

# BITS, BYTES & PIXELS

LIMA 99/4A USERS GROUP



MARCH 1991 Volume 7, #3

**MOTEL AND TOURIST INFORMATION:**  
**LIMA TI MULTI USER GROUP CONFERENCE**  
Friday May 17 4PM, through Saturday May 18 6PM  
Reed Hall, The Ohio State University Lima Campus

THIS ALL TI/GENEVE EVENT IS TOTALLY FREE. It is the Lima Ohio TI User Group's gift to the TI community. There is no admission charge and tables in the exhibit room can be reserved at no charge on a space available basis.

#### HOW TO GET TO THE O.S.U. LIMA CAMPUS:

Lima is located in Northwest Ohio along Interstate 75 between Toledo and Dayton. The usual way to approach Lima by automobile from the north or south is on I75 and from the east or west on US30 or Ohio 309. Lima is served by Grayhound bus from several directions. There is no longer any passenger train service. The nearest airport is Dayton Ohio, from which it is necessary to rent a car or take a Grayhound bus. By advance request, the Lima Ohio User Group will attempt to provide pickup and delivery to and from the Lima bus station.

The O.S.U. Lima Campus is 3 miles east of the intersection of Ohio 309 and I75. A new and very well marked campus entrance is now located on Ohio 309 just east of Mummaugh Road. Turn north from 309 into the campus at the green highway sign. The first turn to the right (east) off this new entrance road takes you to the Reed Hall parking lot.

#### MOTEL INFORMATION:

The following motels have quoted us room prices. These prices are "plus tax", which is 12%, and in most cases represent discounts over their usual prices. Rooms are available on a "space available" basis. To obtain reservations at the prices quoted here, call the desired motel directly (do not use a motel chain's 800 national reservation number), state specifically that you are attending the TI Computer Conference at the O.S.U. campus, and request the special price. We have grouped these motels in two groups, those at the most convenient location (near I75 and Ohio 309) and those at other nearby locations.

**MOTELS NEAR INTERSECTION OF I75 AND 309.** A variety of restaurants and stores are within walking distance of these three motels.

- **MOTEL 6** (419-228-0456) All rooms have 2 double beds. Regular prices are Single \$24.95, Double \$30.95
- **HOWARD JOHNSON LODGE** (419-227-2221) One bed (1-2 persons)-\$29 Two beds (2-4 persons)-\$31
- **HOLIDAY INN** (419-222-0004) Has "Holidome" indoor pool. The facilities are comparable to those of

the Holiday Inn used for the Chicago TI faire. Flat room rate of \$68 for up to 4 people. To get this rate reservations must be received at least two weeks in advance of the MUG Conference

#### MOTELS AT OTHER NEARBY LOCATIONS:

- **LIMA DAYS INN** (419-227-6515) I75 and Ohio 81. One person \$26.95 Two persons \$32.95
- **ECONO LODGE** (419-228-4251) I75 and Ohio 81. Restaurant, outdoor pool, exercise and game room Flat rate \$30/room up to 4 persons. Reservations must be received at least two weeks prior to the conference to get this price.
- **QUALITY INN** (419-222-0596) I75 and Ohio 81. Restaurant, outdoor pool, and exercise room. Flat room rate of \$34.50 per room.
- **BEST WESTERN** (419-221-0114) I75 and Bluelick Rd. Has restaurant and olympic size indoor pool. Regular rates vary from \$39-\$55 for one person to \$48-\$65 for 3-4 persons depending on room.

#### TOURIST INFORMATION:

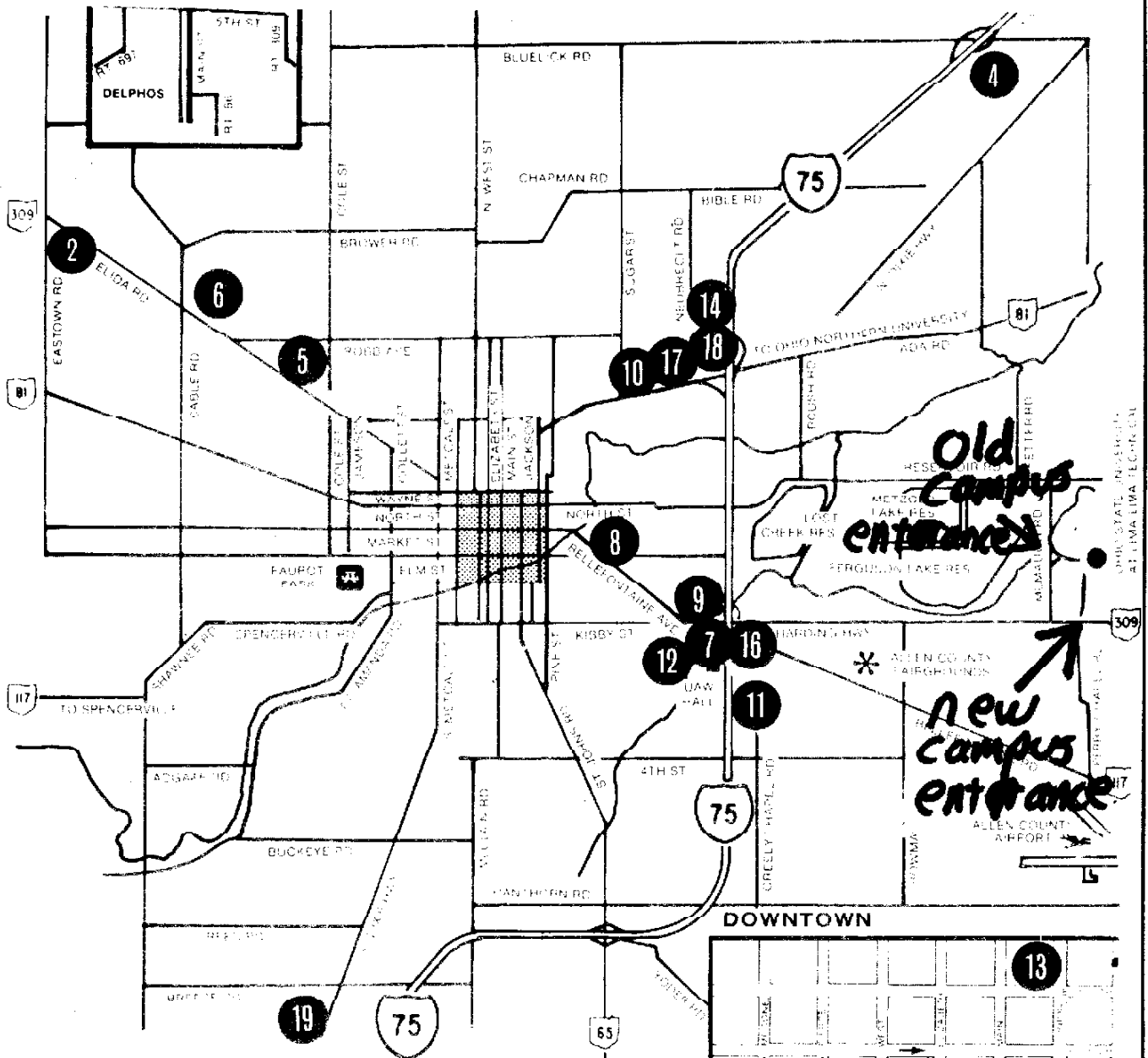
The O.S.U. Lima Campus has an extensive wooded area with nature trails that includes a beach-maple climax forest. As mentioned by Harry Brashear in his Micropendium article describing the May 1990 Lima TI MUG Conference, the city of Lima has a number of interesting exhibits relating to its past history as a railroad center. A few miles south of Lima at Wapakoneta is the Neil Armstrong Air and Space Museum honoring the first man to walk on the moon. Wapakoneta is the only place in the United States where it is still possible to make a local telephone call from a pay phone for five cents!

