



U.G.-dings



from New-JUG/North

June 1988

Volume 6 Number 6

Officers:

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Treasurer...Frank Filice 384-8797

Veep.....Walter Macieski..667-6903

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Librarian.Andy Westner..967-9154

NEXT MEETING: June 21, Bergenfield Public Library 7-8:45 P.M.

Motto: We are a family enjoying the unspeakable peace and freedom of being orphans. (Paraphrased from George Bernard Shaw)



June has 'busted' out all over!!!

New Jersey UG/North
P.O. Box 84
Dumont, NJ 07628



EDMONTON 99'er CUG*
P.O. Box 11983
Edmonton, Alberta
CANADA T5J 3L1

User Groups: Please Reciprocate!

Tidings from NEW/JUG North
P.O. Box 84
Dumont, NJ 07628

FUTURE MEETINGS:

JUNE 21
JULY 19
AUGUST 16

ALL at Bergenfield Public Library 7:30 - 8:45 PM. Time limited due to library's closing hour. Parking may be limited - use Sear's Surplus Store parking lot diagonally across RR tracks, if necessary.

Later dates are still 'up in the air,' depending on Dumont HS academic year program.

Edited by and published for members of New Jersey User Group/North (Bergen County.) Maybe we should be called FUG for short!? or maybe this NL should be called BUGBYTES? or T.I.dings from BUGbytes? Well, whatever, it is fun to think of good names.

EDITOR: Henry Hein
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Just what is a guy from NY hinterlands doing by editing a NL for you guys, anyway! I guess you really know, after all. Moving away didn't make me resign, either. My heart's still with you. I still need your help and I'm only getting it from only one or two. Send me some info, share it with the others, or the fabled SOMEONE ELSE may replace me.

It may be a wise idea to merge with others before the year is out for those who intend to stick with a TI UG. The treasury is being eaten up fast with these NL printings and mailings, and my copier is getting worse and worse in output quality. Can't figure it out and sending it 50 miles for repair is as costly as the repair itself.

An idea has come in the form of sending out NL's on disk. Now that is more costly. Art Byers of the Central Westchester UG (NY) has done it, besides publishing only once every other month. Now that's a great idea, and that's a lot of text! His latest is chock full of nuts and bolts in TI news gathering. Some printouts I'm borrowing for this NL.

MAY'S MEETING NOTES:

Bill called to tell me that the meeting was poorly attended but a scheduled demo on the uses of MULTIPLAN was very successful and will be carried over into the next meeting. So get there on time since the meeting time has been shortened. I'll be sifting through previous NL's from afar for reprints to help if I can find time. I heard that John Bonito gave some valuable input in the demo. Nice seeing John. How about one of your SUPER articles on the subject?

Other news of the event is lacking, such as treasurer and committee reports.

RANblings

I must apologize for the poor copy quality of my copier's reproductions of the past two months. I finally bought a new 'master,' a specially treated copper sheet which absorbs the images from originals and reproduces the images by thermal/chemical action to on blank paper. The sheet itself cost me \$50. The job was done by yours truly. There's no one within 50 miles who would do it for me. Boy was I scared! I did it! And what an improvement!

Please don't throw away old Tidings NLS. I say, from time to time, forget to list future meeting dates. There are good programs out there to make appointment or desk calendars. If you'd like one ask for a listing or send me a SASE with a disk. You should also keep a listing of TI support groups published here in March or April. It takes up too much space in future NLS to keep repeating them. I'll put that on a disk, if you like, along with all the UG's we exchange NLS. Many of the UG's you can join for a reduced fee and get their NLS, too. Some are very good and worth the price!

I still haven't found an easy word processor comparable to our own TIWriter, that is, for IBM or APPLE. What I mean by "easy" is what I wrote about last month, namely, the ability to download to my printer many different character commands for special effects in my writings. About a year ago, and recently, comments and tutorials of Jack Sughrue of the Nutmeggers UG have appeared in this NL which enhanced the capabilities of using TIW to its fullest. His .IFFing and .TLing taught me a lot about getting these many special effects. I recently typed a thesis for a friend and certainly must have raised the eyebrows of his examiners. I wonder if it would raise yours. No, not the topic, just for the print qualities and style. The author was also much impressed and wished he could get a TI rather than using his neighbor's computer. And, you should see a few RESUME's I made!

I don't know if Jack is still selling his FUNLPLUS disk but it is well worth asking. It sure opened doors for me for only \$8. Included are a few cute programs mentioned last year such as a desk calendar, TIW utility files for pseudo graphics, games, and the tutorials. Well worth it!

The .TLs (Transliterate) function capability of TIW are superior, in my estimation, to any WPs I've seen for other computers. The memory size of documents are easily solved by the .IF (Include File) commands placed at the end of any document you're working on. Yes, we do have an awkward WYSIWYG screen system but working with just a 40 column screen without going through windowing I can still format output and

do EDITING easily. Even the FORMATTER portion of TIW enables me to do some interesting tricks often omitted in other WPs, such as printing out any single page I want, although it takes a long while sometimes to find it or them. A lot of trial and error went into this on my part to verify this statement.

These features, along with the DV-80 disk storage method the TIW uses, we have a wide variety of uses for this simple and versatile WP.

One of the worst WPs I know of is the 'giveaway,' by Radio Shack, part of the DESMATE package. I would be ashamed of even giving it away. It allows NO special character commands AT ALL! Not even underlining, which is needed by students for term papers, or letter or subtitles. DESMATE II and DESMATE PRO are a little better, but still limited. For IBM compatibility it is also lacking in that peripherals, cables, etc., are HIGHLY proprietary, that is, you MUST buy THEIR add-ons or its likely it won't work. Also overpriced as a product, some programs and DOS upgrades for other IBM and clones won't work properly.

