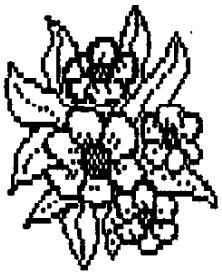
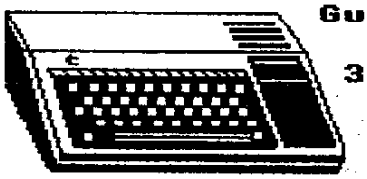
GUILFORD 99'ERS NEWSLETTER



SUPPORTING THE TEXAS INSTRUMENTS TI-99/4A COMPUTER



GUILFORD 99'ERS UG
3202 CANTERBURY DR
GREENSBORO NC
27408

TO:

VOLUME 7 NUMBER 5 MAY 1990

Bob Carmany, Pres. (855-1538) Emmett Hughes, Vice Pres. (584-5108)
Mack Jones, Sec/Treas (288-4280) Bill Woodruff,Pgm/Library (228-1892)
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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: May 1, 1990 Time: 7:30 PM. Place: Glenwood Recreation Center, 2010 S. Chapman Street.

Program for this meeting will be a SURPRISE. Tony Kleen always comes up with something of interest and this month should be no exception! Come and see what our resident TI-BASE wizard has in store for us this month! It's also a good chance to get a spare keyboard for your TI.

MINUTES

The April 3rd meeting of the Guilford 99ers User Group met at the Glenwood Recreation Center in Greensboro. There were 11 members and one visitor present. The meeting was called to order by President Bob Carmany at 7:37 P.M.

OLD BUSINESS:

Tony Kleen brought his spare P-Box for the club to use and we will leave it at the meeting room for future use. Thus we will always be sure of haveing a box at the meetings. Thanks Tony.

NEW BUSINESS:

President Carmany introduced Glenn Kelsey from Gibsonville who had just now heard of the club and wanted to see just what goes on at one. We are hoping Glenn will be a new member soon.

Herman donated two keyboards for the 99/A and it was suggested that they be auctioned off at the May meeting. All agreed.

The Secretary made mention that Guilford Quick Copy has now installed new copying machines and the price for newsletter printing has almost doubled as a result.

Since there was no other business to discuss, Bob then took the floor and told of his visit to Australia. He mentioned how he first started writing to a pen pal there and the friendship that was derived from that first writing led to his visit to the Hunter Valley and many friends "down under."

Bob then demoed his QUEST card which was given him by the "Mates" as a token of friendship. The card seems to be, as some HRD owners observed, just a smidgen faster than the HRD. Bob showed, by a benchmark, just how fast the card is compared to disk. It is amazing the speed these cards afford.

After the demo, Bill Woodruff updated some of the files in the library and the meeting was adjourned at 9:15 P.M.

Respectfuly submitted,
L.F. "Mac" Jones, Secretary
Guilford 99er Users' Group

RAMBLING BYTES

by "Mac"

Those of you who made the April meet was indeed fortunate to witness the QUEST Card demo by Bob. The card was a gift from the Mates down under and is, in my opinion, the way to go on the ram disk circuit. The reason I say this is the fact you may get the bare board and add the chips as your need or your pocket-book determines. I had once considered the GRAND RAM for just this one reason. Some of us find it diffucult to fork out several hundred dollars at one shot so by having the opportunity to just plug in the chips as we can afford to do so makes it nice. Right now, tho, the board is just being made

for the Mates of the Hunter Valley club. Hopefully, they will decide to sell a few over here in the "Colonies". Another thing I like about the board is, there is no piggy- backing of chips. All of the sockets are laid out so all you have to do is insert your chips, or as the old saying goes, let your chips fall where they may!

It never ceases to amaze me at the speed of these cards! To me it would be the feeling I had when I first got my disk drive after using the tape recorder for a good while. I had been used to starting the tape and if it was a pretty long program, taking a walk around the block while it loaded! You remember the feeling that i'm speaking of for sure.

Bob, with some help financialy from George, took the Hunter Valley group a Macinker as a gift which was well received according to Bob. It's amazing just what a pen-letter can start! I know I have made quite a lot of friends in the states as well as over-seas through this little orphan. I recently got a call from a gentleman in a small town outside Asheville, N.C. wanting some program information he needed for the TI. I was trying to help him and completely forgot to ask him how in the name of thunder he got my name and phone number! Asheville being clear across the state from me makes me wonder just how he did. He said he would love to be in a user group but there were none in the small town he lived in and he didn't care to drive over the mountains to Asheville to join a group there. This makes me glad that I do live in a city that has a TI supported user group as there are so many smaller towns that do not.

