

GET INVOLVED!



dia

WE WANT YOUR ARTICLES!

Newz From the Prez
April 1991



S.P.A.C.E. Minutes from 3-8-91

Happy April everyone! Today (4/1) I only had one rather frustrating April Fool's pulled on me, hope everyone else got by safely! In the months ahead, there is much in store for SPACE.

First of all, some very big news. My friend in Switzerland sent me a small package. When I opened it up, I did a double take. Inside is an ORIGINAL copy of RAMPAGE for the ATARI XL/XE! Since my 810 is still in the shop, I will suspend loading it until the meeting! If RAMPAGE works, you will be able to order it for around \$10-\$15, not bad for this game! BE AT THE MEETING, let's hope it works.

I received another interesting PD catalog in the mail the other day, I will be bringing that to the meeting. received 10 phone calls last week regarding ATARI computers. ATARI owners are out there and need support, if you know others that have ATARIs, please SPREAD THE WORD. We need all the new faces we can get.

In the coming months, I would like to have a GAME FESTIVAL for anyone interested, we could plan this for the June meeting perhaps. And in July, we will be celebrating SPACE's birthday as usual, so be sure to make that one!

I am toying with the idea of using the club's disks as rewards for those who send in newsletter articles. PLEASE let us know what YOU are doing with your ATARI!!! Let's fill this space (bad bad BAD pun).

ATARI has announced yet another game machine, the ATARI PANTHER which will feature the 68000 microprocessor those of you who are unfamiliar with this chip, this is the chip at the base of the Commodore AMIGA line. The 68000 used in conjunction with special graphics and sound chips can make a very formidable game machine, but in my opinion, ATARI is just too late AGAIN. GENESIS has the 16 BIT game market, what there is of it, and NINTENDO and SNK have already promised 16/32 Bit systems by summer time. ATARI is gearing up to make another move and I am just waiting to see who will be naive enough to buy one. Anyone who bought the LYNX found they got the short end of the stick, hopefully people have learned by now. What amazes me is how a company who has neglected nearly five different markets can continue to stay in business! Well, enough rambling...

As Lance Ringquist told us, there IS NEW SOFTWARE coming out for the ATARI. Come to the meetings to purchase it! He comes out every meeting bringing the best in new and older software titles.

That's it for this month, I hope to see everyone at the meeting, it will be a good one!

Happy computing!



The meeting was called to order at 7:35 PM by SPACE president Nathan Block. Ken Modeen Volunteered to take down the minutes in the absence of Pat Krenn the secretary.

Gary Barnes brought in several copies of a two page catalog from Newell Industries of Texas. The catalog listed a price for virtually every hardware upgrade package available for the Atari 8 bit computers. Gary freely handed them out to any member who wanted one until the supply was exhausted.

The membership voted in favor of auctioning 1 810 disk drive and 1 800XL computer to the highest bidders. These machines were checked over and repaired by Rich Mier for SPACE. This auction took place immediately. Steve Christopherson won the bid for the 810 disk drive at \$45. Bill Cotter won the bid for the 800XL at \$40.

Ken Modeen brought up the fact that much discussion about BBS networking has been seen on the BBS. Warp 10, Greyhawk and SPACE BBS's have all been discussed as being good candidates to network with each other. Amos Jackson of WARP 10 BBS was also present to re-affirm his wish to network with SPACE. WARP 10 was at present already networking with Greyhawk. Ken Modeen brought up the pro side of networking as being a benefit to long distance callers or SPACE only callers. Those users could get all the twin city Atari "For Sale" and "Technical" information from just one source. The con side of networking was the fact that SPACE could no longer control handles on the BBS (which is not being allowed at the present time) or language use, as the messages are sent over automatically without human screening. Messages with language problems could be deleted when discovered however. The membership voted in favor of trying the BBS networking, to be implemented as soon as the various sysops could set it up.

