

ALL MADE ON ZX81/TIMEX 1000



ANDRE***

Send the name of this character and you will receive the PROGRAM and the DATA that will put this picture on your own screen (or printer). See bottom of page 2 for more details.

TO:

ZX-81

10 YEARS LATER

ALL
THE NEW NEWSLETTER FOR THE
SINCLAIR ZX81 / TIMEX 1000.

ALL YOU SEE, AND WILL SEE, HAS BEEN CREATED WITH, AND ONLY, A ZX81, A 16K RAMPACK AND A TIMEX 2040 PRINTER.

WHY ZX-81?

Because the ZX81/Timex 1000 is 10 years old this year and I want to lift the spirit of the users and the believers in this marvelous little computer. I also want to reach the far away users and/or programmers.

In this newsletter you will get print-out, pictures, and articles like X-TRA BASIC, ALL ABOUT PAUSING, ALL ABOUT PRINT, BYTE SAVING, FASTER RUNNING PROGRAMS, SPEED TEST, PROGRAMMER'S TOOLS, TIPS 'n TRICKS, etc...

→ page 6

IF YOU WISH TO RECEIVE
A PRINT-OUT, A CASSETTE,
AN INFORMATION, A REPLY
OR THE NEXT MONTH ISSUE
OF THIS NEWSLETTER SEND
A SELF-ADDRESSED ENVELOPE

TO: ANDRE BAUNE
304 SCOTT,
CHATEAUGUAY, QUEBEC
CANADA J6J 4H5

WHO IS ANDRE***

My name is Andre Baune and I am forty-nine years old but I still move, think and act like a sixteen years old.

I bought my first Sinclair computer in December 1981. It was my personnel gift for Christmas. I had no previous experience or knowledge about computer but what I had seen and heard about them had made them dream machines. They had become amazing, fantastic, interesting, baffling, out of this world. For the first time man had created a machine that mimicks his own brain and now it was available to everybody for a cheap price. WOW! And I could get one!

I got one! When I opened the box and I saw that little black thing, my heart sank. No way! That thing cannot perform. I connected it, started to read the instructions and tried it. It worked! It worked more, much more than I thought.

For me, learning being fun, after two months I was able to create programs and as a reward I allowed myself to connect the 16K ram module. Another two months passed and I bought my first program. Since then I did not buy many programs but I created, adapted and modified hundreds of programs and I still do create and learn more and more about and with my ZX81.

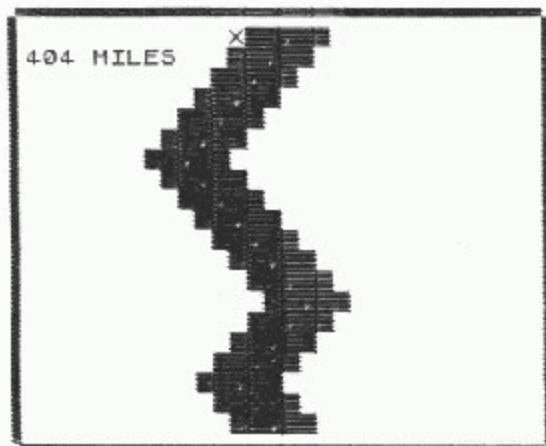
The best part of this story is that I AM STILL LEARNING and through this newsletter I will communicate to you what I have learnt through the past years.

All you will see in these pages has been done in BASIC because I did not start yet to learn machine language. So if you are just a beginner it should be easy to learn and understand my explanations about BASIC language because what I talk about is the BASIC language of your ZX81/Timex 1000. If you are a more experienced user/programmer there will be new methods or tricks to make your computer run better and faster without changing any hardware. So bring your Sinclair/Timex back on your working table, there is something new for them. This is what ANDRE*** is all about.

ANDRE***

ZX CAR RACE

A SCREEN SAMPLE:



THE PRINT-OUT:

```

1 FOR I=A TO RND*5+A
2 PRINT AT 0,C;" ";AT 21,R;" "
3 LET M=M+A
4 LET R=R+T
5 LET C=C+(INKEY$="0")-(INKEY
$="1")
6 SCROLL
7 IF NOT PEEK (D+C) THEN GOTO
11
8 NEXT I
9 LET T=(RND*.5)*2+(R<5)-(R>1
9)-A
10 GOTO A
11 FOR I=A TO 9
12 PRINT AT 0,C;"X X X X" (I)
13 NEXT I
14 PRINT M;" MILES"
15 PAUSE D
16 LET R=13
17 LET C=15
18 LET M=NOT PI
19 CLS
20 FOR I=M TO 20
21 PRINT TAB R;" "
22 NEXT I
23 GOTO 9
24 SAVE "ZX RACE" ANDRE***
25 LET A=SGN PI
26 LET D=VAL "PEEK 16396+256*P
EEK 16397+A"
27 GOTO 18

```

ABOUT ZX CAR RACE

This extremely short program (463 bytes) runs in only 2K of ram (the standard Timex 1000) and uses ALL the screen. The keys to steer the car are 0 and 1, located on each side of the keyboard at the top for easy handling. After an accident ANY KEY pressed will restart the game. This program uses 2 functions of the Sinclair/Timex: PAUSE and SCROLL. The screen picture is enhanced by the added white line in the middle of the road.

TYPING NOTES:

-Line 2 "inverse H"
 -Line 2 and 28 "inverse space, inverse space, inverse dot, inverse space, inverse space"
 -Line 12 "X, space, inverse X, space, X, space, inverse X, space, X"

USER'S NOTES:

-To SAVE: type RUN 34.
 -To start: type RUN 36.

VARIABLES USED:

A = 1
 I = utility counter
 M = Miles run
 C = Car position
 R = Road position
 D = Display file address
 T = turns value

SINCLAIR/TIMEX' SUPPORTERS

Computer Monthly,
 P.O. Box 7062,
 Atlanta, GA 30357-0062

Mountainer Software,
 749 Hill Street # 9,
 Parkerburg, WV 2604

Send a letter to these people with your name and address, asking them what they have for you and your computer.

As I gather more supporters' names of the ZX81/TIMEX 1000, I will include them in this column.

NEXT MONTH

12 PAGES of more new graphics, new pictures, new print-out, PLUS new games, quizzes, PLUS new series of topics about our Sinclair/Timex. SEND FOR IT NOW!

From page 1...

I will try to keep this newsletter for at least a year depending upon the interest and the feedback I will receive. So be nice and drop me a word, a name and address, a question, a suggestion, a problem, a small program you would like to be shared, a picture you would like me to digitize.

Join a club, send your name around and we will all gain because newcomers will join in and bring new ideas we all could benefit from.

HER ! ON SINCLAIR ZX81/TIMEX 1000 ???



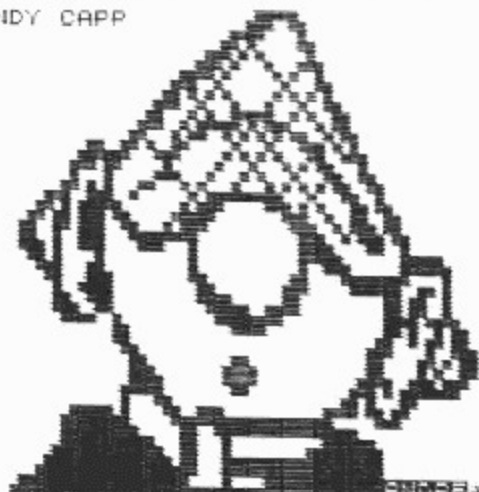
Send the name of this character and you will receive the PROGRAM and the DATA that will put this picture on your own screen (or printer). See bottom of page 2 for more details.

