The Paper Peripheral

September 1985

Putting you Online with the Central Texas 99/4A Users Group

From the President's Keyboard

Hello again. Are you taking advantage of these hot August weekends to play with your computer? I personally haven't ventured into my yard in the past 2 weeks. As for my grass, I gave up on that a month ago. I'm never in the mood to water when its my turn. (But then I not worried about my grass either. Its Bermuda and it'll be back when the rain is. I hope!) In the meantime, I've been having great fun with my computer and I hope you have been too. I've been having so much fun in fact, that I had to be coerced into working on the newsletter this month. The source of my enjoyment is a bulletin board program that I've been working on with Mark Milam. But more on that later.

If you missed last month's meeting, you missed a full one. I demonstrated the Bit Mac program that advertised in last month's newsletter. It really is a very nice program. If only the paint option worked better. I demonstrated the program on a system running with the CorComp 9900 micro-expansion system--a very nice system. It beats the heck out of carrying the TI expansion box around. The 9900 expansion system belonged to John Young and he demonstrated a printer graphics program that a friend of his wrote. Quite a few people were very impressed with the program and bought a copy at the meeting.

I'd like to thank John for coming to the meeting and bringing his system. John lives now in Bellevue, Ohio where he is currently going to school. But he came back to Austin this summer and jumped into the group with both feet. Thanks again John!

Between meetings last month, volunteers from the group went down to the local PBS station, KLRU, and answered phones for the August pledge drive. We only had to work a few minutes out of every hour, and spent the rest of the time talking about, what else, computers! It turns out that we weren't the only volunteers for that session. Johnson Controls was supposed to be the big group that night, but we dwarfed them by having 12 people to their 5! And we went one step further by having the good fortune of knowing Wayne Talbot. Wayne's Pizza Inns donated several pizzas, and everyone ate till they were stuffed. In all we collected $29,000 from 139 pledges that night. Way to go gang! Our volunteers were: Mark and Lori Milam, Craig Dunn, Darren Davis, Susan Donaldson, Pete Daniel, Foley Broaddus and his wife, Scott Bickford, Jeff Nichols, and Diane and Mike Schultz. (Please accept our apologies for not having Foley's wife's name--they left early on, as they were recovering from weekend visitors and we had plenty of people. Not a real good excuse, but the only one we've got!)

I'd like to take moment here and relate a story that happened at the pledge drive. The show that KLRU was presenting that night was "Great Moments from National Geographic"--a really interesting show. (Not as interesting as computers, but close.) And every so often, the show has breaks written into it to allow KLRU to make their pitch. The times of the breaks are written on a blackboard for all to see, but most people there that night didn't look at it. When the director, who was in another room, turned on the bright studio lights, people just wandered over and took a chair. Before one of these breaks, the director turned up the lights, the volunteers took their places, the KLRU on-camera people plugged their headsets in and we were all set for the break. Then someone asked, "Where are the camera operators?" We were 5 seconds to going live and the operators were at least 15 seconds from the cameras. As Mark Milam shouted to the camera people in the break room, a KLRU MC tried desperatly to reach a camera and point it the other MC. He failed to reach the camera, however, because he reached the end of the cable on his headset first. So KLRU broadcast 10 seconds of dead air while the camera people scrambed for the cameras. Live television is sooooo exciting! *Editor's Note: Now I'll know what they mean when they say they've had technical difficulties!*

I must say in the camera people's favor, however, that the segment of the show before this break was about 10 minutes, while most of the other segments were between 20 and 45 minutes.

Moving right along, at the next meeting, Penny Nichol will demonstrate the Paint n' Print Package that we received from Navarone for evaluation. Also at the next meeting, there'll be some information available from a person in town who is selling a computer desks for $100.00. If everything works out we'll even have a sample of the product to show, but its too early to know that for sure now.

Mike Schultz

A Few Bytes and Nibbles

Due to an extreme shortage of time, including two hurried out-of-town trips, there will be no TI-WRITER article this month. Sorry, sports fans. For those of you who read the TI-WRITER articles for humor (and I'm told there are one or two of you), let me recommend Mike's article on CorComp. I promise, he thought of it all by himself--and I didn't do much to it in the way of editing, either. Are two writers in the family too many?

Not too much left for me to say--although I do want to thank everybody that showed up for the KLRU pledge drive. For those of you that didn't, you should know we had a really good time, and had an eye-opening education about live TV. (Mark Milam's and my offer to run the cameras still stands, as soon as somebody teaches us how!)

