WE'RE CELEBRATING!

SPACE'S
BIRTHDAY
GAMES
REFRESHMENTS
RAFFLE
SPECIAL DOM'S
EXCITEMENT
GALORE!
AUGUST 10 1990
COME ONE COME ALL

Newz from the PREZ
by Nathan Block

Well after a very profitable officer's
meeting, the BIRTHDAY meeting set for
August 10th is now planned and ready
to roll! Here's what is on the agenda.

RAFFLE!
A raffle will be held near the end of
the meeting, the following items will
be on the block :

ATARI 800 with 48K
Donated by John Novotny

AUTODUEL by ORIGIN SYSTEMS
Donated by Lance Ringquist.

2 ATARI XM301 modems with BOBTERM
Purchased and Donated by SPACE

SPACE DOM
Donated by SPACE

Game Tournaments!!!!!

There will be two game tournaments
held during the meeting, the winner
of each will recieve a free DOM of his
or her choice :

>>> BALLBLAZER <<<
and
>>> ARCHON <<<

For best results, BRING YOUR OWN STICK

FOOD!!!

CAKE, ICE CREAM, POP, and POTATOE
CHIPS - All donated by the officers.

Hope to see you there!

Happy Computing
Nathan Block

SPACE will be selling some hardware at
the August meeting. The following will
be there :

800 With 48K
1050 Disk Drive
Power Supplies for 800 and 1050
DOS Manuals
TV Switch
2 I/O Cables
Basic Cartridge with Manual
All of the above for $75.00

400 with 48K
Basic Cartridge with Manual
Power Supply
TV Switch
I/O Cable
DOS with Manual
Joystick

All of this for $25.00

2 - XM301 Modems
Supplied with BOBTERM
These modems are direct connect, you
won't need an interface to use these!

The modems will be $20.00 each

        Faith in Action : Enthusiasm!

Minutes of the SPACE Meeting
July 13, 1990
by Pat Krenn, Secretary

1. The meeting was called to order by
   Vice-President Ken Modeen at 7:42
   P.M. President Nathan Block is on
   vacation.

2. The next SPACE meeting will be held
   on August 10th. The August meeting
   will be the celebration of SPACE's
   Birthday and J. Novonty has donated
   an ATARI 800 to be given away in a
   Raffle.

3. Last meeting it was voted to buy an
   ATARI 800XL and 1050 DD from Mike
   Schmidt, the Newsletter Editor and
   he has delivered it for SPACE's use
   A check will be forthcomming to
   Mike for the ATARI 800XL and 1050.

4. Vice President/Sysop Ken Modeen
   reported that the BBS should be in
   working order now; the BBS was down
   a couple of times, complements of
   the electric power company.

5. A member reported that the Witchita
   ATARI Enthusiasts' librarian has
   suggested that we exchange info.
   A newsletter will be sent to them,
   along with other information. Maybe
   can share programs, etc.

6. Joe Danko reported that TRANSKEY is
   available on the DOM(info and order
   form) on the DOM. It is to be used
   to hook-up an IBM style keyboard to
   the ATARI systems. You can use the
   IBM style keyboard for input and
   functions.

7. The business meeting closed at 8:05
   P.M. with Joe's demo of the DOM.

End of the minutes for July 13th, 1990
SPACE meeting.

From the back desk of G. Kirschenmann

As of 7-27-90 there was a balance of
$507.00 in the SPACE treasury.

From the Editor

I thought it would be nice if we had a
SPACE T-Shirt. I checked into the cost
of having them silk-screened on white
50/50(50% cotton, 50% poly). For white
T-Shirts it would be about $6.75 for
a minimun of 18 shirts. For color T's,
add .45 cents to that. This is a one
color, full front printing. I've got
a SPACE design (similar to that on the
membership card) I'll be bringing to
the meeting. We need a minimun of 18
orders to have them printed. You will
have to pay at time of ordering at the
meeting. It will be brougt up for the
members to discuss at the meeting.

I've included in this newsletter a
full size sample of the design. If you
have any suggestions (good or bad),
about the design, bring them up at the
meeting.