Mark Vallevand brought up a read/write problem with his 1050 disk drive with a U.S. doubler installed. It seems after an hour or more of use the disk drive has a problem reading and writing to files. Usually to a specific sector, usually the same sector all the time. Mark says he has a fan cooling the 1050, and he says the drive belt is in good shape. Any ideas are welcome as to what could be the problem.

The membership voted in favor of buying an annual subscription to a monthly shareware disk put out by SAGAMORE SOFTWARE of Indiana. The disk is double sided and will enhance the monthly DOMS. The subscription is \$39 annually. Joe Danko stated that \$39 is a great cost savings compared to what he spends now on long distance phone calls to GENIE and COMPU SERVE over the course of a year.

Mike Schmidt and Joe Danko stated that at the next meeting there will be a hard drive demonstration. Mike Schmidt will have his black box hard drive host adaptor, and Joe will have the clubs MIO hooked up with SPACE's new hard drive containing the clubs library.

An operating computer and modem was available after the meeting closed for anyone wishing to call the BBS.

DISK LIBRARY NEWS - April, 1991 - by Joe Danko

Librarians: Joe Danko and Glen Kirschenmann

April is here again with spring and Easter to enjoy. We are still pretty busy but at least accomplishing something. I got an A in my C programming class at Lakewood and Glen is spending a lot of his time supporting his wife's desktop publishing consulting business.

I am trying yet another timesharing service, America Online. In the last few months I have tried Prodigy and PC-Link. No downloads on Prodigy and it is S L O W due to all the ads and crap cluttering the screen. PC-Link has IBM downloads but is otherwise kind of boring. Both are kind of expensive. GENIE is still my favorite at \$4.95 a month for a bunch of no-additional cost goodies plus whatever connect time used for downloading and certain services at ten cents a minute.

I have the hard drive running nicely after changing the stepper with a prom chip prepared by Rich Mier. I am loading the library and using it to build DOMs. It is saving me a lot of time.

I have donated an ATARI 400, joysticks, paddle controllers and a bunch of cartridges to the Shoreview Alliance Church daycare center. Many of the carts and the paddle controllers were donated by Mike Schmidt. I had to cannabilize both of my old 400s to get one to work properly.

Glen has spent a tremendous amount of time re-organizing and copying the DOLLAR-DISKS. Here is a short list of what is available:

All of the disks in this list contain software previously released on SPACE DOMs

BASIC GAMES: 34 SIDES	ML GAMES: 12 SIDES
GRAPHICS: 6 SIDES	EDUCATIONAL: 6 SIDES
PRACTICAL: 4 SIDES	UTILITIES: 4 SIDES
DISK UTILITIES: 6 SIDES	MUSIC (NON-AMS): 2 SIDES
TEXT PROCESSING: 4 SIDES	DEMOS: 2 SIDES
MISCELLANEOUS: 2 SIDES	PROGRAMMING AIDS: 2 SIDES

Spartados is required to use the following:

This software has not been previously released by SPACE.

SPARTADOS UTILITIES: 10 SIDES

APRIL 1991 DISK of the MONTH:

SIDE 1 - TAIG DOM #3

MATHPRINT

BASIC educational aid that prints math problems and answer key on paper.

MODEM

BASIC simple communications program. Use the OPTION key to send a buffer, the SELECT key to fill the buffer and the START key to receive a buffer. Communicate normally with the keyboard. You will need to pre-load what ever interface driver software your modem requires.

MORSECDR

BASIC Morse Code trainer. With a little modification it could be used to send and receive live via radio.

SOUNDST

BASIC joystick-driven sound channel manipulation.

TAPEBACK

BASIC cassette to disk program conversion.

TERMIN

Another BASIC terminal program with more sophistication. Needs a comm driver.

ULTRAPM

BASIC demo of PLAYER/MISSILE programming.

UPDNTAPE

BASIC terminal program that can transfer files using cassette tape. This also needs a comm driver loaded.

WUMPUS

BASIC: search the caves for the wumpus without killing yourself.

VIDTEX28.00

Machine Language: seems to be a vidtext terminal driver of some kind.

SIDE 2 - TAIG DOM #4

BIOCHART

BASIC biorythm graphing program.

