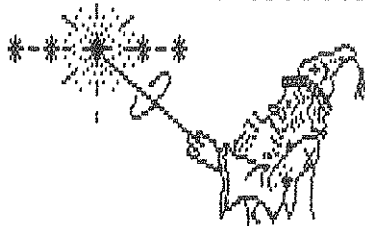


PORT FE

SORCERERS USERS' GROUP
(Toronto)

P. O. Box 1173 Sta. 'B'
Downsview, Ontario,
Canada. M3H 5V6

SORCERER Newsletter



The Toronto Sorcerer User Group was founded in the Spring of 1979, a handful, willing and eager to learn members.

This newsletter shall at all times keep in mind the goal of its conception. To spread the seeds of knowledge.

Articles printed in this newsletter shall be free for all Sorcerer Users' groups to reprint or comment on as they see fit.

Articles submitted for this newsletter must be in no later than the beginning of the 1st of every month.

1982 ISSUE

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- 5 - Plans for new CP/M monitor EPROMS

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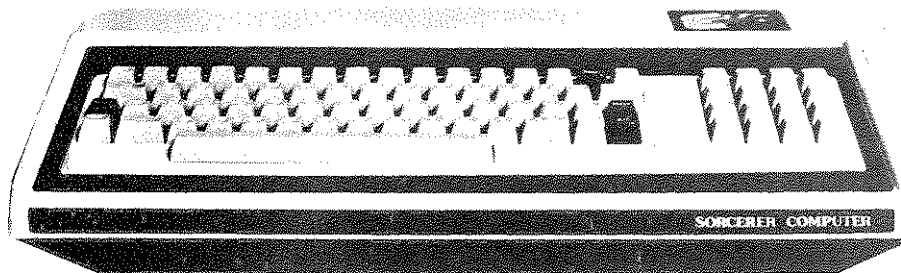
FROM THE OTHER SIDE

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MEETING PLACE

Location : Bathurst Heights Library - 7:00 PM 3170 Bathurst St.
January : Thurs. 21st February : Wed. 17th. March : Thurs. 18th.
April : Wed. 14th. May : Thurs. 13th. June : Wed. 16th.

One block north of Lawrence on the west side of Bathurst.



=====

We have some very nice things in store for all of you this coming year. We will be adding a new section in PORT FE dedicated to NON-DISK users. This has been suggested before but have not had anyone to look after it.

This year also we have a much larger staff to handle the multitude of mail that we get from all the members. We regret that all the mail was not answered last year but please be patient I think we have overcome that hurdle.

----- * -----

In the February issue we shall begin a column that will keep all of you interested. Among some of the topics that are being covered are astronomy, and the inter-facing of hardware (PIA) Peripheral Interface Adapter's to the Sorcerer. This will allow remote control of external devices for doing all sorts of things.

By way of general interest one of our members has inter-faced with a CORVUS Hard Disk system. He informs us that it's working out just fine.

----- * -----

Some of you have wondered about a speed up modification for the Sorcerer, well thats well in hand.

Now for the more serious side of things, the TORONTO SORCERERS USERS' GROUP will be presenting awards internationally for the best program written in 1982. Should you try ??? Well let me state that one who doesn't try doesn't get. There are contests out there that offer great rewards for those people that try. To be eligible just send a copy of the work to the attention of the awards chairman on or before October 15/1982. Good luck.

The speed up has been implemented by one of our bright young lads more than six months ago. Alas he wishes for someone else to try it out. This is where you the readers come in.

He just wants to confirm that it will work with other Sorcerers.

The Prez

MEMBERSHIP RENEWALS

It's that time of the year again.

Well we have been able to compact our membership list just a little this time. In the following block of TEXT are listed the first 100 names (Surname) of our members. See if you can spot your name. Remember the spelling is run every which way.

