APR 19 REC'D

HOUSTON USERS GROUP
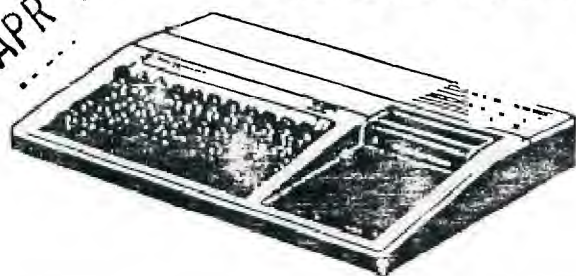
MEETING SCHEDULE
SUNDAY FEB   12 1:00
AGENDA:_DISK_DRIVES_-_FWB_~_PRBASE
            DISCUSSION--Ideas/Programs
>> New Place and Time: NPOA Clubhouse
   Claridge Drive   (see map) Key 530Z
   2nd Sunday each month (we hope!)

HUG TIBBS - 24-hour BULLETIN BOARD | Meetings: Feb. 12, 88 // Mar. 12, 89
   (713) 781-4844   300/1200 bps | Apr. 09, 89 // May. 14, 89

The Houston Users Group is organized to promote the use of the TI-99/4A Home Computer and the Mvarc Geneve (TM). We invite persons of similar interest to meet with us. HUG is a non-profit group and is not affiliated with TEXAS INSTRUMENTS, INC.

****

IN THIS ISSUE

Articles:
    ED.EChoes-"Mistooks"-N/L Exchn. and Library Updates; New Member; Why Do We Love To Hate The Geneve? (Editorial Opinion);
News Bits...Faires, $63. Drives; MS-DOS Disks?; Fwb Tip; Best-O-Boards--Power Supply; Dragons, Dungeons, and Drives.

Other Departments:
    Library Addendums   New Releases   Newsbytes   Reprints   Membership Info.

****

1989 HUG OFFICERS

President --- BOB McCARTHY ...955-7939   BBS SysOp --- HENRI SCHLERETH.952-4249   Membership/VP   "open" ...498-3047
Soft Libr --- LARRY FIPKIN ...568-1898   Program/VP --- R. LUMPKIN   ...367-1047   Nwsltr Libr - BILL MAUTNER ..498-3047
SIG/VF ------ WAYNE JOBE ! ...894-6628   Secretary --- JIM HUTCHINSON..437-1973   Cartr. Libr.-   "open" ...991-0979
Treasurer --- RUTH HERMAN ...271-4171   N/L Editor   RICHARD LUMPKIN.469-5089   Asst. Editor- BOB SEDDON   ...855-7550

****

THIS NEWSLETTER IS PUBLISHED MONTHLY BY THE HOUSTON USERS' GROUP, aka "HUG". ANY OPINIONS OR ENDORSEMENTS EXPRESSED IN ARTICLES ARE THOSE OF THE INDIVIDUAL AUTHORS AND ARE NOT NECESSARILY THOSE OF THE HOUSTON USERS GROUP, ITS OFFICERS, OR ITS MEMBERS. REFERENCE TO A PRODUCT OR COMPANY IS NOT AN ENDORSEMENT OF THAT ITEM.   THE HOUSTON USERS GROUP AND MEMBERS WILL NOT BE LIABLE FOR ANY DAMAGES, LOSS OR INCONVENIENCE WHICH MAY RESULT FROM USE OF THE INFORMATION CONTAINED HEREIN. PERMISSION TO REPRINT INFORMATION OR ARTICLES FROM THIS NEWSLETTER FOR NON-PROFIT USE IS GRANTED TO OTHER USERS GROUPS, WITHIN THE LIMITATIONS OF THE ORIGINAL SOURCE AND AUTHOR, and WITH PROPER CREDITS TO SOURCES. SUBSCRIPTION IS FREE WITH MEMBERSHIP.

Submittals of articles of general interest are welcomed with implicit permission to copy and re-publish these documents. It is requested that all submittals be in publishable format if typed, or in DV/80 disk files. Graphics, art, schematics, etc, should be submitted in final form and size, and repro quality. Other information and articles are welcomed by the Editor as data sources, and may be edited and incorporated as needed.

