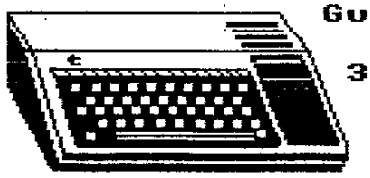
GUILFORD 99'ERS NEWSLETTER

SUPPORTING THE TEXAS INSTRUMENTS TI-99/4A COMPUTER



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TO:

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The Guilford 99'er Users' Group Newsletter is free to dues paying members (One copy per family, please). Dues are $12.00 per family, per year. Send check to:LF Jones, 3202 Canterbury Dr., Greensboro, NC 27408. The Software Library is for dues paying members only. (George von Seth, Ed.: 292-2035)

OUR NEXT MEETING

DATE: April 3, 1990 Time: 7:30 PM. Place: Glenwood Recreation Center, 2010 S. Chapman Street.

Program for this meeting will be a "WELCOME BACK 'MATE'!" Bob will tell us about his trip to Australia and the Hunter Valley UG.

MINUTES

The March 6th meeting of the Guilford 99er Users' Group was held at the Glenwood Recreation Center in Greensboro, N.C. There were 6 members and one visitor present.

The meeting was called to order at 7:35 P.M. by the Secretary as the Vice President was not at the meeting. President Bob Carmany is in Australia.

OLD BUSINESS:
There was no old business to discuss.

NEW BUSINESS:

A. Bill Woodruff says the library is very much out of date. Bill asked that any having new data or programs for the library to submit them to him. We need to get this data to Bill.

B. Bill brought a back seat full of used computer equipment for the members to look through before they were trashed. There was nothing left for the trash when members got through!

C. There was no offer from members for the program in April but since Bob will be back from Australia at that time, it is assumed that he will handle the program and show the goodies he brought back.

D. Tony Kleen says he has a spare P-Box that he will bring for the group to use and leave it with the computer. This will give the Secretary's box a rest since the "fire-hose" seems to be getting a little worse for wear from the journey back and forth to meetings. Thanks Tony.

E. The secretary passed out copies of the USED COMPUTER LOCATOR that was sent to the Club. This magazine was sent free and is Edited by Kenneth Wilkerson. Ken says he hopes he gets enough advertising so that he can keep sending the booklet free.

The program was conducted by Tony Kleen who brought his RAVE keyboard for all to see. Unfortunately, I was not told to bring my P-Box so Tony didn't get to demonstrate the keyboard as he would have liked to but we all still got a good look at the hardware and a short demo by Tony. Thanks Tony.

The meeting was adjourned at 8:45 P.M.

Respectfully submitted,
L. F. "Mac" Jones, Sect./Treas.
Guilford 99er Users' Group

by "Mac"

Well, here I sit in my short pants and t-shirt and still am a little warm in the middle of March!! I can't believe all this spring weather. If this type of climate keeps up, Santa will be coming in on water skis next Christmas. (Grin).

I am sorry some of you had to miss Tony's demo on the Rave keyboard last meeting as it was a great demo. I had been wanting to see one of those buggers ever since the flyer on them came out some years back. It is a really nice feature if you have the large keyboard at work. I personally have gotten use to the TI keyboard and it seemed a little awkward to me, but I am sure one can adjust easily. My wife will simply not touch my TI just because of the large board she uses over at UNCG in her work. She says the keyboard on my TI is just too small for her fingers. However, since I learned to type on an old manual Underwood back at RHS and that was back when if you even thought that you might hook a typewriter to 110 volts they would have taken you off to the nut farm. That one was, the best I can remember, about the same size as my TI board. So I have no problems turning out about 45 WPM. Tony didn't order the cover plate for his console so you could readily see the PC board and the components. By the looks of the board, there are 3 Eproms and the rest of the chips are standard. The keyboard plugs into a din socket on the board and Tony says it can be installed in about an hour. Less time would be spent if you are an experienced electronics nut says Tony. It was right amusing when Tony told of upon completion of his project, it didn't work right. Some letters wouldn't print and some had to be struck twice for them to print. He called Rave (which was after office hours) and he said the gentleman was very cordial and asked Tony to check where the keyboard plugged into the motherboard. Upon doing this, the trouble was found. Tony had been in poor light and had missed one pin on the console plug! He moved the socket back one pin and re-plugged it in and it was working like a champ at once. Tony says it is probably a common fault because it was the first thing he was told to check. Unfortunately, I thought Tony was going to bring his P/box and he thought I was, so there was no box to load any thing up to try the board out with but we got to type to the screen anyhow.

