SINC - LINK

SEPT-OCT '91 VOL.9 NO.5

FALL AGAIN ISSUE

TORONTO TIMEX-SINCLAIR USERS CLUB

SINC-LINK

THE CLUB MEETS ON THE FIRST WEDNESDAY OF EACH MONTH AT FOREST HILLS COLLEGIATE INSTITUTE, 730 EGLINTON AVE. W., TORONTO.

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

SEND CORRESPONDANCE TO:

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SEPT-OCT '91

VOL.9 NO.5
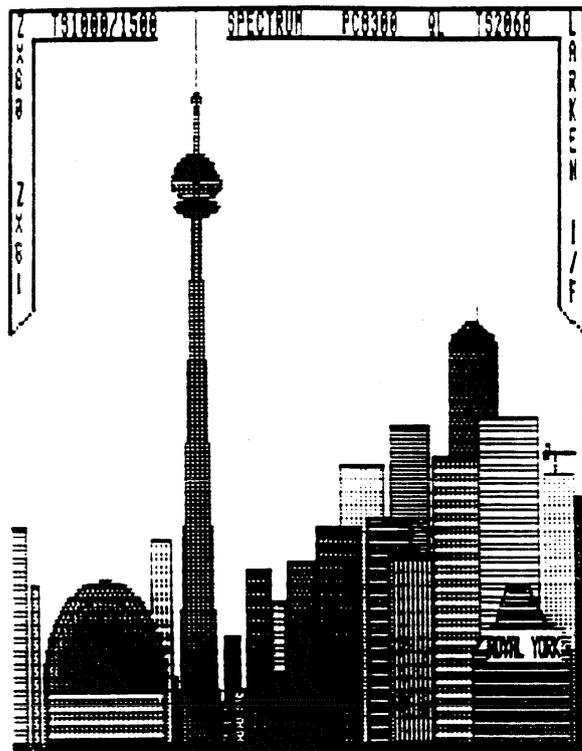
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TORONTO TIMEX-SINCLAIR USERS CLUB

Editorial

The new club executive will be voted in by the in-town members at the October meeting. While this arrangement seems to work for us, I can't help but wonder if we *could* be doing more. Are you being served? Can you think of something that you'd like to see changed or improved? We're here to help. Just let us know.

Special thanks to Dan Elliott of Cabool, Missouri, for his quick repair of one of our blown 2068s. While he can't promise such fast service, I think a two week turnaround is pretty amazing. See his info sheet in this issue.

By the way, I want to see more articles. Well, what else would you expect an editor to say?

That's all for now...

J.T.

RAINY DAY THOUGHT--------

Was out fishing recently when the rain came skipping and splashing across the surface of the lake. I just sat there and the thought came to me that this is how Noah must have felt in the Great Flood as the rains came thundering down. Next thought was that he must have spent a lot of time fishing.
Final thought was that in the midst of all that water Noah could not do much fishing.
He only had two worms.............
H.H.H.

DID YOU KNOW ??

THAT THE BRITISH TREASURY USED ROMAN BEAN COUNTERS UNTIL 1826 !! THAT'S RIGHT 1826.

ACCORDING TO AN ARTICLE IN THE TORONTO STAR (AUG 27 91)

-- III INTO XVI DOESN'T COMPUTE --

Q - HOW DO YOU ADD AND SUBTRACT ROMAN NUMERALS ?

A - THERE IS NO ABSTRACT SYSTEM. EITHER CONVERT THEM TO ARABIC NUMERALS OR DO AS THE ROMANS DID: GET AN ABACUS.

SINGLE SUMS THEY DID IN THEIR HEADS OR ON THEIR FINGERS. AS SHORT CUTS, ONE HAND ADDED UP TO V. BOTH HANDS CAME TO X. THEN THEY TOOK OFF THEIR SANDELS OR GOT OUT THE OLD ABACUS. USUALLY IT WAS JUST A FLAT SURFACE (from the GREEK abax) MARKED WITH COLUMNS OF THE SHORT-CUTS (V X C etc.) AND THEY SHOVED PEBBLES OR BEADS SHAPED LIKE HAMBURGER BUNS AROUND IT. WHEN THEY GOT 10 I's THEY MOVED ONE COUNTER TO THE X COLUMN, AND SO ON. TRICKS TO COMPLICATED TO EXPLAIN HERE PERMITTED ADDITION, SUBTRACTION AND, TO SOME EXTENT, MULTIPLICATION AND DIVISION.

IT WAS A CLUMSY SYSTEM, EVEN WHEN BEADS OR METAL COUNTERS WERE STRUNG ON WIRES TO MAKE A SORT OF POCKET CALCULATOR, BUT IT PERSISTED IN EUROPE FOR CENTURIES BECAUSE ONLY SCHOLARS GRASPED ARABIC (ACTUALLY HINDU) NOTATION.

NOW AREN'T YOU PLEASED YOU HAVE A QL

BILL LAWSON

TOOLKIT Part3   PROGRAMMING OPTIONS...

This is the third in the series of tutorials on TOOLKIT; this time, some of options useful in altering listings will be covered. The remainder will be included in the final part next time.

RIGHT JUSTIFICATION...

You may have noticed that these articles are being prepared using the Pixel Print Professional (PPP) program also available from the club library. In the first article, I started with no right justification which is my preference because of the strange spacing encountered. Nevertheless, I did the second using the Mscript to PPP conversion routine provided by Stan Lemke which does its own justification and so I'll stay with this latter method for the remaining two articles. Compare the two methods and decide for yourself which you prefer whenever you use PPP.

TWO NOTES RE PROMPTS...

1) All prompts requiring line numbers actually reject any line above 9996. This leaves three lines which can be used for SAVE or other routines and of course line 9999 which is best made RANDOMIZE USR 60000 (6E4 if you want to save bytes). This is a handy way of reactivating TOOLKIT from BASIC: a quick GO TO 9999 and there's the menu.

2) You can avoid the awkward entering of TOKENS in SEARCH strings by turning ON the DISABLE NEW option (W). If you are searching for, say, all GO TOs, hold down the Symbol Shift and A key and the next key press will be taken as K mode, ie, pressing g will input GO TO. Much easier than all that deleting, backing up and going forward you are probably used to.

PROGRAMMING OPTIONS...

The following options are extremely useful to anyone who does a lot of meddling with listings, either his/her own or someone else's. Two of the ones I use most often are Search and List and Search and Replace. Let's examine them first.

▤ SEARCH AND LIST

As usual with many of the TOOLKIT options, the start and finish lines are requested. The next prompt is for a string of characters or TOKENS (see note 2 above) not more than 32 in number. The display will then very quickly show all the lines containing the given string. If you want this information to go to the TS2040 printer, BREAK into BASIC before using this option and enter OPEN #2,"p"; then all the output will go to the printer but the prompts and menu will stay at the screen. If you prefer to use your wide printer, make it RANDOMIZE USR 100: OPEN #2,"lp". Remember to set the line length and left margin, etc.

When searching for a TOKEN, eg, REM, you may get lines with no REM in them. But the code for REM will be part of the line content and there's no way to avoid this.

▤ ALTER PROGRAM == SEARCH AND REPLACE

As with Search and List, the start and finish lines are requested. Now the prompts are for OLD and NEW strings, strings meaning any sequence of characters or TOKENS (see note 2 above) from the listing. The OLD and the NEW can be of different lengths. There is a LIST option which I never use but which should be OK if the number of alterations is short.

If the string to be altered contains floating point numbers, it is necessary to alert the program by entering three ampersands before and after the number in either or both OLD STRING or NEW STRING. For example, to change GO TO 3000 to GO TO jj wherever it appears in a listing (block), the form would be: <OLD STRING: GO TO &&&3000&&&, NEW STRING: GO TO jj>. The maximum string length in each case including the ampersands is 32. If you use BIN, put the ampersands before the BIN and after the bits. You can get Error 6 if the number is too large or even Error 4 but no damage will occur.

▣ DELETE LINES

Enter the start and finish lines; needed for Spectrum only.

▣ MERGE LINES

Makes a specified block of lines into ONE. Watch out for GO TO destinations, REM lines and the limit of 127 commands per line. Frankly, long lines can be a real nuisance: in tight memory situations they are difficult to EDIT or return to the listing; the longer the line the slower the cursor movement when it is being EDITed. I seldom use this one but I do have a separate utility that will undo such a mess if anyone is interested. It breaks a line down into its separate statements, each with its own line number.

▣ UPPER CASE
▣ LOWER CASE

Very useful when tidying up a listing. Since it is easier to spot TOKENs if all variables are in lowers, it is better to have the listing in all lowers, except for texts in strings. These two options allow you to convert letters between specified lines and gives you the option to include or exclude characters inside the string quotes. There is also a good utility provided by Steven Gunhouse and available in the Omnibus disk which lets you change all variables into lower case. TOOLKIT cannot be this selective.

▣ LOCATE TOKEN

This givens the address in both decimal and hex of the first character after the line number and length pointer in a stated line; it gives an error if the line is non-existent.

▣ COMPACTOR

Enter the start and finish line. This option then deletes any unnecessary characters, (eg, spaces and colour controls) OUTSIDE quotes. It ignores lines starting with REM but will affect messages after REMs occurring later in a line.

This is a sample of a Search & List of the token REM in a block of lines between 4000 and 7000.
Note that line 6240 does not show a REM. Toolkit cannot distinguish between the code for REM which is 234 and a 234 as part of a number. In this case 6e4=60000=234*256+96.

```
4230 GO TO m3: REM D
4300 GO SUB 2240: GO TO 4110: REM K
4360 GO SUB 2300: GO TO 4110: REM Q
4420 PRINT #od: GO TO ob: GO TO 1160: REM W
5200 PRINT #od: GO TO od: PRINT #od: LOAD "doctor.Bb": REM A
6200 GO SUB 2480: GO TO m3s: REM A
6240 PRINT #od: LOAD "tstk.C1"CODE : RANDOMIZE USR 59696:
RANDOMIZE USR 6e4
6400 GO SUB 2570: GO TO m3: REM U
```

PRINTER INTERFACES AND DRIVER SOFTWARE
A primer by George Chambers

GENERAL

There are a number of printer interfaces available to TS2068 owners who decide they want to hook a large printer onto their TS2068. This series of articles is intended to remove some of the mystery surrounding the use of large printers on the TS2068.

These articles will be confined to the printer interfaces/driver software that I am familiar with; namely Tasman, Aerco, Hacksel, and Larken LKDOS. I will not attempt to cover the same ground as the instruction sheets for each of these systems. Rather I shall try to convey a sense of how each system operates, and the idiosyncracies of each, and the differences between them, which often lead to confusion.

Since I certianly do not have all the answers to this application do please feel free to comment and provide further enlightenment on the subject. I shall include your suggestions in the series.

I propose to discuss interfaces and the software generally in the first article, then in subsequent articles cover each of the four driver softwares mentioned, with programming examples for each.
****

The use of a large printer on the TS2068 requires the addition of a printer interface board. This is a circuit which translates the signals coming from the 2068 into a form usable by the printer concerned. There are several such interfaces available. Three of the most widely used are the Tasman, the Aerco, and the Hacksel. There is also the Oliger, the A & J, and the British ZX LPRINT, that I am aware of.

All the above-mentioned systems are designed to drive a large printer through a Centronics-style parallel port.
The Timex TOS disk system can also handle a large printer, however it is designed to work to a printer with a serial port.