    ‡‡‡   Please indicate Original Source and Publishing Sources of information and articles -- Copyrighted or Reserved material cannot be used without the author's WRITTEN permission.

    Exchange Editors / Librarians: IF you have missed an issue of the HUG NEWS please let us know! If you fail to reciprocate or otherwise indicate your Group's interest for six months we will have to drop you off the mailing list. If you want a copy of our Library Catalog of Programs, please send $3.00 for disks for DV/80 files, or $6.00 for hardcopy: approx 80 pp. Back issues of the HUG Newsletter are available at $1.00 (postpaid)/issue, or $.50 / issue at the meetings, for members.

HUG MEMBERSHIP INFORMATION
    Annual membership fees for HUG are $15. A ONE TIME initiation fee, for new members ONLY, is $10. The initiation fee, used to maintain user group services, entitles the new member to receive six free programs - of his own choosing - from the groups Public Domain and Shareware Software Library. Members receive a monthly issue of the HUG newsletter, may order programs from the software library and are permitted access to all "user" levels on the Group's bulletin board (BBS), HUG-TIBBS. All renewal and/or new membership fees and applications may be sent to the   Group's Treasurer at: Houston User Group,   c/o Ruth & Sandy Herman,   6219 Sanford Road, Houston, Tx. 77096,   or brought to the meetings. Please direct any questions regarding membership status to the Treasurer. Membership applications are available at the same address, at meetings, or from the (BBS): HUG-TIBBS at (713) 781-4844. For information concerning the Group or joining, please contact any of the Officers, see list above.   Jan 89 circul.: membership = 93; Exch.= 80; Trial Exch. = 28.

****

ED.ECHOES - JAN 89

OK, already, I *think* I goofed up last months info concerning the December meeting recap - and if you DIDN'T attend, or DIDN'T read the N/L you wouldn't even know, WOULD YOU? So you SEE, I shouldn't TELL you HOW I goofed up, just by not being awake and paying attention to what is going on, and by TAKING NOTES WHICH ARE UN-INTELLIGIBLE EVEN TO MYSELF (3 weeks *later*):

My most sincere apologies to Ruth and Sandy Herman, and to Larry Pipkin, for reversing the honors of Life Membership, which ACTUALLY was proposed by Larry for the Hermans, and was unaninimously bestowed by the Group. Larry really has earned his, which he already had (since last year?) and so have the Hermans, and I should have been cognizant enough to read what I was saying and remember it the way it happened rather than the way I had written (scribbled) it down!!!! ANYWAY, CONGRATULATIONS and THANKS to RUTH and SANDY HERMAN for all their efforts, including: our current meeting place--

Our January Meeting was held at the NPOA Clubhouse on Jan 15th, and it seemed to work out just fine. We had 23 members and several visitors in the form of spouses and children, plus a new member joining: Donald McCord came with Wayne Jobe and decided he would join us. He is presently negotiating (with a non-member) to get an expansion system at a good price, and we hope to have him up and running real quick. Give a hearty welcome to Donald when you see him at the next meeting and remember, there are still a lot of newcomers to using a TI Expanded system out there, since systems are still being traded around (read: potential members--people who need US and who WE need to contact, also).

The "program" at the meeting was a complete surprise to ME! We discussed the Geneve and who had them locally and what the status of SW is, including some good info by Jim Uzzell concerning Delphi support for the Geneve and a Geneve "Diskazine". Then I gave an impromptu discussion of some of the features and use of Funnelweb 4.1 (#copy from our library) for a while, played around and probably only demonstrated how to blow away files, but we did find out the RS232 card was not working right in our system. Come to the next meeting and we will pick on Funnelweb and PRBase some more, plus DISKS AND DRIVES DISCUSSION.