News from the Fractal SIG
By Carl Miller

Ever read the Computer Recreations
column in Scientific American? It's
editor, A.K. Dewdney, has started his
own newsletter called Algorithm, it's
subtitled The Personal Programming
Newsletter. It's very interesting and
challenging, for any level programmer.
One little article in the current
(July/August) issue led to this: a
fractal circles program for those who
hate to type in long programs. (Play
around with different values of A, B,
and S to see some very interesting
pictures.)

```
10 Graphics 8+16: color 1
20 A=-10: B=7: S=0.1
30 FOR I=0 TO 319
40 FOR J=0 TO 191
50 X=A+I*S
60 Y=B+J*S
70 C=INT(X*X+Y*Y)
80 IF C/2=INT(C/2) THEN PLOT I,J
90 NEXT J: NEXT I
99 GOTO 99
```

The program only takes up about 400
bytes of RAM. How about having the
club holding periodic contests, like
anything under 1K RAM programs? or
any kind of a program that does
something in one line of BASIC. The
club I was in in Indiana had a lot of
fun like that.

The following article and program was
posted on the BBS for the above.
Saving Fractal Circles
By Co-Sysop

The fractal program that was posted
by Carl Miller is quite interesting!
I find the VARIABLE S makes quite a
significant change in the generated
pattern (for values less than 1).

Anyway it seems he likes attaining
complex solutions from simple and
direct coding. So holding to that END
I submit a change that allows the
patterns to be saved to disk.

```
10 DIM S$(1): GRAPHICS 8+16
20 POKE 710,0: COLOR 1
30 A=-10: B=7: S=0.1
40 FOR I=0 TO 319
50 FOR J=0 TO 191
60 X=A+I*S
70 Y=B+J*S
80 C=INT(X*X+Y*Y)
90 IF C/2=INT(C/2) THEN PLOT I,J
100 NEXT J: NEXT I
110 A=PEEK(134)+PEEK(135)*256
120 B=PEEK(140)+PEEK(141)*256
130 S=(PEEK(88)+PEEK(89)*256)-B
140 POKE A+3,INT(S/256)
150 POKE A+2,S-(PEEK(A+3)*256)
160 POKE A+5,30:POKE A+7,30
170 OPEN #3,8,0,"D:FILENAME"
180 PRINT #3;S$:CLOSE #3
199 GOTO 199
```

Because each full screen display takes
so long to create, it's worth while to
save the finished pattern to disk each
time you make changes to A, B, and C.
Be sure to change the filename if you

don't want to erase the last pattern
saved!

Then again, if you have a good one, it
would be nice to be able to get that
data off the disk and back into shape
on the display.

```
200 GRAPHICS 8+16:POKE 710,0
210 OPEN #3,4,0,"D:FILENAME"
220 POKE 882,7
230 POKE 884,PEEK(88)
240 POKE 885,PEEK(89)
250 POKE 888,0:POKE 889,30
260 X=USR(ADR("h"0LVd"))
270 CLOSE #3
299 GOTO 299
```

Note: 210-270 could have been used to
save the file by changing line 220 to
POKE 882,11! But now you have two
methods of saving your pattern!

So Carl, check it out - isn't this
entire program less than 1K of program
space?

Update to FRACTAL CIRCLES
by Carl Miller

Our Co-Sysop added a nice little
feature to my short and simple circles
(more like diffraction gratings than
fractals) program. Here's another
modification. Change the line where A,
B, and S are defined; make them
variable. Such as: A=20*RND(0)-10
Same for B. Try, also S=.1*RND(0)-.05
Each time you run it, a new design.

Term 80 Fix
by Jim Johnson

Obviously not many of you are using
Term 80, the 80 column software only
term program sold on a SPACE DOM about
a year ago. You don't know what you
are missing! Anyway, after moving here
to Michigan I had problems with it
hanging when dialing. Well, I found
the problem, it wasn't with Term 80,
but with the BASIC program used to
create the dialing lists. Term 80
knows it has reached the end of a
number when it encounters a underscore
"_". The BASIC program creates a phone
number string exactly 11 characters
long and pads the end of the number
with underscores. The problem is if
you enter a number in a different area
code it takes 11 characters to do so -
and the number doesn't end with the
underscore. I fixed the problem easily
by modifying my phone number file with
a text editor and added an underscore.
Everything is working great again! I
also sent a note to Mark Gamber, the
Author.

