placed it in the library. I do not know which version to use but Ron Blizzard has come to my rescue. Ron has in the past shown considerable interest in Xchange, so I sent him all the versions I had, and he has promised to let me have a really good working copy, incorporating all the various features in the various submissions. He says he will have time to do this. Even with a new daughter?

I was under the impression XCHANGE was a multitasking program, and as I used Taskmaster, I never did investigate XCHANGE too much. It must be remembered that I had not bought it, I just fell heir to it, and such being the case I did not try to do very much with it. But now someone tells me it is not a true multitasking program; yet it does look like one to me. Perhaps someone could tell me the difference.

I went to Newport, Rhode Island, and came back with three disks that looked like a complete set-up to start off a BBS for anyone so inclined. I am not interested in running a BBS, that is not for me. This is the BBS Tony Firshman uses I understand.

I do know Tony was running a pseudo BBS demo in his motel room, and that it was well attended. But I was not in at the beginning, and by the time I got there, there was no room at the inn. I just could not get in. He was running his BBS on two QL's connected by the serial ports. I will be placing this in the library for anyone interested. I imagine therre are going to a lot of Comms_ disks before I am finshed with this lot.

I would like to get into the BBS somewhere, but the phone bill for me would be prohibitive, much to my regret. Being on a fixed income does place limitations on ones activities.

As I said earlier, I also have the QEM shareware program which is a versatile communications program, and has been well recommended. Once again I have not spent much time on it, but it has been placed in the library for those interested.

I have just received a disk from Howard Clase with a collection of routines which he has donated to the library. I will get to this as soon as possible as most of his stuff is good.

I have been so very busy of late I have not had time to do more than just glance at much of the stuff coming in, but as soon as I catch up with the back-log I will let you know in greater detail what's new.

Other interesting material has been coming in all the time and I must admit I have not kept up to date with it. Not only that, but I have been inclined to forget about things. I guess that is one of the privileges of old age, but I really should not make that an excuse. There is no excuse for inefficiency, so if I have not mentioned your own submission, please remind me.

This is not a review of those programs it is just to show that there are still things coming in, and to ask you to send more. I hope to be able to spend more time on submissions in the future, and I just ask you to send things in, and if there is anything you want, please ask.

I am going to try and review some of this stuff each month to keep you up to date. As
I say, I have all this stuff and have not done much with it, I will have to change my attitude and get down to work.

Finally, I have an idea that someone far away did not get their order fulfilled. That being the case would that someone contact me? Plese?

930831

The public domain SuperBASIC routines supplied along with this disk in directory QLW_ were recently published in QL World. For copyright reasons I cannot supply copies of the text of the articles themselves, but I am allowed to give a brief summary of their functions. The programs are organised into sub-directories whose names correspond to the relevant issue of QL World. Programs in these notes followed by * are supplementary material that did not appear in QL World. I hope to find time to add routines from my earlier articles later.

If you are not familiar with the use of directories on the QL the following notes should help you save a bit of typing. To access files in Flp1_QLW_Jun93_ for example, type **DATA_USE flp1_QLW_Jun93_.** After this all file names are assumed to be in this sub-directory **unless** they begin with a recognised device name; so entering **LOAD Epson_driver** will find flp1_QLW_Jun93_Epson_driver without your having to type in the device and directory names every time. You can also use Ptidy (if you have it - if not, why not it's free!) or WCOPY to copy all files in a directory to e.g. ram1_ without all the directory names and access them from there. You will have to do this to read _docs into quill or if you have a Gold Card learn how to use **DEV_USE** - but that will have to be the subject of a future article sometime.

At the time of writing, back issues of Sinclair QL World are obtainable from: Arcwind Ltd., The Blue Barn, Tew Lane, Wootton, Woodstock, Oxon., U.K. OX7 1HA, Price £2.50 (UK), £2.99 (Europe).

Oct92_ (p38)

String fisher

This was originally designed to find all lines in the Psion BASIC programs **config_bas** and **install_bas** that contain references to microdrives so that they could be replaced with "flp1_", "diskdrive", etc. to run on a disk system without the use of the cumbersome mdv_use command. (It will not actually make the changes; you have to do this yourself, but it tells you which lines to change.) It can be easily adapted to search out any strings (words) from any other listing, or indeed any ASCII QL file; change line 150. N.B. it will not work on compiled or assembled programs.

If you want output directly on your printer instead of in a file type "ser1" - or whatever your printer desires when asked for "Device and filename for output".

I have made a minor correction to line 230.

N.B. You can compile both config_bas and install_bas after you've modfied them with QLiberator, and probably with DP's compilers too. The compiled versions run much faster of course.

Nov92_ (p29)

Code revealer

This was designed to explore a word processor internal file such as a Quill_doc file, to find out what the codes for things like "superscript on", "new paragraph" etc are. (They are not the same as those you put in using install_bas, which are intended for the printer only). It prints text normally, but control characters appear highlighted as their ASCII code values. It can, of course, be used on any other type of file. If you have Minerva and can remember all the special characters you won't need this! As supplied, the QL's second character set characters are also highlighted; if you would rather see their ASCII values omit line 240. A line feed appears both as it's ASCII value (10) and as a new line on the screen (line 235).

Filter ctrls

This was designed to filter out all control characters from an internal format file from another word processor - even an MS-DOS one, leaving just an ASCII file that can be imported into Quill. It also removes multiple spaces, and gives a file name acceptable to Quill, ending with the extension "_Psi" - which you must type in when importing.

You could also use it on a corrupted _doc file or a def_tmp file in an emergency. It will extract the text characters from any file. In any event you will probably find that a bit of formatting of the imported document will be required to set margins, justification etc.

Change serial port

This is an "install_bas" bypass to change the designated serial ports on printer_dat files. I need a lot of different printer_dat files, and I have solved this by configuring Quill, Abacus etc to look for "printer_dat" on ram8_. Each printer driver is stored on my setup disk with a distinctive name e.g. FX85_dat, FX85Ger_dat, LX86_dat etc. and I copy the appropriate one to ram8_printer_dat as required (you can also do this using the "backup" command from within Quill.) One of my QLs prints through ser1 and the other through ser2, this routine will change the port flag in all _dat files on a disk (except install_dat, the master list) a darned sight quicker thaan doing it through install_bas!

