

Saint Paul ATARI Computer Enthusiasts



An independent computer user group

S E P T E M B E R 1 9 8 7

SPACE Meeting Friday, Sep 11 at 7:30pm
MAST Meeting Friday, Sep 18 at 7:30pm
At the Falcon Heights Community Center
2077 Larpenteur Avenue West

MAST PROGRAMMERS Meeting Monday, Sep 28 at 7:30pm
At First Minnesota Bank Building - second floor
Lexington and Larpenteur, in back of building

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Jim Schulz	Vice President	537-5442
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Minnesota
Atari ST
SIG

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* MAST PROGRAMMERS *
* MEETING *
* September 28th *
* One Week Late ! *

BYTES from the PRES, by Bruce Haug

September is here and elections are coming!!! This month we elect a nominations committee. Start thinking of who would make a good president, VP, Secretary, treasurer, for BOTH SPACE, and MAST!!! Then contact the members on the nominations committee!!!

This is also the time to start thinking of BYLAW changes, a copy of the bylaws will be at the Sept meeting.

This month there will be a special Analog DOM for the Analog Extra. Stop and see the DOM librarian. \$6.00 each, for 2 double sided disks.

Have to go now, see you Sept 11th or 18th.

RELATIONSHIP OF SPACE AND MAST TO BE VOTED ON AT SEPTEMBER AND OCTOBER MEETINGS

At the board meeting of 8/27/87, there was a discussion on the future relationship of SPACE and MAST. As most of you members know, SPACE is the main group and was originated 5 years ago by 8-bit owners (400, 800, XL's & XE's). On the other hand, MAST is a special interest group formed by SPACE ST owners about 1-1/2 years ago. At the time, it made a lot of sense to have MAST "under the wing" of the parent group while it still had only a few members. SPACE really did MAST a favor! Now, SPACE and MAST have an equal number of members. Does it still make sense today to keep the 2 groups together? That's what we want all club members to tell us at the September meetings. There will be a vote at BOTH club meetings as to which direction to take. The vote will NOT be binding. It's purpose is to indicate to the board how best to propose bylaw changes. The proposed bylaw changes will be published in the October newsletter and voted on at the October SPACE meeting (but not at MAST because it is only a special interest group). The reason for these votes, etc., is so that the present officers can set up a smooth transition for future officers. Then, we will know what positions are to be filled prior to elections. Here are the three options that the board has determined. These options will be discussed, modified or amended at the meetings, as necessary.

Option 1: Don't make any changes to the bylaws. Leave the type and number of club officers the same. Leave the relationship of SPACE and MAST the same. Advantages for this option would be one set of dues to pay (if you belong to both groups), shared newsletter (mainly a savings in postage and a little bit in printing), and some sharing of officers (it is hard to find enough willing people).

Option 2: Amend the bylaws so that there are an equal number of elected officers for each group. Only elected officers would have voting privileges on the board. There would be no president of the overall club, but elected "chairs" for each group. There would still be 1 treasurer (appointed, not elected, but could cast a tie-breaker vote) to keep the books separately for both groups. Name changes could be made, if desired (for instance, the overall group could be SPACE and the 8-bit group could be MAX - Mn ATARI XE). Advantages for this option would be one set of dues to pay (if you belong to both groups), shared

newsletter (mainly a savings in postage and a little bit in printing), and some sharing of officers (it is hard to find enough willing people). An advantage for MAST would be equal status and equal representation on the board.

Option 3: The 2 groups could be split apart totally. The SPACE bylaws would be amended to remove all reference to MAST. MAST could elect its own officers and write its own bylaws. MAST would also have to get a bank account (with money previously kept track of by SPACE), register as a nonprofit group, set up meetings (initiate paperwork for a key from Falcon Heights Community center and pickup the key for the Programmer's Meeting before 3:00pm on the day of each meeting), transport MAST's ST to ALL of the meetings, etc. The advantage of this option would be to end any dissension between the two groups. The two groups would part on friendly terms. Membership in SPACE, MAST and BOTH would continue through the individual member's expiration date at the time the two groups split. Obviously, the two groups would then set dues as they see fit (but perhaps a "both" membership could be arranged with a discount on the total dues) and each print their own newsletter.

Study these options carefully and be prepared to voice your opinion and cast your vote at the September and October meetings.

VP Notes, by Jim Schulz

September has finally arrived and it's time for yet another SPACE meeting. This month's meeting, we begin to shape the future of SPACE. As has been mentioned before in this column, the current slate of officers will be resigning in November. This month we start the process of selecting new officers by selecting a nominations committee. If you are interested in helping the club in any form, please feel free to contact the members of this committee who will be very eager to use your talents in some form. SPACE needs your help now if we are to continue to prosper and survive. Bruce, Frank, and Bob have done an excellent job helping with the club over the past three years so it would be a shame to let all of that good work go for naught.

In other business, I would like to thank all of the members for putting up with yours truly as your replacement for Bruce last month. I didn't find out about Bruce's absence until the meeting so I had no time to prepare any type of agenda, but as always I gave it my best shot. If I failed, remember Bruce will return in full glory for the month of September.

Finally, the point was brought up at the last SPACE meeting of a lack of newsletter articles for the 8 bit Atari. I know this as much as anyone. Each month, I search all of the major BBS looking for something new and exciting and it just isn't there. We could publish the 100th version of a memory upgrade article, but we've done that already. Even though I am writing material for MAST and the ST owners, I am still looking for 8 bit stuff, as evidenced by this month's new series on machine language programming. I, personally, don't want our newsletter to become a best of other 8 bit newsletter, but even that is tough when not much is being written. So the answer to this problem is your support. If you want articles, reviews, etc. published for the 8 bit, please write them. Bob will gladly accept them and publish them. Please note that I am just as concerned as you are about the lack of news for the 8 bit Atari, but at the same time I am trying to fill that gap with this article and other 8 bit articles from the commercial BBS's. I am doing the best that I can do, now it's

up to you. Enough said....