I was hoping to hear from a couple of user groups we were interested in exchanging with, but to this writing, we have not. I guess with everything to do with printing and mailing going up in price more and more, groups are just content to go with what exchanges they have. Can you believe we will soon be paying 30 cents to mail a newsletter? It was 15 cents when we started and has risen to present prices in just a few years. Who knows what the younger folks will be paying to mail a letter when they get our age or I should say (GULP) my age!

Anyone have a good guess as to when Spring will eventually get here? We have been without heat for 3 weeks due to a broken heat-exchanger which the factory in Tennessee doesn't seem to want to do anything about. Thank goodness for the trusty old fireplace but that doesn't seem to reach the bedrooms! It does give me incentive to sit here and hack at night tho, as my computer is at the fireplace in the den which is nice. "Oh wind, if winter comes can spring be....."

I was hoping I could finally finish my adventure game I started on last year, but I have run out of memory on it so I am now having to go back and take out quite a bit of locations and re-do about one-third of it so it will fit in the APL. I sure didn't know there was so little memory allowed in one of these programs and compared to PIRATE adventure, mine is a lot shorter, but anyhow I will have to re-write a portion to fit it in. Hope to see you all at the May meeting as Tony has a surprise for us and you will have to attend to find out what it is. Until then, enjoy the good TImes.

QUEST REVISITED

By Bob Carmany

Remember the days when you loaded programs with a cassette recorder? It seemed to take forever to load even a short application. Then there was the wonder of being able to load everything from a disk drive. The loading time for those programs was cut to a mere fraction of what it had been. The next logical step is a RAMdisk.

For years, the Horizon RAMdisk was the standard simply because it was the "only game in town". To be sure, there were rumors of GRAND RAM but they never made it much past the rumor stage. In fact, I don't think that any of them ever reached the general TI community. GRAND RAM presented an interestihg concept. With the Horizon, you were faced with the outlay af several hundred dollars at one time to upgrade to a RAMdisk. GRAND RAM, on the other hand, provided the means to buy the basic board and then add RAM as you could arrange the finances. Something that appealed to several in our Users' Group!

If you missed the last meeting, you missed Quest! My "mates" in Australia presented me with a Quest (sans RAM) at their monthly meeting. Several of the Hunter Valley UG members have Quest RAMdisk of their own. Al Lawrence, for example, has one with just 12 chips (384K or 1536 disk sectors) in his PE-Box. Others have varying degrees of RAM in theirs. That is one of the strong points of this little beauty — the DSR will recognize whatever size RAM is present. There is no need to expend several hundred dollars all at one time to upgrade the Quest to its maximum size of 512K. In fact, you can start with a single chip (128 sectors) and build from there. Three memory chips will give you the equivalent of a SSSD drive. From there, future expansion is up to you.

With a disk sector editor loaded, I took a "hack and slash" at SPELLCHECK. Without going into the details, I altered it so that it would load from DSK4 (the first half of Quest) and so the DICT1 and DICT2 files would load from DSK5 (the second half of Quest). There is no comparison with the version that loads from a physical disk drive.

In fact, in the month that I've had the Quest up and running, it has become one of those "how did I ever do without. ." items. Programs that use overlays of code like MULTIPLAN and TELCO run so much faster that can hardly believe what you are seeing. My greedy little mind is already plotting how to scrape together the money for a second Quest.

Just when I thought everything was as far as it could go, I got a packet in the mail from Ron Kleinschafer. Ron did all of the software development for both Quest and the QED 32K cartridge. It was a disk of updates for the Quest DSR utility and the AUTO (load) program. There was a series of "features we would like to see" that makes the DSR even easier to configure. Anyway, to misquote Crocodile Dundee: "A Horizon, that ain't a RAMdisk, mate. THIS is a RAMdisk".

MIKE'S CORNER

OR --- Butter Fingers Repair Section

By Michael O'Dowd, 9T9 Users Group

During the next year I will attempt to write an article each Month on problems encountered by persons like myself on the TI. Just recently I had some time to fool around with my TI, other than just using Multiplan and letter writing. Programs never used were dusted off and peeked into. Yes, I discovered my education was sadly neglected.

A modem never used, came out of the box and after much fumbling I made a cable and after a lot of trial and error entered Gary's BBS.

Then I tried hooking up some disk drives and managed to blow a LED on my double sided drive and another stopped working. Advise given by Steve Mickelson and Andy Parkinson helped but I did not solve all my problems.

I phoned repair outfits and TI and I am still not satisfied with the answers, so I have decided that this is a subject to research. This is knowledge that the Novice could grasp with drowning fingers.