The majority of printers are equipped with a parallel port, some with a serial port, while a few offer both serial and parallel ports. We shall be dealing with the interfaces that serve printers with a parallel port.

The Tasman printer interface was probably the first one around. It was designed originally for the Spectrum, and was later adapted for use on the TS2068. The Aerco i/f was next, and has proved to be the most popular and widely used. An Aerco look-alike, built by Peter Hacksel, is a more recent version.

Each of the interfaces plugs into the rear bus of the 2068, and is connected to the printer via a ribbon cable. There is also a version of the Hacksel interface which plugs into the cartridge dock, with the ribbon coming out the front and passing underneath to the rear of the computer. All these interfaces are designed to provide a parallel output and to plug into a parallel Centronics type port/jack on the printer.

There is not much mystery about the interface hardware. It is simply there and does it's job according to the dictates of the driver software associated with it. Consequently we shall not discuss it further, but instead concentrate on the driver software, where most of the misunderstanding arises.

Printer Driver Software
   Software is needed to make the printer interfaces effective. In
addition to the driver software put out by Tasman, Aerco, Hacksel, and
Oliger for their systems, there have been a number of other drivers
written and marketed. The Larken LKDOS contains built-in software driver
code, as does the Oliger disk system. Jack Dohany has also put out driver
software.

   This software consists of a block of code which may range from 200-odd
bytes up to 1300 bytes. Sometimes the code is designed to reside in upper
memory, sometimes in the printer buffer. Driver software with many
features will reside in upper memory, because of the amount of space it
requires. Where upper memory is used by a large program, for example
OMNICALC or MASTERFILE, there is no room for the code in upper memory. The
Tasman copes with this by providing several short versions which are
installed in the printer buffer area starting at address 23296.

   We might mention that in the case of the Tasword and Mscript
word-processors, each have their own integral printer driver software. The
Tasword incorporates the graphics symbol arrangement of "tasintcode" for
implementing printer control codes.
   Similarly, Mscript seems to have adopted the same sort of arrangement.
The character ">" at the start of a line tells Mscript that we are giving
it a printer command. Simple control codes then follow the ">" symbol. We
can also define a number of printer control codes by means of a "Format
line", and then invoke them with a Function-G command in the body of the
text. See the word-processor manuals for more detailed descriptions.

   When we decide to make use of the large printer the driver software
must be loaded into the computer. And the computer must also be "pointed"
to the location of this new software, so that when a call to print is
given the computer looks to this new software, rather than to the 2040
software. Let us backtrack a bit.

   When the 2068 is first turned on it is set up ready to serve the 2040
printer. The software for this purpose is located in ROM at address 1280.
The computer stores a pointer to that address in a system variable at a
double address 26703/04. (A variable, incidentally, not identified in the
user manual). If you PEEK these addresses you will get values of 0 and 5.
(Try PRINT PEEK 26703 + 256 * PEEK 26704).

   Whenever we decide to use a large printer we have to change the values
in this "pointer" address so that it points to the start of our new driver
software.

   The TASMAN software does this as part of it's RAND USR 64719
initialization. In the case of the Aerco and Hacksel drivers the correct
values must be POKEd manually. The LKDOS takes care of this internally;
with a default to the Aerco. If you have an Aerco i/f you do not need to
worry about it. Otherwise you need to do a POKE to the Larken ROM if you
wish to make use of a Tasman, A & J, or a user-defined interface routine.

   We shall now deal with each of the several printer drivers.

TASMAN
   In the case of the Tasman software, called "tasintcode", it comes
with a Basic program which allows the user to customize the software to
the needs of the particular printer being used. Once it has been
"conditioned" there is an option to test it, and an option to save this
customized copy to tape.

The Tasman "tasintcode" software loads at 64716, and is 652 bytes in length. When loaded, it is initialized by RANDOMIZE USR 64719. This USR call, among other things, pokes values 238 and 253, into the pointer addresses 26703/04 respectively. This points the 2068 to the driver code starting address of 65006.

The Tasman driver code has an interesting feature, in that it allows you to instal several printer control functions, designating various 2068 graphics symbols to implement them. Whenever one wants to engage a printer function one simply enters the graphic symbol for that function, into the text being printed. When the driver encounters this symbol, it looks up a table and sends out the printer control code sequence assigned to the symbol. The printer control function comes into force immediately.

The Tasman software also has another interesting quirk relating to sending printer control codes, which can prove troublesome if one is unaware of it. That is, it can handle printer control codes only with the CHR$ mode, and not with the OUT instruction (At least I have not been able to do it!). More about that under the heading "CHR$ versus OUT Commands".

In addition to the "tasintcode" software, Tasman also provides several short code blocks that locate in the printer buffer area of memory. Each has a unique capability. For example, "tasmini" does a screen text copy; "tasepson" does a b/w screen copy; "tasbuff", which is an abbreviated version of "tasintcode". And there are other drivers designed for specific printers.

HACKSEL
    When the Hacksel i/f hardware first appeared it made use of the Aerco software. However, copyright restrictions required that new software be developed for it. The software that was eventually supplied consisted of three separate and distinct blocks of code. There was "LPRINT" CODE 65000,500; "b+w62300" CODE 62300,500; and color61000" CODE 61000,1300.

Each of these had a different function. "LPRINT" allowed you to use the LPRINT and LLIST commands. To use, you CLEAR 64999, load the code, then POKE 26704,254. The POKE "points" the 2068 to the Hacksel code (PEEK 26703 + 256 * PEEK 26704 = 65024).

The "b+w63200" will allow a high resolution black and white screen copy to the full sized printer. This assumes that the printer is an EPSON compatible with graphics capabilities. To copy a screen, simply load this code, then instead of using the COPY command, use RANDOMIZE USR 62300. Note that because you are not invoking the LPRINT or LLIST commands one does not need to "point" the 2068 to this address.

"color61000" is a more complex piece of code. With it you can also do a high resolution screen copy as with the b+w63200", however the printout will be in shades of grey for the corresponding colours on the screen. To execute, use RANDOMIZE USR 61000. No "pointer" is required.

All three of these Hacksel softwares can be loaded at the same time, without interfering with each other. You can save them as a single block of code by SAVE "name" CODE 61000,4535.

The instruction sheets that come with the Hacksel interface provide a list of POKEs for the several Tasman software drivers, to make them compatible with the Hacksel interface. This could be useful, since the Tasman drivers have features not present in the Hacksel and the Aerco

software drivers.

Presumably the modified Tasman software will work with the Aerco i/f also.

Now, there is something else to watch out for. The Aerco and Hacksel software offer two methods of sending information to the printer. They can send out the TS2068 character set, or a true ASCII character set. The best description I can give of this is to be found in the Hacksel instruction sheet, as follows:

"Although the 2068 character set is ASCII compatible, it is not exactly the same as ASCII. For example, printing the character 255 on the 2068 will give the four letters that make up the word COPY. This is only true for the 2068 and is necessary for executing the LLIST command. This (LPRINT) routine will do this automatically for you. If you execute the command LPRINT CHR$ 255, then the four letters C, O, P, and Y will be sent to the printer. However there are some occasions where this is not to your advantage. The main instance is when you wish to send control characters to change fonts, underline, and so forth. In these cases the true ASCII codes must be sent directly, and not be converted to the 2068 character set. With this software you may select the true ASCII set by using the POKE 65535,1 command. If you wish to return to the 2068 character set, then use the command POKE 65535,0."

In the use of a large printer on the 2068 the above statement is very significant, and if ignored will lead to great frustrations.

I mentioned that the Aerco and Hacksel have this "dual" character set with the need to make a selection. This appears to be a common feature of most, if not all North American produced driver software. The Larken LKDOS uses this convention, also.

But Tasman does not refer to it, and does not seem to require it. The answer may be in it's use of a double "CHR$ 27" in it's printer control commands. More on that in a later article demonstrating Tasman printer controls.

AERCO DRIVERS

The Aerco software consists of 1111 bytes of code, which is loaded at address 64256. The original package as supplied is accompanied with a Basic program to customise the driver to suit a particular printer. Nine printers are named in the option table. If your printer is not in the list, then you must experiment with the 7 options provided and hope that one will suit your printer. One of them usually will.

As is the case with the Hacksel, the Aerco software has two basic modes. The default mode is for use with the Timex Basic system, and automatically expands all tokens as they are encountered. We'll refer to it as the "Timex Basic" mode. Aerco calls the other mode LITERAL; this corresponds to the Hacksel term "true ASCII set".

The Aerco "Timex Basic" mode is selected by POKE 64256,1

The other mode, termed LITERAL in the Aerco instructions, is where the characters are sent to the printer with no changes made to them. Use the LITERAL mode to send control characters to the printer, and for bit-mapped graphics.
Select this mode by POKE 64256,0

Other POKEs provided in the Aerco instructions are:

    To set the width of the printer: POKE 643256, width-1 *(64259)*
    To send LINE FEED after CARRIAGE RETURN: POKE 64260,10
    To suppress LINE FEED after CARRIAGE RETURN: POKE 64260,0
    To select Timex 2040 printer: POKE 26703,0;POKE 26704,5
    To select Centronics printer: POKE 26703,0; POKE 26704,251

    In order to do a screen copy use the command LPRINT USR 1. *(CHR$)*
To make use of this command you must have a printer with a dot matrix
printer with bit-mapped graphics capability. The printer needs to be set
up in this mode. Look to your printer instruction sheet to determine the
necessary control characters.

LARKEN LKDOS
    Any Larken disk system owners who do not range much beyond Tasword and
Mscript may wonder what all the fuss about printers drivers is. Well you
may wonder. When I got my Larken system I carefully put aside all my
printer driver softwares, to see whether I would ever need them again.
Essentially, I never looked back. Until this project came up! I stayed
with the Tasword and Mscript drivers; there did not seem to be much point
to changing them. But everything else was Larken, except for bit-mapped
graphics software.

    The Larken printer driver is in the LKDOS ROM, with certian of it's
variables in the LKDOS RAM. Variables such as printer interface type, Line
length, Left margin setting, the LF with CR feature. Variables one might
want to customise for a particular application.
    The system defaults to Aerco (Hacksel) Interface, line length 64, LF with
CR, and a margin of 0. Changing them requires LKDOS-type POKEs.

    The selection between the LITERAL and Timex Basic that we described
earlier on the Aerco/Hacksel drivers is also done in the Larken driver,
with an LKDOS POKE.

The LKDOS has a useful feature. One can open any channel to the printer.
The most usful channels for this purpose are #3 and #5. More on this in a
later LKDOS demonstration article.

ZX81 - MYSTERY PROGRAM

    This is a short program which
enables a Basic instruction to be
translated into machine code without
the use of an interpreter or
assembly code. When you have
finished entering it, simply press
RUN and all will be made clear.

```
 5 REM FOR ZX81 IN SLOW MODE
10 LET A=16509
15 PRINT TAB 2;PEEK A*256+PEEK
(A+1)
20 LET L=PEEK (A+2)+256*PEEK (
A+3)-1
25 LET A=A+3
30 FOR N=1 TO L
35 IF PEEK (N+A)<>126 THEN   GO
TO 50
40 LET N=N+5
45 GO TO 55
50 PRINT CHR$ (PEEK (N+A));
55 NEXT N
60 LET A=A+N+1
65 IF A<16914 THEN   GO TO 15
70 LET A$="█ -9B25 █.885█ "
75 FOR N=1 TO LEN A$
80 FOR J=1 TO 50
85 NEXT J
90 PRINT AT 15,12+N;CHR$ (CODE
A$(N)+144)
95 NEXT N
```

Taken from the April '82 issue
of Your Computer - Vol.2 No.4

T o r Q L i b

The New style QL Library is now ready. I think I have got all the bugs out of it, and I also think you will like its format. Whether in color or monochrome.