Well, on to this month's headlines..... What's new with the missing 8 bit products????..... What is the future of the 8 bit computer, again????... Atari buys a chain, details at 11.... New software coming soon.... The disks are here.... MAST needs your help!!!.... What's new on the BBS and here.... So, let's get going.....

Ok, it's time for the monthly update on the missing Atari modem, disk drive, and 80 column box. Here is the latest word. The Atari 1200 baud modem is still on the boat on its way. The disk drive is still in the works, no release date set. And finally no word on the 80 column box. Other news on the 80 column box includes no release date and very little work being done on an 80 column version of Atariwriter Plus. It looks as though no software will be available for the box when it is released. Also plans for an 80 column version of Paper Clip seemed to have scraped with the sale of Batteries Included. Electronics Arts has told Atari that they have no plans to update Paper Clip to support the new 80 column box. It's future looks grim right now. Atari does acknowledge both an 80 column version of Atariwriter Plus and a terminal program, though, are in the works. For more info on the missing trio, check out this month's SPACE meeting.

The topic, again, has been brought up about the future of the 8 bit computer. Atari is again stating that the future of the 8 bit computer is in the XE Game System. Currently, the system is getting a lot of support from video game sellers and advertising is on the way. Atari's philosophy is once this system catches on, new software will not be far behind. A lot of dealers got burned badly by the old Atari before it was sold and are very leery of Atari computers. Atari feels that by introducing a game system that they can back there way back into these dealers and reintroduce the public to the Atari 8 bit computer. Atari seems to be doing its best as well by converting quite a bit of disk software to cartridge including Flight Simulator II, which happens to require a keyboard for full operation. And with a keyboard,.... you get the picture. My current thinking is more of a wait and see attitude. Atari's plan seems feasible from the past, but if they don't follow through plans don't mean anything. I know Atari won't state it, but I wonder if our missing trio is being held up by the XE Game System. Only time will tell.... Speaking of the XE Game System and the 130XE, it's future does look better after a recent purchase by Atari. Atari, on August 24th, purchased the Federated retail electronics chain for \$67.3 million in cash. This chain includes 65 retail consumer electronics stores in California, Arizona, Texas, and Kansas. This is Atari's first effort in getting new computers in the stores. These stores will carry both the Atari 8 bits, STs and the new PC. The stores currently carry a number of computers including the Commodore and the ST. With this purchase, Atari should be able to present both the 8 and the 16 bit computers in a better light and with better exposure. Atari is also looking for more retail outlets to buy so stay tuned.... For more info, check out the next SPACE meeting or the SPACE/MAST East BBS.

Ok, so with all of this news is any software on its way.... It looks like the on again, off again announcements of Springboard software is again on. New rumors are circulating that "several" new Springboard titles are due out by fall of 1987. We'll keep our eyes peeled... Also, Broderbund, a former big Atari supporter, seems to be on its way back. Broderbund is rumored to have a few new titles about ready for release. When asked about this, their response is a big smile and "just wait and see." Another looks good on the horizon. Finally, two arcade games are on their way from England and should be here very soon, namely Arkonoid and Gauntlet. If the versions for the 8 bit match their ST versions, it looks like the 8 bit has some well deserved winning games on their way....

The Analog disks have arrived to accompany the new 8 Bit Extra book. They actually arrived the day of the last SPACE meeting. So if you bring your mail-in disk card from the back of the book and \$12.00, you can get two double-sided disks full of software from the book. If all goes well, expect a demo of some of the software from these disks at this month's or next month's meeting. If you would like to know what is included in this book, either check out last month's newsletter or see me at the meeting to look at my copy of the book.

MAST needs our help????? Well, sort of.... MAST is in the process of building up a book and magazine library similar to SPACE. What MAST is looking from you is the first three issues of ST-LOG, which were given away free to all ANALOG users. If you have these laying around collecting dust and they are on the way to the wastebasket, bring them to the meeting and drop them on my desk. MAST will be very appreciative of your donation. Thanks for listening...

Well, we are now full circle and back to club business. The BBS seems to be running fine with the help of sysops Frank and Bruce. The ZMAGS posted at the last meeting are still available weekly as well as other news and information and programs as well. In the day ahead, I will be posting more news of the Federated purchase as well as a new version of ZPRINT for printing the ZMAGS out in three columns if I remember right. This new version includes loadable fonts for custom printing. Also, SPACE has purchased a copy of the OASIS BBS system and is currently looking at the possibilities of upgrading. Frank will have more on this at the meeting. I will be modifying my upload schedule to uploads on every Sunday and a message in the SPACE/MAST section when new ZMAGS or other news is available. Expect them for download on Monday or Tuesday of each week, depending on Frank's schedule and BBS space availability.

Finally, what's in here this month..... Well, in addition to what you have just read, this month's 8 bit Xtra looks at the BBS Sysop with first hand comments on starting up a BBS. After reading this, you might appreciate both Franks's and Bruce's effort. Also this month, we have the first part of a five part introduction to assembly language programming. This series is courtesy of the Columbus Atari Computer Enthusiasts. Well, that's it for this month. I'll see you all at the September SPACE meeting or daily on the SPACE BBS. Happy computing.

SPACE DOM, by Frank Haug

This month I thought we'd try running some of the better programs from over the years. Since our membership has changed since these programs originally ran, they might have been overlooked by the members.