MY TIW HINT OF THE MONTH: Did your computer ever lock up while using the TIW? If so, take this hint. DON'T shut down, DON'T reset. Just pull out the cartridge, whichever you're using, and re-insert it. Happy Writing!

PERSONAL NOTE:

A recent accident injuring my right hand (4th finger) makes typing this column very difficult. So this month's column will be short. The prognosis is that I'll need another skin graft and another month to recover dexterity. I really could use another HAND, ARTICLE, etc., from someone in the club for next month's edition. Anyone listening?

NEW BBS for TI USERS:

Jeff Guide, System Manager of TI NET, wrote us about accessing them through Delphi, an exclusive nationwide TI BBS. Uploading is free and given credit for against downloading, provided programs you upload are not in their library. Joining costs \$29.95. "Standard Delphi usage rates include all communication charges and there are no premium charges for access at 1200 or 2400 bps! Home time is weekday evenings from 6:00 PM until 7:00 AM, and all day weekends with a basic rate of \$0.12/minute or \$7.20/hr." Sign up by dialing 800-365-4636. Once connected press RETURN twice. At password prompt type TINET and press RETURN. The introductory offer includes a free copy of the 500 page book DELPHI: THE OFFICIAL GUIDE, by Simon and Shuster, retailed for \$19.95 and newly released. Offer includes a 30-day "no risk" policy. Pay by leaving MASTERCARD, VISA, or AMERICAN EXPRESS #.

A GREAT IDEA for us TIers, and I guess I'll be on line shortly, ed.

Page 2.

TICOFF'88 WAS A RECORD SETTER!! #
By: Art Byers, Co-Coordinator #

March 26th saw two new Records set by TICOFF. First, over \$3000 was NETTED for the Roselle Park High School Student Scholarship fund. This just about equals the total of the first two years' events.

Next, a total of 576 paid admissions came through the door. This exceeds the attendance of any previous Ticoff. Of this number, about 100 were advance sales. Now remember that of all the TI shows, TICOFF is the only one that has consistently not only kept accurate records of the gate, but also willingly released the figures, good or bad!! I was never able to get any estimate of attendance from the Mid Atlantic group or from BCS and Chicago has been notorious for not having truly accurate figures. Gates released have always been estimates.

TICOFF's books are audited by the NJ state Dept of Education and so true admission count is mandatory. In addition to the paid gate, of course, there were those manning tables and the staff of students who helped carry in and carry out for Vendors. Many of them are computer owners and they added to the buying crowd.

Participating - sponsoring user groups for this year were: - The New Jersey Users Group, NJUG North - New Jersey U.G. North, North Jersey T.I. Users Group, Central Westchester 99'ers Club of New York, L.I.U.G. - Long Island Users Group, and The T.I. Tex Club of N.Y.).

Adult participation, as always, was on an unpaid and volunteer basis.

Two people deserve special mention and thanks: Bob Guellnitz who was the #1 overall director, and Dennis Porpora, who was in charge of vendor contacts. Dennis is the one mostly responsible for the record number of vendor tables sold in 1988.

Other committee members who did fine jobs are: Jay Leber -Usergroups and and speakers and events, Bill Dubrow - coordinated IBM/Clone activity, Dave Green - Assistant to Bob Guellnitz. It was fortunate Bob had all this help as I was ill for most of the key two months just before the show so Bob had very little of the assistance I was supposed to provide.

The Swap Shop

The Student Council ran the r Swap/Sell/Buy Shop for used and pre-owned equipment. The Scholarship Fund received a commission of 10% paid by the seller, and for which a charitable donation receipt was given

if requested.

Pre-Show Party 'night before'.

This year TICOFF had a separate meeting room as a hospitality room and a small convivial group share some wine and cheeses, soda and snack while several new pieces of software were demonstrated by Jack Chattuck (President of the Delaware Valley Users' Group) and myself

Speakers and events

Lou Phillips of Myarc was the first speaker, at 10:30 am, and gave a thorough review of the hardware and software available for the Geneve 9640.

Jay Leber then led an open user group forum which could have gone on for more than the scheduled hour. Among the topics discussed were how to publicize the club to get new members, how to hold member interest and attendance, and such diverse items as the costs of used equipment and the languages available for the 99/4A.

Dennis Porpora of the North Jersey TI Group gave a talk on exchanging data between IBM and TI and vice/versa. Thi was followed by a question and answer session. The transfer can be done for as little as the \$4 or \$5 cost of a cable and connectors.

Barry Traver filled the special telecommunications room for his talk on "getting started" using your modem. Topics he covered included using PC Pursuit, accessing local or distant BBS's, and using the major networks such as BIX, Comuserve, Delphi, GENie, and the Source. In addition, Barry discussed uploading, downloading, conferencing, and sending electronic mail. The size of the crowd for Barry's talk was a tribute to his renown and expertise.

The Last Speaker of the day was Jim Horn of CIS who covered "The Computer Underground and how it got started".

TICOFF'88 -Final Vendor List
For the second year in a row, the floor was sold out!!!

CaDD Electronics - The GRAMulator. An improved type of Gramcracker for the TI 99/4A. This is not a clone or copy of the GK, but a completely different original approach with all new circuitry and components.

CLea-Neff Enterprises - Chips, connectors, cable, ribbon cables, wires, resistors, transistors, transformers, diods, Generic small items for computers.

Computer Shopper and PC Clone - Magazines Subscriptions.

Continental Technology - IBM Clones PC XT AT compatables.

Disk Only Software - Hardware and software for the TI 99/4A and IBM. Dealer for Myarc Geneve 9640 computer. Agency for Asgarrd Software including the new Calendar maker program.