ACHTUNG

The content of the newsletter ZX-91 is the sole ownership of ANDRE***. It may be reproduced in part or in whole providing that a copy of whatever it is reproduced in is sent to me and that credit is mention. ZX-91 is free and can not be used in any remunerative way.

The word processor used in these pages is "WORD SINC II" of P. Hargrave, Nanaimo, B.C. Canada.

ANDY CAPP

[illegible]

A square frame composed of asterisks (*) surrounding the number 10 in the center.

ZX NO. 2 81

10 YEARS LATER

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ALL YOU SEE, AND WILL SEE, HAS
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ZX81, A 16K RAMPACK AND A TIMEX
2040 PRINTER.

What a response to that first newsletter! Admiration for the quality of the work! Interest for the articles! Amazement at the pictures! And above all, stupefaction to see something completely new coming up for the ZX81 and the Timex 1000!

Well if you liked the first one, sit down to look at this issue #2. First the front titles were improved: I am a fan-

→PAGE 3

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304 SCOTT,
CHATEAUGUAY, QUEBEC
CANADA J6J 4H5

FROM PAGE 2

tic for details. Continuing with... HO!
Have you seen my ZX-RATED graphic on page
12? Hold on! Keep reading here, you will
have time later. I was saying... a new
series named X-TRA BASIC beginning on page
5. A new series which will give you
(without any extra hardware or software,)
the commands and functions not directly
available from Sinclair BASIC.

A dynamite new series called T N T appears on page 4. Also a lengthy list of OUR SUPPORTERS who are well equipped to please you and your computer. I added 'GMEWORD' to tickle your brain because I know that Sinclair/Timex users have more than the other computer users. Right? More of the excellent graphics to lighten this heavy 12 pages of material. You may look at page 12 now.

ANDREFF ~~et al.~~

RESEARCH

In this issue two types of gameword will appear: The CRYPTOGRAM in which the letters have been replaced by another letter. Each cryptogram is unique, so each cryptogram has its own code.

In the other type you must use the letters from the bottom column and place them at the proper place in the upper column in order to make a significant sentence in the upper grid.

NSJHGES FG FKS NGAISWROUJ
NGUJI GR NGUIDTESC GA HGEXOFSU

IABEAHANEERAAANTFHAEVEPECIALHE
 UMIMEROOFSBEUEOYINET IR YOUR
 URLATTTSHR IR TNOU STYS II
 TNNIY EVYITS OR

DNJ ODCKNFZJ SW FBZ ZUWSZWF
CUOBSQZ FD TZUJQ LSF8.

TNT

An explosive new series which will help beginners and experts to cut corners, to speed up their work and enjoy more their computer. T.N.T stands for Tips 'N' Tricks. Though it is well loaded it will not blow up your computer. Go ahead plug your computer, try these tips and write back to me what you think about them.

TIP # 1:

The bottom of your screen is all clogged up and the computer refuses to ENTER your command or instruction. Your only way out of this mess is to unplug the computer. But you already have typed in part of your program which would be lost if you unplug the computer. Here is the tip:

```
EDIT (SHIFT 1)
```

```
ENTER
```

These two commands in this order one after the other will clean up the bottom of the screen without losing the part of your program already typed in.

TIP # 2:

When debugging a program in FAST mode the constant jumping of the picture as you move the cursor is annoying. Here is the tip:

```
Bring the line cursor (>)  
next to the faulty line.
```

```
CLS
```

```
EDIT (SHIF 1)
```

This will bring the faulty line at the bottom of an empty screen. Only the faulty line will flicker not the whole picture. A good improvement not mentioning the added speed in the cursor movement.

You have some tips to share? Send them in.

ANDRE***

X-TRA BASIC

This series will give you that little extra which is not directly available from the keyboard. This little extra which will allow you to adapt more easily programs from other BASIC languages. This little extra that will allow you to create better programs...FASTER running programs.

No hardware to add, no program to load first, no list of machine code to type in. Just new methods of using what is already there in our Sinclair BASIC.

In this issue #2 of ZX-91, I give you my version of the famous READ-DATA-RESTORE.

Its main features are 1) written in simple BASIC, 2) the READ subroutine can read strings, numbers, mathematical expressions, graphics etc... 3) there is no limit to the amount of DATA, 4) the DATA can be a mixture of words and numbers, 5) the DATA can be divided in any amount of program lines, 6) the DATA is limited only by your computer total memory, 7) you can RESTORE (the pointer) to any program line.

THE READ ROUTINE

For better results, the READ subroutine must be at the beginning of the program and the DATA at the end. Even if you don't follow the preceding procedure the program will run. But with our Sinclair/Timex every ounce of speed is a must.

The READ subroutine is made of only 4 lines of program. It includes one pointer (D), one counter (I), one user variable (U\$) and the shortest and the fastest FOR-NEXT loop ever made: only two consecutive lines. See for yourself.

```
1 FOR I = D TO LEN D$  
2 IF D$(I) <> "," THEN NEXT I  
3 LET U$ = D$(D TO I-1)  
4 LET D = I+1
```

FROM PAGE 5

THE DATA

The 'D\$' holds the DATA. Not to confuse nor to re-invent something already existing, I use the comma (,) as separator between each element of data.

The DATA can include numbers, graphics and words but each data must be followed by a comma (,) except the very last one.

Here is an example of DATA:

```
5000 LET D$="EUROPE,4,FRANCE,PAR  
IS,ENGLAND,LONDON,"  
510 LET D$=D$+"ITALY,ROME,SPAIN  
,MADRID,"  
512 REM STOP  
514 REM GET ""LEN D$+1"" HERE.  
520 LET D$=D$+"AMERICA,3,CANADA  
,OTTAWA,MEXICO,MEXICO CITY,"  
530 LET D$=D$+"U.S.A.,WASHINGTON  
N"
```

I could have added more to the list. The limit being the total memory of your computer. Lines 512 and 514 are explained in the next chapter. Have you notice the numbers are mixed with words? And there is no comma after Washington?

→ PAGE 7



→ PAGE 6

RESTORE

In the following program RESTORE will restore the value of 'D' at 1 which correspond to line 500 or at 62 which correspond to line 520. At lines 280-282, if D=1 then the RESTORE will point at line 500. If D=62 then the RESTORE will point at line 520, which is the beginning of the questions about America.

The value 62 is given by the lines 512 and 514. In any DATA list, if you need to restore to any line of DATA, insert a STOP before that line and get the 'LEN D\$ + 1'. The value found will be the RESTORE value for 'D' to point at that line.

THE SAMPLE PROGRAM

In the following program, I used GOSUB READ for clarity purposes. GOSUB 1 is the equivalent and line 210 could be removed. The same at line 70, I could write FOR J=1 TO VAL US and not use line 60.

As stated at the beginning, I used no machine language, NO add-on just X-TRA BASIC with the existing Sinclair BASIC.

Go ahead type in the program and try it. Typing the program offers no special difficulty.

