Saint Paul ATARI Computer Enthusiasts

SPACE

An independent computer user group

MAST Minnesota Atari ST

From the editor

December is getting cold. Time to set up the computer in a nice warm room and settle down for some serious game playing during those winter evenings. You'll also have some time to write up a review of those games too, eh?

Congratulations to the new SPACE officers, Greg Howell and Nathan Block, and the new MAST officers, Jim Schulz, David Paschall-Zimbel, and the SPACE/MAST Treasurer, Allan Frink. The masthead will be changed next month to reflect new phone numbers once we get them!

This month, the first of several lessons on MIDI, written by Morris G. Miller. There's a review of the Video Key, and the regular columns dealing with DOMs.

-- David Paschall-Zimbel

Treasurer's report
by Allan Frink

During November 1989

SPACE welcomes new members of:
  Joseph M. Bester
  Warren Seeker
  Linda Strzyzewski

SPACE welcomes renewed members of:
  Glen Kirschenmann
  Richard Mier

MAST welcomes new members of:
  Esmaeil Torabpour   James S. Newcomb
  Tom Schwab   Steven Pauley
  Richard A. Franzen
  Phil Kadidlo

MAST welcomes renewed members of:

Bank balances as of 30 Nov. 89
  SPACE: $210.17 up by $95.17 since 5 Nov. 89
  MAST: $285.75 up by $95.75 since 5 Nov. 89

Membership counts are:
  SPACE: 37 (about 1/3 of the group)
  MAST: 83 (about 2/3 of the group)
  Both: 9

News from the Pres
By Jim Schulz

Christmas time is just about upon us and a new year is just around the corner. To all, from the officers of MAST, Happy Holidays and a Happy New Year. First, an editorial, then the past, the present, and the future, followed by some closing miscellaneous comments as well.

It seems over the last month that the "in" thing to do is to blast Atari for their nonsupport, late delivery of products, and other miscellaneous problems. Those who have been around Atari know that everything is not always right. There are problems. I have been criticized for being too negative toward Atari myself. I have been told that members have quit because of my own negative comments.

First, there is criticism, and then there is bashing. As members of a user group, you do need to know what is going on. But you don't need to be constantly reminded that Atari still hasn't done this or that. Recently, some of the original ST owners and some of the best known developers have gotten disgusted and have taken off after Atari on many of the BBSs. So much so that they have been flamed with 'enough is enough'. Things aren't rosy at Atari, but things aren't rosy at Amiga either. There are some bright lights at the end of the long tunnel.

I am happy with my purchase of the ST and have been using it since it came out. Your own personal satisfaction with the ST is all that really counts. If I am too critical at times, I am sorry. I try my best to offset the good news with the bad. Look at both sides of the story before you start bashing Atari and the ST. It is important that problems with Atari be brought before the public, but once the problems are aired let's move on. We have a good computer and need to promote it to others as well. Nothing is gained by burying it in the ground. Time to get off the soapbox.....

Last month, lots of stuff went on at the meeting, as we had another good crowd. First off, elections were held and your trusty three musketeers were reelected for another year. Your officers for the next year are Jim Schulz (me) for president, Dave Paschall-Zimbel for vice president, and Allan Frink for treasurer of SPACE/MAST. We all thank you for your votes of confidence. I would also like to thank Dan Comfort for acting as the nomination committee, as per the constitution. Another word of thanks is in order for Dave, Mr. VP, as well for continuing on as newsletter editor for another year. Thanks, Dave for the good work. In addition, Bruce Larson gave a demo of the Migraph scanner. I have gotten a number of good comments on Bruce's good demo. Thank you Bruce. Also, Bruce, your newsletter was returned to the PO box with no stamp. Finally, we had another in our series of swap meets.

This one was a little strange. People had stuff this month, but waited until the very end of the meeting to start swapping. We will give you more notice before the March swap meet is held. So that was about it last month.... Oh, yes, all officers were in attendance this month.

Let's see.... what's in store for December? First off, we will have our annual Christmas MIDIMaze tournament to see who is the best at killing off the smiley happy face. Bring your computer and joystick, or just your joystick, or just yourself to see this classic ST game in action. But playing games is not all that is in store this month.....

Also this month, we have the triple-barrelled Christmas present from MAST to you our members..... First, we will be dropping all MAST DOM prices to just $4.00 for the next two MAST meetings. Everything new and old is just $4.00. Second, if you buy a disk, we will give you a special present, one per member, while supplies last. Finally, for those who would like to try MIDImaze at home, we will be raffling off a copy as well. Yes, this is just one more way to say thanks to you the members for supporting MAST through the year. We will have more Atari news and rumors, DOMs, questions and of course answers and some demos as well. So it should be a good meeting for all.

Coming in the months ahead...... January is still up for grabs. I am still waiting on the PC Ditto II as well as some of my utilities. More about next month at the meeting and next month here. February is our annual MAST birthday party to celebrate another year of MAST. This is the one meeting of the year not to miss!!!! More is being scheduled for the months ahead so stay tuned for updates.....