Here's another article by Jim Johnson.

Review of Daisy-Dot III
by Jim Johnson

Daisy-Dot III (DD3) is a collection of
programs to give near typeset quality
printing capabilities to your ATARI
8-bit computer equipped with graphics
capable dot-matrix printer. Two of the
programs allow you to create any

typface in a variety of sizes upto almost an inch tall. You can either start from scratch, convert any ATARI 9 sector screen font, or modify any existing Daisy-Dot font. Both font programs are smooth and easy to use.

The major power of DD3 is the print processor. Earlier versions of Daisy-Dot required the user to create the text with a word processor, print the file to disk, re-load the printed file add Daisy-Dot commands, and finally process the file with the print processor. Although it was still a terific program, it might take several rounds to get the hard copy just how you wanted it. DD3 completely replaces the printing routines of your favorite word processor. It works with nearly any ATARI word processor. Simply type in your text with embedded DD3 commands, save the file, and process it with DD3's print processor. It will come out right the first time. DD3 takes care of all margins, headers, footers, multiple sized fonts, in fact everything! On top of this, quality of your hard copy will be near typeset quality. To be honest, it puts the type quality you see in this very newsletter to shame.

DD3 is not restricted to the Epson printers like its predecessor. It will work with most graphics capable dot-matrix printers, including ATARI's own XMM801. There's also special versions of the program available for SpartaDOS X users. Setting up a batch file with parameter passing allows SDX users to by-pass start-up menus and get right to work.

If you currently use Daisy-Dot II, there is one notable feature that has been dropped in DD3. The "include file verbatim" command is gone. This means you cannot use Billboard to insert pictures into your output. Since the new print processor has to keep track of page breaks, and it has no idea how large inserted files are, it cannot handle them.

I recently updated my wife's resume. Last time I used an IBM word processor and a $15,000 laser printer. TextPro, DD3 and my dot-matrix printer did every bit as good a job this time.

URI - USR Indirect
by John Novotny

One of the extras of the 64/128K XL/XE computers is having RAM shadowed by the Operating System and BASIC ROM's. Although its use isn't always straight forward, it has provided us with such features as the TRANSLATOR (use old versions of OS) and small RAM disks. URI is still another attempt to get more bang out of our stock XL/XE's; namely putting the RAM shadowed by the BASIC ROM to use. There is a fairly easy and well documented way to switch BASIC on/off; however as you hackers can easily imagine, turning BASIC off while running a BASIC program can be big trouble. It can be done safely

from a USR routine, as long as BASIC is turned back on before returning. Well, this is what URI is; a USR routine that switches BASIC off/on. But wait ROM face, there is more - URI is a front-end to other USR routines to give them access to RAM shadowed by BASIC ROM. In fact URI even allows the USR routines to reside in shadowed RAM (howecer, URI must itself remain in BASIC visable RAM).

So, if you now have a USR routine like U = USR(MOV,from,to,count), the call using URI would be U = USR(URI,MOV, from,to,count). Either call would be valid, except with URI, MOV could reside in shadowed RAM, and it could move data between BASIC visable RAM and Shadowed RAM. Some other benifits of using URI are: 1) you now have a large block of known addresses ($A000-BFFF) to put a non-relocatable USR routine, or a set of routines that can share subroutines; 2) USR routines or data can remain resident in shadowed RAM, available if program is restarted or available to more than one program; 3) by putting USR routines and other data in shadowed RAM, you leave more BASIC visable RAM for bigger (can do more) BASIC programs.

Just to pass on a bit of USR trivia encountered while working on URI, check out this example. Assume a USR routine at address NOP that does the very minimum; i.e. PLA (get parameter count off stack) and RTS (return). Then the BASIC call U = USR(NOP) will return U = NOP. This is because BASIC sets up the USR routine ad4ress in the addresses assigned to pass back the value to the BASIC call parameter ($D4,D5). it also means the starting adress of a USR routine is available to that routine. URI is relocatable (it does not need a certian starting address), so URI uses its own starting address to calculate a return address into URI turn-on BASIC code. So doing U = USR(URI,NOP), will (a) U = NOP, or (b) U = URI? The correct answer is (a) Bart (don't have a cow!), because URI moves the address of the USR indirect routine to $D4,D5 before passing control to the USR indirect routine. This emphasizes how URI attempts to be transparent as it front-ends USR routines, in the spirit of glasnost, URI is being made available to SPACE brethern - watch for it on this months DOM.