For a complete package of tourist information about Lima and the surrounding area send a post card to the Lima Convention and Visitors Bureau 147 N. Main St., Lima OH 45801, or phone them during business hours at 419-222-6045. Specifically state that you are attending the TI Computer Conference the weekend of May 18. They will promptly mail you a whole bunch of stuff.

#### FOR MORE INFORMATION ABOUT THE TI MUG CONFERENCE:

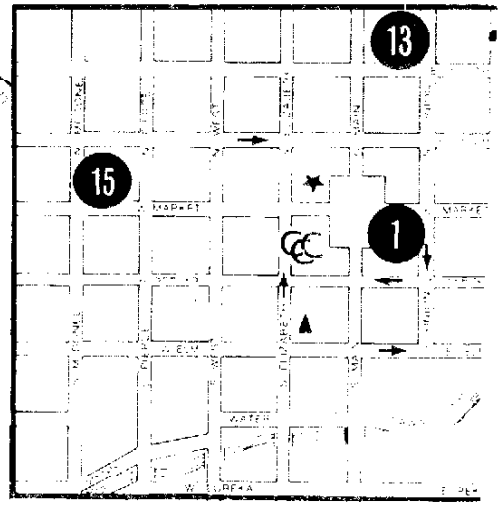
To reserve tables, schedule a formal presentation, or for further information phone Dave Szpizl evenings at 419-228-7109 or write the Lima Ohio TI User Group at P.O. Box 647, Venedocia OH 45894.

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- \* ALLEN CO. FAIRGROUNDS
- ✈ ALLEN CO. AIRPORT
- 🚂 AMTRACK STATION
- ★ CONVENTION & VISITORS BUREAU
- CC CIVIC & CONVENTION CENTER
- 📺 FAUROT PARK
- ▲ MEMORIAL HALL
- OHIO STATE UNIVERSITY AT LIMA / LIMA TECHNICAL COLLEGE
- UNITED AUTO WORKERS HALL (UAW)

- 1. AMBASSADOR PLAZA
- 2. ARBORGATE INN
- 3. ARROW MOTEL
- 4. BEST WESTERN MOTEL
- 5. COLONIAL MOTEL
- 6. COUNTRY INN
- 7. DAVIS PLAZA MOTEL
- 8. DIELMAN'S MOTEL
- 9. EASTGATE MOTEL
- 10. HILLCREST TERRACE MOTEL
- 11. HOLIDAY INN
- 12. HOWARD JOHNSON'S MOTOR LODGE
- 13. IMPERIAL INN MOTEL
- 14. LIMA ~~MILANO~~ DAYS INN
- 15. MILANO INN/MILANO CLUB
- 16. MOTEL 6
- 17. QUALITY INN
- 18. ~~RAMADA INN~~ **ECOND LODGE**



LIMA ALLEN COUNTY CONVENTION & VISITORS BUREAU  
 147 N. Main St. • Lima, Ohio 43004 • Tel. 603-1212

\*\*\*DONE\*\*\*

(EDITOR'S NOTE: The following was received by the Lima Ohio User Group in early February 1991 directly from the author Alexander Hulpke. Alexander is the author of a popular TI version of TETRIS, as well as XHi, YAPP, and X80. He requests that this article be given the widest possible publication and consideration in the TI community.)

## Hunger for Memory. A Programmers Suggestion by Alexander Hulpke

Most of us are using the TI for 6, or even more years (I bought mine in 1982, and I was surely not the first one to buy one). In these "ancient" times, computer technology was much less ahead than today. This included of course the TI. I don't want to give a lecture about the pro's and con's of the design, TI did, but to emphasize on one point: **Memory**. In the early 1980's memory was incredibly expensive. Just for curiosity, I looked in a computer magazine of 1980; a TMS 4116 RAM (1 Bit x 16k), 200ns was priced 14.10 DM, approx. (counting the \$ for 2DM) 7\$, today a 41256 (1 Bit x 256k), 100ns - 10 times the memory, twice as fast - is priced 4 DM, quite SOME change. So no one cared about the access of large amounts of memory. TI designed the 99/4A for 32k RAM (which is the standard RAM we're using), and the card was almost unpayable, about 440 DM. Thus no one even dared to ask for more memory.