The Best of S.P.A.C.E. Volume 1.

1. Crazy8.com - Classic Card game done very well.
2. Gravity - Simple but addicting, keep the ball from hitting the floor or ceiling.
3. Myripede - The Arcade Classic -- shoot mushrooms, myripedes, and scorpions - avoid fleas, myripedes, and spiders.
4. SkiEdit - Create and test Ski courses for Ski-king with this construction set style editor.
5. SkiKing2 - The ultimate ski program in my opinion. 3d perspective, editable courses, random obstacles, graphically impressive and very playable.

SPACE MEETING MINUTES FOR AUGUST, recorded by Joe Danko, Secretary

1. The meeting was called to order August 14th at 7:30 PM by Vice-President Jim Schulz. Approximately 40 members present along with about 2 new members.

2. Vice-president's report and ATARI news: Jim Schulz. Jim reported on the latest rumors concerning releases of new products. Analog magazine will publish only 11 issues for 1987 due to a printing problem and will make it up to readers by extending subscriptions one month. ATARI CORP. 2nd quarter financial report compared to 1986: PROFITS: \$13.5 Million, 23 cents/share, +39%. SALES: \$70.7 Million, +16.4%. NET 1987 INCOME: \$28.8 Million vs. \$12.4 Million. ANALOG 8-BIT EXTRA disk is available for sale by the club (two DS disks) for \$12 and the order card from the book. WHAT A DEAL from WIZARDS WORK! The ATARI dealer located in FOUR SEASONS shopping center on County Roads 9 & 18 in Plymouth has an offer for SPACE members only: 22% off all ST hardware, 30% off ATARI software, 30% off EPSON products. These prices apply only with CASH and allow no demonstrations or consultations. Extended service agreements at time-of-purchase only are also available. If you want to save big money just ask for the product, hand over the cash and leave quietly.

3. President's report: Bruce Haug. Bruce informed me the day of the meeting that he was on his way to Canada to troubleshoot a computer problem for UNISYS and therefore was not in attendance.

4. Treasurer's Report: Bob Siede. Bob didn't make it either. Report by Jim Schulz. As Of 7/10/87:
SPACE BAL. = \$ 92.39
MAST BAL. = \$ 59.32
TOTAL BAL. = \$151.71

5. Secretary's report: Joe Danko. I will be out of town for the next meeting. Now for an editorial: Concerning the ANALOG 8-BIT EXTRA book, this publication appears to be unavailable as this is written. B. Dalton and Waldenbook knew nothing about it and their attitude toward ATARI publications was very negative. USER FRIENDLY and WIZARDS WORK had not received any and were unsure when they would. This mass retail situation with ATARI is almost like a conspiracy. The products are out there and there are plenty of users around but the stores don't stock anything. I'm a little upset that we ATARI users should have to beg retailers to stock product for us. I wish there were some way to find out how much stuff local ATARI users are buying via mail-order and then somehow tell the B. Dalton's, Target's and Egghead's just how much business they are throwing away. Maybe I am wrong but if we must get what we need via mail order then that's the way it will be until somebody wakes up.

6. Newsletter Editor: Bob Floyd. Bob insists on a deadline of the Monday 10 days prior to the next meeting for submission of input for the next newsletter. Contact any club officer if you can't upload your article to the SPACE BBS.

7. PAPER LIBRARY: Jim Sheib, Librarian. If any member needs old magazine issues, call Jim at home. His phone number will be on the front of the August newsletter. Jim will bring current newsletters and magazines.

8. BBS NEWS: The BBS is up and operational on the following configuration:
- 130XE
- MIO/1 MEG from ICD
- 1050 with US DOUBLER from ICD
- R:TIME8 Clock/Calendar cartridge from ICD

- MULTITECH 224EH 300/1200/2400 baud modem
- The software is BBS EXPRESS running under SPARTADOS from ICD. Frank Haug is the current SYSOP. The BBS phone number is 774-0135.

Currently there are 150 registered users and 20-30 calls a day. The download library file space is now full most of the time. ZMAG electronic magazine text files are available. A hint to new users: don't forget to leave a message in <E-MAIL> addressed to <SYSOP> the first time you sign on with your name and phone number otherwise you will not get any privileges on the BBS. This so the SYSOP can call you up verify your existence as a human being.

9. DOM: Disk Librarian, Frank Haug. This month's DOM is special in that it is double sided for \$4 and is composed of all machine-language programs. None of them will execute with BASIC. Also new this month are May and June ANALOG disks and an upgrade disk for TEXTPRO 2.5r.

10. Don Nelson from Tacoma, Washington and a member of SPACE (west) visited our meeting again. Don told us about the ATARI TRAX EXPO presented by all of the Pacific Northwest area ATARI Clubs. It was a huge success with 2400 people attending and bringing in \$8000 divided among all of the various clubs. He also explained how they market their DOM disks through retail outlets which brings in a considerable profit. Don demonstrated a hardware upgrade to his 800XL that he carries with him on air trips. The change appears to be an integrated OS and DOS in ROM which gives the 8-bit a whole new user interface. The product is called IOS or Irrational Operating System and sells for around \$40. If interested, Don can be reached by phone: in Mpls. - 824-1331 or Tacoma - (206)272-4934.

11. The August meeting featured a SWAP MEET. I think Bob Floyd is still trying to sell his 300 baud Hayes modem despite two plugs during the meeting. The club sold its ex-BBS 850 interface to a member for \$85.

12. The September meeting will have to go on without yours truly, the Secretary, as I will be in Philadelphia for a while.

