SLCC JOURNAL

San Leandro Computer Club August, 1990

Help!!

Jim Hood is on vacation. See how the new editor does, Jimless!

Micro World

If we measure a computer's success by the efficiency and abundance of its software then we must conclude that the Atari ST is a success. The continuing development of serious Atari ST/TT products such as Outline, Script, and Sketch makes the ST a viable graphic arts tool.

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We at Microworld would like to thank you for your continuing support of the Atari line. We have many new software titles at 25% discount for you and quite a few older titles at as much as 75% off. Come in and see us, you won't be disappointed in the ST selection at Microworld!

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Write Jack!

We all still need Atari to advertise! The ST/STE STACY and TT are great machines and terrific values when compared to the competition, if we can get people to compare. You can tell Atari to hire me, Bill Yerger, as marketing director, and I'll get the job done. In the meanwhile, check out these prices:

520 STFM only	$349
with mono monitor	500
with color monitor	700
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2.5 meg upgrade	400
JRI 4096/4meg board	125
Double sided drive	169
20 meg hard disk	440
30 meg hard disk	490
40 meg hard disk	540
50 meg hard disk	595
80 meg hard disk	795
10 Meg Floppy Drive	500
Kraft Track Ball (Great!)	89
Cordless Mouse	115
2400 Baud Modem	125
New Calamus Fonts (3)	23
New Pagestream Fonts(3)	30

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Editor: DeWayne Stuart (887-3028)
(And Loving Every Minute Of It!)
Lackey: Jim Hood(MIA?)
Gofer and General Pain:
Keith Sammons

Many thanks to those who take the time and effort to contribute to this publication! If we haven't used your submittals in the past – KEEP TRYING. The thrill of eventual publication is worth the agony of a few rejections!

San Leandro Computer Club

P.O. Box 1506
San Leandro, CA 94577-0374

An independent, non-profit organization of Atari microcomputer users. Membership provides access to the club print and magnetic libraries, subscription to the **Journal** and participation in club activities. See membership application elsewhere in this issue for details on an opportunity you can't pass up.

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August • 1990

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MESSAGE FROM THE PRESIDENT ..... BACKCOVER
Keith Sammons

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August 7th

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16--STU's Place (415) 782-4402,
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(415) 785-5367

Pounding on the 8-Bits

Buy your own / Share what you know / 8 bits are plenty

by Bob Woolley

I saw a nice article in Current Notes this month about disk drives and stuff - how to keep them in good shape and all. The author mentions head alignment and azimuth adjustments on the head assembly. Yeech! If you gotta get that far into a drive, toss it in the garbage. I really doubt that most hackers can really tell when a drive needs head alignment or azimuth and, even if they guess right.... you will turn the thing into a box of rocks 90% of the time. Don't do it! *** I'm talking about 1050s here, not 810s. You can do track alignment on an 810 - have to when the collar gets loose - but, stay out of the 1050.

There are some common problems that you can fix that are in the text. Speed adjustment. Bad belts. Not much else, though. And, even here, you can be led astray be what appears to be speed/belt problems. What appears to be simple is often not because of the way they recover the data off of the disk.

The controller in the 1050 runs what is called a Phase Locked Loop. This is an oscillator that runs at a nominal frequency until it senses an input close to it's own speed. It then adjusts it's frequency to match that of the input exactly - when the input falls thru zero, so does the PLL - when the input rises thru zero, so does the PLL. So? Big deal! Yeah, not too useful yet. Nice thing is though, when the input misses a beat, the PLL stays in sync. This means that we can clock the data off of the disk when some of the pulses aren't there! We don't use this to read dropped bits, though. The data itself, ones and zeros, is the presence or absence of a pulse being read at the head. Detecting ones and zeros is done by looking at the data read and the state of the PLL.

Understand? Well..... Doesn't matter that much. All you need to know is that the PLL runs at a center frequency and clocks the data. Any change in the rotational speed of the disk will change the data frequency and require the PLL to adjust for it. Now - key point - if the center frequency of the PLL is not set properly, poor speed regulation in the drive cannot be corrected by the PLL. Make the drive run perfectly and you got no problem. Get a little off speed and #$%&^!! Data check. Speed problem? Sorta.

Got a drive that has to "warm up" before it reads data well, particularly double density? Got some disks that read OK on one drive and not others, but the majority of your disks read OK on all your drives? Got a drive that fails just once in a while, but works OK most of the time? maybe you got PLL problems. Plug in another 2793 and it works for a month? More PLL symptoms. Fix? Do PLL center frequency adjustment!

(and, just how the heck do we do that?)