Times have changed. Today on most systems 512k is standard, also a lot of TI users have upgraded, BUT there is no possibility for accessing this memory without extensive knowledge of the specific Hardware. We have lots of different expansion cards, Myarc, CorComp, Foundation, atronic, Mechatronics etc., etc. Not everyone has such a card, but also the RAMdisks are very common: Horizon, Quest etc. Finally there are large GRAM devices, up to 512k.

On the other hand, the TI still has 32k memory. For some applications it's enough, but for lots other its just a joke. Just for example take my YAPP paint program for the 9938. An interlaced HiRes screen is 108k, where could you place it, for example for OOPSing? (There's some room left in the 64k Extension, but not enough to back up a screen!) The standard GIF Format requires 16k just for the expansion/compression table, not counting any variables or code! We have excellent utilities, for example Tunnelweb, but the size of documents they can operate on is ridiculous. (MyWord is a bit better in size, but also not the best.)

Our community - or at least the programmers in our community - are wasting time, efforts and perhaps money, just to squeeze programs in the 32k memory. BK, a supercart gives 8k additional memory, and may be regarded standard, but this does not help much. The lack of memory not only creates problems to squeeze assembly code (and - for example - the YAPP code has been squeezed several times, resulting not always in better readable or better executing code), it also prevents the use of better development tools. On the Geneve, we have hopefully a full 'c' compiler in the near future, but

I see no chance to get the compiled programs running on the TI, even, if there were a library. There's no room.

People developed ways to work around it, modularizing programs is most probably the best known, but it's very time consuming, creating also lots of overhead to set up loading paths etc.

The TI market is not big enough to make a living from programming. I'm writing programs for fun and/or because I need them. I don't want to spend time, writing routines to swap memory from disk, waste time on dull memory savers, just because, the TI has not enough memory for today's more elaborate programs, more probably I'll write it for the my Geneve, where I have the memory.

The most disturbing point about it is: People HAVE the memory - see above! What we need is a way - a standard way and not the manufacturers delight of hardware dependent coding - to access memory, without having to include large management routines in your program. I have the following suggestions, they're just preliminary, and I just want to bring them into discussion. I'd appreciate any proliferations of them, also any suggestions. There should be someone with assembler knowledge to be a final "referee" to decide the interface. If no one else wants to do it, I'll do, but probably it will be better someone in the USA, who could participate in discussions on Delphi, CompuServe or similar:

The most standardized way to interface hardware dependent software is the DSR. Thus the memory management code **should** be in the DSR (and nearly all memory extension cards have one, the memory management code just had to be added). This would also allow, to "misuse" the RAMdisks as RAM extensions. The calling program should call it ONCE via DSRLNK and afterwards via an abbreviated routine: SRD, RL @SAVENT, SBZ.

The interfacing protocol should be as simple as possible: The Memory management routine (abbreviated: MMR) is called as an Subprogram (DSRLNK 10), the name is simple, perhaps >FF, >99 or >4A, parameter passing (except the 2-Byte PAB) is done in the CPU PAD RAM, probably even in GPLWS. Every RAM device includes a specific routine with this interface, software uses this protocol, future extensions must be standardized. This kind of routine could also be added to the Geneve, who has yet a strong mapping routine, but it's not usable from TI-mode (and I'm talking only about this mode, just for compatibility). I may offer to write this routine for the Geneve, if no one else with better system knowledge will do.

The additional memory must be mapped, since there is no room left. I'd suggest a mapping area of 8k (which is the TI's block size, and also most easily implementable on the Geneve), at >2000 or >A000 (so no extra hardware is needed. Also this is on the "edge" of the memory area, leaving one block free. >E000 collides with the On-Chip RAM of the

## Bits, Bytes &amp; Pixels

9995). The routine will provide memory at this area, either by mapping pages, or by copying (with previous restoring of the current contents if previous page was called by 3, see below) the data into this area (what a RAMdisk will do), thus it must be a area, where always RAM is. I think, the following routines are essential. The routine number to execute will be passed as a parameter to the MMR.

0: Obtain number of memory pages free. These pages will be numbered 0..n, and are called via this number! Page number 0 will be a backup of the "standard" contents of the mapping area.

1: "Open" MMR (This means the pages are used and not available as RAMdisk or similar!). Also the current data in the mapping area is set as page #0, as if it were called by "3" (so data will be restored when a new page is mapped in).

2: Get page #n.

3: Handle page #n. This is different to 2 in the way, that modifications will be copied back. 2 just allows to look at a page, and is faster, when the NEXT page is called, because a page, called with 2 is not written back.

4: Copy memory blocks (this will be needed perhaps very often, thus it should be provided by the MMR also, why should everyone program it new)

5: "Close" MMR. This will map page 0 again at the mapping area, not to confuse systems, that will really "map" as the Geneve, and not just "copy". Also memory is given free for other use as RAMdisk.

This is just a rough sketch of the routines. Exact conventions must be established yet.

As stated above, I'd be glad about ANY comments about it, my address is:

Alexander Hulpke  
Gulpener Strasse 11  
D-5100 Aachen  
West Germany

I'm sure, such a routine will help lots of authors, perhaps eventually lead to more complex software. Perhaps we could also standardize the access of other, not TI-planned hardware, as clock, mouse, enhanced keyboard.

Alexander Hulpke

**\*\*DONE\*\***

**QuickDisk for the TI-74 (95) Basicalc  
DOES WORK for the CC-40**

by Jim McLulloch, Lima Ohio and Chicago User Groups

As a doubly-orphaned owner of a TI CC-40 Compact Computer, I was ecstatic upon learning that mass storage MIGHT be available in the form of a Mechatronics "QuickDisk" device. Upon inquiry at T.A.P.E., 1439 Solano Place, Ontario, CA 91764 (Telephone 714-989-9906), I heard "good news and bad news". The good news was that he had drives

available in stock. The bad news was that these were cabled for connection with the TI-74 Basicalc Calculator (with a 10 pin single line female connector) as opposed to the 8 pin double row Hex-Bus adapter. Another "good news" item was that he had (as also does L.L. Conner, 1521 Ferry Street, Lafayette, IN 47904 (telephone 317-742-8146)) an adapter cable which on one end has a TI-74 "Dock-Bus" 10 pin single line female plug and on the other end has a CC-40 Hex-Bus style (double row) 8 pin Male plug. Upon hearing that these were compatible with the CC-40, I purchased a QuickDisk drive and an adapter cable.