The original catalogue was in Abacus as I did not know how to do it in Archive. But I have been learning and I have by hook and by crook, begged borrowed purloined amended and in many other ways evolved a Library Catalogue that I feel will be of real interest to all QL users.

"TorQLib" (for Toronto QL Library) the title I have given this, is easy to use, and has six main fields, plus a number of others, that make it very comprehensive. You will be able to use this to form your own library on almost any subject. To do this you may wish to go into the program and alter a few things, but that is not so hard to do. Moreover, the exercise will enhance your knowledge of Archive.

On running TorQLib you are presented with the START screen which is a short statement. [ENTER] to proceed.

The next screen will allow you to SELECT how you wish to use TorQLib. You are given the choice of:-

(1) The Complete File
(2) Disk
(3) Title
(4) Author
(5) Quit. (To Quit Archive and close files)

You are also asked if you wish the file in Order (Sorted) (Y/N.) This will take you to the "TorQLib" screen where all is revealed. Each file is displayed in its entirety, with lots of information on show.

The main fields used are:-
-- Title
-- Category
-- Disk
-- Author
-- Size
-- Reference

Next there is a large window to display all the files Associated with the Title. The size in bytes is also displayed of each segment of the file.

There are Windows for Loading and Remarks. Also a window to tell you the Number of the file selected and to tell you the amount of Memory Remaining.

Finally, there is a menu from which you may select how you operate the file by the use of one_letter (ENTER) commands:-

A-Back_10
Z-Forard_10
B-Back (1)
F-First
N-Next
L-Last
S-Select
P-Print
Q-Quit

There is one other command in the menu, and that is for use when the Archive command "Find" is used. When you use FIND in Archive, the file is rewound to the beginning and a search is made for the first occurrance of the string you are looking for. If that is not correct then "C-Continue" will progress to the next occurance of that string, and so on.

The PRINT command will give you a hard copy of the whole or selected files, in nice presentation, 12 files to a page.

On the TorQLib disk, I have included a _doc file which will give you a lot of useful information on the use of the Library in particular, and may be of interest to you on some aspects of Archive in general.

The library is on 5 1/4 1440 (80 track) disks. As this would appear to be the QL disk format most popular. I can also put the Library on 720 (40 track) or on 3 1/2 disk. Cartridge would take a host of them to hold the complete Library. There are at the moment 217 titles in the Library. Some good, some ---

Available to members of 'TTSUC' ONLY.

The Categories used are :-

Category		
Communications	1	Disks
Demonstration	1	"
Games	1	"
Graphics	1	"
Maths	1	"
Special	3	"
Utility	2	"
Z88	1	" (Not tested)
Psion	1	(Psion related)

Plus the "TorQLib" Library disk itself of course.
NOTE:- EXTRA MEMORY OF 256K+ IS ESSENTIAL

==

To order TorQLib Catalogue Disk,please send formatted medium and return postage/packing. I will be only too pleased to answer any questions you might have at that time. This edition of the Library is much improved over the last one, containing many useful additions which I am sure you will find of value and interest.
          This is the final format of the QL Library which I wll present to the Club.
          Additions - YES.   Alterations to format - NO
      Hugh H Howie. QL Librarian. 586 Oneida Dr. Burlington. Ont. Canada. L7T 3V3

DAYTON COMPUTERFEST 1991
by Your Roving Reporter

One night at supper my wife said that since I got that darn computer we never went anywhere. So I thought a bit then asked how she would like a trip down south. That was fine with her, when do we leave and where do we go. I replied that we could head south and stop at Dayton the first night and have a look around, and take it from there. GREAT.

We arrived in Dayton on the Friday early afternoon, and we drove around till I found a small store, my wife asked me what I bought and I said I was looking for something and changed the subject.

Short time later we drove past the Hara Arena and my wife said "Oh! they are having a Computer Show here to-morrow" Then a gasp and total silence.

Saturday we went to the Show, and owing to my having purchased my tickets the day before, (the "something" I was looking for) I saved a dollar on each ticket, and we were able to walk right in without joining the quarter mile-long cash pay line.

On entering the arena whcih has a wooden floor, and chandeliers all over the place, looks a mile long and almost the same wide, and wall to wall computers. Struggled through the masses to a slightly lower floor, round a corner and I am in the Sinclair Section. Must be about fifty feet along one wall. There was Cats, Istug, Tsnug, CATUG, Quanta, and of course my old friend Paul Holmgren, the only one I knew, and his partner Frank Davies.

ZXir Clive Alive was represented by Don Lambert and Bob Swogger. But no real identification. I wonder how many new members they got?

I had a little difficulty in finding the Sinclair Section as the signs they had stuck on the wall were not as distinct as I would have liked to see. There was not too much on display, mainly books, newsletters etc, and at Paul's table some bits of this and that and some software. I got some 5 1/4 discs from him at a good price. However the action was not too bad.

From Paul and Frank, I gathered there was a strong possibility that Miracle Systems in England did not know there was a JSU version of the QL, and perhaps this would account for some of the difficulty I am having with the Gold Card.

I spoke to Ruth Fegler from CATS group for a short time, where she had as well as her own material, some books etc., from SHARP'S who was also at the show, but on a higher level, surrounded by all types of computers, but NO SINCLAIR.

I spoke to Mark Steuber for a while between customers, and he still is interested in Sinclair, but it is definately not his main source of income now-a-days. I would say that he handles it because he always has done so.

As I said earlier, the main floor is of wood, all others are of concrete. One thing very obvious was that the wooden floor section was nice and cool, the concrete floor section was very very hot. Obviously they do a lot of Banquets at the Hara Arena.

The lower sections are not a full floor lower but rather a half floor lower, accessed by a ramp which is much easier to handle than a flight of stairs. The whole complex is vast, I do not think the Auto Building at the Ex would hold all that was there.

There were Discs in all shapes and sizes. I got some 5 1/4 at a good price, and went looking for some 3 1/2, but I could not better the price I would pay in Canada for them. Sure there were plenty, mainly done up in bundles of 25 or 50 or 100, at prices from 37 cents and up, with the average about 65 cents for so-called good ones. Once again, in bulk, un-named, no labels, many pre-formatted. I decided the gamble was not worth the price. After all I can get name brand discs in Canada for anything from 75/85 in boxes of ten plus, including labels. Sometimes less.

3 1/2 uncased disk drives were there in their dozens. At opening the price was from $45 to $57. But as the day wore on, this price stabilised at $55, such was the

success of the show. Paul Holmgren did not know what kind of day he had as he had not had time to keep score. He appeared happy.

When assessing prices at the show it was essential to remember the extra 16 percent we had to pay for our US currency, so that something costing $20.00 was really costing us $23.20. This made the disc drive at $55 cost me $63.00. This for the same drive I was buying in Toronto a few weeks ago for $39.95! The 3 1/2 disc at 65 cents would cost me 75 cents. in this light caution had to be the watch-word. I am of the opinion that prices were high. That the show was a success as far as the dealer went is a foregone conclusion. In more than one instance I felt that prices increased in the short time I was there.

At 5pm when the show closed for the day, the general concesus of opinion was it had been a great success. Smiles on all dealers faces, and empty tables. Still a another day to come on the Sunday. I did not stay for that one.

Before I went to Dayton, I made up some cards representing the club. Plus a few application forms to hand to anyone interested. Handed out a few but not many. I also made up a card to wear indicating my affilliation. This was a really wonderful opener to anyone I spoke to. Bringing me back to what I mentioned at the beginning, in the Sinclair Section which was not large there was a lack of group identification. Perhaps it was thought that no indentification was necessary. In the whole show there was almost a complete lack of personal identification among representatives. Mark Steuber had his name on his chest, and a few others. Even the major companies at the show were suffering from this. I like to know to whom I am speaking.

As a Computer Show it had to be a great success. As a Sinclair show it was Uh Uh. If this is the best we can do then we are in a sorry state. From the action I saw at Pauls' desk I would say there is still plenty of Sinclair interest out there. How to harness that interest is the problem.

I would really like to have Toronto try for a Computer Fest next year, but the logistics are not in place. We would have to rely on what support we have in a small area, all that area to the south. I am sure Sharp's would not come this far north as his business is 90% IBM clones. There are no other Sinclair dealers in this area. I do not see many people travelling 400 miles plus to come to Toronto on a chance. RMG would not come this far. Would our friends to the East do so? We have no one who is in the marketing sector who would wish to travel this distance. So let Toronto give up thoughts of a Fest. After all, with the poor appearance of the Sinclair section at the Dayton Show to go by, I would say that we are relegated to an out of the way corner in larger shows, to keep in touch with our friends. Too bad.

So we left Dayton on the Sunday morning and headed for Virginia and the Blue Ridge Drive where it was all that foggy wet stuff so that you could see nowhere. Two days like that and then back to K-Mart and Wal-Mart. Then head for home.

The big shock was to get back to Canada and gasoline prices of 57 cents a litre. We were buying gas down there at 1.08 to 1.18 a gallon. Thats about 28 C/Litre.

Consider SNUG as folded I would say. TSNUG may but only may, fill the gap. UPDATE I wonder. I often ponder that even UPDATE may not last too long. I renewed my subscription, but I did not notice an over abundance of action at that table.

Anyway, here we are at home and now my wife can-not say I never take her anywhere. She has had her week away from the stove, just letting other folks serve her, and she loved it. We stopped eating at the fast food places as the food was all the same. Cost us more, but we ate better. Almost as good as home.

A pleasant trip, and many new friends made, and many phone voices and writers now have bodies.   §

Setting Up LKDOS User-Defined Commands
by Steven Gunhouse

In the May issue of Sinc-Link (vol.9 no.3), Bob's Notebook discusses using the LKDOS user defined command to invoke an NMI-F routine, but points out that he usually gets an error when he does this. There are ways around this, however.

The problem is that the routines end with a RET instruction. This is the right thing to do with an NMI routine, it would then return to the LKDOS NMI routine so that it could exit properly. However, it poses two problems when used as a user defined command. First, there is a system variable (see Appendix D of your User Manual) called CH ADD at 23645 which when the routine is done, should point to the terminator after the command (either a colon or ENTER). Second, it does not disable the cartridge before attempting to return.

It would not be appropriate to just put these into our NMI routine. An NMI routine should leave regular memory as it found it, if possible. So the first thing we will need to do is determine whether our routine was called as an NMI or a user command, then act appropriately. Luckily, there is a way provided in LKDOS to do this.

Two years ago, I published a list of useful locations in the LKDOS cartridge (see vol.7 no.4, pages 14-16). We find at location 8194 in the cartridge something I labelled NMI flag. If the routine that called LKDOS is a Basic command (like RANDOMIZE USR 100: CAT "", or PRINT #4: DATA 0), this flag will be set to 0. If it was an NMI it will be 1. Certian LKDOS utilities (like the Move program) will set it to 11 when they use the cartridge, but that doesn't matter much here. The point is that we can read this location to determine how our routine was called, and then act appropriately.

I should note at this point that some of the ml in the LKDOS ROM also reads this location, and will act differently depending on what it finds here. Most significant in this respect are the ml LOAD and SAVE commands (at 00C6 hex and 00CC hex). In particular, by changing this flag, I can make the computer think that it is running an NMI or just turned on, and load the AUTOSTART program without further effort. I take advantage of this in the new version of "autobt.Cx", which Bob is describing in another article.