BOTCH

BASIC phrase guessing game. The phrases it uses are not what I would pick but it is a really fun program. I think new phrases could be inserted easily.

DAYWEEK

BASIC: input a date and it tells you the day of the week.

FUGUE2

BASIC music playback of a J. S. Bach fugue.

LANDER

Another BASIC lunar lander simulation. This one is easy.

METRICS

BASIC metrics conversion utility.

MISSILE - CUR.OBJ - MISSLE.CAS

BASIC game that requires the file CUR.OBJ be preloaded at boot time. A cassette version is included.

NITEMARE

BASIC program that causes a rebellion in your computer.

ROBOTWAR

BASIC game: Outrun and outmaneuver the robots.

VEGAS

BASIC slot machine simulation. Use a joystick.

AUTORUN.BLD - AUTORUN.CAS

BASIC utilities to make AUTORUN.SYS files to load programs automatically.

VARIABLE.LST

LISTed BASIC code: ENTER this file after another basic program is loaded. Enter GOTO 32000 and get a listing of variable names.

Is anyone out there writing software? If you have something you think is really neat, useful or weird we will be glad to distribute it to the world for you absolutely free of charge. We will even withhold credit for whoever did the programming if you are not very proud of your work. I have a couple of programs and I would like to release a complete disk of SPACE user written software. We had one last fall that was very nice and I would like to have one to release at our SPACE BIRTHDAY party in July when SPACE is NINE YEARS OLD.

See you all at the meeting, 2nd Friday in April.

P.S. I hope somebody comes up with something good for APRIL FOOLS DAY. I will give a free DOM to the member with the best ATARI RUMOR at the meeting. The wilder the better. Judging will be based on the violence of audience reaction.



If anybody is looking for 1050 Drive belts, Rich Mier said that Best Electronics has them. Their address is:

Best Electronics
2021 The Alameda, Suite 290
San Jose, Ca. 95126



Phone: (408) 243-6950

Sorry, they do not take Visa or Mastercard.

You'll have to open your Disk Drive and find out first if you have a Tandon or World Storage Drive Mechanism.

Tandon part number: CB101140, \$4.50 plus \$2.20 shipping.

World Storage part number: CB101149, \$6.75 plus \$2.20 shipping.

For fastest response, send a US Postal Money Order. This is the only place I know of to get the Drive Belts.

Rich Mier

Treasurers Report:
Submitted by Glen Kirschmann for
Allan Frink, SPACE/MAST Treasurer.



Beginning Balance as of 2/13/91: \$777.83

Meeting room rental:

January \$25.00

February \$25.00

Phone bill for BBS:

February \$27.23

March \$27.23

Service Charge:

February \$60.80

Total withdrawals: -\$105.26

Balance: \$672.57

Deposits:

February \$411.75

March \$251.46

Total Deposits: \$663.21

Balance as of 3/28/91 \$1,335.78

This month's meeting there will be a 800X1 and a 130XE the club will be auctioning off. These computers were not working when they were donated to the Club last month. Rich Mier repaired both units. Neither unit has a power supply or RF cable.

Power Supplies are available from CSS. These are generic power supplies with +5v, +12v, and -12v. Without the din plug they sell for \$8.00 plus \$5.00 shipping/handling/insurance. With the din plug attached they cost \$12.00 plus \$5.00 shipping/handling/insurance.

San Jose Computer also has ATARI power supplies \$19.95 plus \$5.00 shipping and handling. If you are the lucky one to get one of these, there will be info for ordering these supplies at the meeting.



Also at this months meeting the club will have 4 disks (8 sides) of new Printshop Icons. I downloaded over 1000 of these Icons in IBM Printshop and Printmaster format from some BBS's. After unzipping the files and using the Utilites for formatting ATARI disks in Double Density on an IBM XT compatible computer, I put these files in ATARI format and extracted each Icon with the basic program that was on the February DOM. Then I had to convert these files from ATARI files to Printshop files using PSU from the Printshop Utilites Disk. After checking for duplicate Icons that are already in the club, and the Printshop Graphics Library disks, I ended up with 8 sides of at least 120 Icons on each side.