Jun93_ (Vol. II Issue 6 p38)

DIY Printer driver

The first listing in this article was an example of how, in principle, to write a SuperBASIC printer driver that allows you to print most of the characters from the QL's second (or foreign) character set from a quill_doc - depending upon what's available in your printer and your ingenuity in creative overprinting. You should first "print" your _doc to a file using your normal printer driver, then process this _lis file using the routine, which will send it to the printer substituting codes as required. Pay particular attention to

line 145 making sure that it is where your printer is and that the flags are correct - if in doubt start with the default "ser1_".

Briefly, the second character codes (128 - 191) are intercepted and substituted by a string of up to nine codes which put the printer in the right mood, print the character and then return the printer to normal.

The next two programs are "full" versions of this using slightly different approaches; they did not appear in QL World.

Epson driver *

This is as full an implementation for my Epson FX85 as I could manage, it should work with other Epsons, and may work with Epson compatibles. For the few characters I could not manage you will have to make additions by hand.

CGP 220 driver *

In this case all the characters are available in the printer, but with different codes from those used by the QL. All that is required is a one for one substitution, and a simpler array is used; the codes are read in from a series of DATA statements. I have not actually been able to test this one, I found the problem in a US newsletter, which printed my solution - but I never heard whether or not it actually worked! If your printer is in IBM mode you will find that most of the characters are there whatever the brand, if so this approach is the one to use.

Second set *

This is a test set of ASCII code followed by the corresponding character in lines of eight as follows

128 ä 129 a 130 å 131 é 132 ö 133 o 134 ø 135 ü
136 ç 137 ñ 138 æ 139 o 140 á 141 à 142 â 143 ë
144 è 145 ê 146 ï 147 í 148 ì 149 î 150 ó 151 ò
152 ô 153 ú 154 ù 155 û 156 ß 157 ç 158 ¥ 159 `
160 Ä 161 A 162 Å 163 É 164 Ö 165 O 166 Ø 167 Ü
168 Ç 169 Ñ 170 Æ 171 O 172 α 173 δ 174 θ 175 ½
176 µ 177 π 178 ø 179 ¡ 180 ¿ 181 ¼ 182 § 183 ¤
184 « 185 » 186 ° 187 ÷ 188 ← 189 → 190 ↑ 191 ↓

Use it to test your printer driver.

Exp Paras

For budding QL World contributors, this program arose in response to a statement by QL World's editor that noone had been able to produce from Quill a file in the right format for her to import into her DTP program. It should have no end-of-line markers within paragraphs, no extra spaces, and MSDOS EOLs (CR,LF) at the end of each paragraph.

The _doc should be "deformatted" first. This involves setting left justification, removing the left margin completely, but leave at least one indent space at the start of each paragraph, remove all footers and headers and set the page length to zero (effectively infinite!) Then "print" the file to a _lis file using a special printer_dat file with every thing set to NONE except EOL and postamble, which should both be the QL's standard LF. Process this _lis file with Exp_Paras.

The article also describes another way of achieving the same result directly from Quill, using a translation and a special printer_dat file, but a little more massaging of the original file is required.

END OF _doc FILE

The above is the _doc file from a disk of routines which I have just received from Howard. I have placed this on the HJC_1 disk which contains a lot of other goodies from him, including the "Ftidy" he mentions in paragraph 2 above. If you would like your own copy of those routines, please send a formatted disk and return Post & Packing to:-

Hugh Howie, 586 Oneida Dr., Burlington, Ont., L7T 3V3.

HHH930902

BEWARE OF GST +

Some time ago I ordered from a supplier in the U.S.A., a software and the price plus the shipping cost was satisfactory even though it was in U.S. Dollars.

As expected when the parcel arrived at Customs the GST was added to the cost of the program. To add insult to injury, the Post Office added another $5.00 for collecting the GST.

It kind of got my goat !!!!!

Louis Laferriere

I VISITED DAYTON

by Hugh Howie

I went on a short vacation trip a couple of weeks ago, visiting some friends and having a good time, finishing up at Dayton, Ohio, and their annual Computer Fest.

This is held in the Hara Arena which is a huge sports and entertainment centre. The Hara Arena in size is about the size of perhaps four or five hockey arenas. This place is absolutely huge. It has a banquet room nearly the size of a hockey rink.

At the computer fest last year they had about 27000 visitors for the two day show, and this year they were hoping for more than that. From what I saw, I would say they reached their objective with bodies to spare. I was going to say room to spare but there was no room to spare anywhere, the place was packed.

The main arena was called a Showcase display, where all the manufacturers had their latest and best on show. As I lost my notes, and I gave away my Show Catalogue, it is better not to name names in case I miss an important one, but I can assure you that just about all the world giants were there with there glittering showcases and contents. Being strictly a QL man, and not having an interest in any other computer I did not pause long in this section. If I had had a desire to, I could have grown roots there the crush was so massive. In moving it was a matter of push and shove - everyone was doing the shuffle in slow time.

I must mention that many of the various section of this complex are on different levels, but there are no stairs, no elevators, just plain old common ramps. result is that you just sort of glide from one section to another. In fact it comes as a relief to reach a down ramp and sort of just coast along before starting to walk again.

There were about three hundred traders there from all over the mid-west, some even from more distant parts. The traders were grouped in various sections, as also were the flea markets and that was something else again, If there was something you wanted you could get it in the flea market.

The Sinclair section was well represented, and I was surprised by the amount of attention this area was getting. The Sinclair user may be declining, but from the number of people stopping, looking, talking and buying was really surprising. We may be dying but we are not dead - yet.

I arrived in Dayton on Thursday, and on Friday many other Sinclair folks arrived and we all met and got started talking. Paul Holmgren of Mechanical Affinity was there with a wagon load of stuff, and he had more to pick up from Tim Swenson and as I had my station wagon there I was roped into picking this stuff up and taking it over to the arena. Therefore I saw a small part of the show on the Friday night.