First, you need an oscilloscope (90% of the readers just turned the page). A GOOD oscilloscope (there goes a couple more). You also need a jumper wire or plug. That's all! (uhhh.... And this article)

The controller chip is designed to output test waveforms (so you can do these adjustments) whenever you apply power with pin 22 grounded. On the 1050, TP 7 and 8 are set up to perform just this function (refer to diagram on pg. 5 for TP locations). Turn off the drive and jumper between TP 7 and 8. Now, turn on power.

Probe TP9 with your scope. The pulse width should be 1150 ns or so. This one setting does not match exactly what I expected from looking at the circuit, but 1150 seems to work well. Logic tells me that it should be more like 900ns - if yours is around 900, maybe you could leave it there. What you expect? Life is a guess sometimes! If the width is off, adjust it to 1150 with the little pot called VR3. Atari had the sense to put it right next to TP9 - thanks, guys!

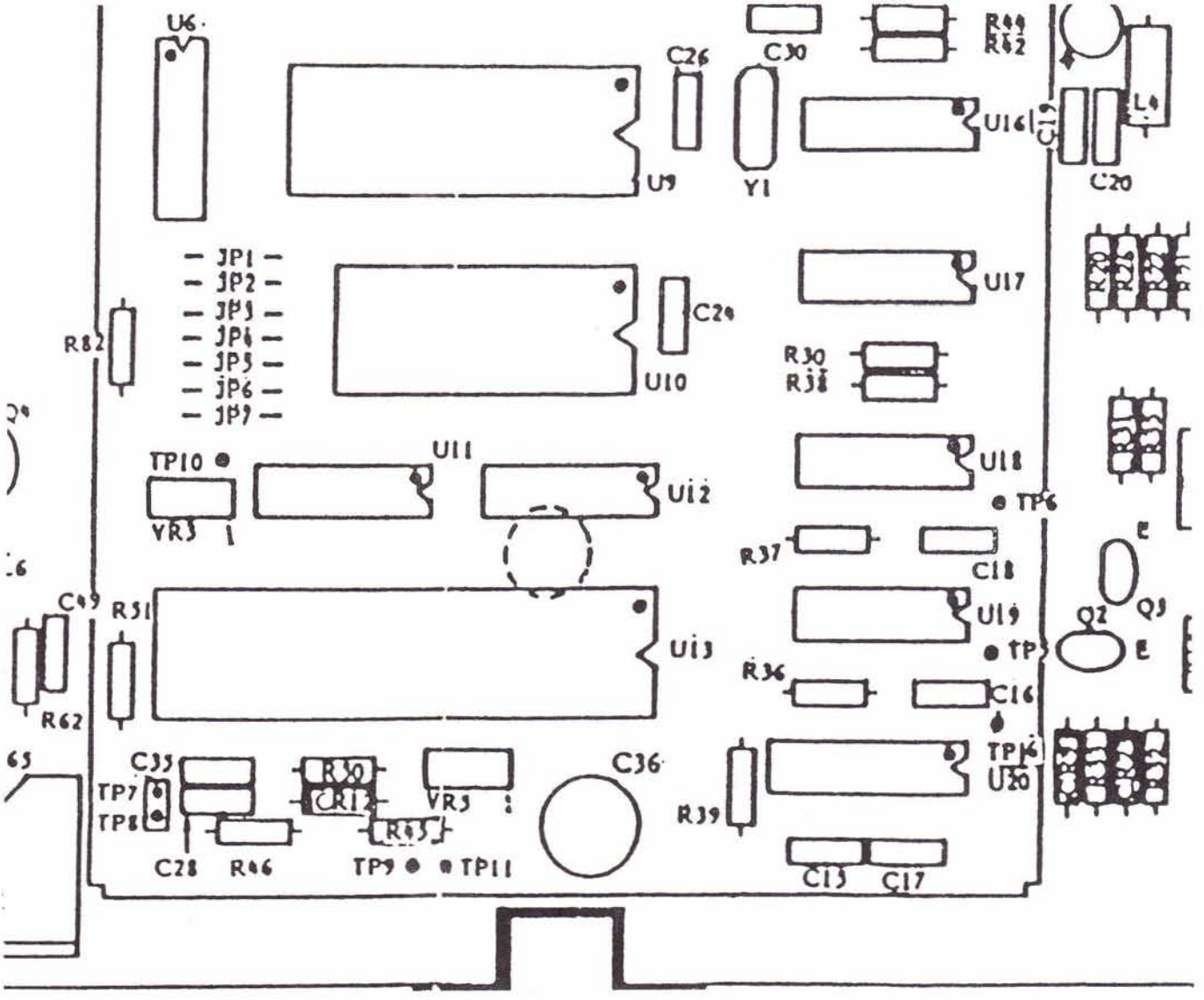
Next, probe TP10. This is PLL center frequency. Set it to exactly 125khz (8us. period). If it is way off (like 4us.) then you may be in double density. Power down and start over. To set PLL frequency, adjust C36, also right next to the TP.