NEWSLETTER EDs TAKE NOTE:
So what have I been doing since Christmas? WELL...I have been going through the Newsletter Library files and seeing what we have and don't have and comparing to what I have logged in as RECEIVED during the last year so we would know what we actually have been getting and from whom. AND I have been working on getting the EXCHANGE GROUPS all into the PRBase file for the N/L mailings, and adding the groups which are potential exchange groups for a TRIAL basis, and REMOVING those groups who have not sent us anything for a long time and sending postcards to these, after checking for possible NEW ADDRESSES from either the N/L's or from Bill

Risters List and also from the list from Computer Shopper, (after scannin that entire series of pages) (which is where SOME of the TRIAL names came from--others came from Kim Peterson on the last of the TC-Mail disks updates).

And also I finally got the info fields on PRBase like I wanted them (version VII of the "screen") and updated the STATUS field of all the GROUPS and then went back and had to RE-DO my "STATUS" indicator codes so that the "sort" function would give me the Groups in "groups" that would make the mail labels useful in determining mailing statuses and running off the labels.

THEN..., WHEN !!! I was sure WHAT GROUPS we want to send to, I packaged up the OCT-NOV-DEC newsletters and sent them out to the 72 active Exchanging groups and the 11 "Courtesy" addresses (Jim Peterson, Barry Traver, etc) we (are CURRENTLY going to) send to and sent "OCT only" to the 34 current TRIAL groups, each with an appropriate enclosed note, and THEN ran off 40 +/- postcards saying "no more newsletters..." and addressed them to the groups we no longer get N/L's from (some NEVER responded to the attempted exchange) including the cross-referenced possible "new addresses" (and am still sending these out!). And I referenced ALL of the mailings of issues and postcards and notes into each Groups record on the PRBase file so we will know in the future WHAT HAS BEEN SENT AND RECEIVED FROM THESE GROUPS and WHAT THEIR RESPONSE "HISTORY" HAS BEEN.

It IS a major record-keeping job to try to keep up with incoming newsletters and addresses and group status, plus trying to keep up with the actual Files of newsletters, but it needed (needs) to be done so we could find out that, among other things,
WE ARE MISSING THE FOLLOWING FILE FOLDERS from the Newsletter Library:
Forest Lane U.G. // Shoals U.G. (out? // Bayou U.G. // Central Texas (out?) // San Fernando SFV U.G. (out?) // Amarillo U.G. (?) // Lubbock U.G. (?) //. So we need for everyone to L O O K at home for these folders! (And any others not mentioned here also (JSC and Cleveland are known to be checked out). Some groups seem to have sent us newsletters but we have no record of a FOLDER in the file--don't know what that means -maybe just pending being filed? in a folder to be created by Mr. Mautner. He ALSO has the dubious honor of getting to FILE approx. an 8" stack of newsletters I have "reviewed" here during just the last 4 months. No complaints here--it shows we have got a successful exchange program going during the last two years thanks in no small part to Kim's aggressive pursuit of Group addresses during 1987 and 1988.

Boy, those postcards seem to be working! I got one returned "Box closed" so we can save $.75 per month there!; and a group we haven't heard from for almost a year and half sent a letter--sad to note that the Lubbock group is down to half a dozen members and has no newsletter, but we will honor their indication of interest and continue to send to them as long as WE can afford to.

ED.EC cont......

So for the REST of my so-called spare time off from work in January, (picked up a net +17 hours of Comp. Time--what other people might get PAID for as overtime), I worked on a disk drive for Roy Jones (he now has an external DSK2) and had Jury duty one day. So much for life in the muddle lane.

See you all at the meeting on Sunday--Remember, SECOND SUNDAYs each month. (Johnson Space Cent. U.G. meets on the second Monday, if you are interested in going, contact me or Phil VanNordstrand (326-1916) for directions.) Bring your ideas for 1989 programs--no ideas means no programs on your favorite subjects! And it wouldn't hurt if someone would volunteer to show us something they are working on or doing or having problems with at the March meeting (or occasionally) so i don't have to BORE EVERYONE by being the only one willing to get up and botch up a demo or two. We Should have coffee at the meetings now as a test idea. BRING ALSO, any persons you know who might be interested in the TI or Geneve computers and our group. Remember, the little "home computer that could", can do things better than ever, now.   end ED.EC Jan 1989 /// rtl ///.