THE LISTING

```

1 FOR I=D TO LEN D$
2 IF D$(I)<>" " THEN NEXT I
3 LET U$=D$(D TO I-1)
4 LET D=I+1
10 RETURN
19 REM 92/02 GEO ***

20 GOSUB READ
30 LET T$=U$
40 GOSUB READ
50 LET Q=VAL U$
60 FOR J=1 TO Q
70 CLS
80 PRINT AT 2,2:T$

```

GEOGRAPHY

<E>UROPE
<A>MERICA
<Q>UIT

SCREEN SAMPLE

[illegible]

```

90 GOSUB READ
100 PRINT AT 4,0;"NAME THE CAPITAL OF ";U$
110 GOSUB READ
120 INPUT A$
130 PRINT AT 6,2;A$;" ";
140 IF A$=U$ THEN PRINT "BRAVO"
150 IF A$<>U$ THEN PRINT "NOPE"
..
160 IF INKEY$="" THEN GOTO 160
170 NEXT J
180 GOTO 220
199 REM      --MENU--

```

```

200 GOSUB 500
210 LET READ=1
220 CLS
230 PRINT AT 5,11;"GEOGRAPHY";
AB 11;"-----"
240 PRINT AT 9,11;"<E>UROPE";AT
11,11;"<A>MERICA";AT 13,11;"<O>
UIT"
250 LET K$=INKEY$
260 IF K$="0" THEN GOTO 300
270 IF K$<>"E" AND K$<>"A" THEN
GOTO 250
280 IF K$="E" THEN LET D=1
282 IF K$="A" THEN LET D=62
290 GOTO 20
299 REM      --ENDING--

300 CLS
310 STOP

```

FROM PAGE 8

```
499REM      --DATA--
```

```

500 LET D$="EUROPE,4,FRANCE,PAR
IS,ENGLAND,LONDON,"
510 LET D$=D$+"ITALY,ROME,SPAIN
,MADRID,"
512 REM STOP
514 REM GET ""LEN D$+1"" HERE.
520 LET D$=D$+"AMERICA,3,CANADA
,OTTAWA,MEXICO,MEXICO CITY,"
530 LET D$=D$+"U.S.A.,WASHINGTON
"
540 RETURN
550 REM

```

RUN 200 TO START

And if you run the program you will experience no delay in the execution of the program when it has to READ a new DATA. The READ routine performs rapidly and efficiently even though it is written in BASIC.

If you enjoy translating or adapting programs from other BASIC, you will be able now to include those with the READ-DATA-RESTORE. Or you can now create your own programs using READ, DATA and RESTORE.

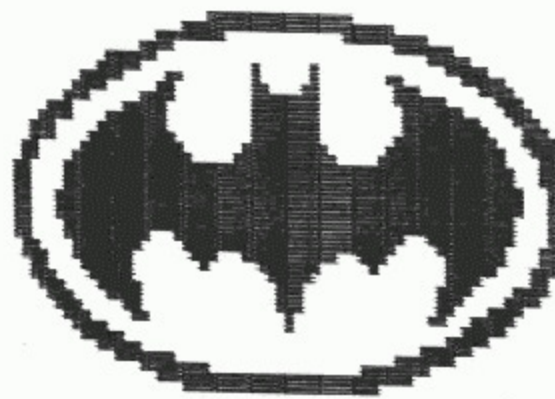
ANDRE ~~Y.Y.~~

+++++ A DATE TO REMEMBER +++++

FEBRUARY 1992

SUN	MON	TUE	WED	THU	FRI	SAT
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2	3 *	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

4 7X-91 IS SENT OUT.



BATMAN

ANDRE***

You like this Graphic? See page 1 to get it FREE.

SINCLAIR/TIMEX' SUPPORTERS

Computer Monthly, MAGAZINE
P.O. Box 7062,
Atlanta, GA 30357-0062

Computer Classics, REPAIR
RT 1, BOX 117,
Cabool, MO 65689

The John Olinger Co., DEALER
11601 Whidbey DR.,
Cumberland, IN 46229

EMSoft division, DEALER
Estate Management services
P.O. Box 8753,
Boston, MA 02114-8753

Toronto Timex Sinclair Users Club,
14 Richome Court.,
Scarborough, Ontario,
CANADA M1K 2Y1

RMG Entreprises, DEALER 4\$
1419 1/2 7th ST.,
Oregon City, OR 97045

Mechanical Affinity, DEALER
513 E. Main ST.,
Peru, IN 46970

FROM PAGE 10

Timex Sinclair N.-American Users Club,
c/o Donald S. Lambert,
1301 Kiblinger PL.,
Auburn, IN 46706

Sinclair Information eXchange,
c/o William W. Miller,
6675 Clifford DR.,
Cupertino, CA 95014-4530

ZX Users Group of New York,
BOX 560 Wall ST.,
New York, NY 10005

Long Island Sinclair Timex Users Group
c/o Harvey Rait,
5 Peri LN.,
Valley Stream, NY 11581

Update Magazine
BOX 1095,
Peru, IN 46970

Indiana Sinclair Timex Users Club,
c/o Frank and Carol Davis,
513 E. Main ST.,
Peru, IN 46970

Mountainer Software,
749 Hill Street # 9,
Parkerburg, WV 2604

Sunset Electronics,
2254 Taraval st.,
San Francisco, CA 94116

This list was verified last month. All are existing. If you wish to receive information about a club or a catalog from a dealer please send one (1\$) dollar and a self-addressed stamped letter to the addresses listed above. Send a letter to these people asking them what they have for you and your computer. Remember the more we write each other, user to club, user to dealer, club to dealer the more we will benefit.

Hey! Have you bought a new hardware or software lately? Go for it now! Did you think about joining a club? Other users need you, join now!

As I gather more supporters' names of the ZX81/TIMEX 1000, I will include them in this column. So if you are a dealer who still carry Sinclair/Timex product or a users club, send me your name and address and I will add them to this list in next issue of ZX-91.

ZX-RATED



GIRL1

You can have it on your screen. See page 1 to receive it FREE.

NEXT ISSUE #3

PAUSE: The many different ways of doing it. ZX = # 1: Why it is the best computer to learn with. Also programs listing, Gameword, our Supporters' List and... the +best+ graphics.

--ACHTUNG--

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The word processor used in these pages is "WORD SINC II" of P. Hargrave, Nanaimo, B.C. Canada.



END***

I will send (FREE) to you the PROGRAM and DATA of the picture(s) seen in this issue if you send me the name of the character depicted. See also bottom of Page 2.

TO

ZX-91

NO. 3

10 YEARS LATER

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I QUIT!

Yes! I quit! After only three issues I quit answering letters individually. The amount received now forbids such practice. From now on answers will be part of ZX-91. The answers will then benefit all readers and I will not have to repeat myself over and over.

This month's title must have shaken you. Devilish am I not? But trustworthy. ZX-91 will come out every month for at least a year as stated in the first issue.

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CANADA J6J 4H5

KNEE-USE-N-N-SIRS

Can you read the above title? When I started ZX-91, I had piled up topics, articles, print-out and pictures to fill the pages of this newsletter for at least a year. But I soon realized I had forgotten something which would make this newsletter livelier. And if you read carefully the above title you will find out what it is all about.

GOOD SERVICE:

I received what I ordered in reasonable time limits for the price marked from RMC Enterprises, from John McMichael and from EHSOFT. Future buyers look them up in the SUPPORTERS' list.

Thank you Peter for your note and the subsequent letter. Proper actions have been taken. Your bank should have contacted you by now.

If any of you have any problem with cashing my checks, please let me know your bank manager's name, the bank's address and phone number. I will immediately take the proper actions. I am paying my bank for this service. They deliver.

OLYMPIC'S GOLD MEDAL:

Did you buy COMPUTER MONTHLY of March? Have you read the chapter about ZX-91 in the T/S SURVIVAL column?

To appear in a prestigious international magazine is a GOLD MEDAL!

A gold medal that WE won, US ALL, vendors, clubs' leaders, programmers, newsletters' editors, users and believers in the ZX81/Timex 1000.

No words could express my emotion and my gratitude to Bill Ferrebee of Mountaineer Software and to the editor(s) of Computer Monthly. I am wordless!

UN PEU DE FRANCAIS:

Merci a Mike Fellerski pour sa lettre. If you tried to startle me, you did! Do not forget to reply to me about your journal.

FROM PAGE 3...