Something I've been meaning to mention for several months was the resignation of the second-in-command at TI several months ago. Mr. J. Fred Bucy was replaced by a man who at one time worked at TI in Austin, Jerry Junkins. Now, nowhere in any article did I see any possible link between Mr. Bucy's resignation and the premature "death" of the /4A, but I do know that he was personally involved in that decision. So if any of you still haven't forgiven TI for orphaning us, a small amount of retribution may have been delivered. Feel free to gloat.

From the Business End of the Mailbox

My goodness, the mailbox was busy this month! Before we get to the actual mail, I'd like pass along something that I read in the paper last month.

GTE Telenet Communications Corporation has announced a new service called PC PURSUIT (just ignore the stupid name). By paying a cost of $25.00 a month, a home computer user will have virtually unlimited evening and weekend communications among 12 major metropolitan areas. There will be a one time $25.00 registration fee. The company already has a data network, Telenet, and the excess capacity of the system will be used for PC PURSUIT.

The 1985 Austin Office Systems Equipment Show will be held September 18-20, 10 am through 6 pm daily at Palmer Auditorium. The *Computer Street Journal* has sent us a couple of complimentary tickets. If you're interested in them, give me a call.

Speaking of seminars, **CompUTopia85** will be held September 10-12 at the Texas Union (24th and Guadalupe) from 11 am to 6 pm daily. Admission is free (the price is right) and there be exhibits of microcomputer hardware from Apple, ATT, Hewlett-Packard, IBM, Radio Shack, TI, and Zenith Data Systems. There'll also be exhibits of software from Ashton-Tate, Lotus, Microsoft, and many others. Check the Statesman's Show World September 8 for schedules or call 471-5651.

JHB Software; P.O. Box 920952, Suite 345; Houston, Texas 77292-0952 has sent us letter informing us of a "powerful yet user-friendly" database system for the /4A. The program requires Extended BASIC, 32K and disk drives. The price for the DVECTOR system is $13.95 and there are a number of application programs for the DVECTOR system ranging from $2.95 to $11.95. JHB is offering to sell the User Group copies of the program, with copy privileges for the library. The price is right and I'm thinking about doing it. If anyone has a different opinion, they'd better let me know about it by the meeting.

Tim MacEachern; 321 Tony Hill; Dartmouth, Nova Scotia, Canada B4E 1M6 the author of Wycove FORTH, has disassembled the TI RS232 PIO card. The flyer claims that the source is fully documented and costs $2.00.

The Adventure Store; P.O. Box 320; Roscoe, Illinois 61073 appears to be set up to carry Adventure Game programs for the /4A. The flyer that they sent us contains only SYMBIOTECH games, but they also are selling a CorComp 9900 micro-expansion system for $319.00.

The next item came from **Navarone Industries, Inc.; 19968 El Ray Lane; Sonora, California 95370.** It contained a nasty letter warning us not to abuse the HYWAY program that they have set up to allow us to evaluate their products at a very low price (free). According to them, several users groups are allowing the free software to be copied illegally and warning that they can't stay in business if people won't pay for the company's products. Although I didn't appreciate the letter, I certainly can agree that it is the purpose of Users Groups to foster growth in the 99/4A community, and stealing software appears counterproductive.

Next we have a letter from **Ron Snell; 20-A Madrone Trail; Austin, Texas 78737; 288-2091.** Ron makes what he calls the "Byte Bench." It is a computer work station that he wants to sell for $100.00. The Byte Bench is ready-to-finish, is made of solid wood, has four adjustable shelves, a 48"x28" desk, paper shelf and paper feed slot. Ron wants to try and bring one of the benches to a meeting to show off, but we haven't settled the matter yet.

C.R.E. Wholesale; P.O. Box 361; North Salt Lake, Utah 84054; is advertising computer printer ribbons at bargain prices. For example, $1.95 for Gemini printer ribbons (in quantities of 6 to 11). Add $3.00 SH for orders under $50.00. Personally, I'm tired of asking for Gemini ribbons and getting blank looks (and the wrong ribbon). So I'm planning on ordering 12 ribbons (that should last me 5 or 6 years). *Editor's Note: What with the newsletter needing a new ribbon every couple of months, I don't see 5 or 6 years, myself.* If interested in ordering with me, let me know.