When we returned from the arena, we had a little get-together in my room. Paul Holmgren, Frank Davis, Don Lambert of ZXir Clive Alive, Charlie Reise from St Louis, Mel LaVerne (another member) from Oak ridge, Tennessee was there with his son. I may have missed someone, as I say I lost my notes. Anyway we had a good time. I had some cocktail style sausages, and some spare ribs I had saved from dinner in a little box, some beer, some pop, and plenty of gab.

Many things were discussed and generally nattered about. One topic was our proposed Sinclair Fest in Toronto in 1994. most appeared to be in agreement it would be a good idea, I don't think there were any dissentions, and this is one of the reasons we are asking every member and no-member also, to write and let us know whether or not, they would come to Toronto for Fest next year, so please fill out the form in this issue and mail it to us whether you are coming or not. We need to know to make our decision. Decision day is October 21st 1993.

On Saturday morning I was again giving a hand, and was able to see most of the show before the crowd gathered, and from this was able to see how the tables were loaded. On Saturday afternoon I made a quick circuit of the show, and noted that most of the tables were looking rather bare and bedraggled, and from this observation I concluded that the traders had to be a happy bunch, and that they had to be loaded with green.

On Saturday evening after the show closed for the day, Tim Swenson had a little picnic at his home. I did not go as I had had enough that day, I was a wee bit tired with all my walking and toting stuff around, so I stayed at home. Tim, a Captain in the Air Force, is Project Officer, Communications, working at the nearby Wright Patterson Air Force base. He is also the author/editor of The QL Hackers Journal, an interesting booklet issued every couple months or so for the QL Programmer. My understanding was that a good time was had by all at the picnic. Sorry I missed it, but a picnic is no place for a tired old man!

This was my second visit to Dayton, I was there two years ago, and Jeff Taylor our Editor, and Rene Bruneau our President were there last year. Jeff paid another visit this year, so you will see that there is a certain amount of attraction at this event for us Sinclairites. I guess it is because we meet so many folks from other parts whom we never met before.

One thing which was noticed, and that is that there was nothing I could buy in Dayton that I could not get in Toronto at the same or even better price! The Canadian Dollar is running about 1.30 or thereabouts, with the result that if something costs $3 in Dayton, it cost $4 Canadian. Toronto has even better prices in many respects than anywhere I have been in the States. As well as being on a swing through Ohio, I also paid a visit to the fest at Rhode Island a couple months ago, so have had an opportunity to observe prices in a large area. Toronto is as good as anywhere for prices, and better than most. For example, Disk drives in Dayton were $38 US, I can get them here for $40/45 Canadian!

No Matter! If you want to have a holiday and look at computers, and see the latest in anything associated with computers, Dayton is the place to go. And if you want to meet Sinclair users you will find plenty of them at Dayton.

I have not mentioned many names whom I met and spoke to, as I did not make a back-up of my notes, just goes to prove that we never learn, we just go on in our own sweet way and never listen to advice. Anyway, who ever heard of anyone making back-ups of notes?

I had a good time. Jeff had a good time. We all had a good time. Hooray!

930901

I M P O R T A N T N O T I C E
A L L S I N C L A I R U S E R S
PLEASE READ THIS

At a time when the Sinclair User is becoming a rare species of animal, when our fraternity is dwindling in numbers, when so many are changing to other methods of fetishism, it is becoming abundantly clear that there are not going to be too many opportunities or reasons for all Sinclairites to get together and worship their objects of adoration. This is why we in Toronto are making what may be the last effort in North America for us all to get together for one last bash.

We have decided to ask you all, each and every one of you, if you would like one last chance to meet your favourite guru in the Sinclair world of computing. We enclose a form which we ask you to take a minute to complete, and mail to us, letting us know what you think about a get-to-gether next year, here in Canada, the target of all those storms that start out somewhere in Texas.

It would be foolish to run something like this if there were going to be no one come, so the decision to go ahead with this affair depends on your answer before October 21st 1993. From the response we will make our decision.

Should we get a good response we are going to advertise this around the world. We are going to ask traders and interested parties from Britain and continental Europe and anywhere they may be, to come visit Canada and all the North American Sinclair fraternity. We are going to ask our own North American cohorts do come visit us here, in Toronto, in 1994. Probable date around the middle of July.

The convention will be held in Burlington on the shores of Lake Ontario, just a few miles west of Toronto, where accomodation is reasonable. Where there is easy access from all regions, and where we can have accomodation and venue in close proximity thus eliminating a lot of cross-city travelling. Good shopping centres also.

The roads to Burlington are all four lane divided highway, no matter from where you come, sometimes six lane. Burlington is near Toronto with a six lane+, divided highway right into the downtown area, such as the Skydome which is the home of the Blue Jays. And the Skylon Tower, the tallest free-standing structure in the world. You might even see a Blue Jays game on their home turf.

If you wish to travel to Toronto by rail or bus there is a regular service. There is an airport bus service from Pearson Airport, and you can be in Burlington, in your motel within half an hour of leaving the airport.

In other words, we have a venue that is of easy access, and easy to move around in.

Please take a few moments to fill out and mail this little form. Arrange for next years vacation to be spent in Canada. Visit us here - where we have the world renowned Royal Botanical Gardens in Burlington and Hamilton. Visit Hamilton where you may see one of the only two World War 2, Lancaster Bombers in the world still flying. Visit downtown Toronto where we have the Eaton Centre, a huge shopping centre covering blocks, and in height to the heavens, where full size trees grow under the glass dome a city block long. Visit the Toronto Zoo.

Visit the Sinclair Zoo where there are all sorts of animal from the ZX80 to the QL, and bring enthusiasm to what could be the best (and probably the last) ALL SINCLAIR SHOW in North America.

Come one - Come all - fill out the form saying you will come - then come.....

July 28, 1993

John E. Juergens
18 Bryce Canyon Way
Pacifica CA 94044-3723

Hugh H. Howie
QL Contact
586 Oneida Drive
BURLINGTON ONT.
CANADA L7T 3V3

Dear Hugh,

This is a follow-up to our letter of Jan 9th, reprinted in SINC-LINK's Jan-Feb '93 issue.