It is time to start thinking about which club office you would prefer. Club elections will take place in November and nominations could start as early as September. It appears that all positions are up for grabs including DISK LIBRARIAN. The September meeting business will include explanation and discussion of proposed changes to the club constitution.

8 Bit Xtra, with comments by Jim Schulz

For a change of pace this month, this month's BBS selection will focus not on an upgrade or new software fix, but on the BBS operator. This article is very true from what I have heard from both Frank Haug and Steve Pauley, our user group BBS Sysops. Unfortunately, some of these things in this article never get said. Read this article and maybe you will better understand what goes on behind the scenes of a BBS. Thank you, both Frank and Steve. Until next month, happy BBSing.

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--++** NEW SYS-OP INFORMATION **+-+
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It is a long and arduous and seemingly endless task putting up your own Bulletin

Board System (if it is a good one). Many hours are spent just getting things organized on disks, then the menus and text files have to be created from your own intellectual ability and wit, while you are deciding what to put up for use by new users, what to let just-reviewed users have access to, and what havoc you want to let your co-sysops do. After all that, you have to organize the board, fill your U/D files disk, decide where to put your message base, users log, menus, texts, data files, and anything else you use, then put it all together, get the second phone line installed, and run the thing.

Have your friend call it up and see if it works. It probably didn't. Well, try to figure out the first error. Oh, how stupid of me, I should have seen that. Then the second error manifests. Find that. I thought I did that! I must have forgot to save it. Well, do it again. Third error comes around, etc. . .

Well, after you get the program running smooth (and you never will), you can put it up for remote use. Then you have to put up with crashers, idiots, and various other riff-raff that seem to crawl out of the wood-work just to come to your board and cause problems. Well, while you're dealing with these types, your program disk has a major breakdown, and you have to reorganize that from your back-up (if you remembered to make one), and put it back up. Then one of your drives has a cardiac and you have to send it to the drive doctor to get a major overhaul. Then after your board has been down a couple days waiting for your drive, you lose half your callers and have to go back out and readvertise that your board is back up again.

Well, this is all very obvious, I think, and redundant. Without all this, running a BBS would be heaven. Just think...People you to see what your system is up to, use your U/D section, so you gain software, data, and text files you wanted, you can give them to others who wanted them, you can entertain with cute little text files like this one, play on-line games (if you have room for them), participate in stimulating conversation on the message base, and basically everyone benefiting from everyone.

If you still think you would like to put up your own BBS, please do so. Find a program, edit it, revise it, get it running, and do it! I found the best way to put up a board is either to write your own program or go out and buy one (it's the only way to know half-way what is going on!).

Surf's up!
 -* The Guitar Kid *-
 <<<\Sys-Op/>>>

This is the first in a series of five articles on machine language programming on the 8 bit Atari. These articles are from Fuji Facts, the newsletter of the Atari Computer Enthusiasts of Columbus via Compuserve. Hopefully this series will give both the beginner and advanced 8 bit programmer better insight into the world of machine language programming. - Jim Schulz

Machine Language: Where Do I Begin?

by Dr. Warren G. Lieuallen

As many people already know, beginning to understand and program in machine or assembly language is not an easy task. The instruction set for the 6502 microprocessor is much more primitive (much more basic!) than BASIC; many tasks which were automatically performed for the user become responsibilities which

must now be directly and properly controlled, such as: specific input/output control, allotting precise memory space for variables, counters and flags, and many more. But perhaps the most bothersome of these extra "housekeeping chores" is deciding just where to store the actual code which makes up the program. This must be done before the program itself can even be written.

While using BASIC, program lines are simply typed in, one after the other. The use of line numbers instructs the computer in which order the commands are to be executed, and additional lines may be added into the program at any point by using an intervening line number (this explains the common practice of numbering lines with multiples of ten--plenty of space is left for any modifications.).

Very rarely is any thought even given to where within the computer's memory the BASIC program will reside; the computer figures that much out for itself! The line numbers simply indicate the order of the program statements, not their location. However, with machine language, this luxury is not provided.

Every "program statement" in a machine language program is simply a number from 0 to 255 (that's the maximum range of numbers which can be expressed in one byte in the hexadecimal system [00 to FF]). This number is then placed into a specific memory location, perhaps by means of the POKE command. After the appropriate numbers have been entered, the computer simply executes the commands represented by the numbers it finds in its memory, one right after the other. The order of execution is the order that the commands are encountered in sequential memory locations, one right after the other (there are exceptions, of course--as in the BASIC "GOTO" command, branches are allowed in assembly language via "JUMP" commands.). One consequence of this is that it is much more difficult to modify a machine language program, because there is no "line-skipping" as in BASIC.

So, the first consideration in writing a machine language program is which memory locations to use. There must be a contiguous stretch of available memory locations large enough to accommodate the entire machine code, and these locations must not interfere with the specific "hardware" locations used by the computer in its functioning.

Probably the best, and easiest place to store machine language code is on "page six". This refers to memory locations 1536 to 1791 (it's called page six because the memory locations in hexadecimal are 0600 to 06FF.). This area of memory, 256 bytes in length, has been set aside for just such a use; only rarely will the Atari require any of this space (for a response to an "INPUT" statement of more than 130 characters in length, some of these locations are used.).

If your machine code is more than 256 bytes in length, then you must find another location to use for storage of at least the excess code, if not the entire program. If this is the case, you're probably a better assembly language programmer than I am, and don't need me to tell you how to handle this problem!