Vik Corporation; 260 Eliot Street; Ashland, Massachusetts 01721; 1-800-VIK-DISK has sent us a flyer. They offer SSDD floppies for as low as $.75 bulk, and $61.25 for a "tub" of 75 diskettes. DSDD run $1.04 and $83.00. They also carry diskette mailers for $.38 each.

Ryte Data; Box 210 Mountain Street; Haliburtin Ontario; KOM 1B0 Canada has sent us a newletter that they are publishing. If you'll recall, they sent us a letter about this subject a number of months back. The basis for the newsletter was to be the fabled /4A replacement. According to this issue of the newsletter (which is the third) they were literally buried by the response, and many people did not receive the first two issues. They say that they have tabulated the response to the newsletter and sent a copy of the results to Myarc and CorComp. If you'd like to subscribe to this newsletter send $7.00 to the address above. (Note: I'd read the newsletter that they sent us first. It appears to me that they are VERY interested in seeing a new machine on the market and thus fanning the rumor mills with this newsletter attempting to pressure someone into doing it. MS)

Club TIPS; 11680 St-Real Montreal; Quebec, Canada H3M 2Y4 has sent us a flyer about a product that they are offering called MAXIMEM. It is a 48K RAM cartridge for the /4A. It claims to have the ability to execute cartridges previously saved to disk and to have an improved version of the Editor/Assembler. They even claim that this cartridge can be used to run Extended BASIC. The price is $199.00. If anyone buys this gizmo, I'd like a look at it.

TECH-IN-COLOR; 11309 Grant Drive; Overland Park, Kansas 66210-1727; 913-451-3883 is selling color diskettes. They sell boxes of 10 SSDD diskettes for $15.60, and 10 DSDD for $17.80. If you want to order 100 or more, you can mix the colors in groups of 10. The bulk prices are $1.26 SSDD and $1.38 DSDD per diskette. The colors available are: red, powder blue, royal blue, yellow, green, orange, grey, brown, burgandy, or white. I'm told that using a color scheme can help in keeping diskettes of different formats, or computers, from getting mixed up.

Bits Chips; 933 N. 182nd Street; Seattle, Washington 98133; 206-542-1636 has sent us a flyer. They are a store that has been suppling TI products for 3 years and claim to have 90% of the TI software in stock. They have TEAC half-height drives for $109.00, Epson half-heights for $99.95, and a power supply for two half-heights for $59.95. They also have the CorComp micro-expansion system for $325.00, the Plato cartridge for $45.00, Plato software from $19.95, Infocom games, Miller Graphics programs, Navarone products, plus cables, ribbons, labels, paper, etc. They have a lot more, but you'll need to look at the flyer for more information.

Mike Schultz

The Case of the CorComp Disk Controller

My partner and I were working the night shift on a hot summer night in 1984 when the call came in. A CorComp disk controller wouldn't initialize a diskette double density on a CDC full-height drive. We decided to investigate immediately. My name's Schultz. My partner's name is K. Kludge. We're computer troubleshooters.

Taaa-Ta-Da-Dum, Taaa-Ta-Da-Dum-Da. The story you're about to read is true. The names were unchanged to vindicate the innocent.

When we arrived on the scene, the facts were clear. The controller could initialize double density on MPC drives, but failed to initialize on the CDC. The last sector on the track seemed to have a problem on the sector verification pass. I said to my partner, "Looks like the drive." He wasn't convinced. The drive was swapped with one that was known to be good. The controller could initialize properly with it a couple of times and then started to fail again. We had done all we could. Without better investigation tools, there was nothing to do but send the controller to the boys downtown at CorComp for forensic testing.

They took their own sweet time making the tests but in the end could come up with nothing specific. Because we had very little evidence, we had to mothball the case. But my partner and I didn't give up. Later in the year, the controller problem struck again.

The November 1984 issue of the *MICROpendium* reported a similiar case. We read the report throughly and discovered that this time the boys at CorComp had an explanation for the strange happening. The head step times for all the drives on the controller should be set to the slowest speed and the offending drive would function properly. My partner said that it didn't wash with him. It didn't sit well with me either, but we returned to the scene of the crime to put this theory to the test. To our surprise, the drive now would initialize a disk double density on the CDC drive, but the slow head step times made the system unpleasant to use.

We still didn't feel like the case could be closed. "It has to be in the firmware," I explained, "it just makes no sense that all the drives have to be set at the same speed."