First, our continuing Gold Card experience(s): Around the beginning of this month MDV 1 on our main QL went to MDV heaven, requiring: 1. Sending the QL off to Dan Elliot, COMPUTER CLASSICS, RT 1, BOX 117, CABOOL MO 65689, and, 2. switching over to our standby QL for interim use.

Over the years, Dan has kept our QLs running with his excellent service and modest prices; I unhesitatingly recommend his work. Our standby QL has always been a bit flakey, originally overheating until Dan put in a Coleco power supply connector. Even then, it seemed to draw a noticeable amount more current than our main machine but did function acceptably.

This last is mentioned only because, after removal of the Gold Card from the main machine to send to Dan and installing it in the standby machine, the Gold Card screen corruption problem intensified. It got to the point where we were averaging 2 to 3 turn-on-off-on sequences per startup just to get a useable screen.

This frustration led me, again, to write Miracle and ask if they had yet solved the problem. Within 10 days we received a second chip, an Ingot 5 (new version) replacing the Ingot 3 which came with our Gold Card. Miracle's first replacement was an Eprom which did not solve the problem.

The bottom line is that Miracle has solved the problem! No more screen corruptions, period, even on our backup QL. The Gold Card is now an unmitigated pleasure to use.

Secondly, PC Conqueror: Had we not acquired recently an old PC compatible, I would not have known how slow PC Conqueror Gold really is. From the beginning it appeared "somewhat" slow but without the ability to compare, ignorance is blissful. For anyone considering adding PC compatibility to their lives, the rock bottom prices on used machines and DOS applications presents a rare economic opportunity and, in my opinion, overwhelming competition to PC Conqueror.

In our case, US$200 bought a used 286-16 with a 20M hard disk, 2 floppies

(360K and 1.44M) and CGA, printer and COM port cards in a package that weighs only slightly less than our refrigerator.

My intial objection to buying a PC was space and clutter considerations. Although that still is valid, the machine itself stands on edge out of the way and the cable-clutter is not as bad as I had initially envisioned.

Our QL has been running since 1986 with a Magnavox amber monitor. The challenge presented by the PC acquistion was to use the same monitor for both machines.

A coax cable was run from the PC's CGA-RCA jack to a QL TV game switcher to which I had added two RCA jacks - one for the CGA input and the other for monitor output - having unsoldered the twin-lead TV pigtail. It works acceptably on most applications and switching between the QL and PC, even when each is on, seems to do no harm.

The PC's CGA output and the QL's composite monochrome output are similar. However, the term "similar" is emphasized. There is an intensity difference between the QL and PC outputs - CGA is much brighter, requiring Contrast &/or Brightness adjustment when switching from one to the other. Further, some PC applications - pixel based screens - require a slight adjustment to the Vertical Hold to stop rolling. However, all adjustments are less difficult than the above would make it appear.

Most of the post-1986 software I've tried provide adjustment for the type of card and monitor being used in the applications themselves. However, older applications do not provide for adjustments, eg. with the 1984 Psion PC-4 suite, the prompt and command screens are almost impossible to read due to Psion's arty use of multi "colours" within letters.

Some PC software will change from being barely readable to readable by simply switching from MODE CO80 to MODE BW80 at the DOS prompt command line or via a line in the AUTOEXEC.BAT file.

PC-Conqueror Gold produces a good screen once software adjustments, if allowed, are made; the PC-4 suite give readable screens. However, when a screen difficulty does arise, it's a real challenge to get into an application's utility section and adjust the screen when the screen is unreadable in the first place. One must proceed with a finger and one eye on the documentation and a remaining one of each on the screen searching for something remotely recognizable. Of course, a color monitor would probably solve all of the PC screen problems.

Lastly, was it all worth it? Probably not if one puts no value on challenges or learning. But, otherwise, a resounding maybe!