S.A.S.E. #1:

I take this space to thank you all who sent me a self-addressed envelope. But please if you are not from Canada do not affix an American stamp on the envelope because I am mailing from Canada.

S.A.S.E. #2:

Thank you all who financially helped me with the cost of sending them back their next issue of ZX-91. It helped me greatly. Needless to say that my budget is busted. But I am hopeful it will be within reasonable limits in the forthcoming months.

SUPER THANKS:

To my great motivator Donald S. Lambert of ZXir Olive Alive, to Arnold Nieuwenhoff of Sutton MA and to David S. Leech of Byte-Back.

You gentlemen have helped me beyond expectations. I'll have to do something in return.

BAD NEWS:

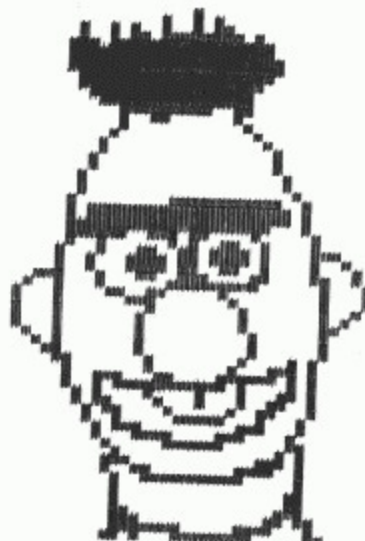
My letters to WORLDWIDE SOFTWARE of England and to INSPEC LTD of Ireland were returned with mention GONE AWAY. If you have the new address of these two vendors, please send them to me.

ELECTION TIME:

Malcolm Post has replaced Derryck Turner at the helm of SEATUG. Best of luck Malcolm!

FACTS:

ZX-91 is a monthly newsletter primarily devoted to the ZX81 and the Timex 1000/1500. It is sent free to any one who will send me a request in a self-addressed envelope. Clubs and/or newsletter's editors who exchange newsletters are exempted of the preceding procedures. Vendors (I used the term vendors to conform myself to the remark of Mazin Pashtoon, president of CATUG.) are requested to drop me a word (or a postcard or a flyer) every four months (or less) in order for me to keep an updated SUPPORTERS' list.



ANDRE

You like this picture? See page 1 to get it FREE on your own screen and printer.

FROM PAGE 4...

FRENCH QUEBECER SLIP:

Computer Classics is from CABOOL MO. In issue 2 I wrote the name with a french sound. Sorry Dan.

MORE AND MORE:

I received a 3 pages letter from Gil Parrish a letter full of subjects, questions and grievances. I will try to answer them here and now. And as incredible as it may be I only have good news.

From Hacker Electronics (the 1\$ and 2\$ computers) you have received a refund. That is good. And there is still a possibility that they might have more computers for you later.

Now! What about trying to get some computers from other sources. Contact the dealers listed in the SUPPORTERS' list. Some of them must have some 'returns' or some second hand computers.

Get in touch with groups like ISTUG or SEATUG. They have sales or auctions where people from out of town can buy or bid.

FROM PAGE 5...

Visit the fleamarkets and garage sales, you might find some computers there. I know. I did find some.

About your newer TI-99 Keyboard problem, I do not have a final answer yet. I will try to get such a keyboard and see if it can be wired up. Or maybe some readers already have an answer? I know that the older model works fine because I wired one. The only thing to report is that the ENTER key is up one row. I linked the keyboard to the circuit board with ribbon cable. It makes a neat job. More about keyboards next month.

About software, You say software for the ZX81/timex 1000 is hard to get. Well! I sent for catalogs from the dealers listed herein and I received impressive lists of software available and at cheap prices. I have joined clubs and they have impressive lists of public domain software. Let yourself be tempted! Go for it! It's there!

Also for the NEWER than new, in the coming months I will try to put on the market some of the programs I have created. You have seen the quality of this newsletter and the graphics. You can expect the same from my programs.

Yes! I do have a library of programs. The shorter ones are becoming available as print-out in this newsletter. For the longer public domain programs I don't have a satisfactory solution yet.

Afsew! I hope I covered up everything. Surely mishaps will happen but let's look on the bright side! let's find corrective measures! Let's help each other!

ONE LAST:

Phil of Sunset Electronics is looking for an EPROM BURNER. You have one? Look at his address in the SUPPORTERS' list.

ALSO:

Welcome to QZX, the amateur radio club using Sinclair/Timex computers who is still going since Marty Irons put out the first copy in the early days of the ZX80.

A great welcome also to the Vashon Island Sinclair Timex Association.

ZX IS #1

Yes! The ZX81 (or Timex 1000) is the best computer to learn about computers and about programming in BASIC or in machine code. And we shall learn why in the following chapters.

To qualify as proper material, any book, software or computer must meet certain requirements which are: neatness (or clarity), simplicity and feedback.

NEATNESS

It is easy to understand why for a beginner it is important to clearly see and to be able to identify what is shown to him. Oftenly it is regarded as a drawback for the ZX to accept only one instruction per line. But for the learner it is an advantage. The program line remains neat and short, not complicated by added instructions. In other words, easier to read and to understand by the beginner.

Another neatness of the ZX is its way of listing programs on screen, one page at a time. You don't have to figure out the length of the following lines in order to indicate the line at which to stop. You simply type LIST + line number. The computer then prints out one screen page starting at the line called and stops. It's clear! It's neat! It makes the screen easy to read for the learner.

Now, what about the automatic spaces on each side of the keywords? That is neatness! The keywords seen outstanding are easier to note and to remember. It makes the screen much clearer to read.

All the mathematical functions are spelled on screen (SQR, PI), not represented by a symbol. The beginner has already other symbols to learn, why add mathematical ones? He is learning computing not math. So being able to read the name on screen is an advantage for the beginner.

→ PAGE 8

CRYPTOGRAM:

BU FRYZ CQS XBYH IYBOX

DHPEIFYZ OPHOX IU?

FROM PAGE 7...

Here is a review of the four reasons why the ZX is the best in neatness. 1) One instruction per line. 2) Listing only one page at a time. 3) Automatic spacing for the keywords. 4) Spelling of the math functions.

These features keep the screen neater and from there easier to read and to understand by the beginner.

SIMPLICITY

The simple format of the error message: Two numbers separated by a slash. What can be simpler? The first number gives you the error code and the second one is the line number in which the error was detected. No fancy nor confusing sentences. The information is kept simple but complete.

The second (simple) feature is the limited amount of commands and/or functions to learn before you can actually make a running program. All the commands necessary to make a program are there. The extra unnecessary one are not there to confuse you. This is simplicity.

The third feature of simplicity of the ZX is the limited amount of pixels to be managed on screen: 64X44. Compared to the 256X192 or 640X200 or more. A beginner does not need all that complexity to learn how to make a picture. It impedes his learning or worst it will discourage him. This is another reason why the ZX is the best. It has a small amount of pixels to manipulate and you still can make fantastic pictures. Simplicity equals easy learning.

Rapidly we will review the three simplicities of the ZX: 1) The error messages format. 2) All and only the necessary commands. 3) The small amount of pixels for making pictures.

FEEDBACK

The feedback is surely the most important quality in the learning process: It is the recognition and the evaluation of what the student has done. It allows the student to bolster his self-esteem when he responds properly or it should give him hints or help on how to correct his mistakes.

→ PAGE 9

FROM PAGE 8...

When an error is detected the ZX will report an error message indicating the type of error and the line in which it was detected. This informative feedback is very useful for the learner, it is a clear indication of what to look for and where to look. In short it gives him the WHAT and WHERE.