Another consideration is how to store your machine code. The method with which most people are probably familiar is to store the program as a "binary" disk file. This is done by using the "Binary Save" option of DOS; these files are subsequently loaded again with the "Binary Load" option. This form of saving creates a special file on the disk which indicates to the computer that the following data file is to be placed into particular memory locations, which the user has specified. Many programs use this method, which is relatively fast, especially for larger programs. However, it is more difficult to access the code directly, and understand or modify it as you see fit.

A second approach is to write a BASIC program which will "POKE" the necessary

values into the proper memory locations, and then run the machine language via a "USR" command. This approach has the advantage of allowing access to the code, which usually consists of decimal representations of the hexadecimal codes in DATA statements. However, these numbers must be reconverted back into hexadecimal, and then looked up in a table to "disassemble" the code, unless a disassembler program which can read BASIC DATA statements is available. Also, the code must be typed in as decimal numbers, which means they probably had to be converted from hexadecimal in the first place! Another disadvantage is that this method is much slower to load into the computer, so that longer programs will entail a significant delay.

The best approach is also one of the more limited. If the machine language code is in a form known as "relocatable", which means that it has no restrictions on absolute memory addresses (many programs do), then the numbers making up the code can be converted into their ASCII equivalents, and written as the characters of a string variable! This can be done easily to machine language programs in a different form by a BASIC program which reads each number, and then assigns the proper location within the string to the corresponding ASCII character. Then, the routine may be called from BASIC by using this command: X=USR(ADR(ML\$)), where X is a dummy variable, and ML\$ is the string containing the machine code. This method is one of my favorites in that it loads almost instantaneously, and can be easily used from within a BASIC program. However, it is limited to relocatable code, which has proven to be quite a limitation, indeed.

I hope this introduction to machine language and its uses has been both interesting and valuable to you. Perhaps you, too, will find programming in machine or assembly language as challenging and rewarding as I do.

Notes from the Editor (and MAST Co-Chair), by Bob Floyd

Well, I got caught again last month on newsletter weight. The weight was 1.03 ounces (.99 oz. + label and stamp) and registered as 1.1 ounces at two different post offices. So, I had to put on another \$0.17 postage on each newsletter. Therefore, I will now be restricting the newsletter to a maximum of five sheets of paper instead of six. What was especially frustrating last month was that I could have managed a five sheet newsletter by dropping just a few articles.

I'm sorry I couldn't make the last MAST meeting, but I did manage to have an excellent vacation on the north shore of Lake Superior. I'd like to thank Phil Seifert for "guest hosting" for me and also for volunteering as Demo Coordinator. Let's keep those volunteers coming, especially because it's almost certain that I won't be continuing as newsletter editor after the November issue. So, someone out there should be thinking about doing it. Also, please pay special attention to the "Relationship of SPACE and MAST" article. It's important!

Also, I saw an ad in the September issue of ANALOG Magazine for reconditioned ATARI Touch Tablets for the 8-bit computers. The outfit to call is B&C ComputerVisions, 408-749-1003. Price is \$39.95 for "like new" condition. I ordered one and will probably have it in time for the SPACE meeting. I'll bring it along so those interested can see it.

See all of you at SPACE and MAST.

Notes from the Co-Chair, by Jim Schulz

September is here and MAST is still rolling forward. First some good news!!!! MAST seems to cleared up its money problems of late. Through some reusing of old disks, unexpected money, and disks sales, MAST currently seems to be comfortably in the black. I would love to publish the figure here to even gloat, if you will, over being in such good financial straits, but the figure seems almost too good so until it's very official, I'll keep it quiet. Even if the figure is a little high, MAST is still in good shape. Thank you to all for your help.

Now for the tough one. This month's MAST meeting is required attendance for all MAST members. This month, we decide the future direction of the club. Elsewhere in this newsletter is a proposal for the future relationship of SPACE and MAST. Read it carefully. I will not state my opinion here on this issue since it is you the members who must decide this issue. But under any of the three proposals, my big concern is to keep the club viable and to keep unity and continuity in the club. Let me state that plans are already in the works so that even if the clubs do split, you as a member will not be visibly affected by the changes. As I said, you are the most important element of MAST and your attendance and participation are important to MAST. We, both must work together to continue what has been started. Finally, because of the sensitive nature of this subject, both Bob and I will keep this month's discussion of the future of MAST in line. We do not want a repeat of the March MAST meeting disaster. This topic should be discussed civilly and does not need to create bad feelings. Let me close by saying, whatever happens, we will still have the same monthly meeting with me upfront spouting off with the latest rumors and news, as well as the best public domain software around, as well as a monthly newsletter. Also, whatever happens, we must maintain our relationship with SPACE. SPACE has helped MAST more than many can comprehend with one of biggest supporters being Bruce Haug. Without SPACE, MAST wouldn't exist today. We must realize this and remember it. As I said before, your attendance at this month's meeting is crucial for MAST's future. I would also urge all MAST members to check out this month's SPACE meeting as well to hear their opinions and get the other side of the story. Thanks for listening.... Enough said...

Last month, I put out an appeal for volunteers. Well, we can add one more name to the list of MAST volunteers. MAST now has unofficially a new corresponding secretary. I say unofficially since I haven't double checked on his status. The position of corresponding secretary will fill a letter writing and ST user group exchange that has been sorely missing. Hopefully, once started, MAST's name will be spread across all of the ST user group lists and ST BBS list across the country. Also it looks like we have a new co-chair to fill Bob's seat when he will be stepping down in the months to come. More on this later also. As I have said in the past, I am trying to build a group of volunteers to spread some of the load around of running MAST. Currently, I am doing just about all of the organizing and planning of the meeting with Bob's and Bruce's help. Without the additional help, I will probably burn out soon and little use to anyone. I am still looking for more volunteers. I currently have two, maybe three, positions left to fill to fully spread out the load. So if you are interested in helping form a new and better MAST and help in its development, let me know and I'm sure that I can find a place for you.