I will make the mistakes and hopefully the vast world of TI will benefit and like Dorien Gray all my frustration and wear and tear will only be on a painting.

In December 1989 Toronto 99 Newsletter there was a good article on adding disk drives by Darnel Denison from the Front Range 99er Newsletter.

An 1-1/4 watt resistor is listed in the parts list which to me seems too high as most resisters on a computer board are low wattage with a value of one quarter to approximately 1/2 to 1 watt. Perhaps it is meant to be read as 1 and 1/4 watt.

I have other articles on adding disk drives and I find without the manufacturers books it is hard to know how to address the drives as the procedure is different in all makes.

I intend to tell you how to take your drives apart, clean them and hopefully we will learn to repair them.

Tools Required:

Screwdrivers, Sledge hammer (just a joke), knife and small soldering equipment will do for a start.

FIRST LESSON

Pick up some small resistors and learn to read the resistance value. Look them up in electronic stores if you do not know what they are.

Small Fixed Resistors are made of various materials with a wire sticking out each end of the material and the body may be brown or tanned with coloured identification bands on it which give the value of the resistance. (see table below)

A resistance sets up an obstruction to a flow of current similar to restricting the flow of water by sending it from a large bore pipe to a smaller bore pipe or limiting the flow of traffic on the QE Highway to one lane instead of three.

They are used to reduce voltage and limit current flow. The physical size of the resistor is rated in watts which means its ability to dissipate heat caused resistance. You can but a 24000 ohm resister in 1/4, 1/2 or 2 watt size but the resistance will be the same. If a 1 watt resistor was inserted in a circuit which required a 4 watt resister the 1 watt would be toasted. Make sure you purchase resistors with the correct wattage for any projects you attempt.

The Colour Bands:

Black=0, Brown=1, Red=2, Orange=3, Yellow=4, Green=5, Blue=6, Violet=7,Gray=8, White=9, Gold and Silver are 5% and 10% tolerance. No band means 20% tolerance.

TO READ A RESISTOR:

Imagine you have a resister with bands coloured, Red, Yellow, Orange,Gold.

HOLD the resistor with the Gold or Silver Band to the Right and call the left band the first significant digit it is Red and it has a value of 2.

Yellow has value of 4 and Orange has a value of 3. (The third Band is a multiplier and in this example it gives the number of zeroes to put after the first two digits.) The value of this resistor is 24000 Ohms, with a tolerance of 5%.

I intend to put in drawings in these articles so that you will be able to recognise the various parts of an electronic board and learn how to measure their values.

If any of you can assist with articles or copies of pages from Manufacturers Manuals, Drawings, Schematics etc., it will be greatly appreciated.

You can reach me at 416-270-0744. Michael O'Dowd.

```
* ------------------------------------ *
* 40/40/40 COLUMN REPORTING.           *
* ----------------------V2------------ *
* by Tony Kleen.                       *

CONVERT GAK010/H DSK4.PG40A GO
==============================

FIELD  DESCRIPTION  TYPE  WIDTH  DEC
-----  -----------  ----  -----  ---
  1    PG40          C    40
       ====          =    ==
fctn(8)
=======

CONVERT GAK010/C DSK4.PG40B GO
==============================

FIELD  DESCRIPTION  TYPE  WIDTH  DEC
-----  -----------  ----  -----  ---
  1    PG40          C    40
       ----          -    --
fctn(8)
=======

CONVERT GAK012/C DSK4.PG40C GO
==============================

FIELD  DESCRIPTION  TYPE  WIDTH  DEC
-----  -----------  ----  -----  ---
  1    PG40          C    40
       ====          =    ==
fctn(8)
=======

DO GAK010
=========

* ------------------------------------ *
* TIB900325.GAK010/H                   *
* ----------------V2------------------ *




* ------------------------------------ *
* TIB900325.GAK010/C                   *
* ----------------V4------------------ *
*                I N I T I A L I Z E   *
SET RECNUM OFF
SET HEADING OFF
PUBLIC C1 C 1
REPLACE C1 WITH "|"
*
COPY GAK012/C DSK4.GAK012/C GO
```

If you recall from last month's article, I was wishing for a process that would print three 40-character columns in compressed mode. Wishing didn't help, but sitting down and programming the code did! I actually came up with two processes; the first will simply print three independent texts side by side; the second will take the combined text, break it down into pages, divide by three, and evenly print the three columns, one page after the other. I guess you have to see the third one to get an idea of what I am speaking. I plan to present the simple one this month. Since it's already the 27th, I doubt if I will have time for both.