Now it's that time for more miscellaneous news..... I have asked for volunteers and you have come through. The week before the meeting, I got a call from Nick Smith, who volunteered to review Video Key for the newsletter. He took a bus to the meeting to pick it and mailed me the review and the Video Key back two weeks later. And Nick is not even a MAST member. He just wanted to help. Nick's review is found elsewhere in this issue. Because of Nick's review, we will be soon getting the Practical Solutions Cordless Mouse to demo and show off in the months to come. Thanks, Nick for your help!!!!

Speaking of volunteers, I have been asking for months for help to get ads from Computer Fitness and Water Music. One member has been working with both stores to get ads for our newsletter. Well, this month the fruits of his labor are showing. The first Computer Fitness ad is elsewhere in this issue. Please stop by Computer Fitness, Wizard's Works, and Water Music and mention MAST and that you liked their ad or would like to see them advertise. It's your support of them and their support of us that keeps MAST going in the Twin Cities area.

Finally, thanks to all of the people who volunteered to help with a possible local Atari show as well. Please remember, MAST works best when we all work together. Thanks again for your support.

More stuff..... Please check the back of your newsletter for your renewal date. Most of our members have their memberships due between December and March. Your membership dues pay for this newsletter and keep the group going. Pay your dues when they are due or beat the rush and pay early...... Time for our monthly AIM and Z*Net update.... AIM has reappeared again after disappearing for a new months. Z*Net has also reappeared as well. I will be sending both US Mail and Email to both groups in the next few days to see if things can be worked out. Z*Net owes us between $40.00 and $60.00. MAST would like to see this money before we continue publishing the Z*Net supplement.

Offers and deals.... First off, we get a letter from MaxWell C.P.U. offering members a 25% discount on their GoGo->ST and their MegSTender products. I have the ads for their products and their discount forms which will be available at the meeting. Second, I also got a rather different offer as well from Soft-Logik. They are offering MAST two free copies of PageStream V1.8 and a demo copy of V1.8 all for a mention in our newsletter and a subscription to our newsletter. The request is already in the mail. Maybe a demo of PageStream V1.8 or a review will be possible in the months to come as well.

Also..... we need a volunteer to act as secretary at the meeting. I would much rather let someone else give their view of the meeting than the view from the desk. If you are willing to take notes at the meeting and write them up each month for the newsletter, please see Dave or me at the next meeting.

Finally.... I hope, don't forget the Sony double-sided disks for $0.80 each. We went through another 300 at the meeting and more are on the way. Keep buying blank disks. Also MAST has two single-sided disks for sale for $50.00 each. This is a great way to get a second drive!!!! If you are interested, see Allan at the next MAST meeting. Don't forget the MAST BBS, run superbly by Tom Cook. Give it a call at 472-6582.

Well, that's it for December. The envelope is lost someplace in the dungeons of Bard's Tale this month, hoping to make it out in time for the next newsletter. So until next month, have a happy holiday season and a Happy New Year. I hope to see you all at the November MAST meeting and at the MAST+ programmer's meeting the following Tuesday.

Newsletter articles for January are due by January 2!

Computer Fitness Warehouse

New Titles

Pipe dreams
Skrull
Portfolio
Master 3.5" DSDD
    Drives (A or B)
Time Runner
Universe 3
Stunt Car Racer
Red Storm Rising
Strider
Batman the Movie
Falcon Mission Disk
(Counterstrike)
RVF Honda
Paperboy
Fiendish Freddy
Bloodwych
Pagestream 1.8
DVT VCD Backup
GFA 3.07
(includes Compiler)
Rocket Ranger
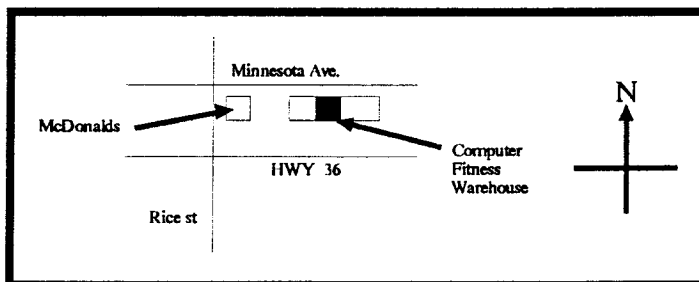ACTION ST Vol II
(5 Game Pak)

Megafile 30
$450.00
While supplies last!

JΛ ATARI®

Portfolio™

They're
Here!

Now in
Stock!

$379.00

Minnesota Ave.

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Fitness
Warehouse

HWY 36

Rice st

N

Computer Fitness Warehouse
80 Minnesota Ave.
Little Canada, MN 55117
(612) 482-9891

Hours:
M-F 11am - 7pm
Sat 11am - 4pm
Sun Closed

SPACE 8 BIT SOFTWARE LIBRARY NEWS
November, 1989
by Joe Danko, Disk Librarian

Many of you will most likely be reading this in December as I completely missed the November deadline due to a week's vacation out of town. For some reason the software presented this month became quite complex to get together and I must admit that new 8-bit public domain software is getting real scarce. What I am seeing is a lot of offerings from 1981-1984 reappearing. Some of it was once sold in stores but has been placed in the public domain by the author. A librarian or sysop must be very careful these days.