Next up, BBS. Yes, the SPACE/MAST West BBS or MAST BBS is still up and running at 560-9254. As always, it is filled with the latest news, ZMAGS, ST ZMAGS, and public domain software. Specials this month include the latest news of the Atari purchase of Federated and news about the new roms. Also expect new

uploads every Sunday with the latest news and rumors, ZMAGS, and more from my BBS hopping. I will leave a message telling about what's available. To be available soon includes two new ST ZMAGS, two or three new ZMAGS, more news about the Federated purchase, conference notes about PC Ditto and the 8 bit emulator and more.... Also coming soon is new BBS software. Steve and I are currently looking at public domain BBS software available so stay tuned for a better board coming soon.....

Disk sales.... Last month, I purchased 100 double sided disks to be sold at the meeting. The members of the club purchased all but 8. Thank you for your support. So we will again be selling this month "the disks that Chuck couldn't break." So for a low price of \$1.10 each, you can purchase a 3.5" double-sided disk. Not a bad price and probably one of the best, if not the best price in town. As always, I will continue this sale of disks as long as the members want it. As soon as interest dries up, we will discontinue selling these disks. Thanks again for your support.

Speaking of disk sales, let's talk about special disk of the month sales for September. First off, we will continue the \$4.00 older than three month disk prices for one more month to give you one more shot at filling in those holes in your disk collection. Secondly, all game disks older than three months will be only \$3.00 this month. I now have a complete list of all of the games from past disks. This list will be posted at the next meeting. So check it out and find some of the best public domain game software around with some of it even better than the commercial software available. Finally, the big one. This is an offer almost too good to be true. The first 150 MAST disks for only \$300.00. Yes, \$300.00. For only \$2.00 a disk, you can own a complete collection of some of the best public domain software around. This offer will only be offered this month unless members are interested and then it will be extended. Some restrictions apply so check out this month's DOM article for more information. As always, buy DOMs.

While we are on club benefits, the MAST library can use your support. MAST will soon be expanding it paper library to include back issues as well as current issues of most of the ST magazines and newsletters available. Before we start buying some of these back issues, I am asking if any of you have magazines and newsletters which you are willing to part with. Any donations mean less money that must be spent to shore up our paper library. Drop off any donations to me or Neal at the meeting. Book donations are also welcome. MAST will also be purchasing some more books for the library so that you can try before you buy or just find out that one piece of information that you are missing to finish that program. As always, thanks for your support.

Finally, what's up for this month's meeting???? Well, in addition to the return of Bob, we will have the latest rumors and news about the world of Atari, a goodly collection of disks of the month, and demos of Gauntlet, Sentry, Pro Football Wizard and more. For the latest news about this month's meeting, check out the MAST BBS the week of the meeting for my daily blow by blow coverage of the September meeting. Also, don't forget this month's MAST Programmer's Meeting. We had a good crowd last month with a good discussion of ST debuggers with Chuck Purcell. This month's meeting will be delayed by one week because of room availability and will be on September 28th at 7:30pm. As well as good discussions of programming the ST, we will have another in Chuck's series of programming tips. The topic of this month's talk by Chuck is still up in the air as Chuck is currently overseas in Europe. But for the latest info, check out the MAST BBS.

Finally, once more. Either this month or next month, we will demo the new multiplayer Midi game Midimaze from Hybrid Arts. The date is currently up in

the air until the game is officially released. Midimaze is a 16 player game where you search out and kill your opponents smily face. After the demo, we will survey the group to see if there is interest in playing Midimaze after each month's MAST meeting, possibly ending up with a tournament. This game has been extremely popular at the Atari fairs across the country and I sure that it would be a hit at MAST. So remember, Midimaze is coming soon....

Oh, I almost forget.... What's in this month's newsletter.... Well, in addition to what you are reading, there is this month's DOM news and this month's ST Xtra talking about the new features and bug fixes for the new roms due out soon. Chuck's Notes and the MAST ST Update will return next month. I am currently involved in different stages of about six different projects for the club so about 99.9% of my time already used up. More ST Stuff next month..

Well, that's about it for September, I hope to see you all at both MAST meetings this month and daily on the MAST BBS. Until the meeting, happy ST programming.

MAST DOM News, by Jim Schulz

It's time to return to the world of MAST for another round of the best public domain software around. But before we look into the crystal ball and see what's in store for this month, let's look at last month's selection of DOMs.....

- #78 - Uniterm 1.7B 032 (The latest and greatest version)
- #124 - Public Domain C (Version 1.2 with bug fixes and more)
- #160 - DLII 0.24 (Norton's Utilities for ST by Uniterm's Simon Poole)
- #164 - August DOM #1 (Utilities)
- #165 - August DOM #2 (Applications)
- #166 - August DOM #3 (Games)
- #167 - August DOM #4 (C Files and OSS Pascal files)
- #168 - August DOM #5 (Communication Programs and GFA files)
- #169 - Disk Cataloging Program (Excellent program with Pascal source)
- #170 - Demo Disk #25 (APL Programming Language)
- #171 - Music Disk #5 (It's A Small World Music and Pictures)
- #172 - Juggler Disk #1 (One Meg Version of Amazing New Demo)
- #173 - Juggler Disk #2 (512K Version and Monochrome Version)

Well, that's last month, all 10 new disks with 3 updates. Last month's disks were full of source for modifying so eat it up. If you would like any more information about these disks or any of the old disks in the MAST library, see me or Frank at the meeting.