I made a new friend (I hope!) via mail a couple weeks ago. Mrs. Lynn Gardner from the PUG and West Penn groups wrote me requesting an adventure game I had and we have exchanged some fairware. Lynn and Mickey Schmitt have opened an adventure BBS (actually, Lynn says she just helps with it) which should be quite interesting for those of you who, like me, love adventures. Lynn as you may know is the writer of Zoom Flume and also the co-writer with Mickey of Oliver's Twist. Nice to make a new friend through this little orphan. I just wish I had some of Lynn and Mickey's smarts in this APL! In the advent any of you wish to call the adventure board, the telephone number is (412) 824-6779, and they run on 300/1200/2400 baud 24 hours a day and seven days a week. Thanks for the good work ladies.

We got a good offer not long ago from an old (not literally) friend in England to submit an article for out newsletter on how the group in England compares to ours and I am anxious to get it. Since hardly any of our members seem to have much desire to contribute anything, we take what we can get. Grin! I am hoping that Bob will bring us some good things to talk about when he gets back from Australia in a week or so. Sure wish I could have made that trip with him.

At this writing I haven't heard anything from the Miami or the North Shore groups that I requested swapping newsletters with but that don't necessarily mean that it is hopeless. Sometimes it takes a while for these things to be processed, so I am still hoping we hear from them. You can really get a lot out of other newsletters and I am glad to see that some of you are taking them home and reading them.

I had better sign off and let Bob have some room for anything he might have for us from the "Mates down under" so until the April meeting, enjoy the good TImes.

WONDERS DOWN UNDER

By Bob Carmany

After months of planning and saving, it was at last indeed time for the trip to Oz and a meeting with all of the Hunter Valley UG members that I had been corresponding with for several years. The 14-hour flight on Qantas from Los Angeles to Sydney was relatively uneventful. The only inconvenience was waking up every so often for more food and other refreshments --- it was tough but I think I could get used to it!

I got into Sydney a bit earlier than the 0825 scheduled arrival time and, after clearing Australian Customs and exchanging some money, I started to look around for Al Lawrence and Brian Woods who were to meet me at the airport. Brian wasn't any trouble to recognize, he looked like his picture --full beard and all! Al, on the other hand, had shaved off his beard and I doubt if I would have recognized him without an introduction.

A quick tour of Sydney follwed including the obligatory trips to the Opera House and Harbour Bridge (both on all the travel literature). An elevator ride up into the top of the Sydney Tower and a refreshment stop followed. Then, it was off to Hunter Valley!!

Al and Brian dropped me off at Joe Wright's house (my host for the first couple of nights). The evening was to be unplanned relaxation ---and the last that I would see for about two weeks. Ah yes! Aussies have "morning Tea", Lunch, and

"evening Tea" instead of our Breakfast, Lunch, and Supper. Anyway, "evening Tea" was one of those "throw another shrimp on the Barbie" affairs except that it was sausages and steaks ---another idea that I could get used to very easily!!

Now relatively rested from my flight, the TI odyssey began! The first stop on Tuesday was Richard Terry's Surgery. Between patients (and over a cup of real tea), Dr. Terry (Struggling Forth) gave Joe and I a preview of his unfinished Forth Utilities. Inverse video, character definition routines and other "goodies" were on his yet-unreleaseed disk. Really top-flight stuff! I can't picture Dr. Terry ever "struggling" with Forth except at the very beginning --- a very impressive display running off the Horizon RAMdisk!!

If you have ever seen one of those Paul Hogan "wonders down under" commercials, you can appreciate this next bit. Everywhere you go in Oz there are fish mongers --called fish-o's by the locals. Everyone of them sells prawns --not shrimp. We have shrimp ---the Aussies have PRAWNS! The one you see in Paul Hogan's hand in the commercial that hangs out both sides of his hand in just medium-sized. I had to have some for evening Tea on Tuesday. Let me tell you, mate, they were flamin' brilliant!!