I have recently received an extraordinary request of the SPACE Library. A certain individual called me and requested a rental or purchase of a copy of the complete software LIBRARY. I am now puzzling over how much I would charge for this service. Also, it is a lot of disk copying. I would like to hear from anyone else that is thinking about acquiring the entire library so I can get some ideas about how to package it.

And now on to the Disk Library offerings for November.

November Disk of the Month:

SIDE ONE:

* DOS	SYS	037
* DUP	SYS	042
* >SPACE_DOM<		001
* >11_89___1<		001
* AUTORUN	SYS	001
* MENU		035
AUTOMATE	BAS	018
FIXUP	COM	104
CTOKENS	BAS	005
PLAYMISL	BAS	059
RTCLOCK	BAS	008
TOKENS	BAS	006
POLYCOPY	BAS	030
KEYMASTE	DOC	041
KEYMASTE	COM	055
LQUEST	BAS	064
3DTTT	COM	037
MRBILLEP	BAS	042
MRBILLSR	BAS	044
MRBILL2	ARS	001
MRREADME	BAS	016
HELP	DOC	

AUTOMATE.BAS
BASIC program for DOS 2.0/2.5 systems. Allows the construction of a list of commands to BASIC and/or DOS and builds them into an AUTORUN.SYS file. At boot time the AUTORUN.SYS file is always executed first so this program enables the user to do things like automatically RUN a BASIC program, copy files into a RAMDISK, etc.

FIXUP.COM
Machine language program that runs without BASIC. Reformats text files.

CTOKENS.BAS
BASIC program that displays the TOKENS in an ATARI BASIC program. When ATARI BASIC is SAVED all the statements are compressed into one byte TOKENS. This program will translate them back to statements.

TOKENS.BAS
BASIC program that displays a conversion table of ATARI BASIC TOKENS.

PLAYMISL.BAS
ATARI BASIC utility to assist in the construction of PLAYERS and MISSLES for your programs.

RTCLOCK.BAS
ATARI BASIC program that installs an elapsed time clock in the upper right corner of the screen.

POLYCOPY.BAS
ATARI BASIC file copy utility that allows the user to create a list of files to copy and copies them as many times as required.

KEYMASTER.COM
KEYMASTER.DOC
Machine Language and DOC file. A sophisticated utility to install MACRO keys on your ATARI. Certain key combinations output a string of characters when pressed, usually often used phrases such as RUN"D: . Keys can be programmed by the user.

LQUEST.BAS
BASIC game that is a version of the WHEEL OF FORTUNE phrase guessing games. This one goes very fast.

TTT3D.COM
Machine Language 3-dimension Tic-Tac-Toe that needs a joystick.

MRBILLEP.BAS
MRBILLSR.BAS
MRBILL2.ARS
MRREADME.BAS
BASIC program to print invoices for your small business. To RUN it, RUN"D:MRREAD.BAS first or put all the files on a seperate disk and rename MRBILL2.ARS as AUTORUN.SYS and boot with BASIC installed.

SIDE TWO:

* DOS	SYS	037
* DUP	SYS	042
* >SPACE_DOM<		001
* >11_89___2<		001
AUTORUN	BAS	001
TURBOBAS	BAS	145
DOG	1	015
DOG3	DLI	001
WHOLE1	DOG	024
DOG	3	152
TRACK	1	033
TRACK	2	015
TRACK		016
READ	ME	004
AUTORUN	SYS	001
ILBMRD20	OBJ	062
ILBMRD20	DOC	064
RGBTABL8	OBJ	033
060 FREE SECTORS		

AUTORUN.BAS
AUTORUN.SYS
DOG.1
DOG3.DLI
WHOLE1.DOG
DOG.3
TRACK.1
TRACK.2
TRACK.3
READ.ME
TURBOBAS.COM
BASIC dog racing game system. If you boot this side with BASIC you will automatically start the game. Make sure you read the READ.ME file. The game runs through an extended setup sequence and is quite complex to play. The races run quite slowly. I attempted to run it with TURBOBASIC which makes it a lot quicker but the joystick timing is difficult to use. I have included TURBOBASIC on the disk for XL/XE users. Boot without BASIC and LOAD TURBOBAS.COM and the game will run automatically.

SPECIAL DISK LIBRARY OFFERINGS:

BOWLING 2.02 by Ken Modeen
TURBOBASIC bowling secretary database. Ken is a SPACE member and has released this program to us. I have not had a chance to use it extensively but he has been using for himself for quite a while and keeps it updated. This version requires the use of a 130XE or memory-expanded 800XL. As with any database program, READ THE DOCS.

APGEN
BASIC CAI system for preparation to take the FAA test to qualify for aircraft maintenance certification. CAI means Computer Aided Instruction. The program content is very interesting because it covers a large body of knowledge and refers to sources for correct answers. Boot with BASIC to get it running.

DRAPER PASCAL
A complete PASCAL programming system. PASCAL is probably responsible for the origin of structured programming. This version is SHAREWARE and the author will send you a large printed manual and software updates if you send him $15 although this version is completely usable to edit, compile and execute programs.