That isn't of much use to someone trying to write a useful routine that works as both an NMI and a user command. If we hope to return to our original program (which autoboot doesn't want to do), we must not change the NMI flag.

There are a few subroutines provided in LKDOS which may be useful in a user function. These include:

138 (008A hex) read a string to 8226 and check as a valid filename
141 (008D hex) find Basic terminator
144 (0090 hex) read a number, and leave it in BC register
156 (009C hex) read a string to 8226 (at most 10 chars.)
186 (00BA hex) disable LKDOS cartridge and exit

One other fact of note: LKDOS does implement RST 32, but not RST 24. For you non-programmers, RST 24 is used to read the current character as pointed to by CH ADD, while RST 32 reads the next character - ignoring spaces, colours, etc.

If we just want to make a routine that exits properly, and not read what comes after the DATA keyword, we need not worry about that. All we need to do is find the RET in our old NMI routine, and replace it with the following:

```
LD A,8194        load A register with NMI flag
AND A            test to see if flag=0
RET NZ           if flag is not 0 (i.e., if NMI) then return
CALL 141         adjust CH ADD to end of DATA statement
JMP 186          disable LKDOS and exit
```

We used a JMP 186 instead of a CALL because once LKDOS is disabled, it doesn't make sense to return to our routine. With this, we could fix the old graphics 24 so that it didn't cause the errors Bob complained about.

But why stop there? The PRINT #4: DATA 0 command always has to have a number (or string) after the DATA. With the other routines I listed above, we could find out what this number or string is, and do something with it!

I brought up RST 32 for a reason, as you may have guessed. When our routine is called, CH ADD will point to the keyword DATA, but before we use any of the subroutines to read a number or string, CH ADD should point at the first character of the number or string. So we should have something like this where we want to read the number:

```
LD A,8194        (we don't want to read a number if this is an NMI)
AND A            (so if it isn't BASIC, do something else!)
JR NZ,SKIPIT
  RST 32         set CH ADD to next character
  CALL 144       read a number to BC (error if too large or not
                 a number)
```

After this we should check to make sure our number is an appropriate value. In the new version of graphics 24 in Bob's article, I put the indented lines and the checking into a subroutine, just after the printer control codes.

If we were looking for 2 numbers instead of 1, we should check to make sure there is a comma between them. We can't use RST 24 for this in LKDOS, so we would have to do something else. That would look like this:

```
read the first number, as above
LD HL,(23645)    load some register pair with CH ADD
LD A,(HL)        load A with the character
CP 44            compare to 44=CODE ","
JR NZ,NONUM      if not a comma, then there is no second number
read the second number, as above
```

Likewise, we could look for a third number (or string), and a fourth, as many as we need. If there had to be a second number but it was left off, we could include code to generate an error message - RST 08 works normally. I decided not to do that in the new graphics 24, because I didn't want to make it too hard to use. I could presume if the second number was left off, the programmer meant 24, but some other code may not have that option.

I have not concerned myself with preserving registers in this article. Rest assured, almost any of the LKDOS routines used in this article does alter many of the registers. So any values you need to keep track of should be stored somewhere, or pushed onto the stack, and then retrieved afterwards.

Also note that while I have had both NMI-F and the user command doing almost the same thing, that need not be the case. You could use the NMI flag to branch to a completely different routine for the NMI instead of just skipping reading numbers. So we could have a routine that copied the screen to the printer in response to PRINT #4: DATA 0 but reload the AUTOSTART if NMI-F was pressed. Or use your imagination.

Steven Gunhouse
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Bowling Green, OH 43402

retyped by GFC
due to faint copy

ZX81 SCROLL CLEAR

While messing around on my 16K ZX-81 I found a way to make the screen Clear quickly after scrolling. Normally a CLS command or a return to non-Scrolled Printing takes a long time because the display has to be padded out with spaces on the expanded machines. This program will illustrate this:

```
10 FOR N = 1 TO 22
20 SCROLL
30 PRINT "TEST"
40 NEXT N
50 CLS
```

See how long the CLS command takes. The trick is to artificially pad the display file on each scroll, by using a Tab to move the Print position to the end of the line. To show this, change the line 30 in the program to:

```
30 PRINT "TEST"; TAB 31;
```

and RUN the program again. By forcing the ZX-81 to print a full line of 32 spaces each time, the display file remains intact.

Taken from the November 1982 issue of Your Computer...Vol.2 No.11

New *PRINT FACTORY* Graphics

John McMichael has brought out a set of graphics collections for users of Byte Power's *PRINT FACTORY* desk top publisher suite. I've printed a few of the many (read a couple hundred) graphics to show the quality available. Not bad for 2068 graphics, eh? For more information see the advertisement contained in this issue. J.T.

Hugh H. Howie
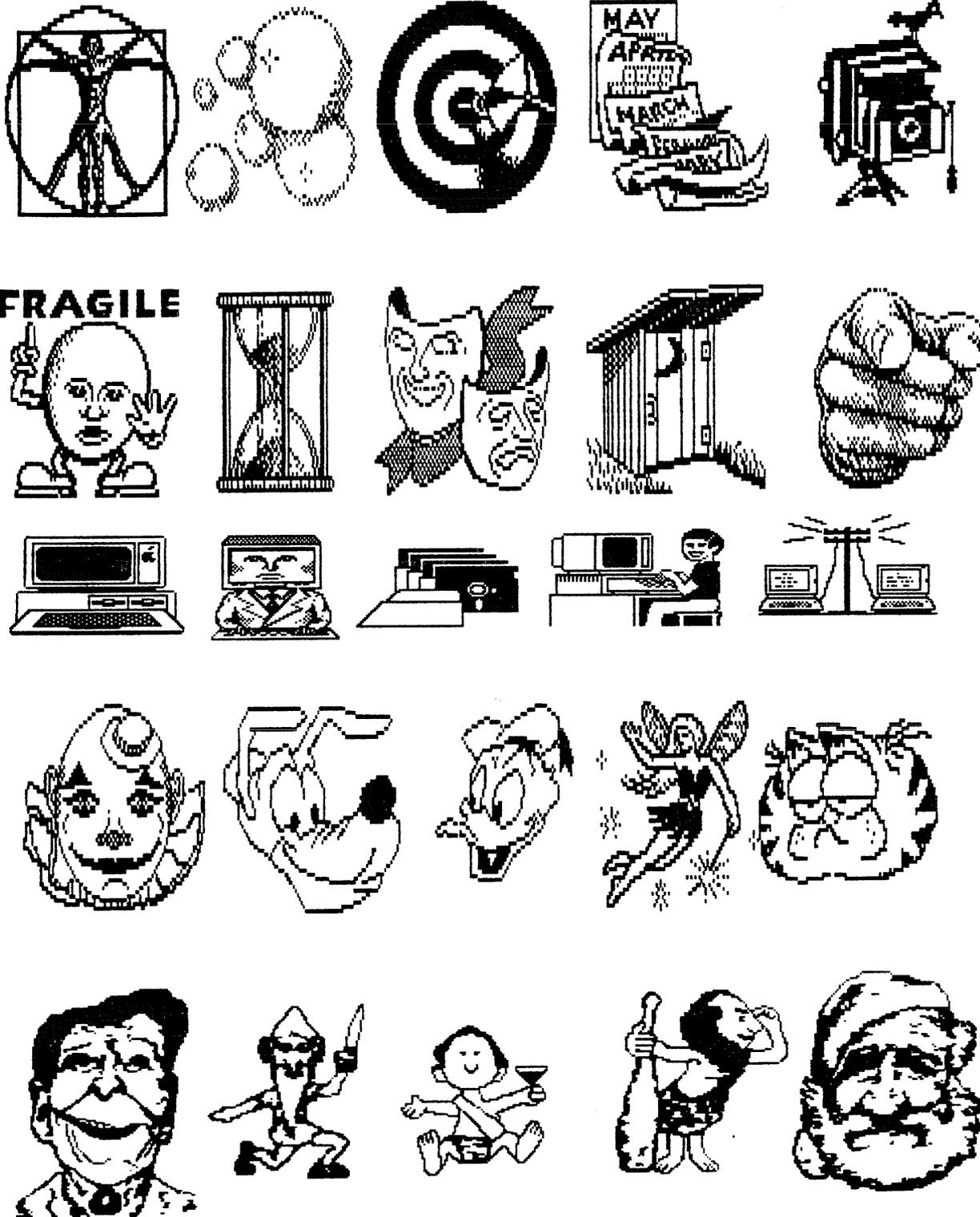
When ordering the GOLD CARD I decided to send all the way to Merry England for it. To Miracle Systems, the producer. In this I may have been very wise as the ensuing will show.

First, their terms of purchase were favorable, and I did not know who was handling the GOLD over here at that time.

I had been using 512 Expanderam, Cumana I/F, and had recently installed Minerva. When I installed the GOLD CARD the first thing I noticed was the small amount of space it takes up. It fits where the Trump and Cumana used to fit. The only thing protruding is the small heat sink which sticks out about 3/4 inch, about 1 inch long. This releases about 32 square inches of desk space for me. The heat to the right of the QL is almost nil.

The next thing I noticed was the unbelievable speed of the QL. When I say unbelievable that is what it is.

The GOLD clock comes with a five year battery, and there is provision to lock the clock in to the GOLD, while using the QL clock in another time frame. A reset re-establishes the GOLD clock. The small amnual hat comes with the Gold Card says that can cause the time to be lost. In my own case the Gold was out of the QL for over a week while I was away, when I came back I plugged the Gold into another QL and the time was within 6 seconds. I can live with that. especially when it was not plugged in.

Where you must use restricted memory for certain programs the GOLD can do this for you with a simple command.

In Taskmaster the title screen has lights flashing across the title, using the GOLD the lights possitively dance and flicker.

Minerva has a hot-key RESET, which is ALT-CTRL-SHIfT-TAB, and is very nice to use, with The GOLD this was not so nice. All I got was a screen of vertical lines about half an inch apart, and a lock-up. So I removed Minerva. Meant losing the reset and a few other goodies, but I try to do without it. Would still like some of the Minerva goodies back 'tho.

That was fine until I tried a print-out of a document composed in GOLD and text87, and the result was an absolute mess. On a two column setup, the lines were inclined to mix up a little, two lines opposing one another would shift outside the justified settings, or even miss the odd letter from a word, with capitals and double spacing inserted where-ever fancy takes the printer or program.

In a one column set-up the result could not be better. Is it possibly text87 that is wrong in the two column set-up? I do not think so as Trump Card handles the two columns fine.

When I tried the same two column print-out with 512 and Cumana the results were as planned for. So I decided that enough was more than enough, and wrote to Miracle in Merry England, and am still waiting for a reply... must admit at time of writing they have not had time to receive my letter, in which I enclosed a disc of program and letters I was working with. I await their reply. More on this when I receive it.

Meantime I have been to Dayton and had some interesting talks with a few people, and have discovered that Miracle until recently were probably unaware that there was such an animal as a JSU.

Another suggestion postulated was that the QL 68000 was in opposition to the GOLD 68000. MMMMmmmmmmmm

To get back to the basics of the GOLD, it is really wonderful to use. The speed is really 3 to 4 times the speed of the Trumpcard. I ran two QL's at the same time, one with GOLD and one with Trump, and to see how a pattern evolved was fascinating. The GOLD ran away. The demo was that of a tree growing, Trump 50 seconds, GOLD 14

seconds.