I've yet to come across anything in the PC world that I would regularly use or couldn't be without. The experience has made it clear to me what a real value the QL-bundled Psion group truly is for the home user.

```
name   Dec   Hex   Instr-Dec      Remarks  (13)
       4575  11FF  SBC HL, DE
       4577  11E1  LD A, L
       4578  11E2  CP 3
       4580  11E4  JR C, 4595
       4582  11E6  LD A, 4
       4584  11E8  LD (13436), A
       4587  22EB  PUSH BC
       4588  11EC  POP HL
       4589  11ED  CALL 4979
_______4592  11F0  JP 4665
       4595  11F3  EX DE, HL
       4596  11F4  LD A, (HL)
       4597  11F5  RES 5, A
       4599  11F7  CP 87          ; W
       4601  11F9  JR Z, 4649
       4603  11FB  CP 76          ; L
       4605  11FD  JR Z, 4628
       4607  11FF  CP 68          ; D
       4609  1201  JR NZ, 4626
       4611  1203  INC HL
       4612  1204  LD A, (HL)
       4613  1205  RES 5, A
       4615  1207  CP 68          ; D
*      4617  1209  JR NZ, 4626
       4619  120B  INC HL
       4620  120C  LD A, (HL)
       4621  120D  CP 34          ; "
       4623  120F  JP Z, 171
_______4626  1212  RST 8 ERR 19  ; "Invalid I/O device"
       4628  1214  INC HL
       4629  1215  LD A, (HL)
       4630  1216  RES 5, A
       4632  1218  CP 80          ; P
       4634  121A  JR NZ, 4626
       4636  121C  LD A, 3
       4638  121E  LD (13436), A
       4641  1221  INC HL
       4642  1222  LD A, (HL)
       4643  1223  CP 34          ; "
       4645  1225  JR NZ, 4626
_______4647  1227  JR 4665
       4649  1229  INC HL
       4650  122A  LD A, (HL)
       4651  122B  SUB 47
       4653  122D  JP C, 4626
       4655  122F  CP 4
       4657  1231  JR NC, 4626
       4659  1233  AND A
       4660  1234  JR Z, 4626
       4662  1236  DEC A
_______4663  1237  JR 4638
       4665  1238  LD HL, (23631); chans
       4668  123C  LD BC, 20
       4671  123F  ADD HL, BC
       4672  1240  LD A, (HL)
       4673  1241  CP 128
       4675  1243  CALL Z, 4730
       4678  1246  LD HL, 23574   ; strms + 6
       4681  1249  LD A, (13434)
       4684  124C  RLA
       4685  124D  RES 0, A
       4687  124F  LD C, A
       4688  1250  LD B, 0
       4690  1252  ADD HL, BC
       4691  1253  LD A, (13436)
       4694  1256  AND A
       4695  1257  JR Z, 4717
       4697  1259  CP 1
       4699  125B  JR Z, 4721
       4701  125D  CP 2
       4703  125F  JR Z, 4725
       4705  1261  CP 3
       4707  1263  JR Z, 4713
       4709  1265  LD (HL), 41    ; )
_______4711  1267  JR 4727
       4713  1269  LD (HL), 36    ; $
_______4715  126B  JR 4727
_______4717  126D  LD (HL), 21
_______4719  126F  JR 4727
_______4721  1271  LD (HL), 26
_______4723  1273  JP 4727
_______4725  1275  LD (HL), 31
_______4727  1277  JP 4499
       4730  127A  PUSH HL
       4731  127B  LD BC, 50

name   Dec   Hex   Instr-Dec      Remarks
       4734  127B  CALL 189       ; grow
       4737  1281  POP DE
       4738  1282  LD HL, 4794
       4741  1285  LD BC, 51
       4744  1288  LDIR
       4746  128A  LD HL, (23631); chans
       4749  128D  LD BC, 45
       4752  1290  ADD HL, BC
       4753  1291  EX DE, HL
       4754  1292  LD HL, (23631); chans
       4757  1295  LD BC, 12
       4760  1298  ADD HL, BC
       4761  1299  LD C, (HL)
       4762  129A  INC HL
       4763  129B  LD B, (HL)
       4764  129C  PUSH BC
       4765  129D  LD BC, 7
       4768  12A0  ADD HL, BC
       4769  12A1  POP BC
       4770  12A2  LD A, 5
       4772  12A4  LD (HL), E
       4773  12A5  INC HL
       4774  12A6  LD (HL), D
       4775  12A7  INC HL
       4776  12A8  LD (HL), C
       4777  12A9  INC HL
       4778  12AA  LD (HL), B
       4779  12AB  INC HL
       4780  12AC  INC HL
       4781  12AD  INC DE
       4782  12AE  INC DE
       4783  12AF  INC DE
       4784  12B0  INC DE
       4785  12B1  DEC A
       4786  12B2  JR NZ, 4772
       4788  12B4  DEC HL
       4789  12B5  DEC HL
       4790  12B6  LD (HL), D
       4791  12B7  DEC HL
       4792  12B8  LD (HL), E
_______4793  12B9  RET
       4794  12BA  NOP
       4795  12BB  NOP
       4796  12BC  NOP
       4797  12BD  NOP
       4798  12BE  LD D, A
       4799 - 4802 NOP
       4803  12C3  LD E, B
       4804 - 4807 NOP
       4808  12C8  LD E, C
       4809 - 4812 NOP
       4813  12CE  LD C, H
       4814  12CF  NOP
       4815 - 4817 NOP
       4818  12D2  LD B, HL
       4819  12D3  LD D, 0
_______4821  12D5  JR 4841
_______4823  12D7  LD D, 1
_______4825  12D9  JR 4841
       4827  12DB  LD D, 2
_______4829  12DD  JR 4841
_______4831  12DF  LD D, 3
_______4833  12E1  JR 4841
       4835  12E3  LD D, 4
_______4837  12E5  JR 4841
_______4839  12E7  LD D, 5
_______4841  12E9  JP 106
       4844  12EC  ADD A, B
       4845  12ED  NOP
       4846  12EE  RST 32        ; next char
       4847  12EF  CALL 144      ; evalu
       4850  12F2  LD A, B
       4851  12F3  AND A
       4852  12F4  JP NZ, 4554   ; err 11
       4855  12F7  LD A, C
       4856  12F8  CP 17
       4858  12FA  JP NC 4554    ; err 11
       4861  12FD  CP 2
       4863  12FF  JP C, 4554    ; err 11
       4866  1302  LD D, A
       4867  1303  ADD A, A
       4868  1304  LD HL, 23574  ; strms + 6
       4871  1307  LD C, A
       4872  1308  LD B, 0
       4874  130A  ADD HL, BC
```

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name    Dec   Hex   Instr-Dec      Remarks          (14)