Before we look at this month's collection of disks, it's business time. First up, disk specials. This month, we have three specials to get you going. First, for one more month, we will continue the \$4.00 old disk special. This means that any disk older than three months is now only \$4.00. This is a great way to fill in the holes in your collection or get some programs that you forgot about the first time. Second, for this month only, all game disks are only \$3.00. Last month, I didn't get a chance to finish my games disk listing in time for the meeting, but I will have for this month's meeting. Scan through the listing and pick out those games that you missed the first time. Remember this is again for disks older than three months. Just one more way to add some excellent public domain software to your library.

The third special this month is quite large. For the low price of \$300.00, you can have a complete collection of the first 150 disks of MAST. Yes, for the

price of a disk, you can get a disk packed full of public domain software. This is a great way for a new user or even an old user to get started with the ST. Now for the restrictions. First, the package includes the first 150 disks complete with no substitutions. Second, you must be a SPACE/MAST member to take advantage of this offer. Third, payment for this deal must be in advance. Forth, delivery of the set of 150 disks is three to four weeks. It does take some time to do some copying. This special is only for the month of September. If there is interest in this special, it will be continued. If no interest is shown, the offer will expire at the end of the month. If you always wanted to get into public domain ST software, this is the way to do for only \$2.00 a disk.

Doc disks..... I had hoped to announce that this month was the return of the doc disk. But no OSS Pascal has yet arrived. If it does, expect news of a doc disk special on the MAST BBS the week of the meeting. Otherwise, it looks like next month is the best month for the docs. I'm sorry, but OSS just doesn't want to delivery their new version of OSS Pascal so that we can now create one database for all files.

Well, the business is done and it's time to look at this month's collection which looks better each time that I look for more files. So here we go.....

ST Writer 1.75 - Yes, the public domain ST word processing program is out again with yet another update. This update has bug fixes and new enhancements. This is available for the standard \$2.00 update with your original disk.

EMACS 3.9 - Yes, I finally got around to this one. This is it!!!! This is the standard EMACS which is used for all computers. In addition to the program, I have all of the docs, source code, command files, and more. If you are looking for an EMACS editor, then this one is for you. This one is so big that in addition to the EMACS disk, it looks like we will have two source disks and a utility disk. Like I said, this is the standard for all computers and you can now get it for the ST.

World - This is a Zork-like text adventure for the ST. Someone has gone to the trouble of converting a parser and this is it. Check this one out for the adventurer or the non-adventurer at heart.

Wheel of Fortune - Yes, that famous game is back again. But this time it's bigger and better. This time, Wheel of Fortune is on its own disk and includes a number of new enhancements and tons of new game files. New game files will be updated on this disk every couple months. Yes, now the best is even better.

Megaroids - This is old, but still a goodie. Megaroids is the classic Asteroids game converted to the ST. It seems that I get a request for this once a month or once every two months so here it is for all who have missed it. Yes, the classic is back.

Megawatt - What would say about a desk accessory which included a calculator, a command line interface, a drawing program, a control panel, a mouse trap, a multi-buffer text editor and more????? Well, this is what's included in a new demo from the author of 8 bit Emulator. Some of the features aren't enabled, but from the list above this looks like a winner. Check it out.

Format11 - What another format program???? Well, with a difference. This program formats 11 sectors per track instead of the normal 9 or 10. With 11 sectors per track, you get 456K on a single-sided disk and 923K on a double-sided disk. Now you can get more with this new format disk accessory.

Pascal Goodies - How about a program that will format your text, cross reference, line number, find, fix capitalization, and more???? How about a set of routines which include binary search, time and date??? How about a set of routines to speed up READs, WRITEs, WRITELNs from 2 to 15 times faster??? Sounds interesting..... Well, these are some of files and programs on this month's PASCAL selection.

C Goody - Now I wouldn't leave you out.... This month, I have a new .RSC merger program which includes the C source, examples and help files. This includes everything you need to get rid of that nasty .RSC file once and for all. Check for this one in this month's C section.

Videoboink - From the people who brought you ST Juggler, now comes Videoboink. This program is another demo now with rotating bouncing cubes with digitized pictures on each face of the cube. This is a big one and is only for one meg system and I would suspect double-sided drives. Yes, yet another great demo from MAST.

Board - How about a talking terminal program???? That's what it claims.... I haven't checked this one out yet, but don't we all need a terminal program to talk to us and keep us company???? This one will be demoed at the next meeting.

Well, that should give you a good idea of what's in store for you in this month's MAST DOM. Please note that this is just the start of some of the programs available on this month's disks. I have quite a bit more just waiting to get out as well. This looks like a good month for DOMs. For more complete information, please stop by the September MAST meeting or check out the MAST BBS for a blow by blow summary of the disks of the month highlights the week of the meeting.

The MAST library now has over 170 disks through the month of August all prepared and tested by your old reliable disk librarian. MAST disks are on sale at both of the monthly MAST meetings and by mail from me. Each disk sells for \$6.00 and is packed full of public domain programs checked by yours truly. By buying a MAST DOM, you take a lot of risk out of downloading public domain software by being guaranteed that these programs work. Also all programs are documented in a READ.ME in each directory to tell you my experiences with the program and an idea what it does. Where else can you get this much for such a low price. As well as hands on descriptions of each program before you buy.

For those who want to order by mail, send \$6.00 per disk plus \$1.00 for each six disks for postage. I will try to get you your disks in one week or less from receipt. My address is :

3264 Welcome Avenue North
Crystal, MN 55422

As always, if there is something that I don't have in stock at the meeting, I will mail it to you within one week of the meeting with free postage.