"Good point," retorted Kludge, "now prove it in court." I could not and he knew it. We decided to request further information from the boys downtown at CorComp, but several months later, we still hadn't received a reponse. It looked like we had reached a dead end.

Without technical help, there wasn't much that we could do, so we finally filed the case in the dead case drawer. Months passed and it looked like the case was really dead, when the controller struck again.

With the head step time already at its slowest speed, there was nothing to do but discover the real solution to the problem. Fortunately, we had available to us a real investigation tool this time, *Advanced Diagnostics* from Miller Graphics. Dave Wolfe from the office let us use his copy of the tool. We returned to the scene of the crime and went to work.

First we formatted a diskette using the Advanced Diagnostics and were pleased to discover that the controller would reliably fail under the diagnostics's control. Then we checked the motor speed of the drives on the system. It was interesting that the MPC drives were a little slow, while the CDC was a little fast. But all were within specs according to the Advanced Diagnostics. Next we used the diagnostics and read a track from a diskette that had been properly formatted and compared it to the same track that failed. This is when we got our first real clue. The final sector on the bad track started off correctly; it had the E4's in the intersector gap, the sector ID, and the E5's characteristic of a formatted sector, all right. But where there should have been a CRC for the sector, the E5's continued right out to the end of the track. There weren't even E4's ending the track.

"Interesting," my partner noted, "but what the heck does it mean?" I didn't know either. Obviously, we were out of our league on this one, but I thought I might know someone who would be able to decipher the pieces of this puzzle.

I returned to the office the next day and consulted with Dave Wolfe. He didn't let me down. He had a hunch that the problem might be that the CDC drive was trying to warn the CorComp controller that the sector was about to end when the format track was being written. Because the drive was spinning fast, this warning was coming before the controller was ready for it. At the sight of the warning, the controller panicked and aborted the track. "Temporary insanity?" I asked. Dave had to admit that it was a long shot. It was the only game in town--I had to play this hand through.

I discussed the theory with my partner that night and we agreed that there was only one way to prove it. Both of us had had it up to our hex calculators with the so-called experts downtown at CorComp, so we decided to call in a pro. My partner made the arrangements.

The Lightpole, a.k.a Mark Milam, showed up with his equipment on time. It made me and my partner nervous to be around the tools of the hardware trade, but we knew that this would be our best shot at cracking this case. Kludge already had the CDC drive ready for the operation. We started the RPM test using the Advanced Diagnostics and stepped back as the Lightpole went to work. With an easy manner his hands moved past the drive calibrations that my partner and I would have adjusted, and with quick precision made an adjustment that set the drive to spinning at the perfect speed. Then he stepped back.

Quickly I started the diagnostics formatting a diskette. As the drive quietly stepped over the disk, formatting tracks, my partner nervously chewed on a Jelly Baby. "When are you going to give those things up," I asked him while we paced. "When you give up breathing," he responded. The tension was thick.

Suddenly it was over in a flash. Our eyes were riveted on the display screen as we heard the drive recalibrate in preparation for sector verification. Then we shouted for joy when the display raced through the sectors without any errors. We had done it. I happily took the Jelly Baby that Kludge offered me as Lightpole offered his hand in congratulations. "Thanks, Lightpole" I said. "I owe you one."

"You're right" was all that he said as he left.

Epilogue: The facts are now as clear as Stephanie Zimbalist's face. The CDC drive would fall out of calibration as it aged, but it would speed up instead of slow down. I guess that's just the type of drive it is. The controller couldn't handle the short tracks and failed. The real crime in the whole case was that the so-called expects couldn't find this problem in an entire year. The victims were those who had to live with slow head step times and using an expensive DSDD drive as a DSSD drive instead. This was compounded by the fact that the solution as such a simple one.

Case closed.

Mike Schultz

Editor's Note: If any of you think you've figured out that your friendly neighborhood editor must be the "partner",
K. Kludge--wrong! I'm merely one of the innocent victims!

Yet Another BBS!?!

Mark Milam and I put our heads together and, after yelling OW! and rubbing the bumps, decided to write a bulletin board. Why, you ask? Well, because Mark wanted to run a bulletin board and I have always wanted to write one, although I never had the desire to run one.

So sometime this month the "Lightpole's Hideout" should go on-line. Don't expect anything fancy at first--it's just a simple message system--but with Mark running it, I'm sure it will be interesting.