MEMBERSHIP LISTING

Z X H R C N I W D L A B Y X H K Q M Q N M R N H T Y B Q G C U M C K E N Z I E S
K V L N G S S I U H D O F E V E J R A L Z E S O E A O P K J T G J A B E C K E R
D E C H A P M A N K R L N D N N H E C N E I H L X I G M O S Z K M X B J I K F R
S K O N V E A O P C A D O G E O L Y R R L V X T M R F H A N D S I O R X I I L K
M R X H N O S C A K R N Y L Z C S E G G E O E C T O N U I R R N R D F U S B D U
Y V I O J I G R I I Q S E L M S E D A R H R D E S S N R N E C O A A E H E A Z G
C X O C V E L T C C P I I D A B I D A O T O R P T D R S G T D O H L E N N G N M
H B X A G S E K N E G J K I L N K M L D N L R O E U B G G I L N E R G I E U E N
A B D M E I S J T N F K O O T A S D P E N E N R M O A E T L E G N E E N E B A R
I E O N M O N T E I A F D U N N I D L S T E S K C S R S T S I O L L R L E R Y L
L I L R N O L S B E H M I E W N E L A N O J L A A D K R T R S L S Z H H E A A I
E J N W U D G A K W H T L L G E P R I L A N J L N Y E O A U L O W C F I A N H Z
N O A E B F U G U H A H R L L C E R O U M E D V E A B C U G A N S S K S G C V M
K J N L L T S B A T O H O O O D P K B A X E R G U K D R H X E U R B I F P B E C
O E A L A Q T E E C E U S Y W H A A E H L A T O V R E N L L E F R E B A H G H A
N E H A D K N A N S H N Z G T S C R O R B E F A J F X K W D F A W A K N O Y K U
E K C B Y E V B N O E G B A A K E S G G K X D C I X P O I R D T D S I N R A K L
G C U B S F L A C T E M N A M E P L U G G E M G C R F T A D T Y R E K O O T I E
A M B L C O C K H I L L O A C U L U Y S J O B S E D F N Y O T E N D N A L J J Y
H I O A C Z D I C K E R U G T H Z L U A V Y Z Z N N Z A G N B A I L E Y Q N F G

TRY TO FIND YOUR NAME IN THE ABOVE PUZZLE:

THE TIMES THEY ARE EXCHANGING

(Or the thoughts behind SmodemX)

By Walter Blady

Modems certainly aren't cheap. but once convinced of their value, I had to buy. Then I discovered a horrible truth... a modem is just a piece of inanimate hardware that needs software to bring it to life. Where to find software? If I've asked myself that question once in this computer merry-go-round I've asked it a hundred times. Luckily there was a programme available called SMART TERMINAL. Although somewhat limited, it was enough to link me to the mainstream of information exchange. I left queries on this ubiquitous network for the best modem programme for Exidy. But there was nothing.

I decided then and there that Sorcerer users would not be left out in the cold again... they were going to have the best and most universally compatible programme that I could locate. What I

found was an updated version of Ward Christensens original 'Modem' called MODEM7. Using this as a nucleus, I borrowed from here and plagiarized from there and even thought up some things of my own to finally put together a new version called SMODEM 3.7. for use with the new breed of intelligent modems. But this still wasn't good enough for Sorcerer users. Knowing the firmware of my machine, and having an excellent mentor in Tony Lautenbach, allowed me to customize version 3.7 for the Sorcerer. The new version is simply called SMODEMX 3.7.

The complete instructions for operating this programme are documented in a companion file called SMODEMX7.DOC. I won't outline the entire modem programme here but only the added features of the Exidy version.

*** ADDED FEATURES ***

- * FOUR ALWAYS-DISPLAYED STATUS LINES WHICH RECORD ALL NEEDED INFORMATION DURING FILE TRANSFER
- * INSTANT-DISPLAY MENUS IN BOTH OFF-LINE AND TERMINAL MODES
- * LISTING THE DISK DIRECTORY ALSO DISPLAYS SPACE REMAINING ON THE DISK AND TOTAL SIZE IN SECTORS OF ALL THE DISPLAYED FILES (double density only)
- * FOUR SCREEN-PAGE HOLDING BUFFERS IN TERMINAL MODE
- * TERMINAL INFORMATION AND CURSOR POSITION PRESERVED WHEN SWITCHING BETWEEN TERMINAL AND OFF-LINE MODES
- * DUMP ACTIVE-TERMINAL-SCREEN TO PRINTER

There are three important evolutionary levels that a home computer system should ascend to, finances permitting. The first is the ability to transform electronic information into a tangible form for a much slower owner to peruse at leisure... the PRINTER. The second is to store and retrieve data rapidly on some form of transportable media. Iently exchange information with the world outside your home... the MODEM.