Diskette World - Computer disks and disk boxes, colored disks, and disk accessories.

Dyna Pro International - PC XT AT clones.

Genial Computerware - Software for the TI-99/4A and Geneve 9640. The Genial Traveler Diskazine.

Ken's TV - Hardware, disk drives for the TI 99/4A.

Leisure time Computerware - Computer paper and stationery, Disks and supplies.

Lincoln Computer Center - Laptop computers, IBM hardware and accessories.

LOT Systems - PC XT AT Clones and accessories.

Mau Corp. - Software for IBM clones.

Micro Media - PC small parts and accessories. Generic parts.

Micropendium - Monthly News Magazine devoted to the 99/4A and 9640. Subscriptions.

Myarc Inc. - PEB cards for the 99/4A. Geneve 9640 computer, Floppy/Hard controller for 9640 and 99/4A.

Pan World International - Shareware for Apple, Commodore, IBM.

Programs Plus - IBM Shareware.

Quality 99 Software - Software for the TI-99/4A.

RAVE 99 - IBM type keyboard for the 99/4A, RAM Cards, Speech Cards.

TANDY-Radio Shack - Lap Top Computers and Track Star Board that makes IBM compatible with Apple.

TEK-PAK Technology - Sentinel Brand Disks, Color Disks.

TEXAMENTS -Software and hardware for the TI-99/4A

Tiger Cub Software - Software for the TI-99/4A.

Shave Enterprises - Software and books for Apple, Atari, Mac, Commodore.

*****EOP*****

WIRE IT YOURSELF

ALTERNATE DRIVE INTERFACES

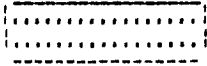
Downloaded From DELPHI TI NET.
submitted by Tom Burke

If you are thinking of adding a second drive to your system, and it is not a T.I. drive, it may or may not work by connecting it to the external drive connector on the back of the Disk Controller Card.

If it does NOT work with the T.I. recommended installation procedure, try this....

You will need the following: An adequate length of 34 conductor ribbon cable. (2 to 3 feet)

1 - female 34 pin connector. This will connect to the controller card inside the P.E. box. Part #41-90B 6C



It should look something like this. 2 - female 34 contact edgcard connectors. Part #41-946

This makes a total of three connectors. The part #'s are from RESCO Electronics. Use the crimp-on type connectors. Put part #41-90B 6C on one end of the cable. Plug this into the controller card inside the PE box. Place the first edge card connector approx. eight to twelve inches from the controller card. Crimp it on the cable. Now you should loosen the screw on the right, rear, top of the outside of the PE box enough so that you can slide the other end of the cable out through the gap. When this is done, plug the middle connector onto the internal drive, (don't forget to plug the power cable back on the drive), and put the drive back into the PE box, pulling the excess cable through the gap.

DO NOT INSTALL THE DRIVE PERMANENTLY AT THIS TIME. JUST LEAVE IT SIT IN THE PEB

Next, crimp the remaining connector on to the other end of the cable. Bare in mind that when you do put the connectors on the cable, that the same wires must be connected to the same numbered contacts on all three connectors. (e.g. wire one goes to pin one on connectors 1, 2, 3) Plug the last connector onto the external drive. (contact one to contact one, etc) Now test the system. You may or may not have to remove the resistor from drive #1. Info on where the resistor is found is in the Controller Manual.

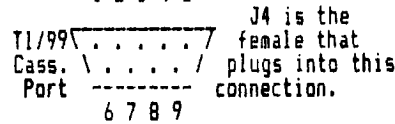
MAKE YOUR OWN CASSETTE CABLE

The following information will enable you to make your own single cassette cable for your TI. All parts are easily obtainable from Radio Shack, and for convenience the part numbers are given. All you need is a little skill and time to wire it up.

- J1, J2 1/8" plugs 274-287....2 for 1.29
- J3 3/32" plugs 274-281..... .99
- J4 D-connector 276-1537..... 2.49
- Hood for J4 276-1539..... 1.99

This is the diagram of the cassette port located on the rear of the TI, next to the power jack:

1 2 3 4 5



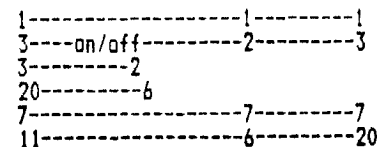
- J3=Cassette control (usually black)
- J2=Microphone jack (usually red)
- J1=Earpiece jack (usually white)

After getting all the parts together, wire the jacks one at a time with two conductor wire. Note that J3 is a micro-mini phono jack, while the other two are regular mini phono jacks. The positive connection from J3 will connect to pin #1 on the D connector, and the ground goes to pin #2. The positive connection from J2 will connect to pin #5 on the D connector, and the ground goes to pin #3. The positive connection from J1 will connect to pin #8 on the D connector, and the ground goes to pin #9. Connect the wire number to the appropriate part of the plug, following the above method.

INTERFACE YOUR PRINTER TO YOUR MODEM

Many people have asked how to have the data that is coming from the modem, print to their printer at the same time it prints to their monitor. This is not hard, if you have a serial interfaced printer and it does work with the following printers :

- TI 99/4 IMPACT PRINTER
- TI 810
- EPSON PRINTER
- GEMINI 10X



PRINTER RS232/C MODEM

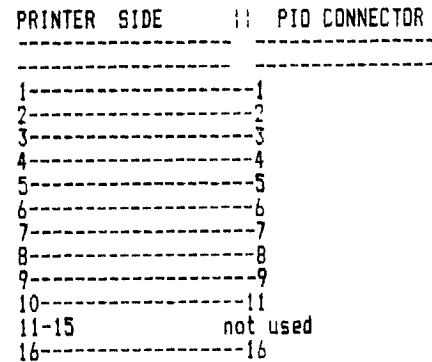
Some modems also connect pin 5 to pin 5. Pin 11 on the T.I. 810 printer is called "REVERSE CHANNEL". It is similar to the pin 6 of the RS232/C. Be sure to set the printer's baud rate to match that of your modem, (300 - 1200). The off/on switch permits you to pause the printer. Using the on line/off line switch on the printer will also pause the modem.