Tuesday night and time for the monthly Hunter Valley UG meeting. I started to get nervous about an hour before the meeting. Here I was, 12,000 miles from home amongst some of the most outstanding programmers in the TI world doing a program for them. I just hope they weren't too bored by my small programming effort. No worries, mate, a more friendly bunch of blokes you couldn't find anywhere! Joe Wright introduced me around to the individual members as they came in and, to be honest, I wouldn't have recognized very many of them from their pictures. I hadn't a clue as to who Tony McGovern was until he was introduced but I probably would have been able to figure everything out later from a conversation that I overheard between him and Ron Kleinschafer --not from the names but from the content of the conversation. I was able to understand bits and pieces of what was said but I swear they talked in hexidecimal code!

Anyway, it was time for the meeting to start. Peter Smith, the UG President, started things off with a much-too-generous introduction. I thought that I was going to surprise them with the ribbon inker from George von Seth and myself (I think I did!). But that lot, they are something else! They realy caught me "with my tweeds down" as Joe Wright said. I came away with a backup disk controller card and a Quest RD200 RAMdisk. Ron Kleinschafer had even arranged for a gift of Opal to smooth over the inevitable rift that my 3-week vacation alone was bound to cause when I got back home to the wife! Someday, I'll be able to repay their kindness and generousity when some of them come to the States for a visit! The RAMdisk acquisition has prompted scheming and planning to get the memory chips to bring it up to its full 512K capacity!

Ron Kleinschafer (Quest RD200 and QED 32K cartridge software) comes as close to a "Crocodile Dundee" caricature as there is in the UG. His dry, keen wit will do more than cause a smile. Just listening to Ron and Tony talk about problems with some of their programming applications was enough to make you wonder if they invented the TI! They probably know as much about its inner workings as anyone around.

Next on the agenda was a night at Tony McGovern's Funnelweb Farm. We (Al Lawrence and I) decided on a daytime trip for a look at the "cavorting beasties" that give the place its name. Will McGovern (DISKHACKER, LINEHUNTER, et. al.) was our guide for the trip. He was able to find the home of the "resident denizen" who guards the mail box --the rest were left for another time. I even resisted the temptation to entice one of these venomous spiders out of his silk-lined burrow.

Later that evening, we returned for an evening with Tony and his system. Sitting on top of his console is a mummified Funnelweb spider no less! Off to the side is a table littered with the innards of what looked to be several computers. I should have anticipated that Tony would be a hardware surgeon as well as a superb programmer. Tony's system (the one he was using at the time) has an AVPC 80-column card and a couple of RAMdisks in addition to the usual expanded system. Seeing F'web Vn 4.21 run in the full 80 columns with two text files in buffer at the same time in the newly created DISKREVIEW was a a real eye-opener!! I could definitely get used to an AVPC card and F'web in 80-columns!!!

Midway through the evening, I dropped a bit of a surprise on Tony. A couple of weeks earlier, I had found an non-fatal bug in the file-marking portion of the program. I mentioned it to Tony and what followed was extraordinary!! Tony thinks in Hex. I really think that he has a built-in hexidecimal conversion program in his head. He never bothered to change the screen display of his code to ASCII. What followed was a commentary about what each of the bytes of code did. I learned more about debugging A/L programs in that one evening than I could have learned in several months of reading.

What is on the immediate horizon from Funnelweb Farm? Through his constant process of updating and code scrunching, Tony has created enough space to make DISKREVIEW a comprehensive disk manager. He thinks that there is enough room to add the code for disk initialization and the other functions that aren't there now. Although it is almost at maximum program length at present, the 40-column version will have enough spce left to add some of the best and most-requested features of the 80-column version as well.

Will is currently working on an update of DISKHACKER that should be released shortly with a quick track copier for each of the floppy drive controllers. There is still no facility for altering any protection schemes on a disk. All it will do, in addition to the analyzer, is to provide a faster and more convenient method of copying disks than the track copiers that are currently available. The speed increase will be substantial!