EDITORIAL OPINION: GENEVE AND THE 99/4A USERS GROUPS

As regards the "Geneve purchase" question, I would think that ANY 4A owner who is thinking of paying $300+for a RAMDISK card would have to think again about the Geneve as an alternative.   The display improvement, speed increase, and built-in memory abilities make the Geneve the only cost-effective choice, unless a person simply has a phobia against MYARC and its management. I have seen a lot of flak going around about how the Geneve and its users should not be in the 4A Users Groups. DUMB! If you are not growing and trying to get to the best possible system performance, then you are dying out, and that is what some of these groups are going to be doing, since the INNOVATIVE and ENERGETIC members who have always been the nucleus for these groups, will be the members from which Geneve owners will appear. And if they are made unwelcome in their own group, they will leave and be part of a "Geneve" group.

I personally CANNOT understand the phobia some of these comments indicate exists, on the part of some group members toward the Geneve. They talk as if a person who purchases one had somehow caused some injury or insult to the other users. A Geneve is really, in effect, only the ultimate (to date) expansion of the 4A system, just like Ramdisks, Double Density controllers, Supercarts, GramKrackers, etc, NONE OF WHICH has been viewed with such a fanatical fear by these same users. Why is it that we are PROUD of a member who manages to get a IBM-type keyboard to work on his 99/4A console, yet we react with repulsion when the same type of keyboard is hooked to a GENEVE?

I suppose that there ARE Group members who wish that everyone had ONLY the products that TI put out, or maybe they only wish that everyone else had NO MORE of a system than themselves! Even THESE members are willing and eager to get and use the new, more powerful software being created for the 4A, much of which would not have been developed without the new hardware systems to run it. MOST Users of the 4A, however, are interested in and eager to get and use as much of the new products as they can afford, and feel no

fear of those other members who have Ramdisks, etc. So why the paranoid fear exhibited and expounded by some of the members toward the Geneve, and the attempts to exclude its owners?

I BELIEVE that the basis for this lies in fear that this LACK OF DEPENDENCE on the old console and its expansion elements, signifies to these owners that THEIR machine, and all their invested hardware and knowledge and work, is about to become obsolete and "worthless", and therein lies the irrational responses seen in some groups. We need to keep in mind that to make this response into Group policy would be a kind of death-wish for the 4A: "If what I have can't be the center of attention for the group, then we just won't HAVE a group!"

As long as a Group provides support for the 4A and ITS users, ALL users are aided by the efforts and time of those who provide the product and software support for the newer products, including the Geneve. I agree completely with Ruth O'Neill in her comments in the ASGARD NEWS. If the Geneve is the future direction for the 99'er user, then to reject the Geneve and its users and developers is to declare that you have no future. If such an attitude had been prevalent in the Groups in 1983, then the Orphan would have long since been dead to any continued use and development.

Since it is unlikely that EITHER the 4A users OR the Geneve users alone constitute a large enough market to hold the interest of "outside" software and hardware developers, it would seem evident that this is a case of remaining together in our common interests, or fracturing into non-sustainable small groups which can neither be self-sufficient nor a market-worthy interest. The TI Users Groups only survived this long by a close-knit joining and sharing, and that is the only way we will survive many more years. Beware of those who want to be the "big fish in a small puddle"--those small puddles can dry up fast!

(Editorial comment is solely the personal opinion of
 R. Lumpkin and does not reflect an official policy by HUG)

BITS AND BYTES OF NEWS

Noted from the San Francisco 99ers N/L that they will be going to a Bi-monthly publication due to the lack of submitted articles. As noted by their editor, it seems that any members COULD be submitting at least hints or problem solutions that they run across or use, for at least the programs they are using. HELP! No articles means no NEW news in your newsletter!

WEST COAST FAIRE is scheduled for Feb. 9, Thursday, in San Francisco.

TI FEST-WEST 89 is scheduled for Feb. 18-19 in San Diego, CA., as sponsored by the Southern California Comp. Group in conjunction with the Los Angeles 99er U.G. and the Southwest 99ers of Tuscon, Arizona. To be held at the Clarion Hotel, 2223 El Cajon Blvd; San Diego. Contact (BBS): 1-619-278-8155, or San Diego or LA groups: 619-281-2111 or 213-271-6030.