SPACE SOFTWARE LIBRARY NEWS
July 1990 SPACE Disk of the Month

The library will be offering software for sale as usual, at the meeting or via the US mail. All disks are $3 ea. If you can't makethe meeting, call Joe Danko at 777-9500 after 6 PM or mail your request to:

Joe Danko
2766 Chisholm Av. N.
N. St. Paul, Mn 55109

Mailed software will cost an extra $1 for each multiple of 3 disks or so.

Blank disks will be for sale at .30 cents ($0.30) each.

Side 1

```
SPACE     DOM 000    TRANSKEYDOC 195
JUL_90side1 000      UNDRSCORTXT 012
DOS       SYS 037    BASICMODCOM 003
DUP       SYS 042    BASICMODHLP 002
ARS           001    AUTORUN SYS 003
HELLO         026    FINCAL1FCOM 159
STELLAR BAS 058      SLOGRO  BAS 026
SUPRSORTCOM 015      SLOGRO  DOC 021
SUPRSORTDOC 028      SLOGRO  SRC 032
FINCAL  DOC 022
```

STELLAR.BAS - A BASIC game that needs a joystick. This game was supplied by our president.

SUPRSORT.BAS and SUPRSORT.COM - SPARTDOS directory sorting utility.

FINCAL.DOC and FINCAL1F.COM - Menu driven multi-function financial calculation program.

TRANSKEY.DOC - All the lastest info concerning an adapter that allows the connection of an IBM style keyboard to ATARI 8-bit systems.

UNDRSCOR.TXT - How to modify some types of DOS to allow the use of special characters in file names.

SLOGRO files - Run SLOGRO.BAS. ATARI adaptation of a Scientific American mathematics article. (Editors note: see article by Carl Miller elsewere)

BASICMOD files - Use it as an autorun file with your BASIC. In the XL/XE it patches BASIC rev B to rev C, speeds up the cursor and automatically loads a BASIC program after a haltload if it is named 'hello'.

Side 2

```
SPACE   DOM 000    WHIRLY  COM 173
JULY    908 000    GREMLINSCOM 200
DOS     SYS 037    DUP     COM 042
AUTORUN SYS 007    DUP     SYS 007
```

WHIRLY.COM - The machine-language game WHIRLY-NERD. We got this from our own president and he swears it is public domain.

GREMLINS.COM - A game where you had better look out for the GREMLINS. This one is also from the president.

Other disks offered this month

ALTERNITY CITY - This is a interesting and addictive game. It is a lot like QIX or LIVEWIRE but with a more interesting and playable structure. If you have a 400 or 800 just boot side 1 and play. If you are using an XL/XE, you will need to boot side 2 first to load the translator, then flip disk and insert side 1, press select and play when ALTERNITY loads.

SPACE SOFTWARE LIBRARY NEWS
August 1990 SPACE Disk of the Month

Side 1

```
SPACE     DOM 000    URI     M65 011
AUG90SIDE1    000    URI     OBJ 001
**********    000    URI     BAS 006
DOS       SYS 037    BOWLING BAS 064
DUP       SYS 042    BOXIN   BAS 030
AUTORUN   SYS 003    WIZARD  BAS 189
HELLO         026    CASINO  BAS 065
URI       DOC 023    GRIDRACEBAS 123
URI       LST 016    HELP    DOC ***
```

URI.* files - Submitted by J. Novonty, SPACE MEMBER and Assembly code afficianado, this is a unique BASIC tool to use with hard-to-handle USR routines. URI can allow large assembly code routine to be stored and accessed in the shadow RAM under the BASIC ROM in the XL/XE systems. There is a DOC file, binary object file, a MAC-65 assembly listing, MAC-65 SAVED file and a BASIC program I wrote that has the URI code converted to DATA statements for easy use with any BASIC program. The URI code can also be loaded by naming URI.OBJ to AUTORUN sys file. It will automatically load into PAGE 6 when the disk is booted with BASIC on. Read the DOC file for more details.