I discovered that the 9 days that I had allotted to spend in Newcastle were not enough! I managed to see the Quest RD200 in action and got the tutorial course from Al Lawrence during my stay at his place. Neil Quigg who invented and developed the RAMdisk (and the QED 32K cartridge) stopped by one evening and we ont a bit of technical conversation sandwiched between all

of the visiting somehow. I got a quick look at Joe Wright's Geneology program written entirely in TI-Forth. There were so many bits and pieces of TI encounters crammed in among the social functions that it is impossible to try to remember them all! But, like that souvenir that I bought said, "I survived the Hunter"!! Brisbane was next on the travel agenda and a visit with Larry Reid. His system consists of the usual expanded system with a Myarc HFDC with a 20 meg Tandon 262, a Horizon 256K Ramdisk, and 3 DSDD floppy drives attached to it. A few hours on the system revealed that the HFDC has some serious problems indeed!

The first problem that we encountered was the revelation that the Myarc controller wouldn't read any disk that had been formatted with DM-1000. It accepted disks formatted with John Birdwell's DISK UTILITIES program but it sure didn't like DM-1000. You would have thought that, by now, Myarc would have gotten the floppy side of the controller right! The end result is that Larry is now forced to re-copy the major part of his library to suit the rather peculiar tastes of the Myarc HDFC.

The second problem was of equally significant proportions! It sems that when you tried to run a program on a disk formatted with DM-1000, it corrupted the Horizon DSR. The result was that it had to be reloaded from scratch. The programs on the Horizon were unaffected but the DSR was thoroughly "trashed". It seems that the Myarc HDFC just doesn't like anything else in the PEB with it.

The solution to the problem is really quite simple -- a second controller card. Mike Wright of the Boston Computer Society uses a CorComp controller for his floppy drives along with the Myarc. It seems that when a second disk controller card is added, the Myarc allocates drives 1 - 4 to the other controller and 5 - 8 for the Myarc. With this being the case, I wonder if Myarc knew that there was a problem with the floppy side of the HDFC? Conversely, the Hard Drive side of the controller works quite well.

The time spent with Larry convinced me of one thing: there is no way that I would spend the money for a Myarc HDFC. There are just too many problems with the floppy side of the controller to justify the outlay for the HDFC and a hard drive and power supply. Just give me a couple of RAMdisks anytime!

The trip "down under" was a bit more than a vacation. It gave me a chance to see, first-hand, a wide range of TI products and programs and evaluate them by watching them work. I'm still in the process of trying to digest everything that I saw during my visit. A truly amazing collection of talent and sustained programming output that has come from the Hunter Valley 99'ers UG!

There are some lingering effects from my vacation. My wife says that I talk funny --"G'day" and "blokes" have become a part of my vocabulary and I call everyone "mate". She also says that she refuses to be seen in public with me when I'm wearing my cattleman's hat. I guess everything will get back to normal sometime!

The travel brochures underestimated the place. The only thing that could have spoiled the trip for me would have been a mid-Pacific plane crash! It was all worth a year of saving money. The fact is, I can't wait until my next trip to see my mates!

TONY'S CORNER

KLEEN PROGRAMMING.

I decided to take care of a problem of mine; a problem with regard to presenting a TI-Base program and an accompanying text. There are several alternatives available. One could list the 40-column program followed by 80-column text; 40-column program listings side by side with 40-column textual material; or 40-column program listings side by side with 80-column textual material. The problem with listings that aren't side by side is the wasted newsletter space. The problem with listings side by side is that I don't have any software to do that.

Well, that is, until now. Given the versatility of TI-Writer and TI-Base, and given the fact that PRESS has not yet been released; I decided to try my hand at providing myself the option of side by side presentation. I can see several possibilities for my use of this application. The most obvious being that I can use it to better present my newsletter articles. I plan to also apply it to my documentation, presenting the program on the left, be it TI-Base or XBasic, and documenting its use and usefulness on the right.