Of all the additions, peripherals and dodads that a home computer may be attached to, none is as profoundly important, in my opinion, as the modem. Alone, the computer is a powerful problem solving appliance, but it's as void of life as a record player, with you mutely stuck in front of it. Given the ability, your computer can become dizzying world if information exchange that is now taking place. Think modem!

WORDSTAR VERSION 3.0 & SPELSTAR

A number of interesting things have become available.

1. Column move routines have been added to Wordstar.
2. Horizontal screen scrolling.
3. Spelstar has been added to the menu.
4. Mailmrge has been re-named and is in the menu.
(old name was Mergeprint)

The column move allows one to actually set up the text in columns and move them around at will. The documentation is very sketchy on the subject and the help files do not describe the function either. The help menu ^K does however give you a hint that there might be something there.

N=columnN move on/off

This function normally (off) toggle will completely re-format the block move and block transfer characteristics of Wordstar.

The normal block moves are associated with entire lines of text, from the beginning marker to the end marker. This allows you to delete, insert, move, copy, write & read. Normally this will be a complete HORIZONTAL block from say line #1 thru to line #5. You had no control as to the number of columns that it moved. The total length of each line was (as formatted) was 'blocked' in.

Now with the ^KN toggle set to 'ON' changes this to VERTICAL block move etc. Resulting in selective number of not only lines but columns as well. You could say now we have achieved total flexibility.

The overall result is definitely just like the newspapers. This also lets one move columns of figures around with ease. Just mark the text kitty corner.

This feature of Wordstar has certainly made the program very flexible and worth while. The compatibility with the Sorcerer is outstanding.

SPELSTAR REVIEW

How good is your spelling ??? Well I guess we all suffer from the same problem. Keyboard 'bounce'. This is as good as an excuse as any that come to mind. Between your friends and your inner conscience lies the true answer.

A first hand look at what some refer to as one of the best spelling check programs around.

Q: How big a dictionary does it have and does it catch the errors?

A: Yes it catches the errors and has a 20,000 word dictionary.

Q: Will it correct the words for you?

A: NO it will not.

Q: Will it mark the text so that you can make corrections.

A: YES it marks the text so that you can with Wordstar edit all marked text.

Q: How fast will it check the text that you want checked.

A: It will take about 3 seconds for every 1000 words in the dictionary.

Q: Are there more than one dictionary?

A: Yes you may ask it to also check against a Supplemental dictionary.

Q: Can you enlarge it's present 20,000 word main dictionary?

A: Yes you can add/delete to it as much as you like.

Q: How much room does one need on a disk for the dictionary?

A: The main dictionary as supplied requires 98K and the Spelstar file requires another 30K. (128K TOTAL)

Q: How much room does Spelstar take up when checking a file?

A: It takes up just as much space as the text file does because it creates a duplicate marked file.

Q: Does it need any other space?

A: Yes it also sets up an ADD file which will contain all words that it could not find in it's dictionary.

Q: What does one do with the ADD file?

A: During the editing session you may want to add it to the main dictionary or the supplemental one. This file can then later be used by the dictionary maintenance portion of Spelstar.

continued next page...

Warning - To all thinking about updating to CP/M 2.2

Just recently we have had a chance to view the version of CP/M 2.2 put out by a Company in New York State. This version does have a lot of drawbacks particularly in the CBIOS. The functions have been cut back due to the hardware involved, but what I mainly object to, is the customer usually is not able or experienced enough to make the revisions that are necessary.