PRINTER CABLES

The following are the pin connections for a parallel interface (PIO) from your RS232/C to your parallel port on your printer.

- You will need the following:
- An adequate length of 16 conductor ribbon cable.
 - One 36 connection male Centronics connector.
 - One 16 connection female PIO port connector.

Wire the connectors together as follows:

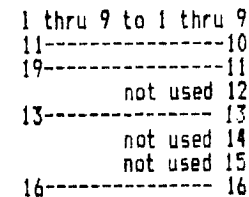


TAKE NOTE: For an Epson RX/80 printer, you must wire pin 13 to PIN 13

ADDENDUM by Art Byers of the CW 99's

If your PIO cable made as above does not work properly, try the pin connections listed below. they are taken from a cable supplied by Texcomp as being specifically for TI 99/4A and PIO printers and does work very well with the TI Impact Printer (which is an Epson MX 80).

Printer PIO CARD



*****EOF*****

A Proposal for TI-DOS Archiving
 Down loaded from DELPHI, TI NET
 Written by Dr. Jerry Coffey

In recent months, the TI community has begun to look at various means of storing programs and data in single files known as archives. This has created a number of problems, not the least of which is the fact that for each programmer who attempts to develop such an archiving method, there is likely to be several competing methods already released.

I have prepared this short file to simply spur discussion over the questions that the subject of archiving raises. There are several ideas presented herein but none of them are cast in stone. Hopefully, they will simply spur the inventive in the TI community to consider the questions and to develop solutions now instead of later when it will be much more difficult.

The most well-known of the TI archive formats is the format developed by Barry Traver. It uses a simple 18 byte file header that simply summarizes the essential data for that file from the original TI-style file header. (The following information was extracted from the ARCDoc file prepared by Al Beard.) Its format is as follows:

BYTE #	Description
0-9	10 Character (MAX) file name. Unused characters are space characters.
10	File Status Flags: Bit No ON=1 >00 Dis/Fix 0 Prog File/Data File >01 Program 1 Internal/Display >02 Int/Fix 2 Reserved >80 Dis/Var 3 WritProt/NoWritePrt >82 Int/Var 4 Reserved #5 Squeezed/Unsqueezed #Non-standard 6 Reserved meaning 7 Variab Len/Fx Len
11	Maximum Number of Records/Sector or AU
12-13	Total Number of Sectors Used (unsqueezed*archive) or Total

Number of 128 byte Records Used (squeezed archive)

14	End of File Offset
15	Logical Record Length
16-17	Number of Fixed Length Records or Number of Sectors Used by Variable Length Records

The last 128 byte header record contains the characters "END!" in the last four bytes. Unused header record slots (to fill out a 128 byte record) contain zeroes.

These 18 byte mini file headers are packed fourteen to two 128 byte records (for a total of 252 bytes). The remaining unused four bytes per sector contain either zeroes (meaning this is NOT the last header sector) or the characters END! (meaning this is the last header sector).

Following the header section of the archive is the data section. Each 256 byte sector of the file is packed as two 128 byte records.

There are two fundamental problems with the Traver format when used for archiving. First, the minor point is that these mini-headers are not sized as powers of 2. This complicates (only slightly) the archive directory maintenance functions. More serious though, is that fact that it locks out any future expansion unless some contorted methodology is used to find "expansion headers" and then to further decode these.

To alleviate this, I suggest that a different format be used for each directory entry.

BYTE #	Description
0-9	10 Character (MAX) file name. Unused characters are space characters.
10	File Status Flags: >00 D/F 0 Prog File/Data File >01 Prog 1 Internal/Display

>02 I/F	2	Reserved
>80 D/V	3	Write Prot/No Write Prot
>82 I/V	4	Reserved
#5		Squeezed/Unsqueezed
6		Reserved
7		Variable Len/ Fixed Len

#Non-standard meaning

11	Maximum Number of Records/Sector or AU
12-13	Total Number of Sectors Used (unsqueezed archive) or
14	End of File Offset
15	Logical Record Length
16-17	Number of Fixed Length Records or Number of Sectors Used by Variable Length Records
20-30	RESERVED FOR FUTURE EXPANSION (Preserve time/date stamps, etc.)
31	Header Addendum Flag

The effect of this directory structure will allow us to (a) meet future requirements, (b) add additional info to the archived files if needed, (c) greatly simplify archive directory management algorithms since each directory entry is exactly 32 bytes long.

I also realize that the suggestion for the use of bytes 12-13 does not conform with Al Beard's current methods for squeezing files. However, it seems to me that there is a good reason to attempt to simplify the use of that field. If, however, Al can convince us otherwise, it might be possible to allow that field to have a dual nature.

The RESERVED bytes provide area for immediate expansion if there is need. The header addendum flag is a simple zero/non-zero flag that will indicate whether additional header info is to be found with the actual archive file member. Since this need only be a bit flag, as is the case with the file

status flags, the header addendum flag could also be designed to carry other information. If the header flag itself is set, then additional information will be found preceding the actual file in the archive. This additional information can be arranged in any number of formats but the essential item is the very first word. It will indicate how many additional bytes of data are associated with the file header addendum. Beyond that, I have not attempted to define the header file addendum area since I am not sure how it might be used or if it will ever truly be used.