The problem was how to connect the female plug from the QuickDisk to the female plug of the adapter cable. I found that a workable solution was to cut resistor leads into appropriate lengths (13 millimeters) and insert these into one of the female plugs. I then plugged this (newly male) connector into the other female plug such that the tab on the side of one plug was OPPOSITE (not on the same side as) the tab on the side of the other plug. The 8 pin male Hex-Bus part of the adapter cable is set in epoxy in a cup such that connection with the standard Hex-Bus cable is possible in only one way, eliminating possible confusion. The other end of the standard Hex-Bus cable plugs into the last of the daisy chain emanating from the CC-40. Voila! It WORKED! I was gratified to find that the QuickDisk performed as expected and was reliable.

The manual supplied with the QuickDisk is obviously translated from another language (German) and I found certain parts intriguing. Apparently there were two models made: 01 for the CC-40 which is a top-loader, 6 volt (600 ma) power requirement (no batteries), 8 pin hexbus cabling compatible, 1.7 Kg. unit which answers as Device number 8. Version 02 was described as a front-loader, 7.5 volt (400 ma) power requirement (supplied by 5 aa alkaline batteries!), cabled to a 10 pin Dock-Bus female plug for connection to the TI-74 Basicalc, 0.8 Kg. unit which was supposed to be Device number 9. My QuickDisk was not marked by any manufacturer's markings (model or serial numbers) but appeared to be a top loading (QuickDisk 01, Hex-Bus unit #8) unit which was (curiously) cabled to connect as a QuickDisk 02 (for the TI-74). I haven't had the courage to disassemble the unit ("don't mess with it if it WORKS") to see what native connections and conditions are present, but it might be interesting at some future time.

In the absence of Wafertape drives for us CC-40 owners, the QuickDisk appears to be the ONLY AVAILABLE mass storage device; even though the only remaining QuickDisks are cabled for the TI-74, I can thankfully speak from personal experience that they WILL WORK for the CC-40.

For more extensive explanation of the workings of the QuickDisk with the CC-40, please refer to Charles Good's excellent review in the November 1990 (Vol 6 No. 9) Lima Ohio 99/4a Users Group Newsletter ("Bits, Bytes Pixels") whose mailing address is Box 647, Venedocia, OH 45694.

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## Bits, Bytes & Pixels

### THE ORIGINAL SOURCE OF THE 105 KEY RAVE KEYBOARD FOR THE 99/4A

by Charles Good  
Lima Ohio User Group

Rave now sells a 101 key AT style keyboard for use with the 99/4a. A couple of years ago, RAVE sold a different 105 key keyboard for the 99/4A which was unlike anything I have seen on other modern computers. I own one of these 105 key keyboards and published a review of this product in the November 1988 issue of RAMP. This keyboard has a number of strange keys (the "Enhance" key for example) and the function keys are engraved with specific word processing functions that do not correspond to TI Writer. I have often wondered where RAVE got this apparently dedicated keyboard. Now I know! I spotted a picture of this keyboard as part of a BYTE review of the EAGLE PC. The review is by Tom Wadlow and appears on pages 236-242 of the March 1984 issue of BYTE. Quoted below are the specific parts of the Wadlow review that refer to the Eagle's keyboard:

"My biggest complaint about the Eagle concerns the keyboard. The keyboard is the means by which you communicate with your computer. the better you can do that, the better you can use your computer. I am a touch typist and have used dozens of keyboards, both professionally and personally, over several years. These days, I move quite easily between my home IBM keyboard (with its accursed shift and Backspace keys) and a Lisp machine keyboard at work (which has seven different kinds of shift keys, any combination of which can be, and often is, used with a single character). As you can see, I am used to dealing with a variety of often quite peculiar keyboards.

"The Eagle keyboard certainly qualifies as peculiar. While the alphanumeric keys are laid out more traditionally than on the IBM keyboard, they are not as widely spaced. My left hand always found the proper Home keys, but my right hand invariably went one key too far to the right. The Eagle keys have a mushy feel, with very little tactile feedback. This is fine if you just want to hit a key or two, but with extensive typing or word processing, it becomes quite bothersome.

"There are some serious errors in the layout of the other keys. My particular favorite is the way the cursor control keys are laid out. The IBM PC places cursor control on the 2-4-6-8 keys of its numeric keypad. This layout is satisfactory, unless you want to enter numbers and move the cursor at the same time, which is not uncommon. Eagle chose to remove the cursor control keys from the numeric pad and place them between the Enter key and the numbers. So there, in a vertical column, you have Up, Right, and Down. The Backspace key does double duty as Left, but you have to type Shift-Backspace to get the proper Left code. This layout is not very intuitive, not to mention being somewhat uncomfortable, and you spend a lot of time rubbing out characters every time you want to move left.

"A little experimentation produced the undocumented fact that the 2-4-6-8 keys on the number pad do produce cursor control codes when shifted. Unfortunately, neither the Shift-Lock nor the Alpha-Lock keys affect the number keys at all, so you must always hold down a Shift key to use this feature.

"Many of the function keys are labeled with functions for one or more of the Eagle applications programs. For example, hitting the function key labeled Files in Eagle-Calc displays a directory of the current disk. while I have nothing against this per se, it seems to me that a general purpose keyboard and a nice set of cardboard overlays would save us all the trouble of explaining to a novice why the Files key doesn't work with dBASE II or some other non-Eagle product.

"Eagle does have one special key that I do like a great deal- the Help key. And it does exactly what you would expect it to when you use it with Eagle software.