Deficiencies found:

1. All graphic characters are trapped out.
(Exidy Disk Extended Basic will not function properly)
2. Control characters are being trapped which will not allow anyone to run Wordstar, Smodemx, or any program that uses ^K or ^J (this is a very serious problem for some who think that the programming is defective.)
3. SYSCEN only allows system images to be written to on the first drive. (Drive 'A')
4. CP/M STATUS check routine is as slow as the hills.
(PORT FE article in the July/81 issue should be implemented)
Be careful the CBIOS areas and the CCP areas are located differently. Start of jump table is @ 2000H and is generally offset to the normal by 6 or 7 blocks. Bottom of the CCP is at A00H
5. Does not allow for transfer of CP/M 1.4 files to the new CP/M 2.2
6. This version is almost 2K (1792) bytes shorter than the standard CP/M 2.2 (What else was taken out??)

I strongly recommend that this version of CP/M be tackled by the experienced programmer only who is familiar with the CP/M structure.

We shall in the next issue publish all possible modifications that have been made to this version of CP/M 2.2 to at least make it livable. The Status check must definitely be revised and also the ^K and Graphic character recognition.

by: H.A. Lautenbach

For you hardware buffs out there, have we got a few things in store for you. Some of us have been experimenting with EPROMS and are thinking of re-writing the monitor strictly keeping in mind CP/M operation. We intend to do away with some of those useless monitor routines that are just taking up space. I'm sure all of you have some inkling as to the routines in question. Within the next few months, please forward any suggestions you may have to PORT FE in order that we may consider them and your input is important.

Reprinted from the December issue of E.S.C.

This program allows all of the screen to be printed on an EPSON MX80F/T2 printer. To use the program do a SE I=5000 whilst in the monitor and then whenever you wish to print the screen press 'LINE FEED', the screen will then be printed. To print the screen whilst in a program do a CD 07 50, if you are using machine code or a POKE 260,7:POKE 261,80:V=USR(0) if you are using Basic. The program is fully relocatable.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 5000: | CD | 1C | EB | C8 | FE | 0A | C0 | C5 | D5 | E5 | 3E | 11 | CD | 7F | E7 | 3E |
| 5010: | 1B | CD | 7F | E7 | 3E | 33 | CD | 7F | E7 | 3E | 18 | CD | 7F | E7 | 11 | C0 |
| 5020: | F7 | 3E | 1B | CD | 7F | E7 | 3E | 4C | CD | 7F | E7 | 3E | 48 | CD | 7F | E7 |
| 5030: | 3E | 03 | CD | 7F | E7 | 06 | 78 | AF | CD | 7F | E7 | 10 | FB | 1A | 26 | 00 |
| 5040: | 06 | 03 | 17 | CB | 14 | 10 | FB | 6F | 01 | 07 | F8 | 09 | 06 | 08 | 7E | 0E |
| 5050: | 03 | CD | 7F | E7 | 0D | 20 | FA | 2B | 10 | F4 | 21 | C0 | FF | 19 | EB | 7B |
| 5060: | F6 | 07 | A2 | E6 | 87 | 20 | D6 | 3E | 0D | CD | 7F | E7 | 21 | 81 | 07 | 19 |
| 5070: | EB | 7A | E6 | 08 | 28 | AB | E1 | D1 | C1 | 3E | 13 | CD | 7F | E7 | AF | C9 |

SPELLBINDER - Flashing cursor By: D.Thomasson
 Reprinted from the December issue of E.S.C

To make the cursor on the Spellbinder flash only one byte needs changing. Two positions have been found dependent on the version of spellbinder you are using.

1. Around the location 47A0: 47 05 C2 92 47 C1 E1 C9 40 F4 20 00 E5 D5 C5 F5
 ==
2. Around the location 4786: 47 05 C2 78 47 C1 E1 C9 40 F4 00 00 E5 D5 C5 F5
 ==

In each case it is the byte before the E5 which needs changing. If it is changed to X then the blink is X/8 of a second (4 is a good value for X).