ANALOG #78
Unless members decide otherwise this will be the last of ANALOG for SPACE. ANALOG disk sales have not been sufficient to support the $79

price of a disk/magazine subscription and the cost of production. [ed. Note that Analog and ST Log are no longer published, so there will be no more issues]

SPACE 8 BIT SOFTWARE LIBRARY NEWS
December, 1989
by Joe Danko, Disk Librarian

Another year is nearly gone and we are quickly entering the Christmas season. I hope everyone is as thankful as I am for the gifts we have all been given throughout the year and that we all can experience the true joy of the real meaning of Christmas.

The SPACE Library has a few Christmas goodies in its inventory. The December, 1987 DOM has a very good action game featuring Santa Claus and there is an Advanced Music System disk of Christmas music with a player program.

For December we have a DOM with some very interesting software, a special disk called TEACHERS TOOLBOX, the December ANALOG disk and the SPACE LIBRARY INDEX disk.

December Disk-Of-the-Month

DOS	SYS	037
>SPACE_DOM<		001
>12_89___1<		001
AUTORUN	SYS	001
MENU		035
CRNEBULA	OBJ	032
CRNEBULA	DOC	043
PHONELIS	BAS	060
FORCE40	DOC	010
FORCE41	BIN	111
FORCE42	BIN	132
MAILPRO	TBS	100
MPUTIL	TBS	047
README	TXT	087

CRNEBULA.OBJ
CRNEBULA.DOC
CRAB NEBULA is a fairly unique shooting game that uses a joystick and runs without BASIC. It is a combination of SPACE INVADERS, FROGGER and BREAKOUT.

FORCE40.DOC
FORCE41.BIN
FORCE42.BIN
FORCE40 is SHAREWARE and comes with no instructions. It is a war simulation at the individual level. Your patrol selects weapons and munitions and ventures out amongst the enemy. It is somewhat complex and if you like it you may want to send the author his $20 to find out how to play it properly.

PHONELIS.BAS
PHONELIST is a telephone number database

system written in BASIC. It stores, sorts, displays and prints.

MAILPRO TBS 100
MPUTIL TBS 047
README TXT 087
MAILPRO.TBS is a mailing list program written in TURBOBASIC. As such, it will run on XL/XE systems ONLY. For your convenience the TURBOBASIC interpreter is on SIDE 2, TURBASIC.COM. Boot SIDE 2 without BASIC and Load TURBASIC.COM. At the READY prompt turn the disk over and RUN"D:MAILPRO.TBS". MPUTIL.TBS is a utility program.

December DOM side 2.

DOS	SYS	037
DUP	SYS	042
>SPACE_DOM<		001
>12_89___2<		001
AUTORUN	SYS	001
MENU		035
CONFIG	NEW	044
INTRO	NEW	094
ORIGINAL	CNF	002
PRINT	NEW	064
PRINTER	DRV	004
READ	ME	024
READ	TOO	003
SPARTA	NEW	030
TP40X	COM	129
TEXTPRO	FNT	009
TEXTPRO	CNF	002
TEXTPRO	DIR	004
TURBASIC	COM	145

TP40X.COM
TEXTPRO version 4.0x is the latest veRI 8-bit and the author has added many features and enhancements. The main reason for version 4.0x is support for SPARTADOS X. If you need complete documentation for TEXTPRO the library has a disk formatted to print a complete manual. The library also has a set of disks with the other three versions and numerous support files.

TURBASIC.COM
TURBOBASIC interpreter is on this side due to space constraints and is only for the convenience of those running the MAILPRO mailing list program on SIDE 1.

ANALOG #79 Disk-Of-the Month is the last disk in our subscription which expired with the December issue. There will be no more unless the membership decides otherwise.
[ed. Note that Analog and ST Log are no longer published, so there will be no more issues]

TEACHERS TOOLBOX is a special disk with a very nice database program designed to help teachers keep track of grades and student progress. It can also mailmerge to help generate notes to parents and students.

SPACE LIBRARY INDEX disk has a BASIC database program that is designed to keep

track of disks and disk directories. You could use it for your own libraries. In this application it comes with several data files that index the SPACE DISK LIBRARY. All of the DOM's are in files named PROGINDX.Mxx where xx = the last 2 digits of a the last year in the index. The special disk index filenames are PROGINDEX.Xxx where xx is an arbitrary number. Also on the INDEX disk are several text files of the LIBRARY contents if you don't want to run the database program. When RUNing the DISKLIB3 index program: when the menu screen first comes up you have to enter the date or nothing will happen. Then just follow the menu. If you run DISKLIB3 with SPARTADOS you may find that the program stalls while reading data files from disk. Hit BREAK to get going again. There is something in the program that SPARTADOS doesn't like but it is not fatal.

MAST Disks of the Month
By Jim Schulz

Well, it's DOM time again. This month, I will start with a rundown of last month's disks and then what is in store for this month. The past couple weeks have been rather hectic at work as we are doing our once a year software release to over one hundred customers worldwide. The descriptions of software for this month's disks are not as complete as I would like, but time has not permitted me a complete review of this month's selection.

So here we go into last month..... Last month's selection included seven new disks and two magazine disks.