TICOFF '89 is scheduled for March 18, 1989 by the Central Westchester 99ers, of Shrub Oak, N.Y. Contact Art Byers: 1-914-528-5402.

NEWS, cont...:

Fourth Annual New England TI Fayuh (their spelling, not mine!) is announced by Boston Computer Society and J. Peter Hoddie for April 1 in Woburn Mass., at the I-95 Ramada Inn. Contact above named at 1-617-861-8733 for info.

By my count, including the three above, there will have been 12 Faires wholly or partially dedicated to the TI given in the seven months starting last Sept.--Some "dead" computer, huh?

Computer Shopper (page 512 of Feb 89) has listed some TEAC 1/2 ht. disk drives, for $63.00 each in lots of five or more. These are the model 55BR and they DO work with the TI, according to the n/l article I saw on them. ANYONE IN THE HUG GROUP OR JOHNSON S.C. GROUP OR OTHER GROUPS INTERESTED? PLEASE CALL ME IF YOU ARE, SINCE I WOULD LIKE TO ORDER A COUPLE, AND A GROUP ORDER FOR TEN OR SO "MIGHT" GET A BETTER PRICE. They also had Fujitsu's for $59.00 and the TEAC 3.5" for $87.00, plus the Seagate 225 20-meg HD for $209.00--no other details on these. I will wait only until Feb. 23 or so to order, so CALL ME at 713-469-5089 if interested (recorder usually on).rtI.

John Wilforth made reference recently to the MS-DOS disk interfacing program being worked on by Will McGovern of the Funnelweb fame. It will access and format MS-DOS disks from a Myarc disk controller ('cuse that is the one the JSC Group bought and sent down there a couple of years ago!) and can be set up to run off the CorComp if someone wants to loan them one for a few months! Presumably this will allow you to stick IBM disks into your TI PEB drives and COPY THE FILES into TI files. (Still can't RUN 'ANY' IBM software programs on the TI, BUT just being able to get info out of Lotus or DBIII files from a TI keyboard would give your Apple II, Atari and Calm-a-door friends shriveling fits!!!).

IF YOU WISH TO ENCOURAGE SUCH PRODUCT DEVELOPMENT, NOW OR IN THE FUTURE, YOU SHOULD SEND DONATIONS FOR FUNNELWEB PLUS WORDS OF ENCOURAGEMENT
TO WILL MCGOVERN AT:
      215 Grinsell Street
      Kotara, New South Wales
      Australia

end BITS AND BYTES OF NEWS - JAN 89 ///rtl///

NOTE: If you use the "P" command to print out a directory from the "Show Directory" out of Funnelweb Editor, it will print to the LAST PRINT DEVICE ENTERED for the Editor OR THE FORMATTER--so if you have just "PRINTed" a file to disk (to get rid of control codes) or "FORMATted" a file to disk rather than to printer, and then ask for a directory print, it will go out to THAT SAME FILENAME AND DISK and over-write it! Also, if you have just printed a partial file such as " 35 86 PIO " as device name, the "P" will DEVICE ERROR and it will not be obvious WHY, from inside the Directory!

---> BEST O' D' BOARDS <---

Here's a fine bit of info that came directly off the HUG-TIBBS Message section. Hope you get as much out of it as did I.   <kpp>

Messages 10641-10644 06:00:14 10/11/88

Re POWER SUPPLIES
To RICHARD LUMPKIN
By JOHN GUION-LUBBOCK, TX

Richard, I just received a copy of the August 1988 HUG newsletter and read your article concerning power supplies. After reading so many false comments such as "the ones with black heat sinks are the best because it makes them cooler", I was very pleased to read some intelligent information on the subject. It is the best article I have seem in a while. After having spent quite a bit of time in the last few years repairing consoles, I thought I might add a little information I have picked up along the way:

1) TI actually used five variations of power supply design rather than three. The other two, however, were only used during the first year of 4A production and almost always use the in-line connector to the main circuit board rather than the square posts mounted on the P/S board. Electrically, these units use different toroids and extra inductors on the input lines for RFI rejection. Some other mods such as components values, capacitor orientation and jumper configuration also differed. However, the basic circuit and reliability was identical to all other early-production supplies.