Anyway, to kill three birds with one stone, the following material demonstrates what my presentation looks like; describes to you how I achieved these results; and documents my work for MY later use. I'm a firm believer in documenting one's work for the next poor slob. I've experienced the fact that I'm quite often that next poor slob!

```
SET PRINTER=DSK2.PG900217
SELECT 1
USE PGM_LIST
DISPLAY STRUCTURE
SNAP
SET PRINTER=PIO
```

exhibit 1

```
   CREATED 02/16/90 CHANGED

  FIELD  DESCRIPTOR  TYPE  WIDTH  DEC
    1    PGM_LINE      C    040

       1 PGM_TEXT     00000/00G7
```

exhibit 2

```
LF DSK2.PG900217
ctrl-@
RS
/(ctrl(U))(shft(M))(shft(J))(ctrl(U))//
SF
```

exhibit 3

```
SELECT 3
CONVERT TI900217 TI900217 GD
  TXT_LINE C 079 (fctn(8))
USE TI900217

SELECT 1
CONVERT PG900217 PG900217 GD
  PGM_LINE C 040 (fctn(8))
```

In this first exhibit, I just want to demonstrate how to get a screen print (TIBase) to a disk file. Simply set your printer attribute to the disk and file name you desire. If you're familiar with TIBase, you know that the next few commands SELECT slot 1, USE a database named PGM_LIST, DISPLAY's this database's STRUCTURE to the screen, and then prints a SNAPshot of the screen to the output printer device. In this case we've set our 'printer' to 'DSK2.PG900217' for the snapshot, and then reset it to PIO.

An example of what we would see on the screen after entering the DISPLAY STRUCTURE is in exhibit 2. Unfortunately, when output'ing to a disk, all the line feeds and carriage controls show up twice. Anyway, this happens to me with my OKIDATA designation for my printer. To edit out all these extraneous LF's and CR's, I use TIWriter. Exhibit 3 shows the command line entries needed to delete the extra characters. The ctrl-@ shifts from word wrap mode (solid cursor) to fixed mode (hollow cursor). If you are not in fixed mode, all your spacing will be lost!

The replace string (RS) command requires the ctrl-U (special character mode) usage. We're shifting into special character mode to represent the special characters of (line feed) and (carriage control); which are shft(J) and shft(M). If you've entered this line correctly, you'll only see two characters represented between the two slash characters. ALSO, don't forget to save the file after you're done editing.

Now that I've got the screen print example out of the way, let's get to the real subject matter. In looking at this article, one can't help but notice the three distinct segments; the opening segment with 80 columns per line; the lower left segment with 40 columns between the separators; and the lower right segment with 80 columns between separators. I have treated each of these segments as a separate entity, or file. Each segment was created using TIWriter, with file names of TI900217, PG900217, and TX900217. In each you're wondering about the naming convention; TI900217 represents (T)ext

```
USE PG900217

SELECT 2
 AVERT TX900217 TX900217 GO
  TXT_LINE C 080 (fctn(8))
USE TX900217

DO GAK003
```

exhibit 4

```
* ------------------------------------ *
* TIB900219.GAK002/C   PGM/TXT REPORT  *
* -----------------V6------------------ *
SELECT 2
RECOVER
BOTTOM
DELETE RECORD
SELECT 1
RECOVER
BOTTOM
DELETE RECORD
IF (EOF)
  SELECT 2
  ENDIF
SET RECNUM OFF
SET HEADING OFF
LOCAL C40 C 040
LOCAL C80 C 080
 CAL C1  C 001
 EPLACE C1 WITH "]"
PRINT (16C) C40
DO GAK0021
RETURN
* ------------------------------------ *
```

exhibit 5

```
* ------------------------------------ *
* TIB900216.GAK0021/C                  *
* -----------------V4------------------ *
WHILE .NOT. (EOF)
  SELECT 1
  IF (EOF)
    PRINT C1 C40 C1 2.TXT_LINE C1
    ENDIF
  SELECT 2
  IF (EOF)
    PRINT C1 1.PGM_LINE C1 C80 C1
  ELSE
    SELECT 1
    IF .NOT. (EOF)
      PRINT C1 1.PGM_LINE C1
               2.TXT_LINE C1
      ENDIF
    ENDIF
  SELECT 1
  IF .NOT. (EOF)
```

(I)ntroduction dated 02/17/90, 'TX' represents (T)e(X)t, and 'PG' represents (P)ro(G)ram. Not very original, but handy. Placing a date in the file name helps when it comes to purging old files. At least you can tell when it was created if you place the date in the name!