#1 - ST Report magazine issues for November
#2 - ST ZMAG and ST Plug issues for November
#429 - November DOM #1 (Utilities)
#430 - November DOM #2 (Applications)
#431 - November DOM #3 (Games)
#432 - November DOM #4 (Music and a Paint Program
#433 - Demo Disk #38 (Playable Demos of Blood Money and Xenon II)
#434 - The Snowman Demo (Animated Music and Graphical Demo)
#435 - ANALOG Disk #36 (Magazine programs from the November ANALOG)

This month's selection included a number of good programs. The utilities and applications disks sold quite well, as well as the demo disk and the Snowman demo. If you really want something special for the holiday season, get the Snowman demo!!! There are very few demos this good for the ST. This one is very special!!!!

This month, there are a number of specials going on in the DOM world. First off, all DOMs at both meetings are only $4.00 each. This includes current and past disks. Second, we will be selling all four of the volume 4 in the ST News series at the meeting. These are the excellent

disk magazines from Europe. Dave uploaded one of these to the GENIE BBS and it became one of the most downloaded files even with its over 300K compressed size. They have been available via mail order and they are now available at the meeting as well. The price.... $2.00 each. More of the back issues will be coming in the months to come. Finally, there will be another update to the MAST DOC disk for $2.00 for 2 disks or $1.00 for either disk in the set.

Now onto this month's disk selection..... First off, a special offer. Chuck Purcell has been working on converting some of the public domain GNU source code to the ST. He is now complete. His conversion includes the GNU utilities for dump, debug, nm, ar, as, the C compiler, emacs, and tar among others. This package includes 8 ARCed disks of utilities totaling more than 3 megabytes and 9 ARCed disks of source code as well. These disks will be made available for $16.00 for the utilities and $18.00 for the source code. These are on a preorder basis. Give me a call and I will make you up a set. This is from the latest source, just two to three weeks old, and are not available anywhere else. If you want a good set of utilities, and have a hard drive, this is a good place to start. These will not be added to the MAST disk collection.

Next, this month we will catch up on the updates which didn't make it into last month's DOM collection. These updates include a new version and the last version of ST Writer, now updated to even run on the new TT. This version, just updated two weeks ago, includes a number of new features and enhancements to make it fully compatible with TOS 1.4. I will have a complete list of fixes and features at the meeting. Also, we have probably the last update to Uniterm as well. This version fixes a number of problems with Kermit and Ymodem batch as well as adding a few features as well. Get a copy of the premier public domain communications program. Next, we have Sheet 3.0. It was also wise to wait on this one as more fixes have been added over the last month as well. This program is a Basic language interpreter, a data base, and a graphing program as well. Next, we have another update to BSTAT. This is the second update in the last two months. I haven't had a chance to check it out so I don't know what is new. Finally, we have an update to Aegis Animator or now Ani-ST, strange name, now with documentation as well. And we also have the latest version of Nethack with a special monochrome font as well. Remember, all updates are $1.00 with the original disk this month only.

New stuff for this month includes a new version of the LHARC program, a better ARC program which is now compatible with the IBM version as well, a demo of the new Codehead utility, Maxidesk, their desktop replacement program, a number of new C language extensions for graphics as well as the new TOS 1.4 calls. Also I have a number of new fully running and

operational demos of games similar to last month's Xenon II and Blood Money. There is quite a bit more as well, but as I said earlier, I just haven't had time to give it a good look. Also we will have a collection of Christmas music and demos from past disks of the month as well. Also the last ANALOG disk of the month will be published and the ST Report and STZMAG magazine disk as well.

If you can't make the meeting and would still like to get hold of the DOM or would like to get hold of the DOC disk, my new address is
5900 65th Avenue North #204
Brooklyn Park, MN 55429

That's it for December. Please remember that this is just the start of some of great programs for this month. Come to the December meeting and get some great bargains on DOM prices this month. Happy holidays and I hope to see you all at the meeting.

VIDEO KEY
Reviewed by Nick Smith

The following is a review by Nick Smith. Please note that MAST received Video Key for a one-time membership fee of $25.00 as a part of Practical Solution's User Group offer. I would like to thank Nick for his review and his help in reviewing Video Key. Now back to Nick..... Jim

As part of MAST's participation in Practical Solution's User Group offer, I spent some time using Video key, their RGB to color composite video converter. Video key allows ST owners an economical option to use a composite monitor or TV with any ST model and obtain better quality low-resolution color video output than STFM models can provide.

The Video key module is a small (approx. 4 x 5 x 2 inch) box with an integral RGB cable to accept the ST's video input and a host of output jacks which support the following: a pass-through monitor port so that you may have Atari's color or monochrome monitor connected, an RF output jack for use with a TV on either channel 2 or 3, and separate RCA jacks for composite color video and audio output. The unit is powered by a small plug-in transformer. Special circuitry detects when the ST is in color mode and powers up automatically. You will need to provide your own RCA cable(s) to complete the hookup which takes only a minute or two. The user guide provides clear, illustrated instructions to make installation a snap. Once your system is powered up, a small dual-purpose LED atop the Video Key unit indicates when the unit is in operation. Its second function assists the user in adjusting the Colorlock feature which enables the user to synchronize the unit to the ST and provide a sharp, stable image. This adjustment

is easily accomplished with a small screwdriver by turning a trimmer located on the underside of the unit until the LED glows as bright and steady as possible.