"Unlike the IBM keyboard, the Eagle keyboard has mechanically locked Shift-Lock and Alpha-lock keys that actually give some indication of the state of the keyboard. It is just a hint, though, since a program can set these locks in software. Thus, under some all too frequent circumstances, the actions of the two lock keys can be reversed, so that lowercase can be achieved only by keeping the Shift-Lock down. [I ran into this problem a couple of times on my RAVE keyboard, and it is very disturbing. CG]

"The keyboard has lots of other peculiarities, such as the numeric keypad with convenient Plus, Minus, and Times keys, but no Divide. Or the Enhance key, which is as big as the Enter key and takes up a space that would be a pretty good location for a correctly configured set of cursor control keys. Enhance is used only in Eagle-Writer, and I really had to dig in the manual to find out where. But the major peculiarity of this keyboard is that it exists at all. Several companies are making good money selling properly designed keyboards for the IBM PC. If Eagle has simply chosen one of those keyboards, it would be in a very enviable position compared to the IBM PC. Perhaps the "Not invented here" syndrome isn't limited to IBM [or TI...CG]. As Eagle's keyboard exists today, the only people that will benefit by its presence are the companies that sell Eagle compatible replacement boards."

I don't think the Eagle computer sold well, especially after the above review was originally published. You don't read much about Eagle in the literature. It looks like RAVE picked up surplus Eagle keyboards and sold them to 99ers. About a year ago I removed my 105 key RAVE keyboard and reinstalled the original gray plastic keyboard that came with my console. I did this for several reasons, not the least of which is the mushy feel of the RAVE 105 key keyboard. Having used the EAGLE/RAVE keyboard for two years, I can agree with all the comments quoted above. I like my original TI keyboard better.

NEXT PAGE



The Eagle's keyboard.

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AN EXCHANGE OF LETTERS ABOUT TI'S NEVER  
RELEASED SOFTWARE

P.O. Box 647  
Venedocia OH 45894  
December 24, 1990

Legal Department, Texas Instruments  
P.O. Box 655474 M/S 241  
Dallas Texas 75265

Gentlemen:

Attached is a copy of a letter I sent you on August 15, 1990. I received no reply to my enquiry. If I continue to have no reply by January 15, 1991, I will assume TI does not wish to defend any copyrights it may, or may not, be able to claim on the TI99/4A computer software described by the August 15 letter. I will then consider the described software to be in the public domain.

Sincerely,  
Charles W. Good

P.O. Box 647  
Venedocia OH 45894  
August 15, 1990

Legal Department, Texas Instruments  
P.O. Box 655474 M/S 241  
Dallas Texas 75265

Gentlemen:

Ms. Lois Brock of your consumer services department (P.O. Box 53, Lubbock Texas 79408) in a letter dated July 9, 1990 provided your mailing address and suggested I write you concerning this matter.

As the librarian of the Lima Ohio 99/4A computer user group I have been given from several sources computer software for the T.I. 99/4A computer that bears the statement "Copyright 19xx Texas Instruments" on the title screen, but which apparently was never actually sold to the public. Some of this software apparently was never sold because TI left the Home Computer market in 1983. This software is on disk, but apparently was designed to be sold as T.I. Solid State Software plug in modules. The software is, with one exception, in assembly language. Ms. Brock has no information on these titles. They are not on any of her lists of TI products. As far as she is concerned, these software titles do not exist.

I would like to distribute this software for free to members of my user group and to other T.I. 99/4A home computer users and user groups. What I want to know is DOES

NEXT PAGE

T.I. CLAIM COPYRIGHT ON THE TITLES LISTED BELOW. If so, do you wish to enforce this copyright and request that I not freely distribute the software to others. I am listing the titles as they appear on the title screen of each piece of software, together with the copyright statement exactly as it appears.

TITLE	COPYRIGHT STATEMENT
--Disk Manager 3.....	Copyright Texas Instruments (no specific date indicated)
--Astronomy.....	Copyright 1983 Texas Instruments Minnesota Education Computing Consortium
--Lasso (tm).....	Copyright 1983 Texas Instruments
--ET.....	Copyright 1982 Texas Instruments
--Sub Oceanic.....	Copyright 1982 by Texas by Dominic J. Melfi Instruments Incorporated.
--Paddle Ball.....	Copyright 1983 T.I.
--An Introduction to Plant Genetics.....	Copyright 1984 by Texas Instruments
--Verb Viper.....	Copyright 1982 by DLM Inc. and Texas Instruments
--ET in His Adventure at Sea.....	Developed by Looking Glass (tm), Copyright 1983 Texas Instruments.

Sincerely,  
Charles W. Good

TEXAS INSTRUMENTS  
9 January 1991

Mr. Charles W. Good  
Box 647  
Venedocia OH 45894

RE: Your letters dated August 15, 1990 and December 24, 1990

Dear Mr. Good:

I first wish to apologize for our delay in responding to your letter. It seems some communications were lost at TI. Please accept our apologies for any inconvenience this may have caused you.

Unfortunately, we are unable to grant our consent for you to distribute the software listed in your letter and we must maintain our copyright claim. It seems that you have somehow come by a disk which contains software which was not marketed by TI and may have been under development when we discontinued the 99/4A. Some development work may have been done for TI by outside parties, as some of the copyright notices you cited indicate. Determining any possible third party rights impacting further distribution of the software would require research which we are simply not staffed to

perform for a request of this nature especially as it would involve records which have been in storage for some time.

Thank you for your interest in Texas Instruments.

Sincerely,  
Amy E. Hills  
cc: Gary Honeycutt and Alan Daniel

**\*\*DONE\*\***

**NEVER RELEASED OFFICIAL TI MODULES (addendum)**

by Mike Wright  
45 Centerville Dr.  
Salem, New Hampshire, 03079

This material is a supplement to the 6-part series by Charles Good in B&P. Part 1, Jan 90, p6; Part 2, Feb 90, p2; Part 3, Mar 90, p2; Part 4, Mar 90, p5; Part 5, Apr 90, p4; Part 6, May 90, p5. In particular, this material partly answers the question posed in Apr 90, p4, at the foot of column one: (Editor's note: here Charles quotes a published reference to 3 new ET games scheduled for release by Looking Glass Software in the 4th quarter of 1983, mentions ET AT SEA, and asks "Does anyone know anything about the other two Looking Glass ET based educational software games?")

One of the largest TI dealers in 1983 was Micro Computers Corporation, 34 Maple Avenue, Armonk, NY 10504. They produced Microshopper Report, a catalog of TI hardware and peripherals. An almost identical publication was put out by Keystone Distributing Company, 51 Morgan Drive, Norwood, MA 02062. I understand there was a close connection between the two companies, but am not sure what it was.