*** TSUNAMI ***

I wish to take a few moments to let our readers know about what I term to be a tragic occurrence. I believe that some of you or should I say most of you have heard of the newsletter -- TSUNAMI --. This was one of the first newsletters ever published for the Sorcerer. The person of Joseph R. Power was responsible for it's sole existence. I would like to say thank you to him for his past efforts and diligence. We are very sorry to hear that he can no longer keep up his good work. This I sincerely feel as a loss to the Sorcerer community as a whole. From all of us I'm sure, we'll miss it.

Sorcerer Speed-Up Modification

This is it! The modification all you Sorcerer users have been impatiently waiting for. With less than an hours work, your Sorcerer will zing along at over 3.16 Mhz. It is a must for anyone running slow basic programs which could do with a speed improvement.

Before we start cutting traces I must warn you that the increased speed will not work with cassette or disk operations, but is fine when the switch is in normal mode. You must also have 300 ns. or faster memory installed. This circuit is based on the model one and may need changes for the Sorcerer model II.

Installation

You will need a wire wrapping pencil, long nose pliers, a wire cutter, a drill, low wattage soldering iron, a sharp knife and silver solder. First, remove the keyboard from the computer chassis by taking out the five screws found on the front and rear of the computer.

We will now drill a hole for the miniature switch. If the switch is too large the keyboard cover will not sit correctly on the computer chassis. So be sure to buy a miniature switch. The most suitable location for it is the front chassis lip between the two metal screens, and between the IC board and the plastic keyboard rest. See the diagram for location. Drill the hole, install switch and tighten the bolt. You may want to check to see if the keyboard touches the switch by placing the cover back on for a trial fit.

For the following wiring steps, refer to the diagram for wire placement.

Locate IC's 5A and 6A. Then locate the trace that runs between pins 2 and 3 of 6A and extends towards 5A where it cuts through the board to the opposite side. Take the X-acto knife and cut away the trace leaving enough to allow soldering of wires to both sides later. (See blown up diagram of IC's 6A and 5A for exact location and extent of trace to cut).

Take a 4.7k resistor and solder one end to the left side of the switch lug leaving the centre lug free for now. Next, take the other 4.7k resistor and solder one end to the right side of the switch. Keep the resistors horizontal so the keyboard will not interfere with their operation. Now cut and bend the free ends of the two resistors so that they are joined. Then solder the ends together. Also solder a piece of wrapping wire from pin 14 of IC 10A to the ends of the two resistors just soldered together.

Take one 14 pin standard IC socket and bend up all the pins on a 45-50 degree angle except pins 7 and 14.

Piggyback this socket atop IC 7A and solder pins 7 and 14 of the socket to pins 7 and 14 of IC 7A. Make sure none of the bent pins touch the pins of 7A. This socket will now be called Z7A.

Now take the other 14 pin socket and bend up all pins except 1,4,7 and 14. You may refer to the diagram for pinouts if you don't know how an IC chip is numbered.

Piggyback and solder this socket to IC 9A. Pins 1,4,7 and 14 will be soldered to the corresponding pins of IC 9A and the rest are bent up. This socket is now called Z9A.

Connect the right side of the trace cut (where the trace goes through the board to the opposite side) by soldering it to pin 1 of Z7A.

Next connect the left side of the trace cut (just before the trace goes between pins 2 and 3 of 6A) by soldering it to pin 8 of Z7A.

Next connect the centre lug of the switch to pin 7 of 10A. This completes the switch installation.

Next connect pin 6 of 1B to pin 5 of Z7A. Then connect pin 3 of Z7A to pin 9 of Z7A (on the same socket).

Connect pin 6 of Z7A to pin 10 of Z7A.

Connect pin 13 of Z9A to the left side of the switch (and on the same lug as the 4.7k resistor is soldered to).

Again connect pin 10 of Z9A to the right side of the switch (on the same lug as the 4.7k resistor is soldered to).

Next connect pin 9 of Z9A to pin 2 of Z7A.