In the upcoming months I have over 1800 more IBM Icons to transfer to ATARI format. I figure there will be 7 disks (14 sides) converted out of these Icons that are not on SPACE Printshop graphics disks.

I have given these to the club to sell because one cannot upload these files in Printshop format to the BBS. They would have to be in ATARI format (5 sector files), then they would have to be converted to Printshop format once downloaded. For \$3.00 a disk, I felt it would be worth that not to have to spend hours converting ATARI format files to Printshop format.

If anybody is interested in how this is done (if they want to do it themselves), you can get with me at the meeting and I'll show you how.

Newsletter Editor

*** A DIFFERENT DATABASE ***
by SPACE member - Larry Serflaten

While browsing thru the SPACE BBS message bases, I paused to read an interesting post from Ken Modeen. It seems that while programing his ATARI, (when he HAD an ATARI) he found a bit of difficulty in working with a data base of strings and numbers. He found that while he could store the data with print statements all day long, he could not reliably input the data from the disk back into his program. He goes on to point out that the IBM (he now owns) acted in much the same manner as his old pal the ATARI machine. Because Ken solved this problem when programing his ATARI, he quickly coded a solution in his IBM program and reflected on the similarities in the coding problem of both systems.

I considered a reply I might have to his message and decided other club members might want to create database programs of this sort and would make use of an effective alternative, if one were made available. As a bonus, if the two systems are alike in some ways, maybe if I point out a good method for the ATARI, Ken might be able to adapt these principles to his IBM.

HERES THE PROBLEM:

Store on disk, a list of character data and qualifying statistics. This method should be conservative with RAM and not take a day and a half to load in, assuming its full to capacity.

The list, for purposes of this discussion will be a baseball team's batting stats. Each team member will have an entry containing the players name, and 1) his batting average, 2) total times at bat, 3) his RBI record, 4) total homeruns and finally 5) his contracted pay for each game played.

TAKE INVENTORY

To reach my conclusion as to how to make this data use little memory, I first classified the types of data that will be used. Of course the data was either characters or numbers, but to be accurate, the length of the characters and the limits of the numbers were set. I decided 20 characters would admit the most of the team members names, if not, the name may be abbreviated and still be recognizable. I then began to set the limits of the statistical data and found that while the batting average, which is a fraction, may be represented as a whole number, the rate of pay for one game may go over the 65535 limit a two byte number can hold. For this reason, all numbers except the batting average and the rate of pay will be two bytes. The 3 two byte numbers will follow the players name, while the batting average and the rate of pay will be stored as a two element array.

DEFINE THE RECORDS

The record of individual players now needs 20 bytes for the name, 6 bytes for the at bat, RBI and, homerun stats and 12 bytes for the 2 element array. This makes the length of each record consistent at 38 bytes. The BASIC program will need to reference this data in the form it is stored. The name is a string, the 3 two byte numbers will be stored and retrieved in the LSB/MSB format used extensively in the ATARI computer and the next 12 bytes will be a two element array.

THE PROCEDURE

In my BASIC program I will now dimension 2 strings and an array to hold one record. My first statement will dimension the needed variables: 10 DIM PNAME\$(20),PNUM\$(6),PDAT(1)

When I have filled in the data for the first player, I will want to move the strings and array to just after the data for the first player. I will then enter the data for the second player and again move the strings and array another 38 bytes, the size of one record. After all players are entered I will have a block of memory that holds all of the data I need to store. The first 38 bytes are for the first player, the next 38 bytes for the second, and so on for all the players.

When this data is to be stored to disk, I will use the PUT BLOCK option and save the whole block in one operation.

When I need to change any of the data, I can load the whole file back into memory as one big block, and step thru each player as before to make any needed changes. Loading the whole file as one block will allow me to use the GET BLOCK procedure supplied with the computer. This is the feature used to load other programs, and is a fairly fast operation.