        4875  130B  LD E, (HL)
        4876  130C  LD A, D
        4877  130D  LD D, 0
        4879  130F  CP 2
        4881  1311  JR NZ, 4885
        4883  1313  LD D, 6
        4885  1315  CP 3
        4887  1317  JR NZ, 4891
        4889  1319  LD D, 16
        4891  131B  LD (HL), D
        4892  131C  LD A, E
        4893  131D  CP 41          ; )
        4895  131F  JP NZ, 4499
        4898  1322  LD A, (8207)
        4901  1325  BIT 7, A
        4903  1327  JR Z, 4972
        4905  1329  LD BC, (8318)  ; lenth
        4909  132D  LD HL, 5090
        4912  1330  OR A
        4913  1331  SBC HL, BC
        4915  1333  LD (8318), HL  ; lenth
        4916  1336  LD A, H
        4919  1337  OR L
        4920  1338  JR Z, 4936
        4922  133A  LD HL, (8236)
        4925  133D  LD A, (HL)
        4926  133E  INC HL
        4927  133F  LD (8236), HL
        4930  1342  LD (8221), A   ; curtrk
        4933  1345  CALL 5169
        4336  1348  LD HL, (8236)
        4939  134B  DEC HL
        4940  134C  LD (8245), HL  ; temp6
        4943  134F  LD A, 11
        4945  1351  LD (8194), A   ; nmiflag
        4948  1354  CALL 168
        4951  1357  LD A, (13440)
        4954  135A  LD (8221),A    ; curtrk
        4957  135D  CALL 126       ; track
        4960  1360  CALL 123       ; loadbf
        4963  1363  LD HL, (13438)
        4966  1366  LD (8326), HL  ; totlen
        4969  1369  CALL 120       ; savebf
        4972  136C  XOR A
        4973  136D  LD (8207), A
        4976  1370  JP 4499
        4979  1373  LD HL, 32
        4981  1375  DEC HL
        4982  1376  LD A, (HL)
        4983  1377  LD (HL), 32
        4985  1379  CP 191
        4987  137B  JP Z, 5194
        4990  137E  CP 223
        4992  1380  JP NZ, 6583    ; parameter error
        4995  1383  LD A, 11
        4997  1385  LD (8194), A   ; nmiflag
        5000  1388  CALL 204       ; sv#1
        5003  138B  XOR A
        5004  138C  LD (8194), A   ; nmiflag
        5007  138F  LD HL, 8207
        5010  1392  SET 7, (HL)
        5012  1394  LD HL, 8328    ; datablock
        5015  1397  LD (8316), HL  ; destin
        5018  139A  LD HL, 5090
        5021  139D  LD (8318), HL  ; lenth
        5024  13A0  LD HL, 0
        5027  13A3  LD (13438), HL
        5030  13A6  LD HL, 8261
        5033  13A9  LD A, 249      ; name end
        5035  13AB  CP (HL)
        5036  13AC  JP Z, 5047     ; "Disk Full"
        5039  13AF  LD (8236), HL  ; start
        5042  13B2  LD A, (HL)
        5043  13B3  LD (13440), A
      5046  13B6  RET
        5047  13B7  LD HL, 5053    ; "Disk Full"
      5050  13BA  JP 174           ; print message
        5053  "U Disk Full"        ; pointer @5047
        5066  13CA  LD A, (16098)
        5069  13CD  BIT 1, A
        5071  13CF  JR Z, 5076
        5073  13D1  POP AF
        5074  13D2  JR 5082
        5076  13D4  POP AF
        5077  13D5  CP 165
        5079  13D7  JP NC, 8075
        5082  13DA  LD D, A
        5083  13DB  LD A, (8207)
        5086  13DE  BIT 7, A
        5088  13E0  JP NZ, 5092
      5090  13E2  RST 8 ERR 24
        5052  13E4  LD HL, (8318)  ; lenth
        5095  13E7  LD A, H
        5096  13E8  OR L
        5097  13E9  JR Z, 5123
        5099  13eb  DEC HL
        5100  13EC  LD (8318), HL  ; lenth
        5103  13EF  LD HL, (8316)  ; destin
        5106  13F2  LD (HL), D
        5107  13F3  INC HL
        5108  13F4  LD (8316), HL  ; destin

name    Dec   Hex   Instr-Dec      Remarks

        5111  13F7  LD HL, (13438)
        5114  13FA  INC HL
        5115  13FB  LD (13438), HL
        5118  13FE  POP BC
        5119  13FF  POP HL
      5120  1400  JP 186           ; jpout
        5123  1403  LD A, D
        5124  1404  LD (8240), A   ; temp1
        5127  1407  LD HL, 5090
        5130  140A  LD (8318), HL  ; lenth
        5133  140D  LD HL, (8236)  ; start
        5136  1410  LD A, (HL)
        5137  1411  INC HL
        5138  1412  LD (8236), HL  ; start
        5141  1415  CP 249         ; name end
        5143  1417  JP Z, 5047     ; disk full
        5146  141A  LD (8221), A   ; curtrk
        5149  141D  CALL 5169
        5152  1420  LD HL, 8328    ; data block
        5155  1423  LD (8316), HL  ; destin
        5158  1426  LD HL, 5090
        5161  1429  LD (8318), HL  ; lenth
        5164  142C  LD A, (8240)   ; temp1
      5167  142F  JR 5082
        5169  1431  LD HL, 8304    ; buffer
        5172  1434  LD (HL), 255   ; end of track map
        5174  1436  INC HL
        5175  1437  LD (HL), A
        5176  1438  INC HL
        5177  1439  PUSH HL
        5178  143A  POP DE
        5179  143B  LD HL, 8226    ; prognm
        5182  143E  LD BC, 9
        5185  1441  LDIR
        5187  1443  CALL 126       ; track
        5190  1446  CALL 120       ; savebf
      5193  1449  RET
        5194  144A  CALL 132       ; indir
        5197  144D  LD A, (8224)   ; errnu
        5200  1450  CP 10
        5202  1452  JP Z, 147      ; nofil
        5205  1455  CALL 135       ; movdr
        5208  1458  LD HL, 8260
        5211  145B  LD (8236)      ; start
        5214  145E  CALL 5223
        5217  1461  LD A, 64       ; @
        5219  1463  LD (8207), A
      5222  1466  RET
        5223  1467  LD HL, (8236)  ; start
        5226  146A  INC HL
        5227  146B  LD (8236), hl  ; start
        5230  146E  LD A, (HL)
        5231  146F  CP 249         ; name end
        5233  1471  RET Z
        5234  1472  LD (8221), A   ; curtrk
        5237  1475  CALL 126       ; track
        5240  1478  CALL 123       ; loadbf
        5243  147B  LD HL, 8328    ; datablock
        5246  147E  LD (8316), HL  ; destin
        5252  1481  LD HL, (8318)  ; lenth
        5252  1484  XOR A
      5253  1485  RET
        5254  1486  LD A, (8207)
        5257  1489  BIT 6, A
        5259  148B  JR NZ, 5263
      5261  148D  RST 8 ERR 8     ; end of file
        5263  148FLD HL, (8318)    ; lenth
        5266  1492  LD A, H
        5267  1493  OR L
        5268  1494  CALL Z 5284
        5271  1497  DEC HL
        5272  1498  LD (8318), HL  ; lenth
        5275  149B  LD HL, (8316)  ; destin
        5278  149E  LD D, (HL)
        5379  149F  INC HL
        5280  14A0  LD (8316), HL  ; destin
      5283  14A3  RET
        5284  14A4  CALL 5223
        5287  14A7  CP 249         ; name end
        5289  14A9  RET NZ
        5290  14AA  XOR A
        5291  14AB  LD (8207), A
        5294  14AE  POP BC
        5295  14AF  LD D, 255      ;end of track map
      5297  14B1  RET
        5298  14B2  CALL 5254
        5301  14B5  POP AF
        5302  14B6  POP BC
        5303  14B7  POP HL
        5304  14B8  LD A, D
      5305  14B9  JP 186           ; jpout
PRINT   5308  14BC  CALL 156       ; gtfil
        5311  14BF  LD A, 32
        5313  14C1  LD (DE), A
        5314  14C2  CALL 5194
        5317  14C5  LD A, 64       ; @
        5319  14C7  LD (8207), A
        5322  14CA  CALL 5254
        5325  14CD  LD A, (8207)
        5328  14D0  AND A
        5329  14D1  JR Z, 4499
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name    Dec   Hex   Instr-Dec      Remarks          (15)