I realize that this proposal calls for a serious overhaul of the current archive format but I believe that the overhaul would be worthwhile. To perpetuate a less than optimal archive format will complicate our programming efforts and perhaps lock us into a system that is not as flexible or responsive to our changing needs.

On the other hand, an optimal archive format will allow us to do a variety of things, such as writing utilities to let us run programs that are not frequently used from directly inside an archive or allow us to extract a particular file (compressed or not) for transmission over data lines, or to simply type to the screen.

On yet another note, we might ask ourselves if we wish to design in the capability to expand an existing archive. There is precedent for this. In the CPM world, the library utilities allow the user to specify the number of library directory entries in the library at the time it is formed. This assumes that the creator has a reasonable idea of how many entries will be required since the archive directory fully precedes the files embedded in the archive. (NOTE: There is a way to avoid this. It involves using a header followed by the embedded file, followed by the next header and file, and so on. This requires that the header contain a pointer to the next header in the archive. The disadvantage of this technique is that the random access nature of the archive is destroyed.

This is the sort of tradeoff that needs to be fully considered by the TI community before implementation.)

Finally, there is one last issue that I wish to raise for consideration. I personally believe that we should separate the archiving process from the compression process totally. That is to say, a file in an archive can be extracted in a compressed form or in an uncompressed form. Likewise, a file can be compressed outside an archive and later added to the archive. I believe that by keeping the compression and archiving processes separate that we can not only enjoy them but can proceed to upgrade either one without directly impacting the other.

The purpose of this short file is to get the TI community thinking about the archive problem. I hope that it helps accomplish that. Please note that all of the ideas presented herein are subject to change and improvement. They are presented simply as alternatives to the current way of doing things.

Some Thoughts on Archiving
Jerry Coffey - Dec 1987

Al Beard did the TI community a service not only by writing a combined archiving/Huffman-squeezing program, but by documenting and extending the conventions used in Barry Traver's ARCHIVER program. Barry Boone has provided a striking demonstration of the powerful Lempel-Ziv-Welch algorithm as well as his consummate skill at crafting fast, efficient assembly code. Dave Ramsey has just written a thoughtful piece on some of the possibilities and needs to be met by library and compression utilities.

In this remarkable atmosphere of creativity, it is difficult to keep track of the exchange of ideas. I would like to summarize some of these exchanges to give everyone the flavor of what is happening and to emphasize some of the issues and questions. Barry Traver put his finger on some of the concerns that need to be addressed in a series of comments that are excerpted below:

"A multiplicity of ARCHIVERS with no set standard or reasonable compatibility can indeed be a nightmare for the average user (not to mention a real headache to Sysops!), as owners of other computers well know (with any on-line time saved by file compression sometimes outweighed by off-line time lost trying to find which of a dozen different archivers must be used to unpack the compressed file!).

I have no axe to grind for a particular method (I've encouraged both Al Beard and Barry Boone in their efforts), but I believe we need to work out something of benefit of the average TI user and Sysops for the good of the entire TI community. More than others, TI'ers are dependant on major services and local BBS's for software (they certainly won't find much in their local computer store!).

"Two thoughts about the need for standardization:

(1) Although TI'ers are as a whole more technically knowledgeable than owners of other computers, (they have to be to stay alive!), many are still just plain "users" and need to have some user-friendliness built into archiving and unarchiving, so that they won't waste time on downloading files and never be able to figure out how to unpack them.

(2) I've heard reported complaints from local IBM Sysops about people uploading mammoth packed files without giving any indication of what particular method to use in unpacking them, which cause a lot of trouble for Sysops. If we can avoid this sort of thing in the TI community, we should.

"One thought about one possible step for a solution to help the confused user: have on a disk a collection of archivers with a load program. When the load program is run, it could ask for the name of the file to be unpacked, and - after checking it out - could then load the appropriate archiver (DCOPY, ARCHIVER, SQUARC, ARCHIVER II 2.3, ARCHIVER III, etc.) for unpacking that particular file (assuming that there are enough

"flags" - intentional and/or accidental - to distinguish the packed files). Just a thought on one thing that could be done if a standard format isn't worked out (although some standardization would certainly be preferable, in my opinion).

WHY STANDARDIZATION?

In CPM and MSDOS, filename extensions play a critical role in identifying file type for the operating system (e.g., COM, EXE, and BAT files). This same device has been used by agreed convention to indicate collections of files combined in a "library" or "archive". The extension LBR or ARC conveys information about the structure of the combined file to special utility programs, just as COM, EXE, and BAT convey information to the operating system. The new extensions and their meaning were established not by the creators of the operating system, but by users (and vendors) working together to improve performance of the system.

In the TI system, the role of filename extensions is played by the file type byte in the file header. Since this convention was established by TI and has served the community very well, any elaboration of the file type concept must be consistent with the TI protocol and be recognized and accepted by programmers to be useful.

Al Beard proposed setting a single bit in the file type to flag squeezed files. A recent conference on Delphi explored some of the possibilities here. TI only used 10 out of the 256 bit combinations available in the file type byte. Setting other bits in the file type has virtually no effect in existing programs (thus avoiding compatibility problems). Most important, this byte is preserved in the Paul Charlton XMODEM implementation that has become the de facto standard for file transfers. It is also preserved in Traver and Beard archives and will be probably be preserved in the full implementation of Barry Boone's program (ARC III). So here we have a common point of reference with the approach used in CPM and MSDOS.