At this point, let us assume that I've completed my three TIWriter exercises, and have named them TI900217, PG900217, and TX900217. Now what I want to do is convert these three TIWriter files to TIBase files, and then print them using TIBase command files. The TIBase session required to complete this exercise is presented in exhibit 4. In looking at it just now, it does seem somewhat involved. In fact, I can see some possible revisions that might make our interactive session somewhat less involved. I'll return in a moment!!

Well, I'm back. I did make revisions to exhibit 4 to make it simpler! You'll notice that I've separated the logic into four areas; the first dealing with 'TI', the second with 'PG', the third with 'TX', and the last with executing the TIBase command program. The initial three areas are basically the same. One first SELECTs a unique slot for each of the TIWriter files, then CONVERTs the TIWriter files into TIBase files, and finally USEs the TIBase file. The USE command does nothing more than access our database for use in the TIBase command file GAK003.

An explanation about the CONVERT. This command is very similar to the CREATE database command. One must describe the attributes of the database being converted to (created). The line in exhibit 4 which follows the CONVERT command is what you enter for the attributes. If you look at exhibit 2, this gives you an idea as to what you are entering. The field, descriptor, type, width, and dec are the column attributes. We are entering only one attribute, a descriptor called TXT_LINE which is 79 characters long. After we're done with the conversions, TIBase has only loaded your data, and has done nothing to your indexes. It is up to us to do this. I'll cover this in the next paragraph.

Exhibits 5, 6, and 7 are the TIBase programs I built to create this report. Keep in mind that these could be combined as one program. I have no special reasons for breaking the process into three programs, other than the fact that I do a piece at a time. One thing I do try to do is break out my WHILE loops into a separate command file, especially if the 'while' loop is going to repeat many times. TIBase always restarts reading a command file at the beginning each time it loops, therefore having your WHILE close to the top of the file should save time.

Let's look at exhibit 7 first. This is the first program called from exhibit 4. We SELECT slot 3, then RECOVER our data base. This command rebuilds the database; in our case, for the first time! We had the data already there, but now we're adding the indexing. Following our 'recovery', we go the BOTTOM of our file and DELETE this RECORD. Ever notice that when you list a file using FWeb that the last line looks real strange? Well, whenever we convert, we bring along that strange record.

I don't want to explain every command line in my program, so will just explain those lines that can't be explained by reading the TIBase manual explanations. The PRINT (10C) references an attribute that I set up in the TIBase's PRINTER database. The (10C) field represents 10 characters per inch. In GAK003/C, you'll notice that I elected to keep my repetitive WHILE loop within this program. I don't plan to have this looping that much, usually less

```
    MOVE
    ENDIF
  SELECT 2
  IF .NOT. (EOF)
    MOVE
    ENDIF
  IF (EOF)
    SELECT 1
    IF (EOF)
      RETURN
      ENDIF
    ENDIF
  ENDWHILE
RETURN
```

exhibit 6

```
* TIB900219.GAK003/C       TXT REPORT  *
*-----------------V3-----------------*
SELECT 3
RECOVER
BOTTOM
DELETE RECORD
SET RECNUM OFF
SET HEADING OFF
LOCAL C1  C 001
PRINT (10C) C1
WHILE .NOT. (EOF)
  PRINT TXT_LINE
  MOVE
  ENDWHILE
DO GAK002
SELECT 3
DELETE DATABASE
SELECT 2
DELETE DATABASE
SELECT 1
DELETE DATABASE
RETURN
```

exhibit 7

than 20 times. That's why I didn't place this in it's own program file, as I did in GAK002/C! To finish the GAK002 explanation, after printing the TI900217 file, I go DO the GAK002 program. When this completes, then I SELECT each slot that has a file, and DELETE each DATABASE in that slot.

The GAK002 program is similar to GAK003; we RECOVER the index, go to the BOTTOM of the file, and DELETE that RECORD. I use a print attribute called '(16C)', which is 16 characters per inch. This program DOes a program called GAK0021. This program is one WHILE loop, which keeps combining the 40-character and 80-character lines side by side, until both files have reached their ends. I haven't reviewed the logic to see whether it can be optimized or not. I do know that it works, though.

So, there you have it. I have thought of several improvements, already. I would like to have three 40-character columns printed side by side, whenever I run out of 80-character lines. I'll work on this one later. Haven't got time right now, have got to beat George's publication deadline. Hope to see you at the next meeting.