The last adjustment is write precompensation. Probe TP11. Adjust VR5 (by the TP) for a pulse width of 300ns. This adjustment has no effect on reading, just writing. Don't expect it to fix 144s on this drive.

That's all. Pull the jumper and power off the 1050. When you power it back on, it will work great!!

A few words of wisdom. Make sure that your scope is accurate!! Pin 24 of the 2793 should read 1000ns. Exactly. If not, don't make things worse by adjusting your drive with a bad scope. Another thing - use your head. If the drive works pretty good, you shouldn't have to crank the adjustment off the end of the pot. A couple of turns one way or the other should do it at most.

Have fun!



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UPDATE

compiled by Darryl May
August 1990

Atari has been working on a deal with the Soviet Union to trade Atari personal computers for RAM chips. The first batch of chips failed to meet Atari's specifications and the next batch should be all tested by the time you read this. The trade would be an effective way of getting profit out of the Soviet Union since the Russian ruble can't be officially converted into dollars.

In a recent poll in the Eastern bloc countries, Atari ranked 65th in esteem among poles, while Apple ranked 196th among Hungarians.

PageStream Tip: You can create your own video cassette labels but you must be in the landscape mode in order to rotate the text on the spine. And there is only enough room on a 8.5" by 11" piece of paper to layout the front cover, the back cover, and the spine.

Atari stock finished out the third week of July at 5 1/8.

A little over a month ago IBM announced a new "low-cost" computer called the PS/1 at a price ranging from $999 to $1,999. The PS/1 is powered by the 80286; 512K of memory, a floppy drive, a black & white monitor, a built-in modem, and built-in software are all included in the package. Since Prodigy is co-owned and co-operated by IBM and Sears, the PS/1 is likely to be passed off as a Prodigy terminal server.

Apple is expected to announce the long awaited low-cost Mac on October 17th but the departure of high level personnel during the last couple of months casts doubts about Apple's future.

With IBM and Apple getting into the low end computer market it seems the ST vs. Amiga battle will have two more opponents. Now seems the time for Atari to either push the ST ahead in the marketplace or forever be stuck in 3rd or 4th place. And with Nintendo's iron grip on the home video game market an increase in Atari's US profits can only come from a decrease in manufacturing costs. The software selection for the ST seems independent from anything Atari Corporation does, so I don't think you will have any trouble finding new programs for the years to come, if and only if you BUY new software.

Back in 1985 Nolan Bushnell said "The world doesn't really need any more new operating systems." after seeing the ST at CES.

How many operating systems can you name?
Can you name over 10?

With the end of summer, I can't say that I can continue this series. So, just wait until the September issue to find out.

I'm waiting!!!

A 24" Moniterm Monitor:
First Impressions:
By DeWayne Stuart .

As most of you have noticed by now, the president has been talking about a Moniterm monitor for the club newsletter and publishing SIG. I had given up on anything happening, and had reserved a spot for Keith as the featured item at our annual barbeque.

This may have sparked a bit of action, as I am composing this staring at a 24" Moniterm.

The package consisted of:
1 small box with:
1 Disk
1 Circuit board
1 photocopied installation manual.
1 LARGE box with:
1 24" monitor

Installation consists of dismantling a Mega ST, preferably 4 meg, pluigging in the large circuit board, hooking up the various plugs and standoffs, then reassembling the Mega. The software driver is a 2K program, put in the auto folder.

When the system is started up, as soon as the program is executed, all operations are shown on the Moniterm. Directories are shown three across in text mode.

Running Spectre gives the largest Mac screen I've seen in a long time..

Pagestream 1.8 runs, giving up to two almost full sized pages on the screen, nice and readable, with room left to rattle. I've had Pagestream crash a few times when doing screen moves, and it won't load a few files that load in regular mode. It just crashes back to the desktop. This might be a conflict with some other Auto folder program or accessory, maybe.

It sure makes page layout nicer. I have a penchant for small text, trying to cram as much information into a document as possible. The Moniterm lets me run in a 180% scale mode, with the full width of the page on the screen at once.

Regular 10-12 point body text is readable at full page size. I usually run the pages at 80-90% size, to allow two pages and the toolbox on the screen at once. Even at 80%, most text is readable, and attributes and graphics look good.

The actual display is nice and clean, well focussed with reasonably square edges, much better than some of the other brands that I've seen on the Mac.

It even seems to be unaffected by being within 5 inches of an active Atari monochrome monitor. This indicates good EMI shielding.

One problem with this monitor is fairly obvious the minute you first see it. Where are you going to put this huge thing??? A little remodelling of my test computer area managed to get it within a reasonable distance and at a usable angle.

Net affect?

I Like it!