There are several possible uses that could be made of the unused bits in the file type byte. Dave Ramsey has pointed out the usefulness of considering library and squeezing functions separately. In the case of

a library or archive, the DF128 byte in the header that identifies the combined file could have a bit set to distinguish an archive from normally structured DF128 files. (The Display/Fixed 128 format for archived files has also become a de facto standard, in part to distinguish them from the radically different concept <TI-DOS independence> used in TI's unique "DCOPY" utility.) For each file within an archive, a "mini" header is written to identify the type and location of the data records that constitute the packed file. These mini-headers preserve the file type bytes for the component files and are a natural location for imbedding flags to indicate that a file has been squeezed, for example. Within any file type byte there are 15 variants that could be distinguished by setting the "reserved bits". But if Dave Ramsey is right, this modest approach might come back to haunt us by restraining further development.

That is the significance of any consensus on standards we can reach now. It will affect not only the ease of the transition to more powerful file-handling utilities, but also the course of future development.

WHAT DEVELOPMENTS?

What is at stake? Consider a few of the possibilities. Even the simplest Traver archive already has the potential for providing subdirectories on floppy disks. When you catalog the contents of an archive, you are already looking at a subdirectory. The files that are pointed to by this directory are all intact and waiting to be used, but the handles (file headers) needed by the operating system have been condensed. What is missing are the utility routines to read or print text directly from the archive or to execute the programs. How easy or difficult it will be to write these routines may well depend on the form of the mini-header.

The 9640 (having a real-time clock) uses some of the bytes reserved by TI in the file header for two time/date stamps, a use that TI probably anticipated. Since archives are very useful for long-term storage of files, a date stamp can be very helpful in distinguishing similar files of different vintages. If this potential is to be preserved, the mini-header must also preserve some of these reserved bytes along with the bare

necessities retained in the current format. Note that these bytes in the main archive header are not preserved in an XMODEM transfer (FTG applies its own current date stamp when it writes a file on the user disk), but date stamps in the mini headers within a transmitted archive could be preserved.

Another possibility might be the use of bits or bytes within the mini-header to indicate more elaborate processing the files have been put through, for example Huffman or LZM encoding. This would permit files, compressed by different methods to inhabit the same archive and each file could be correctly restored by selecting a routine based on the header flags. Al Beard is using a similar idea employing the first few words of the encoded file, but consolidating this information in the mini-header may be more efficient and adaptable.

More ambitious possibilities include loading a file directly from an archive on disk, unsqueezing if necessary, and then executing it (program) or reading, printing, editing (text). How about a directory routine for TI-Writer (or FUNL or BA-) or MY-WORD that reads a subdirectory, marks a file, and loads the file into the editor (unsqueezing if necessary) -- and another that repacks the edited file (with a revised date stamp) back into the same archive. All of this is possible with the right information in the mini-header and an appropriate structure for the subdirectory.

CONSEQUENCES OF STANDARDS

Since TI has left the field, the future is in the hands of the users. We must accept responsibility for any effort to assure orderly development of new software. If standards don't permit enough room for innovation, creative people will be frustrated and the user will suffer with friendly but mundane software. On the other hand a change to less restrictive concepts requires a lot of things to make the new standard work for the average user -- such things as conversion programs to update existing files for compatibility. This is not the sort of thing that can be taken as a steady diet. So it is important to agree on something we can live with for a while.

*****EODF*****

AN OPEN LETTER TO MYARC
D/L from Delphi TI NET

The following is an open letter from
John Johnson of the Miami Users Group.

Note: This letter is being sent to Myarc on Monday, April 18, 1988. If you ever have hopes of seeing the 9640 survive as a competitive computer, please send a letter to Myarc, stating your feelings about their marketing strategy.

Myarc Incorporated
P.O. Box 140
Basking Ridge, NJ 07920

Dear Mr. Phillips,

You told us many things about the 9640. Things like included speech, ability to run TI programs from an A> prompt, A COMPLETELY OPEN COMPUTER, a good basic, etc.

We finally got the machine, and the promises kept coming. We supported you and bought the machine, even though the price climbed from the initial \$350 dollars you and we planned on (remember the initial poll you put out on Compuserve back in 85?), to the \$500 or so that you now ask for it. We supported you as part of the team, one of the orphans. We didn't buy clones, even though we knew that it would have been the most economical thing to do, and believe it or not, there were a few of us that were willing to take the beating because we wanted to support one of our own.

After all, you knew what it was like, having to struggle through a completely closed system, learning it from scratch, and making the most of it. Well, you gave us real power, brought us out of the orphanage, and we appreciate that. We're still supporting you.

Even though we still haven't seen ADVANCED BASIC, or the finished MDOS, or the PASCAL, we still stick with you, waiting. Waiting while you develop more software for the computer, software that you can sell to us, and probably expect to sell to us before the above products are completed.

You talk about a protection card to go into the p-box that will prevent piracy. Why are you wasting time on a piece of hardware that won't contribute to the computer? On the same note, why are you wasting time on software programming at all?

You are taking the same course as TI, aren't you? I hear a lot of rumors about your plans to not give out much technical information on the computer or the operating system. I find it hard to believe that you could be so stupid as to try that on us! Incredibly stupid is what you are if you stab us in the back by trying to keep the machine closed.

Tiers have learned to program in the last 8 years. Why won't you let us and third party software developers handle the software, and you handle the hardware? I feel I'm a fair programmer on the 4a, but I don't know squat about the 9640. And I don't really have the time to learn it. You won't provide information on how to program it, again, because you want to monopolize the software market. If you had half a brain, you'd have sent a technical manual full of information to any and all who requested it, at no charge. If you would have, there would be no software shortage for the machine, as there is now. Instead, you choose to limit the number of programmers to damn few, and you've managed to get on their bad side too.

So we have My-art. So what? With documentation on the computer, by now we could have had 10 different drawing programs. People don't buy an IBM (or clone) because of the software IBM

sells.