In the summer of 1983, the first issue of The Family Programmer was published by The Family Programmer Company, 34 Maple Avenue, Armonk, NY 10504. This was a 12-page typeset newsletter printed on quality paper with a 16-page bound-in catalog. (As far as is known, this was also the last issue.)

The lead article was: "New Products. New Texas Instruments Home Computer Products Announced". It dealt mainly with the CC-40 and Mex-bus peripherals, but included a section on "New Educational Software for TI-99/4A":

"Also new are three E.T.-based educational software games, developed by Looking Glass Software, Inc:

"E.T. And His Adventures On Land for children ages 3-6, is a graphic learning game where the player helps E.T. return home. E.T. and Elliott learn about characteristics of various animals as they try to reach the "mother ship" at the forest, mountain or desert landing sites. The game includes two levels of difficulty and a strategy game packed with action and colorful animations. (Available Winter 1983; Price \$39.95; Joysticks recommended.)

"The E.T. and His Adventures In Air learn-through-play educational game for ages 7-10 lets the player explore basic physics concepts and astronomy terms through activities including a hot air balloon simulation and space travel in E.T. and Elliott's space shuttle. Adventures include mapping the solar system and various space challenges in strategy action games. (Available Winter 1983; Price \$39.95; Joysticks recommended.)

The article includes a scene from E.T. and His Adventures In Air. E.T. (on the left) and Elliott are looking out the window of their spaceship at the planet Saturn.

This information raises some interesting questions:

First, the article refers to three games, but does not include any information about E.T. in His Adventure At Sea (described in BB&P, Feb 90, p4). As far as is known, this was the only one of the trio to make it to the outside world.

Second, it seems that the other two games must have been finished, perhaps only in prototype, as The Family Programmer was able to publish a picture of one of the screens.

Finally, and this is nit-picking, it seems strange that the known version is "E. T. in..." while the others are listed as "E.T. and...". (The "in" is correct for the sea version.) Also the known version has "Adventure" in the singular, while the others are listed as "Adventures".

Needless to say, if anyone has any further information, especially the games themselves, we would be more than interested to hear from you.

**\*\*DONE\*\***

### Review of ROCK RUNNER

Reviewed by: Andy Frueh, Lima U6

Software author: Eric Lafortune  
Distributed by Asgard Software

Most of us have now heard about the "half bit-map" mode used in this game. What it lets you do is combine color capability of bit map mode with the ability to define graphics as in normal graphics mode. I don't feel that this game is AS great as it is pushed to be, but it is a great feat for a teenager to do. I admit that I could never program something this good, but I get a feeling it could've been smoother.

The manual it comes with is amazingly short, but not a lot of instruction is needed. The object is to collect a set number of diamonds while preventing rocks from falling on you, or monsters getting you. What the manual fails to tell us is that if a diamond falls on you, it will kill you, too.

It is an assembly game, and since it uses several E/A utilities, it can only be run through the E/A module. There are 15 levels and you can select to start on any of them. When the game is first loaded, it tells you to release the Alpha Lock key (if it is down). Handy feature! When I play Rock Runner I don't worry about the Alpha Lock key. It warns me about it if it has to.

On most of the boards with monsters, you can use the rocks by dropping them on monsters. You can also use a limited number of bombs to aid in this. Another obstacle is the fact that you have a limited time. Your character tunnels in the ground, and monsters can only move in tunnels. These features remind me of Dig Dug.

The graphics are NOT the best I have seen on the TI, but are VERY GOOD nevertheless. Your guy even has a cute huge nose similar to the fuzzy guy in the B.C. comic strip. The diamonds are nicely done, and stripes of color constantly "flow" up them. The monsters are rather simple, as are the rocks (but how exciting can you draw a rock?)

To sum it up, I'm not sure if I will play this game constantly. It IS a good game, don't take me wrong. It's just that it is NOT as great as ads claim. Of course, that my opinion...

**\*\*DONE\*\***

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**KAROL, THE KANGAROO RAT**

Page 1  
 In Children's story by  
 Harold Bingham  
 Once upon a time lived a young and energetic kangaroo rat named Karol. She lived on the desert where the sun was very hot and she was all alone most of the time. Each day Karol ran up and down sand hills, leaving behind little tracks on the sand. All the little desert critters left tracks on the sand in order to find their way back home. She would dart back and forth, stop, look up in the sky, twitch her nose and whiskers, then she would go on her way again, running up and down the sand dunes. She was having fun and there was nobody around to bother her or to tell her what to do. She loved living in the desert, though she was very lonely at times.



There were quite a few other animals living in the desert: storks, beetles, spiders, snakes, rabbits, snakes and birds. The desert is a big place and the animals spent most of the time alone.



One day Karol saw her friend Almo, the tarantula spider. Whenever they would meet they would dance. Almo did not have any friends except Karol, mainly because she was not very good looking. Almo had eight tiny eyes, and eight hairy legs, not a beautiful candidate for a beauty contest.

Today, Almo had great news to tell Karol. Almo had not seen Danny, the kangaroo rat that Karol was in love with. He lived in the desert too, but Karol seldom ever saw him, but when she saw him her little heart would not like a kangaroo rat. Karol was so excited that she jumped up and down. She had not seen Danny for a long time. He was such a handsome kangaroo rat with the cutest whiskers. She could hardly wait to see him. "Which way did he go?" asked Karol. "I don't know," said Almo, but look for his tracks in the sand.



Page 2

Karol began following Danny's tracks looking all over. Up and down the sand she ran, asking every one she saw if they had seen Danny. Ginger, the iguana lizard, had not seen him, and Louise, the stinkbug, had not seen him. Lewis the rabbit had not seen him. Stinky the skunk had not seen Danny either. No one knows where Danny is.

Eddie, the sidewinder rattlesnake, was not friendly and spent most of the day covered up by the sand to keep out of the hot sun. Mainly, Eddie didn't like anyone else but herself, so she would bury herself in the sand to hide. Eddie hissed, made herself into a coil and rattled her rattles. It was her way to let other animals living on the desert to stay away. Eddie invited Karol to be her lunch, but she didn't want to be lunch for Eddie. Besides, those kinds of lunch breaks, were hazardous to her health, so she kicked sand in Eddie's eyes, and ran away. Everyone living in the desert avoided getting too close to Eddie.