2) TI did actually use some of the Iriichi Tsushin Kogyo supplies, but only in very late 1983 and in early 1984 when they were still filling school contacts and as replacement in the exchange center in some QI consoles. I recently repaired consoles for a private school and found the Kogyo supplies in seven of the consoles I fixed. All of these consoles were produced in early February of 1984.

3) The problem you noted about brief shorts across the +5V line and ground on the Kogyo supplies is very common. However, it is also fixed very easily (in MOST cases). The A1012Y transistor is only rated at 1.0 amp and shorts internally upon over load. Replacing this transistor usually fixes the supply. You article mentioned that this is a TIP31 equivalent. Actually, the TIP31 is an NPN transistor and was (as you stated) used in the earlier supplies. In the Kogyo, this is a TIP30 (PNP) equivalent. If you do replace the A1012Y (or TIP30) transistor to fix the supply, I would suggest replacing it with a TIP32 or TIP32C. This transistor is a drop-in replacement, but can handle 2 amps instead of 1 and may help prevent console destruction in the event of a brief overload.

Again, thanks for the informative article. I wish more like it were published. After all, when TI calls it quits on repair, it will be up to the users to fix their own equipment.

jPg

REF 3.5" DRIVES. MYARC DCC, etc.

AS I commented on page 5 of the Oct 88 Newsletter, further info on 3.5" drives would follow to explain the changes made in page 4. The Story:

Oh well, just to prove that everything NEVER is as easy as it is expected to be..., my 3.5" NEC drive and the Tandon and Remex all lived happily ever after on the TI controller card, until the day when the wicked stepper-card of New Jersey came on the scene....(Older model, bought used)... and verily, said CARD (being a Joker at heart) agreed pretty much with the NEC and the REMEX but gave the Tandon hic-cups, on single- density, no less, and occasionally even the ever-swift NEC coughed and sputtered a bit.

BUT THEN, when the spell of the dreaded 'double-dense-city' was cast on the group of three, matters went off track and muddled in a hurry....the Remex started grinding in its armor, and the Tandon missed its appointed rounds and stops, and so it came to pass that the chief 'watt-wizard' of the 'round-disc' was called in, to again make the sectors smooth. And after much sweating and huffing and puffing, aforementioned wizard spotted a certain pattern to the otherwise seemingly random pattern of glitchy events, being as a series of non-fatal, and non-repeatable, numbers of the "sixteen times something, PLUS 1" incantation....

Oh HA! says he, we have a stepper-jump-the-track-somehow-bad-maybe too-slow problem. Which proved to be exactly the NOT right answer, since 6ms made the problem either more of the same or at least not less of the same.

AND, just to make the puzzle more puzzling, the problems were truly random in occurence, though quite regular in position, and sometimes would appear on a disc which previously had performed perfectly, during subsequent formattings on the same drive. These trials were almost all during attempts at the ritual act of Formatting, since the only previous signal of problems was in the occasional 'searching' by the drives (re-cycling out to track 00 and back in to the desired sector) during program READS and disc copys, plus a few random 'lost' sectors....(Sound familiar, Myarc owners ??) All symptoms count, in the final count....

So, by what dark art could these devices be so bewitched by 'track step'??? And more to the point, what to do about it, since the loss of reliability gives rise to rapid shivers of the spine on each disc run.

AS the tale proceeds, it would seem that the previous electro-wizardry of playing with the jumpers on the NEC (to get the motor to run only when the drive is active), plus the slightly slow reactions of the Remex plus the previous addition of a diode to the Tandon board to achieve motor isolation (Motor off except when the drive is 'active' all were related.