IMPLEMENTATION

To make all this happen, I first have to know how to change the preset addresses of the strings and arrays. I then will have to coax the computer to use the block mode to save and load the data back into memory.

Locations 140 and 141 hold a two byte number which tells the computer the address of the strings and arrays used in any program. It does this by pointing to the first byte of the first string or array. This 'first byte' is usually the first free byte AFTER the BASIC program storage area. The two byte number is stored in LSB/MSB format and is referred to by the label STARP. When the first players data is entered, the address pointed to by STARP and the next 37 bytes hold the data just entered. To 'move' the strings, I will add 38 to the number stored in STARP and poke that number back into STARP. I must remember this original value to keep track of the start of the first players data, (the start of the whole block). I can move these strings as needed simply by adding or subtracting the size of a record to the number in STARP and poking that number back into STARP.

Using block mode operations is accomplished by poking certain values into the control block associated with the disk file and calling a subroutine supplied in ROM. The values to poke are:

- + The address of the first byte (of the block) that is to be saved or loaded.
- + The number of bytes to SAVE or LOAD.
- + The number associated with the type of operation to be performed, SAVE or LOAD.

The subroutine to jump to is at address \$E456 (58454) and requires a little machine language to perform properly.

VARIATIONS

It would be possible to create a database larger than computer memory by using the disk file in place of the block of memory used in the earlier example. After each player the disk file could be updated or appended as needed. This method would not need the shifting of strings and array but, would require more time needed for the multiple disk accesses. An optional index could be maintained to speed up searches in a large file.

If you would like more information about this approach, I would be glad to explain further. I do not charge SPACE members normal consulting fees!



Things are really heating up here today in Hannover, Germany at the 1991 version of CeBIT which is the largest computer show in the world. Atari surprised everyone with their announcement and demonstration of two exciting new 68000 based computers. The following was described to me by Atari engineers as they were demoing the equipment. I have written this because I felt it newsworthy and an important boost to the moral of Atari users everywhere. I make no guaranty for the accuracy of this information but I have tried to get as much detail as possible. The computer names used are only "internal" Atari names and may be changed before release of the products.

ST Notebook

This is said to be the smallest 68000 based computer in the world. Its size rivals any PC Notebook style computer that I have seen. It is about 1/2 the size of my laptop computer and maybe 3/4 of an inch thick. Features include:

A built in mouse device that consists of three buttons. The large center button is direction and possibly velocity sensitive to simulate mouse movement in direction and speed.

A laptop size keyboard, possibly a little smaller than standard. The tactile feel was good.

512K ROM capability. It looked like TOS 2.05 was shown in the prototype. This prototype did have a very professional and finished look to it.

1 megabyte or 4 megabyte RAM versions available. Uses pseudo-static RAM.

2 1/2 inch form factor internal hard drive. 20 megabytes was installed. Presently up to 60 megabytes is possible. Probably an IDE (AT) interface.

External ports include midi in and out, 1 serial, 1 parallel, 1 combo either floppy drive OR ACSI, 2 RAM card slots (128K cards shown, said to support up to 4 megabytes), 128 pin computer direct port (all address, data lines, CPU control, etc.), modem connector (for optional internal voice/fax modem), keypad/mouse port. Of course to maintain the small size, nearly all connectors were shrunk and non-standard types.

An excellent gray-tone LCD display. It did not appear to be backlit which would make sense for the battery life. This was said to be greater than 10 hours before recharging. With less hard drive use, it would be longer.

The replaceable battery pack shown was very small and contained about eight AA alkaline batteries. If Ni-Cads were installed, the universal power supply would also recharge them when connected. When the battery pack goes down, the notebook is automatically put in a halted state that is maintained for weeks until recharged. Internal Ni-Cad batteries will maintain the halted state of the computer for about 5 hours if the battery pack is removed from the computer.

Atari has a few choices to transfer data to and from the computer. Connect an external floppy drive. Transfer over the serial ports with a modem or direct. Transfer over the parallel ports at around 20 Kbytes/sec. Connect an ACSI device such as a hard drive externally or possibly ACSI to ACSI communications.