To complete the circuit, connect pin 8 of Z9A to pin 4 of Z7A.

Now go over the modification and check for solder bridges or wrong connections.

Insert the 74LS00 into socket Z7A and the 74LS74 into Z9A. Plug in the computer and turn it on. Any smoke? No - that's good. Now see if the chips are getting hot. If so, unplug the computer and check the circuit for shorts.

Put the keyboard back on and don't forget to put the clip on the DIP plug.

Insert the Basic Rom-Pac and turn on the computer. If the sign on message fails to appear or the system crashes, flick the switch to the opposite side and turn the computer on again. The computer will normally require the switch to be placed in the normal mode upon initialization. Type in listing 1. Get a stop watch and run the program, timing it at the same time. If the time is 16 seconds, put a label on the computer beside the switch in the direction the lever is pointing to. Label this as 'NORMAL'. Now flick the switch over and repeat the above. Your watch should read 11 seconds. If not, either your memory is too slow, the circuit is wired wrong or the Z80 will not handle 3.16 Mhz. Put a label with 'FAST' on it at the side the switch is now pointing to.

There are some side effects of the modification on the Sorcerer. If you fill the screen with characters and turn on the high speed switch, there is some screen flicker towards the right side of the screen. Also the keyboard may bounce if you are a fast typist.
 * Warning * Casette and disk I/O will not work reliably at the higher speed. Remember to turn off the high speed mode before saving or loading programs.
 Now load in a slow machine language game and run it at high speed. WOW what an improvement!

Well that's all there is to it. Wasn't that easy!