I tested Video Key on my RF equipped 520ST using both a 13" color television and a Magnovox 8502 color composite monitor. With both output devices, Video Key produced a brighter, clearer, and more colorful low-resolution image than I've ever been able to obtain using the ST's built-in circuitry. When using a custom made composite video cable, it's been necessary to turn the color control to maximum setting to obtain good color saturation on my composite monitor and it still lacks the richness that Video Key delivers. Games and graphic programs take on new depth with this device. Video Key has been optimized to run in low resolution where it excels at this task. While quite usable in medium resolution, users will need to turn down their color control to reduce bleeding of reds and blues which seem to occur in this mode.

Graphic artists and animators in particular using ST's not equipped with RF output now have a truly better way to get their creations on videotape using Video Key. Parts of the user guide are devoted to these users and offer suggestions to assist in obtaining the best possible results when recording. Since Video Key provides a pass-through RGB jack, it is possible to simultaneously view what is being recorded onto videotape with their SC1224 monitor. Likewise, composite monitor or TV users can use an RCA Y-adapter to accomplish the same thing.

Video Key offers superior performance for the low-resolution market niche the product addresses. Especially for those who may already own a composite monitor from a previous computer system, this device provides a cost-effective way to move up to an ST and avoid being trapped into purchasing Atari's own proprietary RGB monitor. Users who plan to do most of their computing in medium resolution are best advised to 'try before you buy' at your local dealer to see if Video Key meets your expectations.

Video Key is available from:

Practical Solutions
1135 North Jones Boulevard
Tucson, Arizona 85716
Telephone (602) 322-6100

Warranty: 90 days

List Price: $99.95
Street Price: $65-$80

Your newsletter article could go here! Contact David Paschall-Zimbel for information.

Mini MIDI lessons
by Morris G. Miller
part 1 of a series

INTRODUCTION

Almost everyone has a natural curiosity about MIDI, whether or not there are serious intentions of using it. In this series of mini lessons on MIDI, I will attempt to answer some of the more common questions about it. We will discuss -

What is MIDI ?
What do I need for MIDI ?
Do I need to know music to use MIDI ?
What is a sequencer ?
What are the differences in keyboards ?
What does MIDI cost ?
Why should I do MIDI ?

It is almost impossible to discuss music or MIDI without using some of the technical terms of the trade. In this series of studies we will try to say everything in such a way that anyone can understand it. A glossary will be presented to help with the words which may remain in doubt.

Morris G. Miller

WHAT IS MIDI ?

MIDI is an acronym for "Musical Instrument Digital Interface". It is a defined means for interconnecting musical instruments and other related equipment for the reproduction of music. It now includes your computer and the programs for MIDI, keyboards, synthesizers and samplers, sequencers, recorders, editors, librarians, scorers, and a host of other equipment and functions.

MIDI is the electrical and physical specifications for these interconnections. It forms the "standards".

The MIDI standards define the hardware connections and wiring to connect and send signals between the instruments, such that one can control or inform the other of musical events. The send wire of one connects to the receive of the other, and visa-versa. Signals are sent in serial, much like the serial printer or modem connection on your computer; one wire to send, one wire to receive. On some computers the MIDI interface plugs into the serial modem port of the computer. On others the MIDI port is built in as a separate interface.

The serial pulses sent between instruments are organized into 8-bit codes. The MIDI standard defines the meanings of these codes so that all instruments speak the same code language. Not all the instruments respond to all the codes defined, but those that respond to any one code all respond in the same manner.

Electronically, MIDI also defines the current and voltage limits of the pulses and the bit rate for the pulses. In this there are now two standards, but any instrument designed for the faster standard, will respond properly to the original, slower, standard unless it specifically so states. Not to worry. For what you and I are doing, either of these are sufficient.

The MIDI connections on your instruments are a 5-pin DIN. There are three kinds:

• MIDI IN - the instrument can receive MIDI code.
• MIDI OUT - the instrument can send MIDI code.
• MIDI THRU - the instrument can repeat to the next instrument what was received on MIDI IN.

Not all instruments will have all three ports. This is a clue to how that instrument can fit into the MIDI hookup.

The full definitions for MIDI codes are available from many sources and will not be repeated here. Codes are defined for turning each note on and off, the note attack (how hard the key is struck), touch pressure (how hard the key is held down), release (how quickly the key is released), patch changes (selecting the voice to play), pedal control (sustain, soft, etc.), glissando and portamento (glide between notes), modulation (vibrato or tremolo), and others.

Codes are also defined for the individual manufacturers, called exclusive codes. This allows each manufacturer to have special codes for the control of functions on a keyboard that is different from all other keyboards. It is this "feature" that will prompt you to make some decisions about the type of keyboard to use and the programs to buy before sinking a lot of money into it. The two must work together.

Note that MIDI does NOT SEND THE SOUND of the notes played. MIDI sends signals to indicate what the PERFORMER DID. MIDI sends codes to indicate which key(s) was pressed, when it was pressed, when it was released, which control was operated and how much it was operated. When played back from the computer the keys are pressed again exactly the same as before, and the same controls are operated again exactly the same way. Reminiscent of a player piano, no ? Only it doesn't have to be a piano. It might be two horns and a banjo. That's neeeet !