The number to call is 512-339-1822. If you call before the board is up, you'll get a temporary message system that Mark calls the ATOM. Drop Mark a line, he'll love it.

Mike Schultz

Special Interest Group Meeting

The assembly language SIG is now meeting on the Wednesday following the regular group meeting and starts around 7:00 pm. It is still at the Health Care International building, just off Great Hills Drive--contact Don Lynch or Mike Schultz for directions. The topic this month will be a bulletin board subroutine--contact Mike Schultz or Mark Milam for more detailed information.

Those quiet fans
Attention other User Groups

For the past several months, Mark Milam has been running a classified ad about installing quiet fans into expansion boxes. He really can, and I have one to prove it. But he's starting to get "fan" letters from other User Groups wanting to know how he does it.

Fear not, fellow Users Groups. Mr. Milam promises to tell all in an upcoming newsletter. If you want to hurry him up, send him more fan mail via this group.

Newsletter Exchange

Our users group exchanges newsletters with several other recognized 99/4A Users Groups. The exchange is made with the understanding that, with proper credit to both the newsletter and author (if listed), your users group can reprint articles from our newsletter and, with proper credit, we can reprint articles from exchanged newsletters. (Please feel free to correct any typos, misspelling, bad grammar, etc.; we will do the same.)

Please send your exchange newsletters to:

Central Texas 99/4A Users Group
P.O. Box 200246
Austin, Texas 78720-0246

Commercial Ads

Commercial advertisements are welcomed by our newsletter. This newsletter can provide a select, specialized audience for advertisers. Advertisements also help our group by offsetting the printing and mailing costs of the monthly newsletter. Any advertisment must arrive by the first of the month to be included in that month's newsletter.

The cost of placing a full-page ad is $20. The cost of a half-page ad is $10. The ad should be camera (actually photocopy) ready. Some flexibility is allowed in the size of half- and full-page ads--but let's not overdo it!

Classified ads are free to individuals both members and non-members. Send your ads to Central Texas 99/4A Users Group; Box 200246; Austin, Texas 78720-0246

Classified Ads

For sale: Console, P-Box, 32K, RS232, disk drive, external disk drive, Y cable, speech synthesizer, software: TI-WRITER, Multiplan, cartridges, disks. Wants to sell as package, make offer. Call Zack Swenson at 836-2727.

For sale: TI 99/4A printer without printhead. Call Zack at 836-2727.

Am considering selling complete p-System. If interested call Mike at 835-2377.

For Sale: TI disk controller card with manual and Disk Manager II. Nothing wrong with the card except that it's DSSD only. Asking $50.00. Call Mike 835-2377.

HAS YOUR P-BOX BEEN TOO NOISY? Well, it isn't too quiet, you say? WHAT'S THAT? I CAN'T HEAR YOU OVER THE P-BOX! Has this ever happened to YOU? If it has (or even if it hasn't but you're tired of the LOUD fan in your P-Box) I can help. I will replace your fan with a new QUIET fan for only 15.00 (plus tax) AND even return your old fan back to you! You may ask, "Why so cheap?", and I will tell you. I am not out to ripoff your pocketbooks. I am just trying to help out my fellow 4A'ers, so if you are interested call:

Mark Milam
836-3301 after 6:00 pm

Meetings Calendar

Meetings of the Central Texas 99/4A Users Group are held monthly at the Pizza Inn, 3000 Duval (near the UT) on the second Thursday of each month. Meetings begin at 7:30.

The following list of meeting dates were compiled from my trusty Dr. Who 1985 calendar. Should any of the dates prove to be faulty, please blame it on the Doctor's poor sense of time (Time Lords confuse easily, you know.) Should there be any mistakes, I'm sure my readers will let me know.

September 12
October 10
November 14
December 12

Meetings of the assembly language special interest group at held on the following Wednesday. This month the meeting will be held in the Health Care International Building, just off Great Hills Trail. Contact Mike Schultz or Don Lynch for more details.

Current Officers

President	Mike Schultz	835-2377
	4200 Harcourt Drive; Austin, Texas 78727	
Vice President	Susan Donaldson	327-4165
Treasurer	Paul Dunn	258-4308
Secretary	Patrick O'Donnell	345-6255
Librarian	Mark Milam	836-3301
Newsletter Editor	Diane Schultz	835-2377

Correspondence for the Users Group can be sent to the address given for the President, or to the Central Texas 99/4A Users Group; Box 200246; Austin, Texas 78720.