ST PAD

This is similar to ST Notebook and shares most of the features but has a futuristic interface. A touch sensitive LCD display with a pointing device was shown for mouse type functions and handwriting recognition for input. Physically, ST Pad looked like the "Etch-a-Sketch" drawing toys that we grew up with minus the X/Y knobs. No keyboard was attached and there is not an internal hard drive. The OS software and large amount of scratchpad RAM were said to have Artificial Intelligence features to allow ST Pad to actually learn your handwriting style! (Good luck with mine.)

ST Pad looked like it needed more time for completion but ST Notebook looked like something we may actually see sometime this summer or fall. With this exciting new innovative line of computers and Alwin Stumpf (from Atari GmbH) heading up a new world-wide marketing campaign, it appears that this time Atari really may be backing the promise with the product.

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FOR SALE

Please put this in the newsletter if possible:

FOR SALE by Chris Tiggemann

Books:

1. Atari Assembler
2. Your Atari Computer
3. Compute Books
 - 3.1 2nd Book of Atari
 - 3.2 1st Book of Games
 - 3.3 Mapping the Atari (400/800)
 - 3.4 Mapping the Atari (XL/XE)

Software:

1. Basic Compiler/Assembler(Alliance)
2. APX Text Display Device
3. OSS Basic XL cart.
4. Xlent Type Setter
5. Xlent Rubber Stamp
6. OSS Mac65 Macro Assembler/Debugger cart.
7. OSS Mac65 Toolkit
8. Spartados 3.2 construction set(disks)
9. Stern Super Disassembler disk
10. Don't Ask PM Animator disk
11. SynComm by Synapse
12. APX Bulletin Board Construction Set
13. APX Backtalk (terminal emulator disk)
14. Broderbund PRINTSHOP with Graphics disks #1 AND #2
15. ValForth 1.1

Hardware:

COMPUTER EYES video digitizer adapter and software

The lot will be auctioned off at the meeting and what is not sold will be sold to an outside bidder who has shown interest in many of the items.

BBS CORNER

The BBS CORNER:
FOR SALE/WANTED:



Title: Sale update
Author: STEVEN INGALSBE
Posted: Fri 29-Mar-91 at 5:35:00pm

Several people have asked, so here is an update of what I have left:

1 system - 800XL with 256K ram, 2 Indus Gt ssdd drives digital devices printer interface.

Seperate:

Atari 400 with 48K ram Expander Operating System

Parrot sound digitizer

850 Interface

Many books and software. Leave Email

or call 452-7196 between 5pm and

9pm.

Title: GOOD CHEAP CAR
Author: DAVID SHELDON
Posted: Thu 4-Apr-91 at 7:43:00pm



FOR SALE:

1978 PLYMOUTH VOLARE COMPLETE WITH RUST

SLANT 6 CLINDER, AUTOMATIC TRANS, BRAND NEW TIRES (ALL 4 LESS THAN 1 MONTH OLD. ALL 4 SHOCKS LESS THAN 6 MONTHS OLD, GREAT STEREO (JVC HI-POWER AM/FM CASSETTE, SONY 2 WAY 6X9's, CRAIG FRONTS, VERY DEPENDABLE CAR. IF INTERESTED OR IF YOU KNOW OF ANYONE THAT IS LOOKING FOR A GOOD CHEAP CAR THE PRICE IS \$500.00 or CHEAPER WITHOUT THE STEREO. THIS IS A GREAT DEAL CHECK IT OUT!!!

CALL DAVE AT 789-8647 (EVES) or LEAVE A MESSAGE ANY TIME

GENERAL TOPICS:

Here is an invite to those interested in a little PIZZA after the meeting:

Title: Feast
Author: MICHAEL FITZPATRICK
Posted: Mon 25-Mar-91 at 9:54:00pm



Is there a way to get the message out to those who do not have a modem that a group of us are going out for Pizza after the next SPACE meeting; friends, lovers, and spouses are welcome. It will probably be at the Rocky Rococco's on Snelling across from the Har-Mar Mall near the meeting place. At the present time it looks as if 15 are committed to go so a reservation will be called in for the group. If any non-BBSers can be contacted please leave a message here or Grey Hawk or Warp-10 as the word will get back. Thanks!