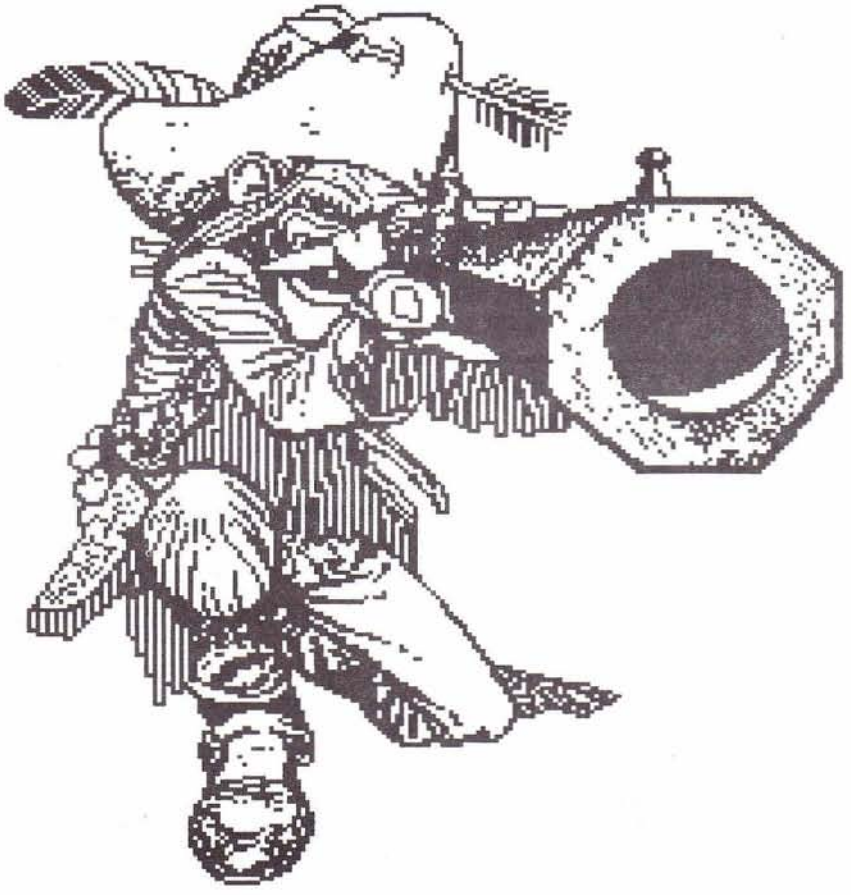
DRS (Ed)

I'll find that Hood somewhere...
And when I do.....

(Teach him to run off somewhere and leave me with this!!)
drs

MORAN'S MINUTES

Due to an intense shortage of Jims this month, this section has been temporarily vacated. We should be up to our necks in Jims next month, tho, so keep on keeping on.
Resp. Ed.



But if I ever catch these Jim fellers.....
ed.
(And then there's the prez..)

August 1990

SLCC CALENDAR OF EVENTS

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7 Main Meeting 8:00 P.M. San Leandro Library	8	9	10	11
12	13 ST Meeting 8:00 P.M. San Leandro Library	14	15	16	17	18
19	20 Midi Sig 8 PM	21 Journal Deadline	22 ST Beginner's Sig 7:30 P.M.	23 Publishing SIG 7:30 PM	24	25
26	27	28	29	30	31	

Special Interest Group (SIG) leaders and their phone numbers are in the Table of Contents.

Membership Application for the San Leandro Computer Club

Yes! I would like to receive 12 months of the SLCC JOURNAL along with other membership benefits, including software discounts, training, technical assistance and much, much more - all for the low, low price of $20.00 (or $40.00 if I am outside the US or Canada).

Name:_____ Date:_____

Address:_____
(Street) (City) (State) (ZIP)

Home Phone:_____ Membership No.
(Optional)

Computer(s)_____

Software Interests: r Home Finance r Desktop Publishing r Games r Scientific r Business r Word Processing r Educational r Music r Art

Some interesting ways I use my computer:(Club members are interested in new usages for home, work and play)_____

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FROM THE PREZ

We still need a volunteer to handle the Telecommunications SIG. I'm sure there is somebody out there with an abundance of *Flash* and *VanTerm* experience coupled with a generous nature?

We have some great raffle prizes for August - including *F-19 STEALTH FIGHTER* donated by Vince De Phillippo of Winner's Circle.

Our guest speaker for the General Meeting had to postpone until December; therefore, DeWayne Stuart has agreed to step in and fill this void by giving a report on the San Jose *World of Atari Show.*

Don't be shy about calling me with suggestions for speakers.

THANX,
KK

San Leandro Computer Club
P.O.Box 1506
San Leandro, Ca. 94577-0374

General Meeting:
August 7th, 1990