Next I took a Mandelbrot Pattern and did the same thing. Now as you know some of those patterns can take for ever, thus making it almost boring to watch. With the GOLD the pattern was finished in ten minutes, while the Trump was still clicking away 35 minutes later when a thunderstorm came to my rescue (?) and stopped the operation. Luckily no damage was done. (This time)

I went to ARCHIVE, to the QL Library and the speed of FIND, NEXT and all other commands was truly amazing. It redoubled my interest in this program. Made it a joy to use and eliminated many of those periods of nothing while the QL went to work.

The GOLD Card is a MUST for all serious QL users. The cost is high and I do not deny this. I was talking to Paul Holmgren at Dayton and I think he said his price for GOLD is $599. But also, where else can you step up to ST speed for so little lay-out? and still retain your QL? The price from Miracle is £330 and they will allow £89 discount for your Trump. Other discounts for other things. You would have to ask them about that. The above prices work out at about $653 and $477 respectively. They accept Visa.

I have been using a 360 DSDD 40 track disc as #1 and when I tried to format a disk in this drive it formatted to 720, (1440/1440) and when I put this to Media Manager it shows 80 tracks. (On a 40 track drive?) I have not had time to work this out and there is a special command to obviate this error, but I must be using it incorrectly. The GOLD can handle discs in 360, 720, 1.44 and the new 3.2 size. I would like to see that one!

The GOLD will automatically detect which type of disc it is working with when reading and writing, but it works on a trial and error basis for determining the density of a disc when formatting. It is possible to format a disc to a higher density than normal

hence the special command.

To see free_mem of the region of 1.8 Mbytes is something new to me. I don't know what I am going to do with all that memory but as it is there, no doubt I will find a use for it, I always do.

In QUILL we are all aware how slow the scroll or move from bottom to top can be, not any more. Change is made in the wink of an eye near enough.

For anyone contemplating the GOLD I would say hang off until I get some answers from Miracle. Why buy something in which there might be a small bug? If It would only work on the JSU as it does on the JS, it would be the best thing to come along in a long time. Perhaps it is the two-column setup of text87 that's wrong?

One thing for sure is that it is not very nice to use the GOLD to write with and have to go to Cumana for a print-out.

Please forgive me for an odd or perhaps an incomplete conclusion, as I only had the GOLD for a couple days before I left for Dayton, and I have just got back and am rushing this for the news-letter which is due to go to the printer now, like yesterday.

If you can add anything to this letter, please feel free to do so as I want to know what does and does not work.

I will have more to say next Newsletter, and by that time perhaps the Postal strike will be over and I will have an explanation from Miracle Systems.   §

NEWSFLASH - GOLD CARD

JUST AS WE WERE GOING TO PRINT, HUGH CALLED TO SAY THAT MIRACLE SYSTEMS HAD SUPPLIED HIM WITH A NEW EPROM, VERSION 2.2, THAT SEEMED TO SOLVE MOST IF NOT ALL OF HIS GOLD CARD-RELATED PROBLEMS. MORE ON THIS NEXT ISSUE.

This is the fourth and final part of the Toolkit tutorial; the remaining options will be described and then there will be some closing comments. Any serious programmer should have this suite of utilities, some of which are indispensible while others have only occasional applications. One or two are of doubtful worth. There are some missing utilities that can be obtained from the club library to fill in the gaps, eg, one that will break a very long program line into its component statements.

Toolkit has one excellent feature that applies to nearly all options: every parameter is prompted for on screen and most errors that can occur are trapped. There are error messages to guide the novice. The prompts call for input; strings and numbers are printed on screen; letters and messages from a table also are displayed. Input is placed in buffers and when complete are tested for validity. A final execute? prompt gives the user a chance to back out. At any time an empty string will abort the option. Some routines have extra tests and error traps built in. The original author D. Spagnol produced a masterpiece and it has never been equaled, let alone surpassed.

PROGRAMMING OPTIONS...

The first two options <Y> and <Z> are for use with renumbering routines. If memory is short, <Y> will work with <R> and <M> but <C> may have corrupted the variables. If lines become mixed up try using <Z>. It's all theoretical; it hasn't happened to me.

▨ UNCORRUPT

Occasionally a program will not load very well from tape and any attempt to edit lines results in a large number of lines disappearing, or a resounding crash; this because Invisible Length bytes have been corrupted. Use this option and editing is possible. REM lines containing machine code with CHR$13 could be ruined, so beware.

▨ LINE SORT

If line numbers are very badly corrupted, they may not be listed and will be rejected as program lines. Breaking back into BASIC and doing a RANDOMIZE USR 65240 will do a simple renumber of the Program area from line 1 in steps of one. No GO TOs are corrected. This choice can really mess up a listing and so it has been made hard to access. Make sure you have a SAVE before trying this one.

Best of luck using these two.

The remaining options are much better ones.

▤ REM CREATE

This option can create a REM with up to 35000 characters in the blink of an eye. If you store machine code this way, this utility is for you. Prompts are for Line Number, Length and Symbol.

▤ REM DELETE

Prompts for start and finish lines, then deletes REM lines in that range only, including :REM further down the line. It will not deal with such weird stuff as IF a THEN REM.

▤ UDG DESIGNER

This prompts for a character as a starting point which can be amended by entering the coordinates of an eight by eight grid, number first, followed by <i> to fill in or <o> to delete. Mirror images, inversions and rotations are possible. The character being worked on can finally be assigned to a specific letter. The UDG set can be set back to start up values by using 9Z.

▣ UDGs TO DATA

Here is where you store your work done via option G or any other collection of UDGs, for that matter. It prompts for the number of UDGs starting from A (eg, 4 will give graphic A, B, C and D), the number for the first DATA line. It will put eight bytes in each line.

▣ BYTES TO DATA

Similar to <U>. It prompts for start and finish addresses, a destination and number of bytes per line (Max 64 bytes per line). Lines will increment by one. You have the option of Hex or Decimal input with only Hex giving a checksum. There is a memory check before each line is started to ensure that the program is not corrupted by incomplete lines. There is also a check to ensure enough unused lines are available at destination. If your code conflicts with the Toolkit memory map, move it somewhere else, load Toolkit and later move the code back where it is designed to operate.

LAST MINUTE THOUGHTS...
IM2 SET UP...

The revised code starts at 59696 and creates a 257-byte block of E9s (233 decimal) from 59392 to 59648.

Start up procedure: CLEAR 59391 then load the code tstk.C1 which is 5672 bytes long.

Use RANDOMIZE USR 59696 then RANDOMIZE USR 60000 to activate the full program or just RANDOMIZE USR 60000 if you do not want to use the IM2 options.

LIST VARIABLES CORRUPTION...

If you get a corruption at the end of the variables listing, try this: locate E-line (PEEK 23641 + 256 * 23642), then POKE E-line minus one, 128. Then re-save toolkit (on a different disk).

UDG DESIGNER...
UDG E (start)..

You can now change this udg to anything you want.

DESIGN UDGs

CHARACTER: E

USE LINE COLUMN I/O (on/off)

```
ABCDEFGH            FUNCTIONS
1        1
2        2          9A-9U ENTER UDG
3        3
4        4          9V  INVERSE
5        5          9W  LEFT-RIGHT
6        6          9X  UP-DOWN
7        7          9Y  ROTATE
8        8          9Z  RESET UDGS
ABCDEFGH
```

0 = RESTART

ABCDEFGHIJKLMNOPQRSTU
ABCDEFGHIJKLMNOPQRSTU

Once you have designed the new UDG enter it, using 9E or any location A-U.

Use option U to save your new UDG set to DATA statements.

This sample shows the UDG E changed to a different e.

DESIGN UDGs

CHARACTER: ▤

USE LINE COLUMN I/O (on/off)

```
ABCDEFGH            FUNCTIONS
1        1
2        2          9A-9U ENTER UDG
3        3
4        4          9V  INVERSE
5        5          9W  LEFT-RIGHT
6        6          9X  UP-DOWN
7        7          9Y  ROTATE
8        8          9Z  RESET UDGS
ABCDEFGH
```

0 = RESTART

ABCDEFGHIJKLMNOPQRSTU
ABCDEFGHIJKLMNOPQRSTU

Note that the small UDG near the top changes as you input the pixels. This UDG has also been inverted using 9V.
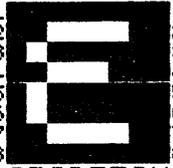
This ends the four-part series on Toolkit. I trust you will find it as useful as I have. If you have any comments, ideas or or suggestions, please contact me.

Bob Mitchell.

R A M B L I N G S

By Hugh H Howie

For some time now I have been pondering why so many of us have computers. Is it because it is the 'done' thing to be computer literate? Is it because if you are not computer literate you are out of the main stream? In my case I always thought I would like to have a computer for business purposes but my business advisers of the day were not in agreement with me. They thought a computer would not help in my operation. They were accountants so they should know, so I went along with them. Until I retired and then I could justify it on the grounds I needed a toy to occupy my leisure moments. So I bought one - a QL at that! Some toy. The accountants still don't have a computer! I don't go to them any more either. I think they use the abacus! You know what I mean? that funny rack with balls on a wire.

Soon I was doing all sorts of weird and wonderful things, and some not so weird and wonderful, but I was having a good time. I thought. I got the idea if I had this program or that program then all would be solved and made clear to me. So I bought a mass of programs and tried to use them all, and all at the same time. Soon I realised I was getting no-where fast, I was trying to do too much at the one time when I was just learning. Now that may be a strange statement as we are all learning all the time, which is why we keep buying more programs or trying to write new ones. It is all a learning process. Or is it? Sometimes we never learn.

What I am really getting at is do we really need all those programs on which we spend much money ?

Is it speed we are after? most of the stuff is fast enough for me. I ain't that fast myself. Is it just the feeling of doing something better that my buddy? I can understand that as my buddy is so darned slow. Did you know he is so darned slow, the other day he was stopped by the cops on the highway and when he was asked if he knew why he was stopped, he asked the cops "Was I the only one you could catch?" Slow?

Really I wonder if we try to play with too many programs, not really understanding the capabilities of each one. It would be better if we tried to become conversant with a few programs in which we have a real interest rather than have a general knowledge of many, and end up using none of them to full capability.

I am one of those people who have played, and I mean played, with so many programs in the past. Now I am beginning to get the idea that my time would have been better spent in an effort to really get to know what a given program really could do. The other night I could not get my printer to print a certain character which it had done in the past, so I was lazy and picked up the phone to ask the EXPERT what was wrong. The answer came back in short order. "You are in the wrong character set". Sure and he was telling me something I didn't know? That

is why I called him in the first place. So I did a quick check while he was still on the phone, and sure enough he was right. I was in Italy instead of England. So I did a quick adjustment and I got the character I was looking for.

Now this just goes to show that if I had really understood the program I was using, I could have saved myself a few Telephone Bucks. Did you ever see the size of those bucks? Makes your head spin.

Sometimes I feel like a politician, I don't know much about anything but I sure do know a lot about nothing.

Hang on! I'm gettin there. We should spend more time understanding a program, then we would be able to spend more time enjoying the use of the program, understanding what we can do with it, and what it can do for us.

I know from the amount of material in the library, and having tried to see how all the progs and utilities work, there is no way in all the wide world I would have time to use them all, or even if I would have the need to use them. The only thing I can use as an excuse is that it nice to have them,
"Just In Case"

Out for a walk the other day and I met a chap I had not seen for a while. Asked him how he liked retirement. Said he liked it fine but he missed the coffee breaks.