        5332  14D4  LD A, (16098)
        5335  14D7  BIT 0, A
        5337  14D9  JR NZ, 5348
        5339  14DB  LD A, D
        5340  14DC  CP 13
        5342  14DE  JR Z, 5348
        5344  14E0  CP 32
        5346  14F2  JR Z, 5317
        5348  14E4  XOR A
        5349  14E5  LD (8207), A
        5352  14E8  LD A, D
        5352  14E9  RST 16
_______ 5354  14EA  JR 5317
INPUT   5356  14EC  RST 32         ; next char
        5357  14ED  LD HL, (23645) ; chadd
        5360  14F0   LD A, (HL)
        5361  14F1  CP 35          ; #
        5363  14F3  JR NZ, 4474
        5366  14F6  RST 32         ; next char
_______ 5367  14F7  JR 5384
        5369  14F9  CALL 144       ; evalu
        5372  14FC  LD A, B
        5373  14FD  AND A
        5374  14FE  JR NZ, 4554
        5377  1501  LD A, C
        5378  1502  CP 32
        5380  1504  JP NC, 4554
_______ 5383  1507  RET
        5384  1508  CALL 5369
        5387  1508  CP 3
        5389  150D  JP NC, 4554
        5392  1510  LD (8329), A
        5395  1513  RST 32         ; next char
        5396  1514  CALL 5369
        5399  1517  CP 22
        5401  1519  JP NC, 4554
        5404  151C  LD (8240), A
_______ 5407  151F  JR 5420
        5409  1521  ADD A, A
        5410  1522  ADD A, A
        5411  1523  ADD A, A
        5412  1524  LD B, A
        5413  1525  LD A, 168
        5415  1527  SUB B
        1516  1523  LD C, A
        5417  1529  LD B, 0
_______ 5419  152B  RET
        5420  152C  CALL 5409
        5423  152F  LD (16061), A  ; left
        5426  1532  LD (16066), A  ; Y
        5429  1535  RST 32         ; next char
        5430  1536  CALL 5369
        5433  1539  CP 30
        5435  153B  JP NC, 4554
        5438  153E  ADD A, A
        5439  153F  ADD A, A
        5440  1540  ADD A, A
        5441  1541  LD (16060), A  ; left
        5444  1544  LD (16065), A  ; X
        5447  1547  RST 32         ; next char
        5448  1548  CALL 5369
        5451  154B  INC A
        5452  154C  ADD A, A
        5453  154D  ADD A, A
        5454  154E  ADD A, A
        5455  154F  DEC A
        5456  1550  LD D, A
        5457  1551  LD A, (16065)  ; X
        5460  1554  ADD A, 8
        5462  1556  CP D
        5463  1557  JR NC, 5512
        5465  1559  LD A, D
        5466  155A  LD (16062), A  ; right
        5469  155D  RST 32         ; next char
        5470  155E  CALL 5369
        5473  1561  CALL 5409
        5476  1564  LD D, A
        5477  1565  LD A, (16066)  ; Y
        5480  1568  SUB 8
        5482  156A  CP D
        5483  156B  JR C, 5512     ; parameter error
        5485  156D  LD A, D
        5486  156E  LD (16063), A  ; bottom
        5489  1571  LD A, 1
        5491  1573  LD (16064),A   ; scroll count
        5494  1576  LD A, (23693)  ; attr p
        5497  1579  LD (16074), A
        5500  157C  LD A, (8239)   ; wind attr
        5503  157F  LD (16071), A  ; wind #
        5506  1582  CALL 6442
_______ 5509  1585  JP 4499
_______ 5512  1586  RST 8 ERR 26   ; parameter error
PAPER   5514  158A  XOR A
_______ 5515  158B  JR 5519
INK     5517  158D  LD A, 1
        5519  158F  LD (8239), A
        5522  1592  RST 32         ; next char
        5523  1593  CALL 144
        5526  1596  LD IX, 8239
        5530  159A  LD A, B
        5531  159B  AND A