By Robert Lansdale

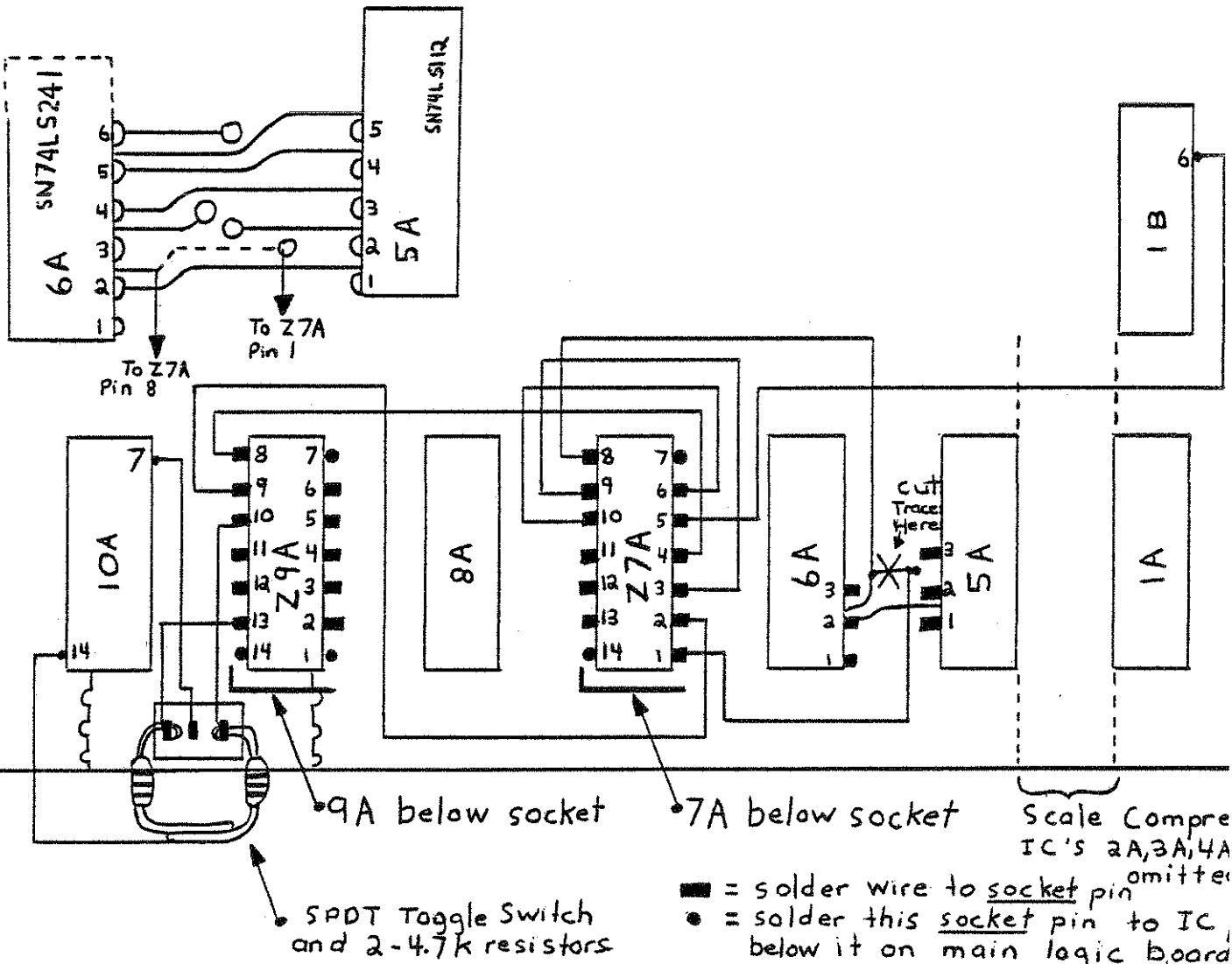
Parts List

- 1 - Miniature SPDT toggle switch
Radio Shack # 275-8069
- 2 - 14 pin standard IC sockets.
- 2 - 4.7k, quarter watt resistors
- 1 - 74LS00 NAND gate
- 1 - 74LS74 D-TYPE flip flop
- 1 - roll of wrapping wire

Listing # 1

```

10 PRINT "Start"
20 FOR I = 1 TO 10000
30 NEXT I
40 PRINT "Finished"
  
```



SORCERER USERS' GROUP (TORONTO)
Page # 9

Membership Application Form

Covering Jan. to Dec. 1982

Membership to the group is not restricted to the TORONTO area. All persons willing to participate are invited to join.

As a member of the Sorcerer Users' Group (Toronto), I enclose the annual membership fee and agree to the following Terms.

1. That I will not, without the authorization of the board of directors, represent myself or take any action as agent, or representative or become spokesperson of the group.

2. That I will not use any software obtained from the SUGT library for any commercial purpose or financial gain. The library shall be available to me should I wish to obtain programs donated by other members. These programs shall not be distributed without the owners consent and/or the consent of the board of executive officers.

3. That I have the right to vote for the officers and directors of the organization at the annual general meeting.

4. That any breach of the above conditions and any other restrictions that the Officers of the Club may invoke in the future on my part may result in suspension or termination of my membership without refund.

Annual Membership Rates : (Jan - Dec)

Canadian - \$15.00 Cdn - PLUS \$6.00 Postage
U.S. & Foreign \$15.00 (U.S Funds) PLUS \$10.00 Postage

Payable to - SORCERER USERS' GROUP (TORONTO) - by Cheque or Money Orders.

The SUGT program library is available to all members in the following manner.

You may send \$6.00 + \$1.50 postage for each volume as they become available and we shall supply the cassette/s. Program cassettes shall be sent via Air Mail.

All issues of PORT FE shall be mailed first class. in the case of non local issues, they are mailed via Air Mail. Past issues of PORT FE are only available for the current calendar year. Contact the editor, he will advise the amount of payment for previous issues.

NAME(print):.....
ADDRESS:.....
CITY:.....
POSTAL CODE:.....
TELEPHONE: Res..... Bus.....

Payments enclosed (membership):..... Library tape/s..... Vol 1 or 2

Signature:.....

Please list the type of equipment you are using etc...

Sorcerer size: 8... 16... 32... 48... other..... S100... Graph board.....
Disk system - Micropolis..... Discus..... Exidy... other... Size.....
Other Equipment

If you belong to any other Sorcerer Users' Group please list it below.