I really enjoyed my 99/4A, and I do see a huge advantage to having a machine like the Geneva. I probably could never go back to a 4A, but if you decide to continue with the foolish marketing scheme of a closed machine, with you writing software alone, I will not buy any software or hardware from Myarc. I won't sell the machine, or threaten to make you buy it back or any other foolishness, but I will do my best to persuade others not to do business with Myarc.

I will continue to use the 9640 with whatever software comes along in the form of freeware, third party sales, etc. I will continue to support my peers (all the Tiers and 9640 owners) as best as I can, but I feel you really screwed us. You gave us a compatible computer to upgrade to, and we supported you with our dollars. We put up with your limp excuses as to why products were constantly late. We put up with your labor disagreements with your programmers, while products bought and paid for weren't delivered. Now you are pulling a TI all over again. I have just about had it.

So I guess what I'm trying to say is that I have lots of patience. I can put up with delays, tap dancing etc, but when you start talking about a closed machine that I can't program, that's when I call it quits. I hear that your new managing genius, Riley, is responsible for this type of marketing.

Straighten him out, let him know that it won't work with this 9640 owner.

I'm also posting this letter on 6Enie, and I'll encourage others to write to you.

With much bitterness,

John A. Johnson

*****EOF*****

MULTIPLAN

By Audrey Bucher
Part 5

In this article, we are going to concentrate on the Print Command. One word of caution, be sure you recalculate your spreadsheet before printing. If you are saving the spreadsheet, Multiplan will automatically recalculate if you have made any entries, but this is not true with the Print command. There are four subcommands under Print...Printer, File, Margins and Options. Printer will begin printing if printer is turned on. File is used to print the record to disk. This may then be loaded into TI Writer and edited or included in a document.

The other two subcommands are the ones you will mostly be dealing with. I usually set the Options first. The command line when you select O is as follows:

```
area:R1:255
setup:
formulas Yes (No) r-c nums: Yes (No)
```

I usually change the area to print only the rows and columns that my spreadsheet occupies. For instance, R1:16C1:11 in our sample check balance sheet. When the sheet is saved, the changes are saved with it. On some of my spreadsheets that are quite lengthy, I usually only print the bottom four lines that give me totals at various times during the month and then at the end of the month, I will print the entire sheet to have a copy of the month's activities. Another option to enter in the area section is a Name. This would be used to print only a specific part of your worksheet that you have named. (More about that next month)

In the setup area you will put your printer configuration. Ex. I use PIO here.

The defaults for printing the formulas and row column numbers are both No. However if there is a reason you would like to have them printed, just change these to Y. If you choose to print formulas, the listing will display the actual formulas that appear in each cell, rather than the calculated values of the formulas as it

normally would. This feature is useful when you want a record of the logic behind the worksheet. Column widths are doubled when formulas is set to Yes. Next, I usually set the Margins. When choosing M, the command line will be as follows:

```
left:5 top:6
width:70 print length:54
page length:66
```

The left margin and top margin are given as number of characters, the print length and page length are given in number of lines. You may change these defaults to anything you like in order to center your printout on the page if you choose. Multiplan will print as many columns across the page as will fit within the margins you set. Any columns left over will be printed on a second page with row and column numbers continued. This method of printing permits you to cut and attach the printed pages to form a worksheet with the same dimensions you set up on the screen. Most of my spreadsheets have at least 15 columns in them and I prefer to print them all on one sheet of paper, so I use condensed print. I use the TAMP Print program by J&B Mathis that allows you to set printer controls from within Multiplan using the external copy command. It is a Fairware program and is in our library. It has files for many different kinds of printers, select the one that applies to your printer and copy it to your MP disk so it can be accessed. Because I use condensed print, I set my width to 132. Again, I usually adjust my print length and page length to suit the particular spreadsheet that I am working with at the time. Saves the printer from putting a lot of blank lines on the paper if it is a short spread sheet.

Now that you have all the margins and options set, just hit P for print and the printer will start to hum away. If you wish to cancel printing just hit FCTN 4 (Print Cancel). During printing, the Print Cancel key is the only key that is functional and it is only effective while "PRINT on printer" is displayed on the command line. If the printing is cancelled, MP will display the "Printer error" message.

Next month we'll talk about the Name command. Any questions, feel free to call at 881-5244.

CHECKS FOR JANUARY 1980

CHECK #	PAID TO	DEPOSIT	FOOD	RENT	UTILITIES	INSURANCE	CHARGES	AUTO	MISC	BALANCE
	FORWARD									1000.00
1234	BUG LIGHT				65.00					935.00
1235	MELL BANK			100.00						835.00
	DEPOSIT	845.00								1400.00
1236	STATE FARM					130.00				1270.00
1237	R EAGLE		63.25							1206.75
1238	MASTERCARD						89.72	11.00		1106.03
1239	AMCO							28.11		1077.92
1240	BELL TEL				51.16					1026.76
1241	FOODLAND		55.30							971.46
	DEPOSIT	300.00								1271.46
TOTALS		1145.00	118.55	400.00	116.16	130.00	89.72	39.11	0.00	

FROM THE MAILBOX

REPRINTED FROM THE WEST JAX 99ER NEWS...FEB 1987

TI-WRITER PRINTER CODES by Alice Cassidy, SFV 99ers

One evening as I was bragging that I had complete control of my printer by using the transliterate command, Ken Johnson (our fine editor), asked me why I went to all that trouble? He told me about page 146.