The second feedback is the syntax error cursor. This is a unique feature of the ZX which puts him in a class by itself. The computer will not accept (ENTER) an incorrectly built instruction. More, it will also place an inverse S after the error. The ZX is almost the perfect teacher indicating mistakes before they bug down your program.

And finally the slowness of the ZX. Yes! The most cited fault is the ZX best advantage in the learning process. Are you going to correct a deficient way of programming when the speed of the execution of the program is not affected? Are you going to force yourself to learn a better method to make faster animation on screen when there is no noticeable difference on screen? But with the ZX the execution of a program will be slower. The feedback is right there in front of your eyes. So slow that you can see it. Learning and using the best techniques of programming become an easy task because the results are noticeable.

Here is a review of the last chapter about feedback: 1) The errors report provides a simple and efficient feedback. 2) The syntax error cursor feeds us back with the inverse S pointing to a faulty instruction. 3) The noticeable difference in the speed of execution with or without the best techniques of programming.

Now you know why our computer is the number one of all the computers for learning computing. If anybody challenges you about this fact, you are now well prepared to defend our computer.

A small car or a jumbo jet will take you from New York to Los Angeles but 99% of the people can learn to drive a small car. I do not know how many will learn how to fly a jumbo jet? Think about it. For learning, the ZX81/Timex 1000 is #1.

ANDRE ***

SINCLAIR/TINEX SUPPORTERS

USERS GROUPS

CATUG
Chicago Area Times Users Group,
c/o Al Feng,
15 Wake Robin Ct.,
Moorbridge, IL 60517-1751

I S T U G
Indiana Sinclair Timex Users Group,
c/o Frank and Carol Davis,
513 E. Main St.,
Peru, IN 46970

LISTUG
Long Island Sinclair Timex Users Group
c/o Harvey Rait,
5 Peri Ln.,
Valley Stream, NY 11581

SEATUG
SEattle Area Timex Users Group,
c/o Malcolm Post,
3323 Frater Ave. S.W.,
Seattle, WA 98116-3112

S L I X
Sinclair Information exchange,
c/o William W. Miller,
6675 Clifford Dr.,
Cupertino, CA 95014-4530

T / S N U G
Timex Sinclair NorthAmerican Users Groups
c/o Donald S. Lambert,
1301 Kiblinger Pl.,
Auburn, IN 46706

T G C U G
The Greater Cleveland Users Group
615 School Ave.
Cuyahoga, OH 44221

T T S U G
Toronto Timex Sinclair Users Group,
14 Richmond Court.,
Scarborough, Ontario,
CANADA M1K 2Y3

U I S T A
Vashon Island Sinclair Timex Association,
BOX 199,
Vashon, WA 98070

ZX Users Group of New York,
80X 560 Wall St.,
New York, NY 10005

FROM PAGE 10...

MAGAZINES AND NEWSLETTERS

Computer Monthly,
BOX 7062,
Atlanta, GA 30357-0062

FDD Newsletter,
1274 49 St. #821
Brooklyn, NY 11219-3091

Free Software Foundation,
675 Massachusetts Ave.,
Cambridge, MA 02139

Update Magazine,
BOX 1095,
Peru, IN 46970

0 Z X
2025 O'Donnell Dr.
Las Cruces, NM 88001

DEALERS

Byte-Sack Inc.,
BOX 112, 536 Long Terrace,
Leesville, SC 29070

Computer Classics, REPAIR
RT 1, BOX 117,
Cabool, MO 65689

EMSoft,
BOX 8763,
Boston, MA 02114-8763

John McMichael,
1710 Palmer Dr.,
Laramie, WY 82070

Mechanical Affinity
513 E. Main St.,
Peru, IN 46970

Mountainer Software,
749 Hill St. #9,
Parkersburg, WV 26104

RHG Enterprises, (4# catalog)
1419 1/2 7th St.,
Oregon City, OR 97045

Sunset Electronics.
2254 Taraval st.,
San Francisco, CA 94116

The John Dinger Co.,
11601 Whidbey Dr.,
Cumberland, IN 46229

FROM PAGE 11...

William J. Volk,
8015 Carter Ave.,
Baltimore, MD 21214

To receive information from the people listed above please send them a self-addressed and stamped envelope (SASE).

To get a catalog from a dealer add one dollar (1\$) to your letter.

As more clubs, dealers, newsletters and magazines will contact the ZX-21 newsletter, I will include them in this SUPPORTERS' list.

It is a free service to them and a great source of information to the readers.

Spread ZX-91 around, show it to friends, use it or part of it and in doing so, because you are part of it, YOU and me, WE will reach more Sinclair/TimeX users.

GAMEWORD: ANDRE***

EFDGAMEEIIENDHADIAEIEEEHNDREII
IFOOMSEEKEOHIELLKLLOTLESLIK
NRTRUOML OFIRMS SOUSTTIRETOU
OY S SN U Y U U UT

NEXT MONTH

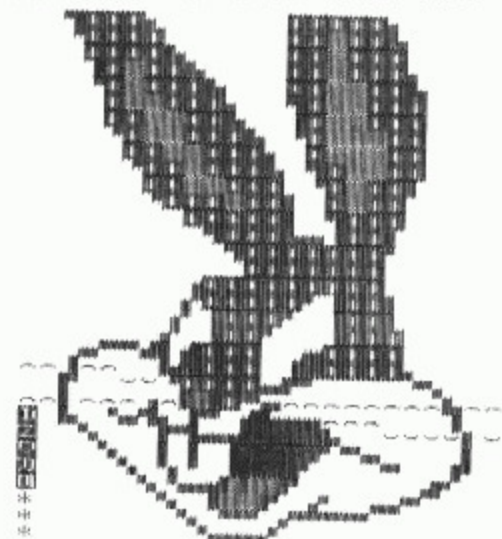
I know I'm late and there is no print-out. But look at the lenght and the quality of the SUPPORTERS' list, the articles and the graphics of this month! Next issue will have print(s)-out.

— — — — —

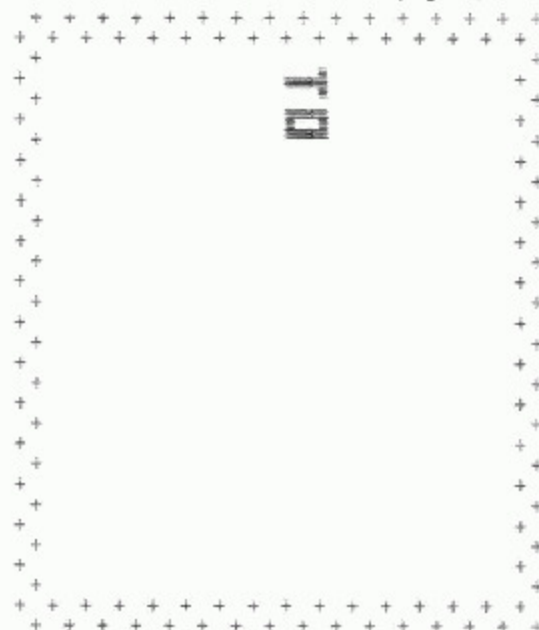
The content of the newsletter ZX-91 is the sole ownership of RHIRE***. It may be reproduced in part or in whole providing that a copy of whatever it is reproduced in is sent to me and that credit is mention. ZX-91 is free and cannot be used in any remunerative way.

The word processor used in these pages
is "WORD SYNC II" of P. Hargrave,
Nanaimo, B.C. Canada.

"ALL-MADE" ON ZX81/TIMEX 1000



Send me the name of the character(s) depicted in here and I will send you the program and the data to have it on your own screen. See also bottom of page 2.



ZX-91

10 YEARS LATER

ALL
THE NEW NEWSLETTER FOR THE
SINCLAIR ZX81 / TIMEX 1000.