Here is this months installment of Word Search. This month it is the months of the year, Have Fun!!

Title: MONTHS

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

JANUARY	FEBRUARY	MARCH	APRIL
MAY	JUNE	JULY	AUGUST
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER

Here is the answer to last months word search:

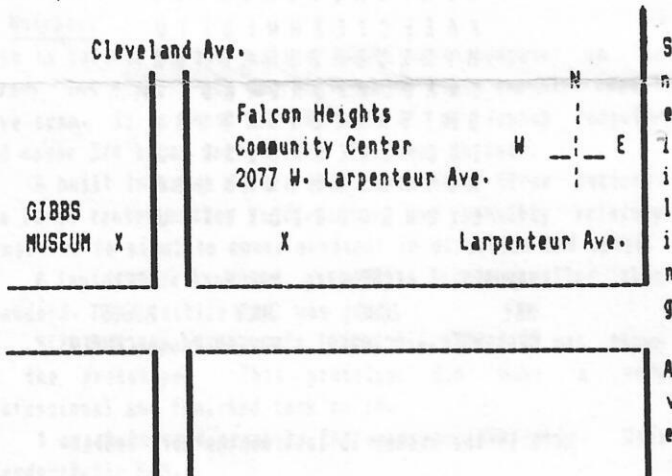
- Y - - - M - - - B - - - - - R - R
J - N S - P I A - - I - - - - - I - E
- O - T T M A C L - - L - - - - - C - T
- - S - O E I T H L - - L - - - - - H - T
- B - E - V V K R A A - - C - - - - A - O
- - I - P - O E E I E N - - A - - R - C
- - - E - H - N C S C L F - - D - D - L
- - - - H - D - N A C K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

LARRYSERFLATEN	JANICEHEADLEY	KENNETHMODEEN	ROBERTWHIFFEN
GKIRSCHENMANN	PATRICKKRENN	MICHAELWEIST	LUISCARBAJAL
STEVECARLSON	NATHANBLOCK	MIKEBRUNKOW	BILLCADWELL
JOSEPHDANKO	RICHARDMEIR	JOHNOVOTNY	DONPFEIFFER
MIKESCHMIDT	ALLANFRINK	BILLCOTTER	JPSCHIED

OFFICERS

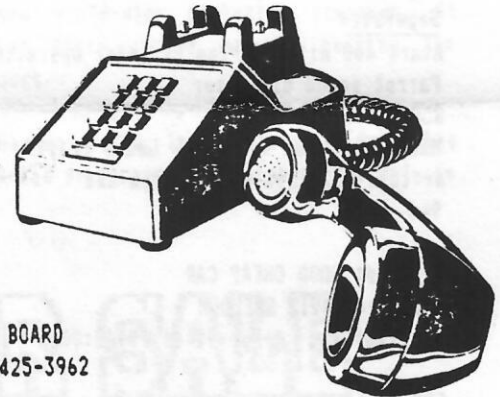
President :	Nathan Block :	922-8012
Vice-President :	Ken Modeen :	425-1290
Secretary :	Pat Krenn :	631-3136
Disk Librarian :	Joe Danko :	777-9500
Paper Librarian :	Jim Schieb :	721-4185
Membership Chairman :	Glen Kirschenmann :	786-4790
SPACE/MAST Treasurer :	Allan Frink :	429-4909
SPACE Newsletter Editor :	Michael Schmidt :	757-4192

Saint Paul Atari Computer Enthusiasts (SPACE) meets on the second friday of each month at 7:30 pm in the Falcon Heights Community Center at 2077 West Larpenteur Ave. Doors open at 7:00 pm.



DISCLAIMER

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NEXT MEETING:
APRIL 12TH



So. 55426

Support S.P.A.C.E.