All this worked just fine from the TI card (slow) but when they were placed into the brew with the Myarc 'speedy singing drive jousting' card, one heretofore unknown condition appeared--something was causing the drives to SLOW DOWN, said speed decrease being AT THE TIME precisely OF THE STEP, or actually shortly thereafter (about 2 u-sec) and being related apparently to the Drive Select signal Pulsing between sector READS 'just enough' to slow down the drive and cause a false skip in READing on the FIRST sector of tracks, some-times'! Like, randomly about one time out of 25 and depending on which drive, and how much DISC-DRAG was present at that time?? Since the errors WERE NOTED to be disk-dependent.

THIS WAS entirely dependent on the speed of reaction of the DRIVE to the pulses, and was NOT A ACTUAL FAILURE DURING THE WRITE PORTION OF THE INITIALIZATION, as I deftly proved, by taking a disc with consistent 'skip/recycle' occurences on the Tandon and then by getting the Remex to VERIFY the sectors without also first Writing (Initializing) the sectors on that particular disk. At which time, the REMEX found NO PROBLEM with the 1240 sectors the TANDON drive had placed on that disk!!! Not only no BAD sectors, but no problem accessing to all of them without "searching". This despite the fact that the Tandon ITSELF had trouble accessing the sectors it HAD JUST PLACED THERE!, thus I eventually decided that this was a READ process problem, not caused during the WRITE procedure.

In fact, most of the problems occuring on the drives were NOT 'bad sectors', but were rather of the 'non-fatal' type of cycling a couple of times to find the sector and then finally getting it and going on.... Therefore,, most of this may have been there for a while, and just not recognized, except in a PREVIOUSLY NOTED resistance on the part of the MYARC card in USING disks which had been created with the TI controller. Not ALL disks, just SOME disks, and sometimes it was possible to reformat a blank disk with the Myarc and then re-copy the disks and THEN THE FILES WOULD WORK JUST FINE! The Remex verified with no cycling, anyway...ALL OF THIS VIA DM1000 of FWB 4.0, 16 sectors per track. HOWEVER, the Myarc card WILL NOT USE PRBASE DATA FILES (Single Density) which have been created (FORMATTED) with the TI controller (single D)!

And the NEC was working just fine, on most discs, nary a burp....UNTIL..., the dragon of the 18th sector appeared courtesy of FWB 4.12, which formats to 18 sectors--at which time all complexes changed. Suddenly the NEC 3.5 was filled with frequent singing sounds of 'stepper slide' as it searched for the elusive sectors preceeded by an even 18...and the Remex went whacko to an unprecedented degree....but wonder of wonders, the end was in sight......I rejumpered the Tandon and it cleared up marvelously as long as the MO (Motor On) ran from line 16 (the common line for the MOTOR control) and not from the Drive Select line....

AH HA says I, now we have discovered the amulet, and on to the NEC, Better described as, 'too many jumpers inter-connected without plan or schematic'. I VOMed and probed and traced and finally got a new set of NEC jumpers figured out. The previous set of jumper settings I had would have had the DRIVE MOTOR and HEAD LOAD SOLENOID both

running from the Drive Select (activity) signal, which, as I said, worked just find on the TI controller and "might" work on the Corcomp... Somebody try it and let us know, please. BUT it did NOT work on the Myarc, and the NEW set of jumpers had the Head Solenoid activated from the Motor On signal, so the Head was on the spinning disk ALL the time ANY DRIVE was active.

SO... in order to reduce head and disc wear from the drive rotation during Motor On from the other drives, I needed to get the HEAD LOAD from the DRIVE SELECT signal, but MOTOR ON from line 16 (which is common to all the drives--'all motors run any time any drive is active'). These (NOVEMBER) settings do that:
   NEC Jumpers list:

HL = center to '1'
DL = open (prev. listed as 'M2'
MO = jumpered (2 pins)
MN = '2' to center
M1 = jumpered (2 pins)
DH = '2' to center
DC6 = '1' to center
DX = per drive number (less one)

then the MOTOR runs continuously during all drive accesses, and the Head Load stays off until the Activity LED comes on........PRESTO MAGIC--NO MORE RE-CYCLE on the stepper on the NEC.... The Remex (Slow) continues to give occasional errors on 18 sectors, and the Tandon does ok on 16 and 18.....All these on DM1000 Initialize/Verify AND via Myarc DMIII.