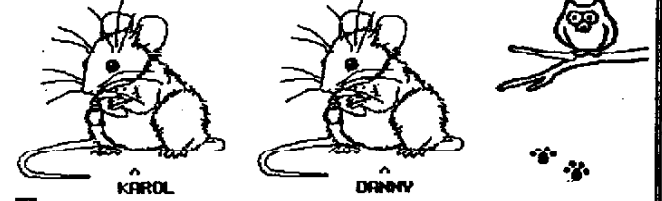


All day long, Karol looked for her friend Danny. There were plenty of tracks in the sand, but none left by her friend Danny. She became very tired and laid down to rest in the shade of a tumbleweed at the bottom of a sand hill and fell sound asleep. Soon she was awakened by the sound of Dean, the hawk, who was circling in the sky above. Hawks eat kangaroo rats and other creatures of the desert, swooping down on them. All the animals were afraid of Dean the hawk. Karol kept very quiet and did not move for fear she might become a meal for Dean, the hawk. After awhile, Dean, the hawk was gone and she was all alone again.

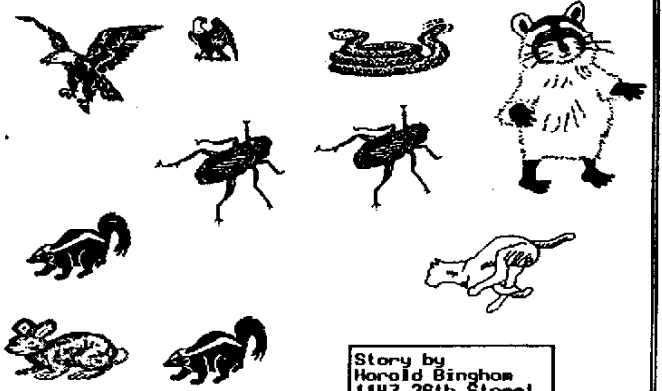
In the desert, winds come up quite suddenly and blow very hard. Karol and most desert critters burrow under the sand for protection. So Karol burrowed into the sand and curled up in a little ball with her eyes closed until the wind stopped. When the wind stopped, Karol crawled out of the sand and shook herself. The wind had wiped away all the tracks in the desert. She thought to herself, "I'll never find Danny now!"



3  
 Karol was tired and just about to give up looking for Danny, when a tumbleweed, blown by the wind, rolled down a sand hill and by her. As she looked up, there was Danny on top of a sand dune. Karol called out loud, "Danny! Danny! down here!" They ran to meet each other. They were both so happy they had found one another. They jumped up and down doing flip flops, looking into each others beady eyes. Karol said, "Danny I am so happy I found you." Danny said "I'm on too Karol. They loved each other very much."



The next morning they both set off together to tell all the other critters living in the desert the news. They were soon married and spent the rest of their days living together, running up and down the sand dunes, making two sets of tracks in the sand. They were so happy. Soon there was babies and they had a family and were never lonely again....The end.



Story by  
 Harold Bingham  
 1147 36th Street  
 Ogden, Utah 84403

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 Text written with Funnalweb then imported to Page Pro 89

DESKTOP PUBLISHING WITH PAGE PRO

The children's story on this page, by Harold Bingham of the Ogden Utah user group, is a fine example of how Page Pro can in fact literally be used as the software for desk top publishing. As reprinted here, the pages have been reduced to 40% of their original length and width.

\*\*\*DONE\*\*\*

## TI User's are "Cheapskates"

By: Andy Frueh (and Jim Peterson)

Before writing this article, I thought I had better ask Jim Peterson if I could quote him here. He said, "I have never tried to cover my belief that TI users are cheapskates." O.K. He thinks a bit stronger about this than I do, but not much stronger.

Mr. Peterson has TONS of great software, a good deal of it written by him, but also has a huge collection of Public Domain programs. Some Fairware is there as well, but only if the authors agrees to put it there. These disks are only \$1.50 and are FULL. His own software ranges. He dropped prices on his Tips disks and Nuts Bolts. He would love to write education software, but no one buys software for education anymore, it seems.

As for myself, I know that TI users are "cheapskates." I myself try to not use Fairware because it is hard for someone with a job like mine to send of \$20 or \$15. Because I can't easily pay for it, I try to RARELY use it. I HAVE sent donations before, and I'm saving to send something for Funnelweb. However, how many of you bought a Fairware item at a fair or out of a magazine or catalog, and didn't send the authors a thing? Not even a note saying "I liked it, but can't pay now," or "It was good, but needed this changed..." Where are these people? Is writing a note of appreciation so hard? Is \$0.25 too much to ask for good, hard work?

Unfortunately, we already have some of our best people pulling out. WE as a community of TI users are making some of our strongest supporters against us. Jim Peterson has released EVERY piece of his copyrighted software EXCEPT the Nuts Bolts disks in the public domain. I had a letter written to me by another Fairware author saying, "I hope you're making money, I'm not." When Jim Peterson announced his "suicide" sale, and slashed the cost on his own copyrighted material to \$0.25, I can understand why people would flock to buy it. You go to Fairs LOOKING for bargains. But with Fairware it's different. You have to send the authors a donation if you like it. That's right, you HAVE to. Unless you don't want anymore software. This computer is GOOD. Better than a LDT of others I have seen. We have ways to make it portable, RAMdisks with mega memory, a new MIDI interface on the way, and even an 80 column card. But what if you have no software to use this equipment. What if there was no BOOT or MENU. No Funnelweb or DM-1000. Do you know that if the FAIRWARE authors hadn't written DM-1000, we'd all probably be using Disk Manager 2 or even DM 1? THINK ABOUT IT, folks.