ALL YOU SEE, AND WILL SEE, HAS
BEEN CREATED WITH, AND ONLY, A
ZX81, A 16K RAMPACK AND A TIMEX
2040 PRINTER.

HI!

April's fool is behind us. I didn't quit. It is Easter and spring time. See graphic on page 1. ZX-91 is reaching more and more believers in the ZX81/Timex 1000. In this issue, I offer a treat to the print-out buffs who were neglected in the last issue. Also I have to cut out the article about PAUSE for lack of space.

Keep reading and asking for ZX-91. All knowledge about ZX81/Timex 1000 belong to all users. ZX-91 spreads it.

IF YOU WISH TO RECEIVE
A PRINT-OUT, A CASSETTE,
AN INFORMATION, A REPLY
OR THE NEXT MONTH ISSUE
OF THIS NEWSLETTER SEND
A SELF-ADDRESSED ENVELOPE

TO: ANDRÉ BAUNE
304 SCOTT,
CHATEAUGUAY, QUÉBEC
CANADA J6J 4H5

KNEE-USE-N-N-SIRS

Has anyone decoded the above title? Last chance to impress your friends, the answer in the next ZX-91.

MORE THANKS:

To all of you who have sent me articles, print-out, etc... to be included in ZX-91. It will be used. As you can see, the space is limited.

Also I wish to thank Jay S. Siegel of (F D D Newsletter) who sent me a cassette with a program he made to be used with the hi-rez module from Memotech.

Also to Pierre Pilon, a director of the 'polyvalente L.P.P.' (high-school) in Chateauguay, who sent me 5 original tapes: two games, a compiler, a de-assembler and FORTH language.

HI-REZ:

Have you ever seen a high resolution program on your ZX81/Timex 1000? It's fantastic! It's unbelievable! It's real! It's true! No add-on! No program to load first!

I was given the opportunity to see and use the program SEA MINES. You can see the fine details of the sub-marine and the destroyer: the mast, the turret, the cannons, the rudder etc... And I was told for many years it couldn't be done! Again and again we find out there is more and more in our ZX81/Timex 1000.

NEW FRIENDS:

I have received the last two copies of 'THE RAMTOP', the newsletter from the Greater Cleveland Users Group. It was a double pleasure because I did not know that group existed and, they had used in their two editions the pictures seen in ZX-91 #1 and #2.

To me, it is a great honor (as a newcomer) to be accepted in the grand family of Sinclair Timex. And it should be a great joy to all the believers in the ZX81/Timex 1000 to find out there are more and more users.

FROM PAGE 3...

NEW FRIENDS #2:

The C.C.A.T.S., the Clackamas Computer Applied Training Society has sent me a copy of their newsletter: THE PLOTTER.

Dick F. Wagner, the editor has also sent me fifty little programs that will appear in a subsequent issue of ZX-91. The technique they uses can be applied in making programs. Look them up in the SUPPORTERS' list.

FACTS:

The program 'DIPIC' which creates the (great) graphics seen in the pages of ZX-91 is not a 'Etch-a-sketch' type nor a drawing program. 'DIPIC' does it all for you. You just have to type in the data. So don't be afraid. You don't have to be an artist, just a user who likes his (or her) computer. If there is a special character you would like to see, send me a request. ZX-91 works for you!

'DIPIC' FOR THE 2068:

Tom and Keith Skapinski of L.I.S.T. have created a program for the 2068 that uses the same DATA as the ZX81/TimeX 1000 uses to make the graphics seen in the pages of ZX-91. The program is listed in the L.I.S.T. newsletter of April.

The newer DATA are always available from ZX-91 upon request. Ask for YOUR copy of ZX-91 at the same time.

TURBO:

In the March issue of L.I.S.T., Anthony W. Farrel from Australia wrote an article (with schematics) on how to add turbo power to our ZX81/TimeX 1000. Interested? Contact the L.I.S.T. group. See the SUPPORTERS' list.

FROM HOLLAND:

There is apparently an emulator program for the IBM to run the ZX81/TimeX 1000 software. I'll keep my eyes and ears for that info.

TO PAGE 5

ZX IS #1



'Let us not ask what T / S N U G can do for you, but what you can do for T/SNUG'.

You have not sent your name and address to T / S N U G yet? Let's do it now and... be part of the Sinclair-TimeX family.

FROM PAGE 4...

HELP #1:

Is there an interface that allows the ZX81/TimeX 1000 to be connected to a Olivetti PR 2300 or a CITHO printer?

Ike Walker from Florida who is 78 years young is trying to do it. Anybody or any users group out there who could help?

HELP #2:

I want to know from each US states which are the 2 most popular Lotos in which the buyer can pick his own numbers.

Here in Quebec, we have the 6/49 and the 6/42 where you pick 6 numbers out of 49 or 42. Which are the two most popular one in your state? Let me know.

STATISTICS:

ZX-91 is exchanging newsletter with 11 users groups and 3 special interest groups. ZX-91 has received reply from 10 dealers who still carry ZX81/TimeX 1000 related product. Now, more than 227 copies of ZX-91 #1 have been sent and more are sent each month.

TO PAGE 6

FROM PAGE 5...

PROGRAM DEBUGGED:

Arnold Nieuwenhoff of Sutton Mass. asked me to de-bug the program 'TRAINS' listed in the book 'The ins and outs of the TimeX 1000' by Don Thomasson.

Here are the corrected or added lines:

```
110 PRINT AT 12,10;"TRAINS"
1040 IF N>15 THEN PLOT 37+10*SIN
    ANG,14+10*COS ANG
1110 FOR N=0 TO 18
2140 LET A(N+30,2)=24-N
2520 FOR N=1 TO 13
6382 LET PA=60
6760 IF PA<>78 OR F<>-1 THEN GOT
    O 6820
7530 PRINT AT X,Y)AS
```

Anyone else having problem with a BASIC program? Contact me through ZX-91.

ANDRE+++

** PRINTS-OUT **

The next three pages are 3 different programs. The first one is an educative one and it can run in 1K of memory if you follow the instructions at line 99. If you have more than 1K then just type the lines 100 to 170 and RUN 100. In line 18 the little airplane is made of (graphic 3, inverse =, graphic 0)

On page 8 it is a program from Tim Swenson. It plots the orbit around a planet. By using the keys (5,6,7 and 8) you can modify the orbit. I added line 55 to make a bigger central planet.

On page 9 you have 3 programs for the price of one: RUN 10, RUN 200 or RUN 300. Each of them will generate a screen pattern allowing you to verify and/or adjust your picture, horizontal vertical, focus, brightness, contrast etc... Line 220 has graphic Y. Line 320 has graphic S, graphic D.

ANDRE+++

ZX-81

10 YEARS LATER

ALL

THE NEW NEWSLETTER FOR THE
SINCLAIR ZX81 / TIMEX 1000.

ALL YOU SEE, AND WILL SEE, HAS
BEEN CREATED WITH, AND ONLY, A
ZX81, A 16K RAMPACK AND A TIMEX
2040 PRINTER.

VACATIONS!

Time to play! Time to play with your ZX!
In this ZX-91 #5: Big news from Holland,
more new friends of ZX-91, a new dealer
found, more changes to ZX-91, a longer
print-out, a graphic blow to Nintendo and
Sega, a longer list of SUPPORTERS, an
invitation to the COMPUTERFEST to be held
in Dayton, Ohio. ZX-91 spreads it all to
all Sinclair/TimeX users.

IF YOU WISH TO RECEIVE
A PRINT-OUT, A CASSETTE,
AN INFORMATION, A REPLY
OR THE NEXT MONTH ISSUE
OF THIS NEWSLETTER SEND
A SELF-ADDRESSED ENVELOPE
TO:

ANDRÉ BAUNE
304 SCOTT
CHATEAUGUAY, QUÉBEC
CANADA J6J 4H5

KNEE-USE-N-SIRS

The above title reads: NEWS AND
ANSWERS.