Which brings up a good point which I have left out until now....If these sectors did not show up as actually being BAD (just hard to find), why worry about them??

Well..IT SEEMS that for ANY GIVEN CONTROLLER CARD and drive combination, plus Interlace mode, ‡‡‡ THE SPEED OF READ-VERIFY of the sectors, plus hesitations, plus re-cycle times, IS EXACTLY HOW FAST YOU CAN READ THE DATA FROM THE DISK SECTORS (as Files).

All this means is, if you have a bad interlace pattern or drive pin-out problems which cause it to take longer to VERIFY (slow rate OR hesitations, OR searching/recycling) then when you try to READ the data from that file later on, YOU WILL READ AT THE SAME RATE AND WITH THE SAME SEARCHING, ETC.

The time to 'Initialize' or WRITE the sectors is the SAME for single or double density, on the Myarc card, whether from DM1000, Myarc DMIII, or TI-DM2 module-- 17 seconds per side, 34 seconds per 2 sided disc....The Interlace Mode does NOT effect this time. The REST of the time used is in READ-VERIFY, and is totally dependent on the sector-interlace spacing on the disk, and on whether the drive responds correctly.

In fact, the DEFAULT of the Interlace on DM1000 is '4' on single density, and '5' on double density, THE SAME AS WITH THE DM2 module, and same as the default of the Myarc

DMIII....These apparently were chosen to represent 'best' numbers to match most drives without creating errors. Now that the Motor Signal jumpers are set 'correctly', the Tandon works fine at these for 9 sectors (single density) and at double density--16, 18 sectors / track. The Remex is good at '4' for 9 sectors, and at '5' for 16 sectors, but very occasionally burps on '5' on 18 sectors. Neither likes '3' on 9 sectors, but BOTH work fine at '2' on 9 sectors, if 'fine' if a good term for reading a FULL SIDE of single density in -19- seconds! instead of 35 seconds.

IF WRITTEN AT A PARTICULAR INTERLACE SETTING, both 'Verify' AND all 'Files Access' will be at the SAME READ SPEED!!!! Where all this becomes very important, is where you have drives capable of SPEED (like 3.5" drives!). On a fast drive, with 16 sectors/track, an interlace of 3 will work, and you can read 640 sectors (SS,DD) in 26 seconds!! That is a rate of 24.6 sectors per sec., or 6.3 k-bytes per second; you could read a typical "33 sector" M/L file in less than 1.4 seconds. Not bad for a 'turtle-TI' and the 3.5's and good 5.25's will do it, with a fast step time of 6ms or better. At 18 sectors, the best you can do is Interlace 4, at 34 seconds per 720 sectors, or 21.2 sectors per second.....Normal interlace is '5', for 42 seconds per 640 OR 720 sectors...   (Sometimes they are the SAME READ times for both 16 or 18 sectors on the same interlace, and sometimes 16 / 18 sectors vary greatly in READ time.) The 3.5" drive, properly jumpered, seems to be able to handle anything sent to it without errors, and has only had ONE apparent access failure on one disk since November, and seems to show no sensitivity to particular software either. It is noteworthy that the PRBASE program uses DIRECT SECTOR ACCESSING in its operation, as do many of the newer, faster programs, and so places a higher demand for proper timing on the drive.

So if you set an Interlace which runs good and runs fast on YOUR drive, and your friends drive can't handle it, it will ratchet about 40 times on that disk, and he will hate your "quick-loading disk". . . .Easiest and 'safest' is to use the Disc Manager defaults, and correct whatever Disc Drive problems you have.

Any time you see that sector numbers are hesitating or stopping momentarily during "Verify" on a disk, or the drive ratchets back and forth, you have some kind of problem in the system. First, clean the drive heads. Second, make sure you are using a decent quality disk and it is not defective. I have Initialized 35 of the 3.5" disks, with two failures, BOTH of which made clicking or dragging sounds while running. One was a generic, and one was a highly regarded 'brand name' disk.

If all this flew past you, see your local wizard for some help getting your drives to digest what the controller card might be throwing at them!

///rtlumpkin/11-27-88///Myarc DCC///