Now this is where I been aiming all this time. I have just kept you hanging on till I got to the end. You now see what can be done by a bit of study in the uses of a program. This is all done at one time. No fancy cut and paste. No fancy Desk-Top Publisher. No fancy anything except a darn good Word Processor. I will leave you to guess which one.

You might even be interested enough to ask.
PLEASE DO

BOB'S NOTEBOOK
REWRITE: AUTOBOOT & GRAFIX24

This issue, I am presenting rewrites of two utilities which are mainly the work of Steven Gunhouse, our club member in Bowling Green, Ohio. These are the autoboot and graphics 24 utilities which I have used in the Omnibus collection but which can certainly be used in other applications.

Let me start by saying that he wrote to me explaining how I got an error report when trying to use PRINT #4: DATA 0 to access the NMI screen dump (or anything else). He was referring to this column in the May-Jun 91 issue. He explained it this way: "The routine (ie, PRINT #4: DATA 0) does not exit by the proper way and does not adjust the machine code variable CH_ADD to point to the end of the current statement." As an aside, I must add that RANDOMIZE USR 100: DATA 0 seems to work equally well, although I had trouble at first.

He then went on to correct the problem as follows (I quote in part): "...refer back to Sinc-Link vol 7 no 5 ...memory map of the LKDOS cartridge....at 8194d (2002h) there is a flag which tells LKDOS whether it is executing a BASIC command like DATA, an NMI routine or something else. If the flag is 0 (zero) it's a BASIC command; if a 1 (one) it's either in start up or NMI; ...if an 11 it is CODE." Then he went on to write some machine code which included loading a 1 into this flag location. This code improved the autoboot file "autobt.Cx" as used in the Omnibus disk; that's the one that returns action to the AUTOSTART file in the selected drive whenever it is triggered. Besides cutting the length to 56 bytes by taking out some redundant stuff, he put in an LDIR routine to transfer the code quickly from the 24495 area in 2068 RAM to the 16350 area (34 bytes only) in the LKDOS RAM. This eliminated my use of POKEs to accomplish this rather slowly in the earlier version. He went on to state that "if the address 2002h held a 1, everything after the LOAD was automatic". I entered this code and when it was incorporated into my Omnibus disk, it did indeed work just fine.

Graphix 24, as originally conceived, was useful for copying all 24 lines of the screen to the wide printer. However, if had major drawbacks: It was necessary to check that the print head was located at the left before each use of the code; the printout was restricted to a left margin of five; all 24 lines would be printed including the bottom line which might have those pesky dots generated by an LKDOS NMI+S save.

Steven's rewrite overcomes those deficiencies and gets over a few more. It handles the PRINT #4: DATA 0 command properly; it responds to LKDOS variables LFEED and MARG so that the line feed can be turned ON or OFF and the left margin can be anywhere. I have used this feature in Omnibus to switch from left column to right when printing screen dumps, thus saving paper or just helping get the proper layouts.

A word of caution: if you interrupt the normal sequence of events when using this utility, you should probably reset the printhead manually (turn the printer OFF then ON). Furthermore, in resetting the print-head to a different position, the utility generates an extra line feed which should be taken into account when positioning the paper in the printer.

The version presented here is intended for use with the Aerco printer i/f driver which is like the LKDOS one. It uses BIT 4,A at 3F5F hex to replace my old printer-ready check using (IF IN 127<>237) and thus making it work with newer Epson compatible printers including my Fastext 80. Some of the older Epsons and such did not use <CHR$ 27;"*";CHR$5> to do the graphics but rather <CHR$ 27;"K">, originally. If you need code for other drivers (A&J, TASMAN, TAS2), there is a separate file in the library that is available on request.

Moreover, the PRINT #4; DATA 0 command has been expanded to allow for one or two parameters, the first determining the start line of the screen dump and the second the number of lines to be copied to the printer. In both cases, if the number is out of range (or missing the second parameter), it presumes the default value <0> and prints the whole screen.

The code for both the autoboot and the graphix 24 routines is shown below. In both cases, the LDIR routines are NOT transferred to the LKDOS RAM.

I have not provided the disassemblies but these can be prepared using any good disassembler. The code is presented in different

See 9/2 page 14 for compres

forms, both in HEX and DECIMAL, with and without addresses, with and without spacing. This does not matter and all that is necessary is that the code groups be entered via a convenient loader. I have presumed that the reader will have machine code loaders to use with these listings. If you need these, they can be obtained from the library; in fact a disk with all this material will be placed in the library.

autobt.Cx at 5FAF hex. Spaces required after each pair of characters.

```
F3CD620021C55F11 DE3FED5316200122 00EDB0C3BA003E80
32032021F63F1122 20010A00EDB03E01 320220C3C6004155
544F535441525420
```

Address 5FC6 holds value 80h (128d) which selects drive 4; if you want the autoboot to operate another drive, change this to the correct hex value (02=drv0; 04=drv1; 08=drv2; 10=drv3).

If you prefer to work in decimal:
autobt.Cx at 24495 dec
Only 34 bytes are moved to the LKDOS RAM (16350-16383).

```
243,205,98,0,33,197,95,17,222,63,237,83,22,32,1,34,
0,237,176,195,186,0,62,128,50,3,32,33,246,63,17,34,
32,1,10,0,237,176,62,1,50,2,32,195,198,0,65,85,
84,79,83,84,65,82,84,32
```
24495,56

To alter the selected drive,
change address 24518 (now 128 for drv4) to:
2=drv0; 4=drv1; 8=drv2; 16=drv3.

Here's the code for the graphix 24 rewrite and which I call <grafsl.C1>, which stands for Graphics/Start/no. of Lines.

But first some notes:
The Printer control codes start at 60B3h/24755d and comprise:
  27 65 8   for 8/72 inch line spacing;
  27 42 5 0 1   for single density bit image graphics;
  27 50   for normal line spacing.
Inverted printing of the screen dump can be obtained by changing the 28 to 20 h (40 to 32 d) at address 607Dh/24701d. It can also be obtained by doing the following double POKEs to the LKDOS RAM.
PRINT #4: POKE 16147,288 for INVERSE; 16147,296 for NORMAL.

grafsl.C1   HEX

```
6004H   F3 CD 62 00 21 1D 60 11    600CH   E4 3E ED 53 16 20 01 E0
6014H   00 ED B0 C3 BA 00 00 00    601CH   00 21 7A 3F CD 9F 3F CD
6024H   A8 3E 21 00 40 3A 02 20    602CH   A7 20 22 CD 92 3F 30 05
6034H   6F E6 18 84 67 ED 5B 5D    603CH   5C 1A FE 2C 20 0F CD 92
6044H   3F 28 02 30 08 A7 28 59    604CH   85 FE 19 38 02 3E 18 95
6054H   47 7D E6 07 0F 0F 0F 6F    605CH   C5 E5 3A DE 3E 47 A7 28
6064H   07 3E 20 CD B2 3F 10 F9    606CH   21 82 3F CD 9F 3F E1 06
6074H   20 16 80 E5 1E 01 7E 24    607CH   A2 28 01 37 CB 13 30 F6
6084H   7B CD B2 3F E1 CB 0A 30    608CH   EA 2C 10 E5 20 04 3E 08
6094H   84 67 CD A8 3F C1 10 C0    609CH   21 8A 3F CD 9F 3F CD A8
60A4H   3F 3A 02 20 A7 C0 CD 8D    60ACH   00 C3 BA 00 FF FF FF 03
60B4H   1B 41 08 FF FF FF FF 05    60BCH   1B 2A 05 00 01 FF FF 02
60C4H   1B 32 FF FF FF FF FF E5    60CCH   E7 CD 90 00 E1 78 A7 C0
60D4H   79 FE 18 C9 46 23 7E CD    60DCH   B2 3F 10 F9 C9 3E 0D CD
60E4H   B2 3F 3A DC 3E A7 C0 F5    60ECH   DB 7F CB 67 20 FA F1 D3
60F4H   7F C9 00 00 00 00 00 00
```
24580,248

grafsl.C1   DEC

24580	243	205	98	0	33	29	96	17		24588	228	62	237	83	22	32	1	224
24596	0	237	176	195	186	0	0	0		24604	0	33	122	63	205	159	63	205
24612	168	63	33	0	64	58	2	32		24620	167	32	34	205	146	63	48	5
24628	111	230	24	132	103	237	91	93		24636	92	26	254	44	32	15	205	146
24644	63	40	2	48	8	167	40	89		24652	133	254	25	56	2	62	24	149
24660	71	125	230	7	15	15	15	111		24668	197	229	58	222	62	71	167	40
24676	7	62	32	205	178	63	16	249		24684	33	130	63	205	159	63	225	6
24692	32	22	128	229	30	1	126	36		24700	162	40	1	55	203	19	48	246
24708	123	205	178	63	225	203	10	48		24716	234	44	16	229	32	4	62	8
24724	132	103	205	168	63	193	16	192		24732	33	138	63	205	159	63	205	168
24740	63	58	2	32	167	192	205	141		24748	0	195	186	0	255	255	255	3
24756	27	65	8	255	255	255	255	5		24764	27	42	5	0	1	255	255	2

continued...

50000 = C350
50500 = C544

SINC-LINK

```
24772 27 50 255 255 255 255 255 229   24780 231 205 144 0 225 120 167 192
24788 121 254 24 201 70 35 126 205     24796 178 63 16 249 201 62 13 205
24804 178 63 58 220 62 167 200 245     24812 219 127 203 103 32 250 241 211
24820 127 201 0 0 0 0 0 0
```

CHANGES TO OMNIBUS

While autoboot and grafsl can be used in stand-alone situations,
I make use of them in the Omnibus disk and so here is some   help
on adjusting the latter.

Assuming that you have Omnibus using the cmp3 code   to   compress
the menus, the three code groups (autobt.Cx, cmp3.C1 and
grafsl.C1) can be saved as one file, thus conserving track
space. With the above changes made, save the three in one by
RANDOMIZE USR 100: SAVE "ombMC.C1"CODE 24311,511.

Now make the following changes to your   Omnibus BASIC listing.
The line numbers may vary a bit depending on the version you
have.

1060 change 16310 to 16350
1180 PRINT #4: LOAD "ombMC.C1"CODE 24311
1220 should end with RANDOMIZE USR 24495: REM autobt
1225 RANDOMIZE USR 24580: REM grafsl
2570 RANDOMIZE USR 24580
4010 PRINT #4: POKE 8214,16350

Save the Back-up from the main menu, then Save the Autostart
version from the main menu. The Autostart has the advantage of
saving all the system variables including the code groups
located from 24311 up. Make two copies just to be safe.

Clear the computer and load the Autostart; hopefully all has
gone well. If you have some trouble getting all this to work,
you may have to get a disk copy from the club library.

Once again, many thanks to Steven for providing all this very
useful code as well as a lot of insight into the inner workings
of LKDOS, printers and machine code in general.

Bob Mitchell 910730

ZX81 - FASTER SLOW MODE

    If you like to type in programs
slow mode, you will have found
that it can be annoying when
adding lines to a long program, to
have to wait while the computer
writes the entire screen every
time. It is especially bad if the
line is a long Print or Rem line.

    This small program can be
temporarily stored near the start
of the program using a few spare
lines. When one has a screenful of
lines, type GOTO (first program
line). Answer the prompt with the
last line you have entered and it
will return you to the last line
you have entered and it will
return you to that line with an
empty screen below. It also POKEs
the listing system variable to
ensure that every relist after
that will return to your chosen
line.