Finally, a documentation disk is available listing all of the files from the

first 11 months of MAST disk of the month. This disk is \$2.00 at the meeting. This disk will be updated either this month or next depending on OSS Pascal availability.

Well, I going to call it quits for this month's writing. I hope you all found something worth while in this month selection. Remember to check out the MAST BBS for more complete info on all of the disks. I hope to see you all at the MAST meeting with the best ST public domain software around. See you there.

ST Xtra, with comments by Jim Schulz

ST Xtra is back for another round of ST information. This is the official list of ROM changes and bug fixes for the new set of ROMs which will be available with or without the blitter chip. When the new ROMs will be available is still up in the air, but with the new MEGAs due at the end of September, the ROMs shouldn't be far behind.

TOS ROMS -- BLITTER VERSION

The 1987 revision of TOS is scheduled for release in conjunction with the new "blitter" chip. The new TOS has been upgraded to include support for the hardware blit as well as retaining the software blit functions for full compatibility with older software which relies on hardware timing (a definite no-no).

Changes in the new ROMs are:

RS232: The RS232 handler has been completely rewritten. RTS/CTS handshaking now works. Baud rates 50 and 75 now work.

CLOCK: Support is now included for the Mega ST's built-in, battery-backer-up realtime clock. The realtime clock is automatically used by the XBIOS gettime and settime functions for the IKB0. The GEMDOS clock is reset from the realtime clock at the termination of every program.

STARTUP: Memory clear at system startup is much faster, improving performance on multi-megabyte systems.

DESKTOP: The desktop now includes a control for deactivating/activating the blitter chip. Also, the Save Desktop and Print Screen selections will request confirmation. Spurious characters are no longer written to the DESKTOP.INF file. Doing a PRINT or SHOW from the desktop will now display characters with ASCII codes above 127. SHOW and PRINT use a larger buffer now. Single drive copies now require fewer disk swaps.

CART: Cartridge handling has been revised, eliminating the need for "CARTSTART" code and allowing .TOS and .TTP programs. Lower case letters will now be accepted and passed to an application from the "Open Application ... Parameter" box.

AES: The AES will now send repeat clicks if the mouse button is held down on the arrow or page controls of a window, which lets a window smooth scroll. The AES underscore bug is now fixed.

APPL_TPLAY and APPL_TRECORD now work. The limit of 30 characters on a line in an alert box is now rigidly enforced.

MOUSE: The mouse redraw can now be set to XOR mode. The system will return after a single click if this is what was requested.

DMA: The DMA bus can now have more than one device attached at powerup time, without any special software.

FLOPPY: The floppy read/write code checks for more errors now. In prior versions, the system would not report a CRC error under certain circumstances; now it will. This hurts some copy protection schemes. The format of the floppy disk has been skewed from track to track to improve disk speed; the XBIOS supports this by using - 1 for the skew value and placing a pointer to a one word per sector skew table in the previously unused longword.

VDI: The VDI will now draw arcs with small angles.

BIOS: Character out routines are much faster.

BLITTER: Automatic blitter chip support is included in line-A and VDI calls. The extended inquire will report a larger performance factor than before, allowing applications to check for the presence of the blitter. A new XBIOS call has been added to check for the blitter and to activate or deactivate it. The blit is not reentrant -- line-A and VDI should not be called from within an interrupt.

REGISTER: The registers D0, D1, D2, A0, A1, A2 have always been forfeit when a trap call was made. Now the demise of these occurs under more conditions than before.

MEMORY: Slightly more RAM is used by the system. Programs that were close to the edge on a 520ST may no longer fit.

VARIABLE: Most undocumented system variables have been moved. You were warned!

NOTES AND WARNINGS:

1. Some programs depend on the OS always being at \$FC0000. This is *not* cast in stone and will probably change soon. To find the OS header, use the pointer "sysbase" as documented.
2. The 4 megabyte ST puts the screen near the end of accessible RAM. Sloppy programs that have been writing past the end of the screen will give bus errors if they do so on the 4 meg ST.

RIBBON RE-INKING - Larry Vanden Plas - 636-2415

The club can re-ink most printer ribbons (black) for a small fee. There is no longer a reason to use a faded ribbon! Ribbons that can be re-inked are:

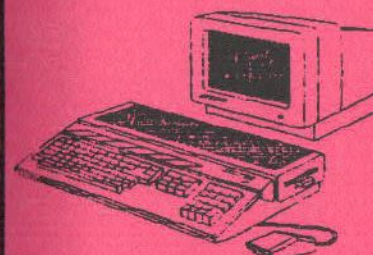
- \$1.00/ribbon
- Spool to spool (all types)

- Epson MX-80 and compatibles
- Epson LX-80 and compatibles
- C. Itoh Prowriter and compatibles (NEC 8023A/C)
- Citizen 120 D

\$2.00/ribbon

- Epson MX-100 and compatibles

Other ribbons can be attempted, too. But if you prefer, you can buy an adapter (\$8.50 + \$3.50 shipping and handling) for the club and receive half that amount in credit towards re-inkings. See Larry Vanden Plas at the SPACE meeting, or Bob Floyd or Bruce Haug at the MAST meeting. Also, ribbons can be dropped off with Larry at his place of work at the Roseville Professional Center at Hamline Avenue and Highway 36 (fifth floor - make a right turn out of the elevator & then another right to the end of the hall, then drop the ribbon through Larry's mail slot). Or, you can drop ribbons off with Larry at his home - 850 Emerald Avenue, New Brighton, MN, 55112, phone 636-2415. Please pay in advance and be sure to have your ribbon(s) in a plastic bag.



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