WHAT DO I NEED FOR MIDI ?

Coming from a computer user this question relates to "what do I need to add in order to use MIDI?" Selecting your computer is another subject, but there are MIDI connections for almost every computer now made. As a matter of fact, many MIDI instruments can be used without a "computer" and have their own computer functions built into them. Many keyboards can record and play back the songs played on them.

For your computer to send a song to the keyboard you will need a sequencer or player program. There are some simple player programs and a few decent sequencers and editors available in the public domain. Commercially available programs are much better, but you pay for what you get. Another lesson will go into more detail about sequencers and editors. Basically, the sequencer will allow you to record a song as you play it, edit mistakes and make musical performance changes, select the voices, and play the song back to the synthesizer.

Some computers have plug in card slots. MIDI interface cards are available for MAC, IBM-PC, Apple, and others. Synthesizer cards are available for MAC and IBM-PC. If your computer does not have a MIDI interface built in, Apple makes a simple interface to plug into a serial port, but programs to drive it may be a problem.

Synthesizers can be purchased without keyboards. All keyboards have synthesizers in them. It is the keyboard which sends the performance signals to the computer for recording. When played back from the computer it is the synthesizer which makes the voice sounds you hear. You can play any song to a synthesizer whether it has a keyboard or not. Therefore there are two factors involved:

(a) If you know you will seldom be entering notes or playing the keyboard, buy a keyboard looking for the best synthesizer. You'll save enough money on the cheaper keyboard to buy another synthesizer without a keyboard.

(b) Otherwise buy the best keyboard you can, with less regard to the quality of synthesizer it contains. Get a better synthesizer as a separate item.

You will need an amplifier and speaker system. Any good home music system will be great. Add to it an audio mixer for combining the sound output of two to four separate synthesizers and microphone inputs. Radio Shack has a reasonably good one at a modest price. If your music system has a cassette recorder in it then all the better. Record your performances and take it with you. You don't have to buy everything at once. When an item is to become permanent to the system, then buy the best you think you can afford

DO I NEED TO KNOW MUSIC TO USE MIDI ?

Yes. And no.

There's nothing like a definitive answer, but the proper answer depends on what you want to do with your MIDI system. It requires no

knowledge of music to play prerecorded songs. You can change the voices, tempo, attack (volume) and many other co ponents of musical character and style having no knowledge of music. You can have someone else play a song while you record it and have no knowledge of music. You can even do a lot of editing to a song with no knowledge of music.

But, it does help.

If you have no knowledge of music, you will be pleasantly surprised how quickly you can learn what you need to know of the rudiments of music once you start entering a new song into the editor. Keep in mind that it is not necessary to "play" a song to enter it into the editor. There are at least a half dozen different ways to get music into the sequencer. Some easier than others, but others more suitable to the circumstances than some !

We are not talking about "composing" music or knowing all about chords and patterns. It will be necessary to learn the relative tonal positions of lines and spaces on the musical staffs. It will be necessary to learn what note shape has to do with time and duration. It will be necessary to recognize the markings in the time and key signature of a score. All this should take about an hour of talking to your daughter, who has been taking those expensive piano lessons, and the next three days to enter your first two simple songs.

After that it's all down hill.

Prerecorded songs can give hours (literally) of great pleasure by the nominal process of examining them in the edit buffer of the sequencer and finding for yourself what the affects are.

Have that daughter play the song while you record it mistakes matter not. Play with the editor until all notes are like the score. This will quickly let you see for yourself how the notes correspond to position on the staff, how shape relates to duration, and how the signature affects the individual note pitch, and how quickly 10pm can arrive. Assign voices, adjust tempo, set the MIDI channel, set up the synth patches and presto ! New song.

Yes, you will need to know some "music". You do not need to know music theory. What you need to know at a minimum, you can learn very quickly by doing. Just don't burst out singing too loud! Happy MIDI.

WHAT IS A SEQUENCER ?

The sequencer really is the very heart of a MIDI system. It is the sequencer in which you can record, edit, arrange performances and play back your music to the synthesizers. In this context the sequencer includes all the accessory programs which work together to make the total MIDI package. Some program

vendors have everything rolled into one program while others provide a number of separate programs which work together.

It is the number of refined features and various added functions that makes one sequencer different from another. You will like the display and the way things are done with one and not in another. I probably prefer mine just the other way around. This is why you should see a few total packages working before you invest. A public domain program will keep you going until it is time to commit and make the plunge. When you do commit, make sure it is a package that offers support for the synthesizers you will be using.

Here are the major things MIDI control programs do:

1. Record a song played on the keyboard. Enter real time(as played) or step (one note at a time).

2. Provide a minimum of 8 song tracks. Some have up to 60 or more tracks. Each track holds a separate song or part of a song.

3. Editing notes, duration, attack, release, portamento, etc. Edit notes into tracks.

4. Copy and move song sections into other positions. Loop song sections (repeats).

5. Set synthesizer patch selections into song. Change patch, tempo and other parameters in song performance.

6. Convert a song into a score sheet and print. Print MIDI parameters of song performance.

7. Perform multiple song files in named sequence, like songs of an album.

8. Create and edit new voices for the synthesizers. Dump the synthesizer voice parameters and store on disk. Restore again on demand.