BIG NEWS:

Yes! There is an emulator program for
the IBM PC to run ZX81/TimeX 1000
software! Thanks to Mort Binstock of
Pittsburg who had sent me the news which
appeared first in ZX-91 #4. But better
than that, there is also an emulator for
the QL to run the ZX81/TimeX 1000
software. There is also an emulator for
the QL to run the Spectrum software.

These programs are distributed as
shareware for about 25\$. Your ZX must have
64K and run under QZDOS. Contact your
listed Sinclair/TimeX group for more
details or write to:

Carlo Delhez,
Emmastraat 3,
4651 BU steenberghe
Netherlands

MORE:

The QZX newsletter of March reports
the existence of an emulator program for
the PC to run Spectrum software.

EVEN MORE:

I heard of an emulator for the Atari 5T
to run ZX81/TimeX 1000 software. Hey!
Seems to me that the big guys are looking
at us for brainware!

BAD NEWS:

Computer Monthly has moved to big
computers only, dropping our regular T/S
NEWS column. If you haven't written to
them yet, do it now! Tell them: Reading
our column was the only reason to buy
their magazine. The more will write, the
more they will listen! Let's do it!

THE GAZETTE:

The Montreal #1 English daily newspaper
has put out two stories about the
ZX81/TimeX 1000. Thanks to Cairn McGregor
and THE GAZETTE, I have been able to reach
more users of the ZX81/TimeX 1000 in my
area.

NEW FRIENDS:

I have received a newsletter from
C.A.T.S., the Capitol Area TimeX/Sinclair
Users Group. And also the newsletter from
the Dayton Microcomputer Association Inc.
See their addresses in the SUPPORTERS'
list. Remember along with ZX-91 all the
groups and dealers listed in the
SUPPORTERS' list are getting known.

BELIEVE IT OR NOT:

I have found a dealer of hardware and
software for the ZX81/TimeX 1000 (and the
QL) in Quebec City. See him in the
SUPPORTERS' list.

WHO'S WHO?

I am exchanging newsletters with many
different users groups. With some groups I
send my newsletter to the editor, some to
the president, some to the secretary
etc... My question is WHO should I send it
to? I do not want to create a jurisdiction
problem among the different leaders of one
club. So please advise.

NEW USER:

The users of the ZX81/TimeX 1000 are
increasing. I even received a letter from
a beginner who would like to start with a
ZX in a kit format. That's a beginner! You
know where to get one? Let me know.



ANDRÉ***

RECTIFICATION:

ZX-91 is (almost) a monthly newsletter. This statement is more realistic. If the numbers of subscribers had leveled off at about 50 as forecasted, I would properly have been able to keep a monthly output. But the mailing alone and the answering to the new users is taking much more time than I have.

NEWSLETTERS EXCHANGE:

ZX-91 is exchanging newsletters with N.O.C.C.C., the North Orange County Computer Club. It is not a Sinclair-TimeX group. But if you happen to have an IBM related computer (like me) or a McIntosh, you can contact them at:

N.O.C.C.C.
BOX 3616
Orange, CA 92665

It is a very dynamic and serious group.

THANK YOU:

To Aurele Boivent of Pickering Ontario who sent me the info sought by Ike Walker of Boynton Beach, Florida who wanted to connect his ZX to an Olivetti printer. Aurele mentions also that he has some ZX81 equipped with 64K and 32K and some 16K rampacks to sell. Interested? Contact ZX-91, it works!

THANK YOU:

To David G. Leech of BYTE-BACK who sent me his latest catalog (get yours!) in which Ike (Walker) could find what he needs to connect his printer. All this info will be sent to Ike.

THANK YOU:

To New England's Sinclair QL Users Group and to Peter Hale of EMSOFT who sent me a copy of the letter describing the emulators programs from Holland.

EMSOFT advertizes mostly for the QL but still has software and materiel for the ZX81/TimeX 1000. Send for his catalog.

The New England's Sinclair QL Users Group can be reach at this address:

New England's Sinclair QL Users Group
BOX 8763
Boston, MA 02114

DAYTON COMPUTERFEST:

Yes! There will be a ComputerFest at the Hara Arena, 1001 Shiloh Spring Rd., Dayton, Ohio. On the 29th and 30th of August. Many Sinclair-TimeX users and users' groups will be there. For more info write or phone:

Gary M. Granger,
812 Hedwick St.
New Carlisle, OH 45344-2619
(513) 849-1483

LAST MINUTE INPUT:

I just received a letter from Curt Carlson of the Mile High TimeX/Sinclair Users Group. See them in the SUPPRTERS' list.

You have a great or a simple news about the ZX81/TimeX 1000? Send it in! ZX-91 will spread it!

ANDRE+++



Send me the name of the character(s) depicted in these pages and I will send to you FREE the program and the data to make them on your own screen or printer. See also bottom of page 1.

AWARI

In this issue of ZX-91 I am giving you a longer print-out. I have been claiming that I have created many programs and that I am (very) good at it. So here is a good example of a well constructed program for your ZX81/TimeX 1000. You will notice the rapidity of execution and the fast decision from the computer to make its move.

RULES OF THE GAME:

The leftest and rightest boxes are the score boxes only. The A to F boxes belong to the computer. The G to L are yours. You (or the ZX) take the points from one of your boxes and distribute them one at a time in the adjacent boxes in a clockwise motion. If the last point is dropped in an empty box (whether it is in yours or your opponent), the points in the opposed (across) box will go to the score box.

The game ends when one of the player gets more than 18 points or when a player has no more points to distribute (as in the sample screen). Then the player with the highest score wins. The ZX plays first. Study his moves. Beware it plays well but it can be beaten.

TYPING NOTES:

Line 680 = graphic E, graphic 7, graphic 7, graphic R.

Line 710 = graphic 5, 3, space, graphic 8.

Line 740 = graphic W, graphic 6, graphic 6, graphic 0.

```
1 REM AWARI 92/07 ANDRE+++
2 REM
```

YOU

```
10 PRINT AT 14,0:"YOUR MOVE, W
HIGH BOX? "
20 LET Z$=INKEY$
30 IF Z$<"G" OR Z$>"L" THEN GO
TO 20
40 PRINT AT 14,22:Z$
50 LET D=CODE Z$-37
60 IF NOT B(D) THEN GOTO 10
70 GOTO 250
```



```

99 REM      **ZX-81**

100 LET F=0
110 LET S=F
120 FOR D=1 TO 6
130 IF NOT B(D) THEN GOTO 180
140 LET A=D+B(D)
150 IF A>12 THEN LET A=A-12
160 IF NOT S THEN IF NOT B(13-D)
170 THEN LET S=D
180 IF NOT B(A) THEN IF B(13-A)
190 THEN IF 13-A<>D THEN LET F=D
200 NEXT D
210 LET D=5
220 IF F THEN LET D=F
230 IF D THEN GOTO 240
240 LET D=INT ((RAND<.7)*3+RAND*3
+1)
250 IF NOT B(D) THEN GOTO 220
260 PRINT AT 14,0;"I WILL PLAY
BOX ";CHR$(37+D)
249 REM

```

ADDING

```

250 LET A=D+B(D)
260 FOR I=D+1 TO A
270 IF I<13 THEN LET B(I)=B(I)+
1
280 IF I>12 THEN LET B(I-12)=B(
I-12)+1
290 NEXT I
300 IF A>12 THEN LET A=A-12
310 LET B(D)=0
320 IF B(A)<>1 THEN GOTO 360
330 IF D<7 THEN LET P(2)=P(2)+B
(13-A)
340 IF D>6 THEN LET P(1)=P(1)+B
(13-A)
350 LET B(13-A)=0
359 REM