BOWLING.BAS, BOXIN.BAS, CASINO.BAS, GRIDRACE.BAS - A bunch of BASIC games from the SPACE BBS that I haven't seen before.

WIZARD.BAS - A text adventure game. If you have never played one of these before, you key in one or two word commands or abbreviations. E,W,N,S for directions to move. Enter commands such as I for inventory of objects carried, GET <object> to pick up what ever it is that is lying around, LOOK to see your surroundings. Other commands may exist and they will have to be guessed.

SIDE 2

```
SPACE   DOM 000    DUP         SYS 089
AUG90SIDE2  000    SLOTMACHAUT 178
**********  000    HELLO           005
DOS     SYS 042
```

SLOTMACH.AUT - ***** BOOT with option or NO BASIC ***** A one-armed bandit simulater game by Larry Serflatten, SPACE MEMBER and ATARI coding wizard. The SLOT MACHINE has 4 reels. Push the joystick FIRE button to input your bet Pull the stick to start. A flashing button will appear below the left-most reel. Push fire to stop that reel and push the stick right to move to next reel. If you don't touch the stick the machine will eventually stop by itself P.S. The DOS on SIDE 2 is TOPDOS 1.5. It has some very interesting functions

Other Disks offered this month.

GGRAPH by Henry Conor, SPACE MEMBER. Henry has brought together a group of ATARI graphics software and built an interface to make it all user-friendly He has combined "G:", "V-GRAPH" and "VISIPLOT". Be sure to read the DOC's. SIDE 1 is the main, side 2 is a DEMO.
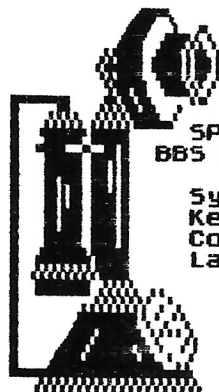
FONT FACTORY by Greg Howell
FONT FACTORY is a commercial quality
shareware font editor complete with a
group of prepared font files.

From the EDITOR:
Earlier in the newsletter I mentioned
I would includ a full size design for
a T-Shirt. I ran out of room, so below
is a very small version of it.
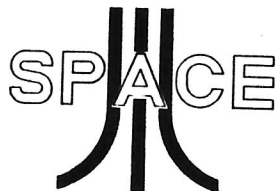
SPACE
SAINT PAUL ATARI COMPUTER ENTHUSIASTS

SPACE BULLETIN BOARD
BBS Phone:(612)-425-3962

Sysop:
Ken Modeen
Co-Sysop:
Larry Serflaten

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.

Cleveland
Ave

GIBBS
MUSEUM
X

Falcon Heights
Community Center
2077 W. Larpenteur
X

N
W—E
S

Larpenteur Ave

St. Paul
X U of M Campus
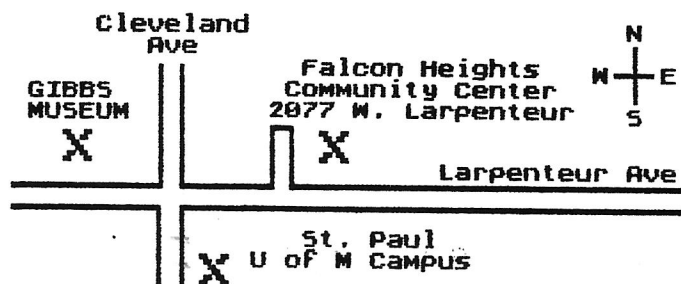
President
  Nathan Block   922-8012
Vice-President
  Ken Modeen   425-1290
Secretary
  Pat Krenn   631-3136
Disk Librarian
  Joe Danko   777-9500
Paper Librarian
  Jim Scheib   721-4185
Membership Chair
  Glen Kirschenmann   786-4790
SPACE/MAST Treasurer
  Allan Frink   429-4909
SPACE Newsletter Edit.
  Mike Schmidt   757-4192

SPACE
P.O. BOX 12016
New Brighton, Mn. 55112

MINNEAPOLIS
-PM-
1990
MINN

25 USA

MEETING
AUG 10th 1990