name    Dec   Hex   Instr-Dec      Remarks

        5532  159C  JR NZ, 4554
        5535  159F  LD A, C
        5536  15A0  CP 8
        5538  15A2  JR NC, 4554
        5541  15A5  BIT 0, (IX+0)
        5545  15A9  JR NZ, 5556
        5547  15AB  SCF
        5548  15AC  CCF
        5549  15AD  RLA
        5550  15AE  RLA
        5551  15AF  RLA
        5552  15B0  LD E, 199
_______ 5554  15B2  JR 5558
        5556  15B4  LD E, 248
        5558  15B6  LD (8240), A   ; temp1
        5561  15B9  LD HL, 22527   ; end of d/f
        5564  15BC  LD BC, 768
        5567  15BF  INC HL
        5568  15C0  LD A, (HL)
        5569  15C1  AND E
        5570  15C2  LD D, A
        5571  15C3  LD A, (8240)   ; temp1
        5574  15C6  OR D
        5575  15C7  LD (HL), A
        5576  15C8  DEC BC
        5577  15C9  LD A, B
        5578  15CA  OR C
        5579  15CB  JR NZ, 5567
        5581  15CD  LD HL, 23693   ; attr p
        5584  15D0  LD A, (HL)
        5585  15D1  AND E
        5586  15D2  LD D, A
        5587  15D3  LD A, (8240)   ; temp1
        5590  15D6  OR D
        5591  15D7  LD (HL), A
_______ 5592  15D8  JR 5607
POKE    5594  15DA  RST 32         ; next char
        5595  15DB  CALL 114       ; evalu
        5598  15DE  PUSH BC
        5599  15DF  RST 32         ; next char
        5600  15E0  CALL 114       ; evalu
        5603  15E3  POP HL
        5604  15E4  LD (HL), C
        5605  15E5  INC HL
        5606  15E6  LD (HL), B
_______ 5607  15E7  JP 4499
GO TO   5610  15EA  RST 32         ; next char
        5611  15EB  CALL 114       ; evalu
        5614  15EE  LD A, B
        5615  15EF  AND A
        5616  15F0  JR NZ, 4554
        5619  15F3  LD A, C
        5620  15F4  CP 5
        5622  15F6  JR NC, 4554
        5625  15F9  CP 4
        5627  15FB  JR NZ, 5633
        5629  15FD  LD A, 128
_______ 5631  15FF  JR 5645
        5633  1601  LD B, A
        5634  1602  INC B
        5635  1603  LD A, 1
        5637  1605  ADD A, A
        5638  1606  DJNZ 5637
        5640  1608  PUSH AF
        5641  1609  RRCA
        5642  160A  OUT 183,A
        5644  160C  POP AF
        5645  160D  LD (8195), A   ; dvsel
_______ 5648  1610  JR 5607
        5650  1612  PUSH HL
        5651  1613  PUSH DE
        5652  1614  PUSH BC
        5653  1615  PUSH AF
        5654  1616  CALL 5667
        5657  1619  CALL 6442
        5660  161C  POP AF
        5661  161D  POP BC
        5662  161E  POP DE
        5663  161F  POP HL
_______ 5664  1620  JP 186          ; jpout
        5667  1623  CP 13
        5669  1625  JR NZ, 5696
        5671  1627  CALL 5890
_______ 5674  162A  RET
        5675  162B  LD A, (16065)  ; X
        5678  162E  LD B, A
        5679  162F  LD A, (16062)  ; right
        5682  1632  SUB B
        5683  1633  CP 34          ; "
        5685  1635  JR C, 5671
        5687  1637  LD A, (16065)  ; X
        5690  163A  ADD A, 32
        5692  163C  LD (16065), A  ; X
_______ 5695  163F  RET
        5696  1640  CP 6
        5698  1642  JR Z, 5675
        5700  1644  CP 8
        5702  1646  JP Z, 5917
        5705  1649  CP 32
        5707  164B  RET C
        5708  164C  CP 128
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TORONTO 1994 FEST

Would all members and traders please take a few moments to answer those few questions, It would be of assistance to us in deciding whether to go ahead with the proposed ALL SINCLAIR FEST in 1994.

Do you like the idea of an ALL SINCLAIR FEST in Toronto?	Yes	No
Would you come?	Yes	No
Do you think the fest should be of 1 or 2 days?	1	2

How did you learn of this proposal? _____

What traders/gurus would you like to see/meet? _____

_____

Your Comments? _____

_____

Name & Address _____

If there is anyone you know who might be interested, please pass a copy of this form to them, and invite them to send it in to us.

PLEASE NOTE THAT THE DEADLINE FOR MAKING A DECISION IS **OCTOBER 31ST 1993**. IF NOT SUFFICIENT INTEREST IS SHOWN BY THAT DATE - THERE WILL BE NO FEST IN TORONTO IN 1994.

Send reply to:-

Hugh H. Howie. 586 Oneida Dr. Burlington. Ont. Canada. L7T 3V3.

We want to hear from all members, non-members and traders - ALL REPLY please.

October 13, 1993

Dear Out-of-Town Members,

This summer I went out to British Columbia for a couple of weeks, and met a couple of our club members, Ken Gamey and Marie Kendall. It was an interesting thing to meet two of our members. I helped Ken a bit (I think!) with his TS2068.

The rest of the summer I have been working on an early vintage PC, a sort of a -286 machine. Except that it has an 8088 chip in it. It uses a DOS version 3.3, I think. Anyway I have been working on a database program for our Scarborough Neighbourhood Watch program. The database is a shareware called WAMPUM, a variation of Dbase. It has been an interesting experience. Anyone else used it?

In fact the experience has been so interesting that I am seriously considering the purchase of a more up-to-date PC for myself. A -386 or a -486, probably. does that sound ominous?

I have not seen this current newsletter yet. But I think it is going to contain an article from the LIST(?) newsletter, about a Spectrum Emulator that works on an MSDOS machine.

At one of our club meetings we installed it on this PC I speak of, and it does look intereting. It is a serious piece of work, and the developer has included 60 pages of documentation (on the disk) to go with it. We loaded it into the 8088 machine I mention. Though the 8088 pc was too slow to be worthwhile, I think with a -386 it would be a marvel.

I really did not give it much of an exercise, so I cannot give a truly critical comment on it, but it does seem to be a well thought out emulation. It has a shareware price of $30. The remarkable thing about it is that you can load Spectrum tapes into the emulated Spectrum (MSDOS machine) using a very simple interface assembly. Now, the hooker is that the tape loading software is not on the shareware copy of the emulator; you get it when you send in the money. You also get the benefit of any improvement or documentation done since it's release. Not a bad deal, I'd say.

I can send you a copy of this disk, if you are interested, and wish to try it out. There is also an emulator for the MSDOS machine, which makes it behave like a ZX-81/TS1000. It is called XTRICATOR. Ask for a copy of this disk if you are interested. Both disks, of course, will load only into an MSDOS type machine.

A couple of members took exception to my comments in the last newsletter, about what would happen to the newsletter if no one wrote articles for it. Sorry about that, but I think you miss my point. I'm not closing the newsletter, it's simply dying off by itself, as most Timex newsletters have already.

One of our members, Robert Shade, has sent me a copy of a current 4-page catalog from a firm in England, The Computer Games Shop. The catalog is for Spectrum games tapes. Prices range from 2 Pounds and up. Anyone interested in a copy, let me know.

Sincerely,

George Chambers