*Retyped from the April '82 issue
of Your Computer Vol.2 No.4*

    2 CLS
    3 PRINT "TYPE A LINE NO"
    4 INPUT XXX
    5 POKE 16419, XXX - INT (XXX/
256)*256
    6 POKE 16420,INT (XXX/256)
    7 LIST XXX
    8 STOP

O N E - S I D E D   D I S K S
D O   N O T   E X I S T

By Hugh H Howie

Sittin' here thinkin. Now jest yew hole on a minit, a often sit and think. It mebbe no be very obvious but a is thinkin. A mebbe no be thinkin bout much but at leas a am a thinkin.

Now my thoughts turned to Computer Disks. Just shows I am thinking, because as soon as I mention computers, I clean up my act.

We have all heard of Double sided and Single sided disks. Did you know that there is no such animal as a single sided disk? No sir! They is all double sided. That's right, all disks are double sided no matter what the jacket or manufacturer or whatever might say.

It is the DRIVER that is single sided.

Some drivers write to one side, or both sides, but the disk ALWAYS has DOUBLE SIDED CAPABILITIES. At least that piece of plastic inside has the capabilities. Sometimes the jacket won't let it, but it is there.

There are 40 track and 80 track and single density and double density and even quad density, but all disks are double sided. No matter what. Density is all to do with the number of tracks a "Disk Driver" is capable of putting on the disk. The difference is that with the 40 track, each track is wider, and with 80 track each track is narrower. The Density has to do with the density of the tracks on the disk. Now there is a verra profound statemant if there ever was one.

In a phonogragh/gramaphone record, the 'groove' is only one continuous spiral from the outer edge to the centre of the record. But on a Disk as in diskette, each track (groove- but it not a groove- just a track still to be placed there by the driver) is on its own. Thus a 40 track actually has 40 seperate tracks.

Now here is where it can get a bit confusing, which is what thinkin is all about. It is possible when using a double-sided driver to format a disk so that the disk is one-sided.

Come again?

You see, a double-sided driver has two heads, which is why it thinks better than you and me, and when it is writing it uses both heads, one writes to side 0 and the other writes to side 1.

Now if we give it a format command where the eleventh character of the format name put on the disk is an asterisk, then that disk will only be formatted on one side. That would be side 0.

The asterisk being the eleventh character of the name tells the driver not to use its 1 head, just to use its 0 head. So the driver writes to side 0 and forgets about side 1. We therefore have a one-sided disk at last! Next time you format the disk, do so normally and you will be back where you started with a two-sided disk.

If we were to copy to this disk, then put this disk through Media Manager or something like that, we would find that indeed there was no side 1. It is ignored completely.

The command which does this is:-

FORMAT "FLP1_MYSTERIOUS*"

Don't forget the quotes.

The result is a disk called MYSTERIOUS, and it sure is. But of course you can use your own title.

So we CAN have a one-sided disk, but only if we make it that way ourselves.

Of what value it would be I have no idea. But I like to get into things like that as this is the only way to learn. To hear and read about single and double-sided disks, and then look at them both, it seemed to me that both sides appeared to be the same. I also could not understand why the manufacturer would go to the trouble of coating one side when it would be just as easy to coat both at the same time. Not to mention the problem of making sure that a given side was the UP side when placed inside the jacket.

Why not try it for yourself?

§

DIGITAL CLOCK

15:00:00

FOR THE TS 2068

A MACHINE CODE PROGRAM LOOKING FOR A PLACE TO WORK! TRY IT!

This bit of code will provide a digital 24-hour clock which can be used in various applications. It uses the Z80's Interrupt Mode 2 to allow the clock to appear, via multitasking, while another program is operating. The clock will show hours, minutes and seconds (eg, 14:06:52) in the upper right corner of the screen. An experienced machine code programmer can alter the screen location, if this is desirable.

To start the clock GO TO 3000 which POKES the inputted time into the last few bytes of the code and then does a RANDOMIZE USR 65020 which actuates the IM2 routine and diverts the interrupts. To stop the clock, GO TO 4000 which does a RANDOMIZE USR 65077 which triggers an IM1 routine to make the interrupts normal again. To restart the clock, GO TO 3030.

Memory used is from 64256 to 65291, part of which is taken up with a 257 byte table of 251's necessary to make the IM2 routine work with the TS2068. See this column Sep-Oct 85 for a more detailed explanation of how this interrupt mode 2 functions.

I used Carol Brooksbank's timer routine in ZX Computing Oct/Nov 85 as my source, converting it from Spectrum to TS2068 use, mainly to include the IM2 modifications; and changing the display to a 24-hour clock, which involved adding a little extra code. Machine code buffs can find added information in that article. The clock will not keep time accurately to the second, if left running for very long. The only adjustment provided is a coarse one at address 65097. It is originally set at 60 and can be changed to a higher value to slow the clock or a lower one to speed it up. I found it best to leave the value 60 as is; other values only made it less accurate.

Using disk SAVE and LOAD commands while the clock is running will cause the clock to stop running briefly and then resume. Using the NMI button will cause a crash so it is better to turn the clock off when about to do this.

Enter the listing into the TS2068 and GO TO 9000 to save it to disk. When the program is first loaded, it will POKE the code into upper memory at 65020.

```
100 REM clock
105 REM  GO  TO  LINE  3000  to
start  clock.  Enter  time  in
24-hour system (eg,  7:28pm  is
192800).
110 REM GO TO LINE 4000 to stop
clock.
115 REM value in 65097  can  be
changed to alter clock speed. 60
is normal;  higher  value  slows
clock.
120 REM  turn  clock  off  before
using NMI button.
1000 DATA   33,0,252,1,251,0,113,
35,16,252,113,62,195,50,251,251
1001 DATA   33,60,254,34,252,251,
62,252,237,71,237,94,253,54,2,0
1002 DATA   24,11,22,0,24,48,48,
58,48,48,58,48,48,33,30,254
1003 DATA    6,11,126,215,35,5,
32,250,201,237,86,62,63,237,
71,201
1004 DATA   245,229,197,213,175,
58,1,255,60,50,1,255,254,
60,218,74
1005 DATA   0,175,50,1,255,58,9,
255,60,50,9,255,254,10,56,104
1006 DATA   175,50,9,255,58,8,
255,60,50,8,255,254,6,56,89,175
1007 DATA   50,8,255,58,6,255,60,
50,6,255,254,10,56,74,175,50
1008 DATA    6,255,58,5,255,60,50,
5,255,254,6,56,59,175,50,5
1009 DATA   255,58,3,255,60,50,3,
255,254,4,40,2,32,21,58,2
1010 DATA   255,254,2,32,14,58,3,
255,175,50,3,255,58,2,255,175
1011 DATA   50,2,255,58,3,255,50,
3,255,254,10,56,11,175,50,3
1012 DATA   255,58,2,255,60,50,2,
255,62,24,50,10,255,62,2,50
1013 DATA   11,255,79,6,255,10,
135,135,135,79,6,0,33,128,61,9
1014 DATA   58,10,255,95,62,64,
87,6,8,126,18,35,20,5,32,249
1015 DATA   58,10,255,60,50,10,
255,58,11,255,60,254,10,40,2,24
1016 DATA   206,195,74,0,0,0,0,
0,10,0,0,10,0,0,0
3000 RESTORE 1000:  FOR  i=1  TO
272:  READ  a:  POKE  65019+i,a:
NEXT i
3005 INPUT "time? hhmmss "; LINE
t$:  POKE 65281,0: POKE 65282,VAL
t$(1): POKE 65283,VAL t$(2)
3010 POKE 65285,VAL t$(3):  POKE
65286,VAL t$(4)
3020 POKE 65288,VAL t$(5):  POKE
65289,VAL t$(6)
3030 RANDOMIZE USR 65020: STOP :
REM clock starts
4000 RANDOMIZE USR 65077: STOP :
REM clock stops
9000  RANDOMIZE  USR  100:  SAVE
"clock.BD" LINE 3000
```

==============================
SAMPLE CLOCK WITH OMNIBUS:

```
                        17:26:05
<Misc     MAIN MENU     Disk>

A>Addr/Dates    B>HELLO! Boot
C>CLOCK ON      D>
E>Set Printer   F>Disk Index
G>MAXCOM        H>HELP!!!
I>CAT CyNaSo    J>Tasort
K>Space Lines   L>Verify Disk
M>MSCRIPT       N>MS-Sort
O>Boot SetDrv   P>PRO/FILE
Q>FULL CAT      R>
S>Bank Accts    T>TASWORD
U>Budget        V>VU-CALC
W>B/U Omnibus   X>Index LP
Y>Edit Menu     Z>Save Autost
PRNTR SET> PICA
OMNIBUS v2.17        NS=OFF
PD ON LL=64 LM=0 LF ON DRIVE1

A-Z=Opt. 0-4=Drv 5>Menu 8>Menu
```

Prices do not include shipping and handling charges.
Shipping charges will vary depending upon weight, distance and method.
I will ship via the cheapest method unless you specify otherwise.
The minimum handling charge for shipping is $2.00.
There may also be a surcharge for repairing modified equipment.
The minimum surcharge is $5.00.

Definition of modified equipment: Any Circuitry changes on the inside of
the equipment case that involved the addition of components, wires,
integrated circuits, or hardware. Customers who send in computer equipment
that has had modifications done to it, which change the manufacturer's
original design, are subject to paying a surcharge.

1. The following items will be repaired for $5.00 each + parts & shipping:
    TS-1000   ZX-81   16k Ram Pack   Any MEMOTECH Module   ZEBRA TALKER
                                        MIRACLE Centronics

2. The following items will be repaired for $10.00 each + parts & shipping:
    TS-1500   TS-2020   TS-2050   PC-8300   ZX-80   Any BYTE-BACK Module
               TS-2040   Z-SIO   AERCO 2068 Centronics

3. The following items will be repaired for $15.00 each + parts & shipping:
    TS-2068   SPECTRUM   A&J Microdrive   LARKEN 2068 FDI   CUMANA FDI
                                            LARKEN 1000 FDI   CST FDI
                                                               MIRACLE 512K

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    For repairing add-on modules, printers, monitors, or other computerized
equipment not listed above - write for a price quote for the items you
want repaired. I also service ATARI, COMMODORE, COLECO, TI, OSBORNE, TRS-80,
and IBM compatibles.

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    price quote.
    Customers can expect a 4-6 week turnaround on most repair jobs.
    Upgrades and problem cases may take longer.
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                              (over)

SINC-LINK

Instructions for sending in computer equipment:

1. For repairs, please use a separate sheet of paper to describe in detail the problem you are encountering, and whether or not the problem is intermittent. List any software or hardware that are associated with the problem. Also list any modifications that have been done to your equipment.
2. For upgrades, please enclose or specify the magazine article or other source of information for doing each upgrade.
3. You may include a check or money order as a deposit for repair costs. You will be notified if a balance is due. Over amounts will be refunded.
4. Carefully pack and ship your equipment to the address below via UPS or parcel post. UPS is sometimes cheaper, especially with heavy items.

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> CABOOL, MO 65689

Phone (417) 469-4571 everyday 8:00 AM till 8:00 PM Central time. If there is no answer, try another time. I'm busy building a log house and can't always hear the phone. Please do not call after 8:00 PM Central time.

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QL --- OVERSEAS LETTER

The following letter was received recently, and is displayed here for the information and edification of all members.