I myself am not an excellent programmer. I do XB music and utilities and that's it. But I do it, and that's the point. I love my computer, and want to give it support. But what good is a support team if it has no foundation to hold it up? Jack Sughrue says he sees a "new age" coming for the TI. I'd like to feel the same way. But it's up to the USERS

to support the PROGRAMMERS, or else this new age is going to be titled "R.I.P." After my updates to Home Filer and the new FileUtilities, Phantom of the Opera II, and maybe Les Miserables (another, more upbeat sounding musical) are finished, so am I. I personally feel cheated by several people, so I see no reason to offer any more software support.

\*\*DONE\*\*

## Guesstimating 99 Memory

By: Andy Frueh, Lima UG

There have been a lot of articles discussing how to figure 99 memory. Personally, I prefer to type SIZE at Extended BASIC, but I have had some questions regarding the matter so...

At one time or another, we have all seen the awful MEMORY FULL error message. Obviously, removing REMs, tail REMarks (!), and using multi-statement lines will help. How can you guess memory?

An OLD way is to add a line that reads DIM XYZ(5000) and RUN the program. If you don't get a memory full, keep increasing the 5000 until you do. If 1000 works, then you have 1000 numeric storage locations left, which equals about 8000 bytes. So a DIM Q(500) gives you a quarter of the memory.

I haven't seen this method published anywhere. What I usually see is:

```
1 A=A+B
2 GOSUB 1
```

At the Memory Full, you PRINT A gives you about how many bytes are left.

\*\*DONE\*\*

## A SUBJECT INDEX OF BB&amp;P

Andy Frueh has created a subject index of everything published in BB&P since volume 1, #1 (published in August 1985). This is in addition to his "table of contents" BB&P index. Members of the Lima Ohio user group can obtain this index by sending one SSSD disk to the newsletter address.

All BB&P back issues remain in print and are available as hard copy to members for \$0.03 per printed page. Members may request any or all back issues and will be billed based on the number of pages in the requested back issues. Disk files of most articles published in BB&P since late 1986 are available to members by sending disks and return postage. The complete set to date is on 5 SSSD disks. \*\*DONE\*\*

# KAROL, THE KANGAROO RAT

A Childrens story by:

Harold Bingham

Once upon a time lived a young and energetic Kangaroo rat named Karol. She lived on the desert where the sun was very hot and she was all alone most of the time. Each day Karol ran up and down sand hills, leaving behind, little tracks on the sand. All the little desert critters left tracks on the sand in order to find their way back home. She would dart back and forth, stop, look up in the sky, twitch her nose and whiskers, then she would go on her way again, running up and down the sand dunes. She was having fun, and there was nobody around to bother her or to tell her what to do. She loved living in the desert, though she was very lonely at times.



There were quite a few other animals living in the desert. Skunks, beetles, spiders, wildcat, rabbits, snakes and birds. The desert is a big place and the animals spent most of the time alone.



ALMA

One day Karol saw her friend Alma, the tarantula spider. Whenever they would meet they would always stop and visit. Alma did not have many friends except Karol, mainly because others thought she was not very good looking. Alma had eight tiny eyes, and eight hairy legs, not a likely candidate for a beauty contest.

Today, Alma had great news to tell Karol. Alma had not seen Danny, the Kangaroo rat that Karol was in love with. He lived in the desert too, but Karol seldom ever saw him, but when she saw him her little heart would go pty pot like a fluttering butterfly. Karol was so excited that she jumped up and down. She had not seen Danny for a long time. He was such a handsome Kangaroo rat with the cutest whiskers. She could hardly wait to see him. "Which way did he go?" asked Karol. "I don't know," said Alma, but look for his tracks in the sand.





Dean,  
the  
Hawk



Ginger



Lewis, the rabbit



Eddie, the  
sidewinder

Karol began following Danny's tracks looking all over. Up and down the sand dunes she ran, asking every one she saw if they had seen Danny. Ginger, the Iguana lizard, had not seen him, and Louise, the stinkbug, had not seen him. Lewis the rabbit had not seen him, Stinky the skunk had not seen Danny either. No one knows where Danny is.

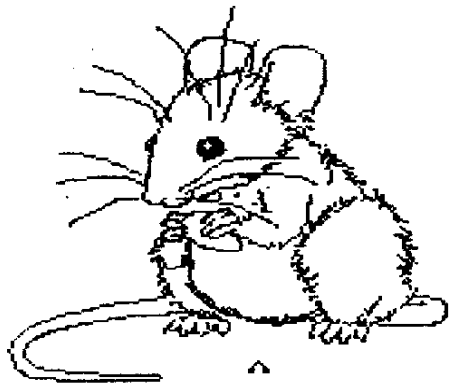
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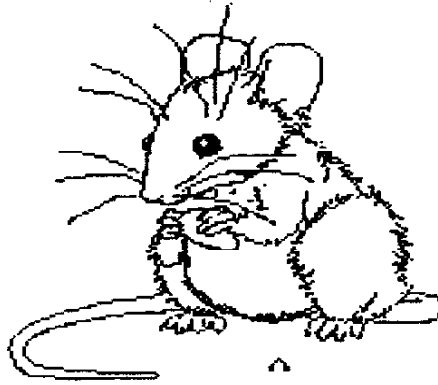
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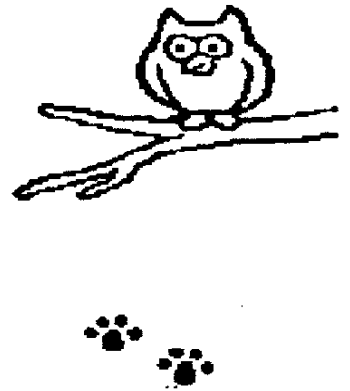
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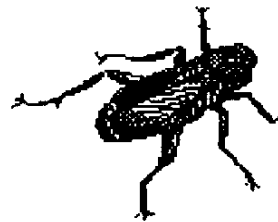
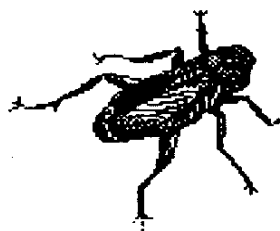
KAROL



DANNY



The next morning they both set off together to tell all the other critters living in the desert the news. They were soon married and spent the rest of their days living together, running up and down the sand dunes, making two sets of tracks in the sand. They were so happy. Soon there was babies and they had a family and were never lonely again....The end.



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