I just have to tell you. I got myself a half meg of RAMdisk. I've spent some time learning and playing with it. Reading the doc's, and studying them, took 2-3 hours. Setting the RAMdisk up took all of 20 minutes! I've got a lot to learn, yet. I'll definitely let you know what I think, later. I also plan to write an article on the RAVE keyboard, later.

Back to the article! The purpose of this process is to provide me the option of printing three forty-character columns. What I wanted was to have one program listing per column. What I end up with, then, is three program file listings on one page. This makes good use of paper, right? If you look at my TI-Base utility programming articles that appear in this newsletter (providing, of course, that George found room for them), you will see an example of this process's handywork. The first column gives one the helpful information as to how to process the work. The next two columns list the programs.

HOW TO USE THIS PROCESS.

.CONVERT. The first step is to convert your text or command files to TI-Base databases. I have defined three databases: PG40A, PG40B, and PG40C. All three have only one element, a PG40 of 40 characters. If you research the CONVERT command, you'll understand that I am copying the file 'GAK010/H' to the database file 'PG40A' which resides on DSK4. The 'GO' entry tells the TIB processor to 'go' ahead and execute the command without any mount query. The CONVERT command is very similar to the CREATE DATABASE command, in so much as you are creating the database, and in the convert's case, definitely populating the database. The CREATE command gives one the option of populating via the keyboard.

It probably goes without saying, that PG40A references the first column, that PG40B references the second, and PG40C, the third..

.DO GAK010. This command goes out and executes the TIBase command file.

HOW THE PROCESS WORKS.

.INITIALIZE. Looking at the first section of the GAK010 command file, you'll notice that I SET the RECord NUMbering of the print lines OFF. I also SET the HEADING line for each printing function OFF. If we didn't set these off, we'd be getting the attribute name and record number on each line!

I then define a LOCAL variable called 'C1' which is of (C)haracter length '1'. The next step will REPLACE C1 WITH the value '|'.

In the next command we are COPYing the command file GAK012/C to DSK.GAK012/C. What I am accomplishing here may be foggy. I've got a RAMdisk at DSK4. Since RAMdisks are vastly (advertised as 20 times) faster than disks, any command file that is highly repetitive should be moved to the

```
* RECOVER *
SELECT 2
USE DSK4.PG40B
RECOVER
APPEND BLANK
TOP
*
SELECT 3
USE DSK4.PG40B
RECOVER
APPEND BLANK
TOP
*
SELECT 4
USE DSK4.PG40C
RECOVER
APPEND BLANK
TOP
*                 PRINT *
DO DSK4.BAK012
CLOSE ALL
*                 DELETE *
SELECT 1
USE DSK4.PG40A
DELETE DATABASE
USE DSK4.PG40B
DELETE DATABASE
USE DSK4.PG40C
DELETE DATABASE
*
DELETE FILE DSK4.BAK012/C
RETURN
* ------------------------------- *
```

RAMdisk to speed up the processing. It is also highly advantageous to move your active databases to the RAMdisk, also!

.RECOVER. This segment of the process introduces our databases to the process, recovers the index, and appends a blank line. This blank line is introduced so that blank lines are printed at the end of the two shorter columns; otherwise, we'd be repeating the last data line that was recovered. We execute the TOP command because the APPEND command places us at the end of the database.

.PRINT. As you can see, we execute a command file called BAK012 (located in RAMdisk, now). If you look at the BAK012 command file, it repetitively reads and writes from the three databases. This repetition continues until all three databases are at an EOF condition.

.DELETE. After doing what we set out to do, it is now Miller Time,, whoops, I mean its now time to clean up our mess. I have no further need of the databases, nor the command file, so... we delete them all.

Well, that's all there is to it. Not an especially pretty process, but it does get the job done. I'll present the other 40/40/40 column reporting process next month, hopefully. We're coming up on TAX-TIME. I've only got the next two weeks to file my extension! We'll see how much time, or money, I have left after that. See ya at the next meeting.

```
* ------------------------------- *
* TIB900321.BAK012/C              *
* ----------------V2-------------- *
WHILE .NOT. (EOF)
  PRINT (16C) ;
        C1 2.PG40 C1 3.PG40 C1 4.PG40 C1
*
  SELECT 2
  MOVE
  SELECT 3
  MOVE
  SELECT 4
  MOVE
```

```
*
  IF (EOF)
    SELECT 3
    IF (EOF)
      SELECT 2
      IF (EOF)
        RETURN
        ENDIF
      ENDIF
    ENDIF
*
  ENDWHILE
RETURN
* ------------------------------- *
```