The receipt of this letter would be an indication, to me at least, that our newsletter, or something, of the Toronto Timex-Sinclair Users Club is reaching far beyond our own shores and is being recognised as a progressive and interesting organisation.

Unfortunately it may not be possible to make an inter-change of Newsletters work, owing to the language problem. I have a couple programs which I cannot use as they are in German or Dutch or some language in which I am ignorant.

Suggestions welcome.

Hugh H. Howie

Sinclair QL User Club e.V.

F O R E I G N
  C O N T A C T
    S E C T I O N

Franz Herrmann
Talstraße 21
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SINC-LINK
586 Oneida Drive
L7T 3V3 Burlington, ONT
Kanada

Received July 15

8/7/91

Dear Hugh Howie,

I was reported that your group is supporting the Sinclair QL as our group does. We would like to establish contacts with you, exchanging newsletters, news, freeware etc.

Secondly, please ask your members who are active in communications to log into the GEnie net. The INTL.QL group from Holland, Britain, Sweden, Austria and Germany is echoed via this net to the states.
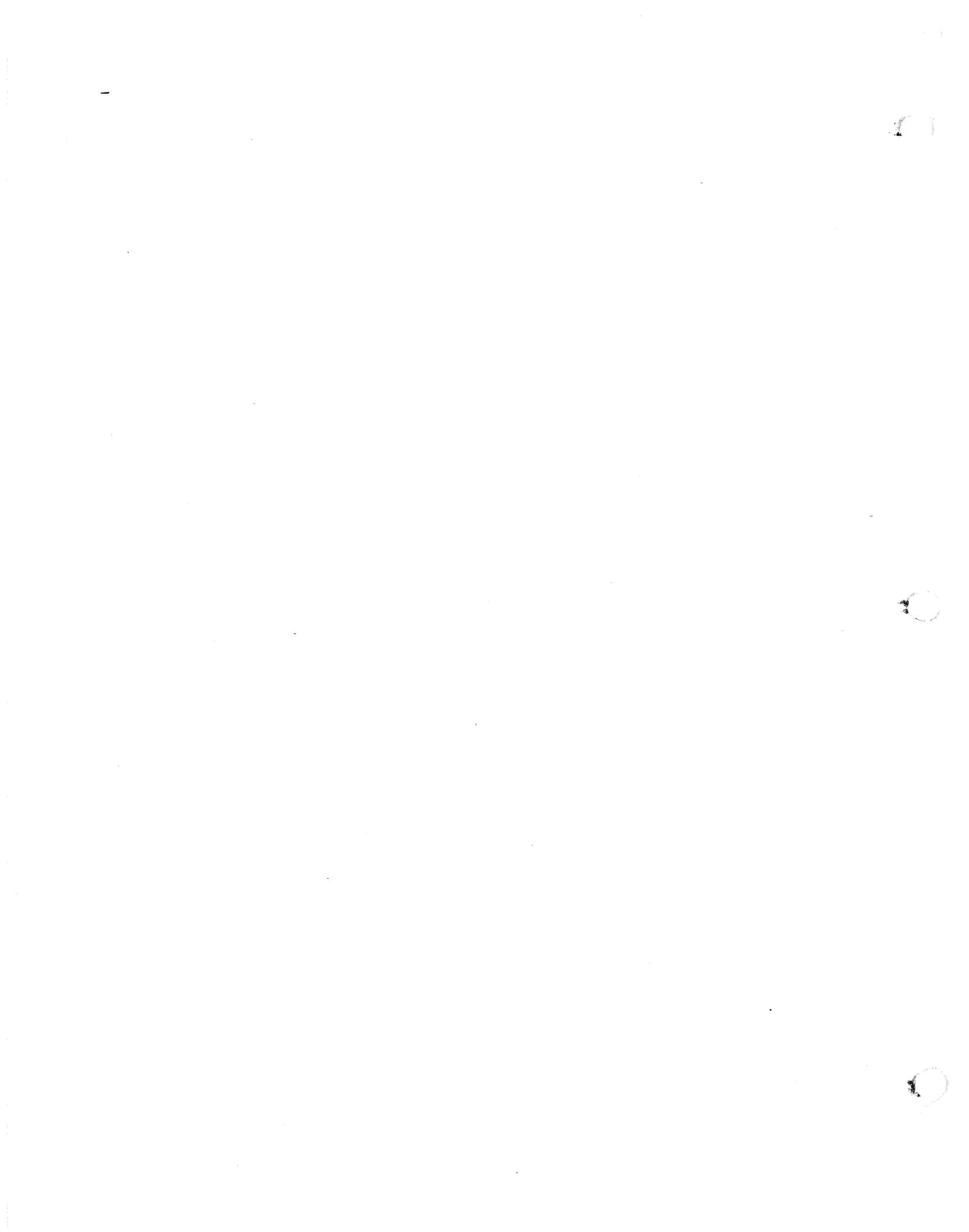
Thank you,

Yours,

Franz Herrmann
Sinclair QL User Club e.V.
- Foreign Contact Secretary -

SINC-LINK

August 12, 1991
Dear Out-of-town Members,

In my Mar/Apr 1991 OOT letter I talked about printers & printer interfaces and it's being somewhat of a "black art". Well, in a way I still think it is. But after working on the Omnibus program, and trying to help a couple of members with their printer problems, I have come to a greater understanding of the subject. What I have learned that it is a "black art" only to those who are uninitiated! I have reached a point in my understanding where I have started an article on the subject, which I am sure will be helpful. I plan to get it into the newsletter an a couple of months. What I would like to do is to send some draft copies to members who would critique it, and hopefully identify areas which are still mystifying, i.e. where I've missed the boat!

Certianly I have learned a lot from this experience, and it would be a shame not to get it to other members who have a large printer and little understanding!!

All this has caused me to fall behind a bit in my correspondence. Not too much really, but if i have not responded to your query/letter, do drop me a line and say so!!

We were not able to get our regular meeting place for July and August, so we cancelled the summer meetings. Last night we held one at my place. I'm afraid we're spoiled, and two months in a row of no meetings is just too much.

Since I mentioned that we had refined the OMNIBUS disk, I have sent copies to quite a number of members. Now, we have continued to add a few refinements to it, and it may be that the earlier recipients should consider asking for a more recent vintage. One item which has been added is an improved Graphics 24 option. The earlier vintage had a Timachine-compiled routine to print out a screen to a large printer. One of our members, Steven Gunhouse, has written a pure m/c routine to do the job, and it prints out Oh, so much faster. And it also allows you to print partial screens. It is imbedded in the LKDOS, and accessed with either the NMI-F key, or with a RAND USR 100: DATA 0. There is also the capability of placing it at any position across the page.

On this topic I came across a Tasman m/c routine that will do much the same thing. Though in the case of the Tasman code it prints a double-size image.

Fast, though. And this one does not require the Larken LKDOS. It is stored in the printer buffer area. Called "tasepson". Ask me about it, if you are interested.

We've received a copy of a new newsletter. It's called the FDD Newsletter. It is devoted exclusively to the Timex TOS system, the disk system put out by Timex Portugal and sold by some Timex dealers in the USA.
This was issue 2. It consists of two sheets (3 pages of contents, plus a 11" x 17" schematic of the Timex FDD3000 system. There's no indication of newsletter cost, nor is there an editor's name on it. But I have an address; here it is:

FDD Newsletter
1274 49th Street, #821
Brooklyn, NY 11219-3011

I'll send you a copy of it, if any of you FDD owners write me!

There is also another newsletter coming out. I may have mentioned it in my last letter. It is called the International QL Report. It is published by SeaCoast Services, with Robert Dyl, Sr., the Editor.
Their address is:

IQLR
15 Kilbourne Court,
Newport, RI 02840

It consists of 6 sheets (8 pages of good stuff, a 2-page questionnaire, a subscription form page, and a cover page. It looks pretty authorative, and impressive. I'm looking at the Inaugural Issue. To be published 4-6 times a year. Subscription rate is $3 per issue; $10 US per year in US and CANADA. They offer to send a free issue if they get the name/address of a QL user. I shall send

in names of all the QL members that I have a record of, so you might hold off for a while to see if you get a copy from them.

I have been looking through the current issue of the newsletter. There are two articles by Bob Mitchell on a 2068 toolkit program. This program can be found on the club library tape #28, and also on the two Larken library disks, #'s L-02 and L-33. Try this utility. It is a good one for programmer types. use it all the time.

On Larken library disk #33 Omnibus with Pull-down menus I have been doing some revisions to it. Adding the same features as I earlier applied to the Disk #L-02. That is I made it easier to customise it to your Larken system. It is on a single DSDD 5 1/4 inch disk. Ask for it if you would like to see pull-down menus in operation. Doing this make me look closely at the Basic programming for the window pull-down mechanism.

I found it quite enchanting in it's elegance and simplicity. The code does it so well, that the Basic programming to make it do what you want, is very simple. I think it deserves better treatment in a newsletter article. Maybe I'll do just that. But the code is too lengthy to put in the newsletter. I'll see that it is in the tape library, and on a disk. Ask for it, in anticipation of getting models of the Basic programming to drive it, in the next issue of the newsletter.

Kristien Boisvert has added several utilities to the BytePower Disk Utility Software (DUS) suite of programs (Disk #32 in our Larken library), and has completed the instruction manual. There are about 6 new utilities. This BytePower suite is in the public domain. The updated version 4.0 replaces the original version in our library. Ask for it.

We have added a suite of 4 disassembler programs written by Ken Shoenberger, to Disk #17 (Assmblers/Disassemblers). I have experimented only a bit with them. We shall have to get a review of them for a newsletter article. Ask for this disk, also.

Ask for it. That's the name of the game. I have so much resource material around that I cannot possibly list it all. If you need something, ask whether I have it , or can find it. Chances are that I may be able to do so. But if you don't aks, you'll never know!

Some of you have asked for an updating of what is in the Larken Library. I think I'll have to start a series of articles for the newsletter, covering just what is in the library. But for the moment I'll just mention that while the catalogue lists 40 disks, we have several more in the library. There is Disk #41, Bob Swoger's LOGICALL (A disk management system); Disk #42, a Tasword utilities suite by Larry Crawford; Disk #43, a unique 2068 utilities suite by Bill Pederson; and Disk #44, a Graphics and Screen Copy Utilities suite for the 24-pin printer by Larry Crawford. And there will be more forthcoming this fall.

Sorry, earlier when I was mentioning new newsletter, I failed to mention the new T/SNUG newsletter, "ZXir Qlive Alive". I mentioned it in the last newsletter. We've received a second issue, and it looks good. The subscription for it is $15/year for clubs, and $12/year for individual memberships. Think I've got that right. The Editor is Donald Lambert. His address is:
Don Lambert
1301 Kiblinger Place
Auburn, IN 46706

His phone number is (219) 925 1372. Give him a call.

Don is working with Bob Swoger to get this off the ground. TTSUC is sending in our club subscription. We encourage you to consider individual subscriptions!

Sorry to report that Renato Zannese, one of our longstanding members has moved on to the "other machines" world. We wish him well, even though at the same time I'm sorry to see him leave. Ranato was our TS2068 tape librarian.

Oddly enough, our tape library is pretty quite these days. Don't know what it is. Maybe the more energetic/enthusiastic members have gone to disk. There's a bit of pity to that, though. There's a lot of good stuff on tape, that will probably never make it to disk. I know that I have not perused all the programs on tape. There was a time when it came pouring in in such quantity that I was only able to get it onto tape; never enough time to see what it was.

That's about all for this letter. I've really run dry.

Sincerely

George Chambers