Talk to the people who use synthesizers and try as many of them as possible. Make your selection carefully and plan to acquire as many of the function modules as you can afford. You do not have to have them all at once.

WHAT ARE THE DIFFERENCES IN KEYBOARDS ?

Keyboards for MIDI have two main functions to play music and to control the instruments making the sounds.

Not all keyboards have the same number of playing keys. Nor keys of the same size. My fat fingers will not play a reduced size keyboard. A song may be entered with a keyboard of 3 octaves and then edited (and played) over a full 8 octaves. It just takes

more editing. I prefer a 5-octave keyboard, but it is mainly a personal preference and dollar investment.

The MIDI keyboard is more than just keys to play on. With MIDI a number of sound instruments (synthesizers, samplers, drum and rhythm machines, and program sequencers) may be controlled by an operator console. The keyboard is often that console, especially in a live performance. The console controls may be recorded as they are performed. When re-played by the sequencer, it replaces the original performer, sending all the original, or edited, performance controls.

The main difference between keyboards, then, is in how many of the MIDI control signals it sends to the sequencer in performance. How many of these controls you need depends on how much of a performer you are and how much of the control you do not mind entering by the editor.

Take the action of pressing a note key, for example. Full touch sensitivity means that MIDI information is sent saying (a) which note was pressed and when it was pressed; (b) how quickly the key was pressed (attack velocity often used for loudness control); (c) how hard the key is pressed after it is down (after touch pressure sometimes used for vibrato control); (d) which note is released and when it is released; (e) how quickly the key was released (release velocity sometimes used for portamento or glissando).

All keyboards having MIDI will send the basic note on/off information of (a) and (d). Some will send (b) and maybe (c) information. Few, except the most expensive, will send it all.

Not all synthesizers (in a keyboard or otherwise) are stereo. Many are mono only. Not all keyboards include the accessory controls of pitch bend (note glide), foot switches (on/off functions), foot pedals (variable control for soft-loud, etc.), or pan (stereo balance).

As a side effect, if a keyboard does not generate a MIDI function, then very likely the embedded synthesizer will not respond to that control either. Without touch velocity the loudness is not controlled. Try the instrument to see what it will or will not do.

The second part of this series will be printed in the January newsletter.

DISCLAIMER

SPACE/MAST BULLETIN BOARDS

SPACE/MAST East (XE) - BBS Phone: (612)-784-9667
Sysop: Amos Jackson & Carl Towberman.

SPACE/MAST West (ST) - BBS Phone: (612)-472-6582
Sysop: Tom Cook

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SPACE and MAST are independent user groups of owners of ATARI Home Computers. It has been organized by local owners of ATARI computers for the purpose of mutual self assistance and sharing of information. It is open to all interested computer enthusiasts.

Benefits of memberships in the groups include monthly newsletter mailed to your home, BBS access, software demonstrations, group purchases, public domain disk(s) of the month software at low prices, reference book library, educational software library (8-bit only) with over 20 titles, personal contacts/learning, greater information and awareness on the world of ATARI, software at discounted prices from dealers, question and answer session, etc. Come to a meeting to find out more.

SPACE - 8Bit Group The SPACE meetings are devoted primarily to the 8-bit ATARI computers such as the 400, 800, 600XL, 800XL, 65XE and 130XE. There is other ATARI related news and some 16-bit news at the SPACE meetings, as well. The SPACE group meets on the second Friday of each month at the Falcon Heights Community Center, 2077 West Larpenteur Avenue, at 7:30pm. Doors open at about 7:10pm.

MAST - ST Group The MAST meetings are devoted primarily towards the ATARI 520ST, 1040ST & MEGA computers. There will be ATARI related news items covered, but not 8-bit news. The MAST group meets on the third Friday of each month at the Falcon Heights Community Center, 2077 West Larpenteur Avenue, at 7:30pm. Doors open at about 7:10pm.

MAST+ - Programming Language User Sig MAST also has a programmer's group meeting. This group has a more technical discussion regarding programming the ST computers in a variety of languages. The group meets on the Monday following the MAST meeting at the First Minnesota bank on Lexington Avenue near Larpenteur Avenue. Meeting time is 7:30, with doors opening at about 7:20pm. The entrance is in the back of the building and leads to a stairway to the second floor.

For more information, or to confirm a meeting time and location, call Greg Howell (SPACE) or Jim Schulz (MAST) 533-4193

SPACE/MAST Membership Application

Name_____ Date_____

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City_____State_____ Zip_____

Phone_____Equipment/System Used_____

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Check one: SPACE_____ MAST_____

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Dues: $15.00 per year - Please enclose with Application.
Mail to: SPACE/MAST, P.O. Box 12016, New Brighton, MN 55112

SPACE / MAST Newsletter
December 1989

SPACE meetings:

> 8 December 1989
> 12 January 1989

MAST meetings:

> 15 December 1989 - MIDIMaze
> 19 January 1990

At the Falcon Heights Community Center, 2077 Larpenteur Avenue West, 7:30 pm

MAST+ Programmers meeting:

> 19 December 1989

At First Minnesota Bank Building - second floor, Lexington and Larpenteur, in back of building, 7:30 pm

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