Have you read and understood page 146 of the TI WRITER manual? If you answered **Y E S** then skip this article. If you answered **no** then read on. If the only reason that you use the Formatter is for printer codes then read on. Look at page 146 to get an idea what it looks like. Go to page 98 and read that. If you still don't understand what it says don't worry. Below and on the next page are charts that show what keys to push for different printer commands. If you would like to print your letter in Continuous Expanded (Double-width mode) but don't want to leave TI WRITER to change the printer, just do the following on the top line of your letter.

PRESS: CTRL U, FCTN R, CTRL U, W, CTRL U, SHIFT A, CTRL U.
Both the Epson and the Gemini would use the above. The codes are CHR\$(27);"W" or CHR\$(27)&CHR\$(87)&CHR\$(1). At the end of the letter you would turn the Double-width mode (Continuous Expanded) off.

PRESS: CTRL U, FCTN R, CTRL U, W, CTRL U, SHIFT 2, CTRL U.
All codes can be embedded in the body of your letter but be sure that you take into account the space(s) used by the codes.

RX 80 EPSON PRINTER CODES FOR TI-WRITER

SCREEN DISPLAY	DISCUPTION	CTRL	FCTN	CTRL	KEY	CTRL	SHIFT	CTRL
Condensed On						U	O	U
Condensed Off						U	R	U
Double Strike On	U	R	U	B				
Double Strike Off	U	R	U	H				
Elite On	U	R	U	M				
Elite Off	U	R	U	P				
Emphasized On	U	R	U	E				
Emphasized Off	U	R	U	F				
Expanded One Line						U	N	U
Expanded On	U	R	U	W	U	A	U	
Expanded Off	U	R	U	W	U	2	U	
Half Speed Mode	U	R	U	s	U	A	U	
Italics On	U	R	U	4				
Italics Off	U	R	U	5				
Master Reset	U	R	U	0				
Normal Speed Mode	U	R	U	s	U	2	U	
Script Mode Off	U	R	U	T				
Subscript On	U	R	U	S	U	A	U	
Superscript On	U	R	U	S	U	2	U	
Underline On	U	R	U	-	U	A	U	
Underline Off	U	R	U	-	U	2	U	
1/6" Line Spacing	U	R	U	2				
1/8" Line Spacing	U	R	U	0				
7/72" Line Spacing	U	R	U	1				
5/72" Line Spacing	U	R	U	A	U	E	U	

(more)

T. I. Writer (Part 3)
Stan Katzman

Up to now we have created a file and have made corrections of any errors produced. The next thing we have to do is save the file to a disk so we can use it in the future if we so desire. (Later when we get into the Text Formatter the document must be on a disk.)

To save a document to a disk do the following: 1)Get T. I. Writer Editor, 2)remove the program disk, 3)insert a formatted disk for your document, 4)compose your document. Now we will save your document and here is how.

At the end of your document go to the command mode (Fctn 9) and now type F <enter> for Files. You will now see a menu of "LoadF, SaveF, PrintF, DeleteF, Purge or ShowDirectory". Now type SF <enter> and you will now see "SAVE FILE, enter filename:" at this point for a one disk drive system type DSK1.filename <enter>. For "filename" type anything you want to call your document. Your document will now be saved to the disk. When the "saving" process is finished you are returned back to the Edit mode in your document. You can now add or change your document and when you go back to the "SAVE FILE, enter filename:" section you will see the last entered filename and all you have to do is press <enter> and your entire file will be saved under that name.

If you want a different filename you can change it, if you so desire.

We can also only save part of a file, if we so desire. This is done the following way: At the "SAVE FILE, enter filename:" enter the starting line number, a space, the stop line number, a space and then DSK1.filename. The starting and stop line numbers are obtained from those numbers you see on the left of the screen. For example you could enter 32 45 DSK1.LETTER and you will only save the material starting at line 32 and ending at line 45 to the disk.

By the way you can "get rid" of the line numbers on the left by pressing Fctn 0 (zero). To get the line numbers back press Fctn 0 again. This is called "togglng". We can now save documents to disk (very important). More next time.

FROM THE LIBRARIAN. . .

It's almost spring! And in honor of spring (and spring cleaning!) we will be using the new CATALOGING LIBRARY COMPANION to organize our new library catalog! I distinctly remember seeing the hands of volunteers at the February meeting, and at the March meeting, I will have for each volunteer a group of ten disks to catalog, as well as a format sheet for each of you. PLEASE if you don't have the time or the equipment, don't volunteer. If, on the other hand, you do have those and need some help, I will be glad to help you. We could even set up a session at my home. Let me know!

My special thanks to all of those people who gave me disks for the library at the February meeting. The only new addition in February was the December DOM, which was a graphics and songs display for Christmas. Very nice, but a bit out of season now! For March, however, the story is different.

Added to the library will be the programs from the January DOM, all utilities, including an Archiver, Trackcopy, Font programs, and more. From Marty Kroll Senior a program to help with your 1987 taxes, a program called Mastering Math donated by ATECO (a practice math program from preschool thru sixth grade), eleven games donated by Gary Groves, including America, Count/duck, Monopoly, and others, a disk of utilities donated by Bob Provins, including Smash, an Archiver and Unlist. Another addition is a program called Doubleprint, which is used to print documents in double columns.

Also reinstated to our library is PRBASE 2.0. As you may remember, 2.0 was deeded at our January meeting, and 2.1 was available from the library. The files from the PUG of the newsletter articles was done with 2.0, but can be converted to 2.1 by following the directions with 2.1. However, Frank Zic, our resident PRBASE consultant has made some observations, which basically come down to: 2.0 is better for TI 99/4A, and 2.1 is better for GENEVE. With this in mind, 2.0 will be in the library and available, as well as 2.1. Remember, with either disk set, you must rename the disk PRBASE before you use it, or it will not work. As you can see, the more I get, the more you get! Let's keep it this way! See you at the meeting.