TI-Base Utility Programming - by Tony Kleen.

```
| * ------------------------------- * | * ------------------------------- * | * ------------------------------- * |
| *    80 COLUMN REPORTING.       * | * TIB900327.GAK004/C               * | * TIB900320.GAK005/C               * |
| * ----------------------V3------- * | * ----------------V4-------------- * | * ----------------V2-------------- * |
| * by Tony Kleen.                * | *                    R E C O V E R * | WHILE .NOT. (EOF)                  |
|                                   | SELECT 1                           |   PRINT (10C) TX79                 |
| CONVERT Text_file DSK4.TX79 GO    | USE DSK4.TX79                      |   MOVE                             |
| ============================      | RECOVER                            |   ENDWHILE                         |
|                                   | TOP                                | RETURN                             |
| FIELD  DESCRIPTION  TYPE  WIDTH  DEC | *              I N I T I A L I Z E * | * ------------------------------- * |
| -----  -----------  ----  -----  --- | SET RECNUM OFF                     |                                    |
|   1    TX79          C     79        | SET HEADING OFF                    |                                    |
|        ----          -     --        | *                                  |                                    |
| fctn(8)                           | COPY GAK005/C DSK4.GAK005/C GO     |                                    |
| =======                           | *                          P R I N T * |                                    |
|                                   | DO DSK4.GAK005                     |                                    |
| DO GAK004                         | *                          C L O S E * |                                    |
| =========                         | DELETE DATABASE                    |                                    |
|                                   | DELETE FILE DSK4.GAK005/C          |                                    |
| * ------------------------------- * | RETURN                           |                                    |
| * TIB900327.GAK004/H(elp)       * | * ------------------------------- * |                                    |
| * ------------------------------- * |                                    |                                    |
|                                   |                                    |                                    |

| PURPOSE:  TI-Base 80-column printing.

| PROCESS:  Follow the 1st column's command procedures; replacing 'Text_file'
            with your 80-column text file that you want printed.
```

```
* ------------------------------- *
* 40/80 COLUMN REPORTING.         *
* ----------------------V4-------- *
* by Tony Kleen.                  *

CONVERT Command_file DSK4.PG40 GO
=================================

FIELD  DESCRIPTION  TYPE  WIDTH  DEC
-----  -----------  ----  -----  ---
  1    PG40          C    40
       ====          =    ==
fctn(8)
=======

CONVERT Text_file DSK4.TX80 GO
==============================

FIELD  DESCRIPTION  TYPE  WIDTH  DEC
-----  -----------  ----  -----  ---
  1    TX80          C    80
       ====          =    ==
fctn(8)
=======

DO GAK006
=========

* ------------------------------- *
* TIB900327.GAK006/H(elp)         *
* ------------------------------- *
```

```
* ------------------------------- *
* TIB900326.GAK006/C              *
* ----------------V4-------------- *
*                       R E C O V E R *
SELECT 1
USE DSK4.PG40
RECOVER
TOP
SELECT 2
USE DSK4.TX80
RECOVER
TOP
*                   I N I T I A L I Z E *
SET RECNUM OFF
SET HEADING OFF
LOCAL C40 C 040
LOCAL C80 C 080
LOCAL C1  C 001
REPLACE C1 WITH "]"
*
COPY GAK007/C DSK4.GAK007/C GO
*                             P R I N T *
IF (EOF)
  SELECT 1
  ENDIF
DO GAK007
*                             C L O S E *
CLOSE ALL
SELECT 1
USE DSK4.PG40
DELETE DATABASE
USE DSK4.TX80
DELETE DATABASE
*
DELETE FILE DSK4.GAK007/C
RETURN
* ------------------------------- *
```

```
* ------------------------------- *
* TIB900321.GAK007/C              *
* ----------------V3-------------- *
WHILE .NOT. (EOF)
*
  SELECT 1
  IF (EOF)
    SELECT 2
    PRINT (16C) C1 C40 C1 2.TX80 C1
  ELSE
    SELECT 2
    IF (EOF)
      SELECT 1
      PRINT (16C) C1 1.PG40 C1    C80 C1
    ELSE
      PRINT (16C) C1 1.PG40 C1 2.TX80 C1
      MOVE
      SELECT 1
      ENDIF
    ENDIF
  MOVE
*
  IF (EOF)
    SELECT 1
    IF (EOF)
      RETURN
      ENDIF
    ENDIF
  ENDWHILE
RETURN
* ------------------------------- *
```

PURPOSE: TI-Base 40/80-column printing.

PROCESS: Follow the 1st column's command procedures; replacing 'Text_file' with your 80-column text file that you want printed; and replacing 'Command_file' with your 40-column TI-Base command file.