```

PRINTING

```

360 FOR I=1 TO 6
370 PRINT AT 5,I+4;B(I);" " A
ND B(I)<10;AT 10,I+4;B(13-I);"
" AND B(13-I)<10
380 NEXT I
390 PRINT AT 8,1;P(1);TAB 29;P(
2);AT 14,0;E$
400 LET E=P(1)>18 OR P(2)>18 OR
NOT (B(1)+B(2)+B(3)+B(4)+B(5)+B
(6)) OR NOT (B(7)+B(8)+B(9)+B(10)
)+B(11)+B(12))
410 RETURN
445 SAVE "AWARI"
450 GOSUB 600

```

```

459 REM      **THE GAME**

```

```

460 GOSUB 100
470 IF E THEN GOTO 500
480 GOSUB 10
490 IF NOT E THEN GOTO 460
499 REM

```

THE END

```

500 PRINT AT 14,0;"GAME OVER: "
510 IF P(1)>P(2) THEN PRINT "YO
U WIN,"
520 IF P(2)>P(1) THEN PRINT "I
WIN,"
530 IF P(1)=P(2) THEN PRINT "IT
IS A DRAW,"
540 PRINT AT 16,0;"YOU HAVE ";P
(1);" AND I HAVE ";P(2);"
550 PRINT AT 19,0;"PLAYING AGAI
N? (Y/N)"
560 IF INKEY$="Y" THEN RUN 450
570 IF INKEY$<>"N" THEN GOTO 56
0
580 CLS
590 STOP
599 REM

```

PREP

```

600 CLS
610 PRINT TAB 11;"A W A R I"
620 DIM B(12)
630 DIM P(2)
640 DIM E$(32)
650 FOR I=1 TO 12
660 LET B(I)=3

```

```

670 NEXT I
680 LET Z$=" "
690 LET E=5
700 GOSUB 800
710 LET Z$="13 "
720 LET E=6
730 GOSUB 800
740 LET Z$=" "
750 LET E=7
760 GOSUB 800
770 RETURN
799 REM

```

SCREEN

```

800 FOR I=1 TO 6
810 PRINT AT E,I+4;Z$;AT E+4,I+
4;Z$
820 IF E=7 THEN PRINT AT 5,I+4;
CHR$(I+165);AT 9,I+4;CHR$(178-
I)
830 NEXT I
840 PRINT AT E+2,0;Z$;TAB 26;Z$
850 IF E=5 THEN PRINT AT 6,29;"
ZX";AT 8,1;"0";TAB 29;"0";AT 10,
0;"YOU"
860 RETURN

```

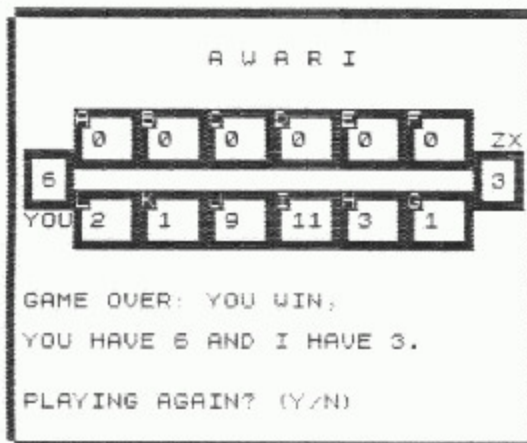
PRINT-OUT

Why print-out in ZX-91? Because the ZX81/TimeX 1000 is the #1 computer to learn about computing and typing yourself a program is a sure pleasure and a good way to learn the skill of programming.

The ZX is THE computer for the beginner, the learner and the experimenter because it is a low cost computer and it is easy to learn with. And typing in programs from print-out is an excellent way of learning and improving your own skill. ZX-91 will continue to offer you the best and the newest programs.

NEXT ISSUE

Two famous cats that you could see on your screen. A reprint from The Gazette (Montreal #1 daily newspaper) about our computer. More news about emulator programs. More print-out. Until then support our SUPPORTERS and try to beat your ZX at AWARI.



SINCLAIR/TIMEX SUPPORTERS

USERS GROUPS

C A T S
Capital Area Timex Sinclair Users Group
BOX 11017
Takoma Park, MD 20913

C A T U G
Chicago Area Timex Users Group
c/o Al Feng
15 Wake Robin Ct.
Woodridge, IL 60517-1751

C C A T S
Clackamas Computer Applied Training Society
1419 1/2 7th St.
Oregon City, OR 97045

D M A
Dayton Microcomputer Association Inc.
BOX 4005
Dayton, OH 45401-4005

I S T U G
Indiana Sinclair Timex Users Group
c/o Frank and Carol Davis
513 E. Main St.
Peru, IN 46970

L I S T U G
Long Island Sinclair Timex Users Group
c/o Harvey Rait
5 Peri Ln.
Valley Stream, NY 11581

M H T S U G
Mile High Timex/Sinclair Users Group
c/o Curt Carlson
501 S. Grant St.
Denver, CO 80209

S E A T U G
Seattle Area Timex Users Group
c/o Malcolm Post
3323 Frater Ave. S.W.
Seattle, WA 98116-3112

S L I X
Sinclair Information exchange
c/o William W. Miller
8675 Clifford Dr.
Cupertino, CA 95014-4530

T / S N U G
Timex Sinclair North American Users Groups
c/o Donald S. Lambert
1301 Kiblinger Pl.
Auburn, IN 46706

T G C U G
The Greater Cleveland Users Group
615 School Ave.
Cuyahoga, OH 44221

T T S U G
Toronto Timex Sinclair Users Group
14 Richome Court
Scarborough, Ontario
CANADA M1K 2Y1

V I S T A
Vashon Island Sinclair Timex Association
BOX 199
Vashon, WA 98070

ZX Users Group of New York
BOX 560 Wall St.
New York, NY 10005

MAGAZINES AND NEWSLETTERS

Computer Monthly
BOX 55886
Birmingham, AL 35255

FDD Newsletter
1274 49 St. #821
Brooklyn, NY 11219-3091

Free Software Foundation
675 Massachusetts Ave.
Cambridge, MA 02139

Update Magazine
BOX 1095
Peru, IN 46970

Q Z X
2025 O'Donnell Dr.
Las Cruces, NM 88001

DEALERS

Byte-Back Inc.
BOX 112, 536 Long Terrace
Leesville, SC 29070

Computer Classics REPAIR
RT 1, BOX 117
Cahoon, MD 66689

EMSoft
BOX 8763
Boston, MA 02114-8763

Yves Gagnon
4000 boul. Central
Duberger, Quebec
Canada G1P 3P9

John McMichael
1710 Palmer Dr.
Laramie, WY 82070

Mechanical Affinity
513 E. Main St.
Peru, IN 46970

Mountainer Software
749 Hill St. #9
Parkersburg, WV 26104

The John Olliger Co.
11601 Whiskey Dr.
Cumberland, IN 46229

RMG Entreprises (4\$ catalog)
1419 1/2 7th St.
Oregon City, OR 97045

Sunset Electronics
2254 Taraval St.
San Francisco, CA 94116

To receive information from the people listed above please send them a self-addressed and stamped envelope (SASE). If you want a catalog, add a dollar (\$1) to your letter.

As more clubs, dealers, newsletters and magazines will contact the ZX-91 newsletter, I will include them in this SUPPORTERS' list.

It is a free service to them and a great source of information to the readers.

ANDRE***

--ACHTUNG--

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