

# BITS, BYTES & PIXELS

LIMA 99/4A USERS GROUP



APRIL 1990 VOLUME 6 #4

## TI MULTI USER GROUP CONFERENCE - UPDATE

Saturday May 26, 8AM - 6 PM

Reed Hall, Ohio State University Lima Campus

This all TI99/4A and GENEVE 9640 computer event is **TOTALLY FREE**. There is no charge for admission, no charge for tables in the exhibit hall, and no charge to those wishing to give formal presentations. In the next issue of this newsletter, to be published in late April, we will publish a specific time table of scheduled formal presentations and will reprint local motel information. For further information call Dave Szippel evenings at 419-228-7109 or write the Lima Ohio User Group at P.O. Box 647, Venedocia OH 45894. Attendance last at last year's NUG Conference was 300+.

### USER GROUPS ATTENDING:

Representatives of the following user groups have confirmed their intention to attend. Most of these groups will have tables in the exhibit hall offering software and used hardware for sale. The Lima Ohio UG will make available for copying to a representative of any user group any software that has been added to our library since the 1989 NUG Conference. Commented listings of this software will be sent on disk with the next (May) issue of this newsletter to all user groups likely to attend, including the following groups. This offer is made to user groups only and not to individuals.

Cin-Day UG.....Cincinnati and Dayton Ohio  
Great Lakes UG.....Detroit Michigan area  
C.D.N.M.I. ....Columbus Ohio  
Northcoast UG and TI-Chips..Cleveland Ohio  
Erie UG.....Erie Pennsylvania  
The Fort's UG.....Fort Wayne Indiana  
New Horizon's UG.....Toledo Ohio area  
OH-MI-TI.....Toledo Ohio and SE Michigan  
Hoosier UG.....Indianapolis Indiana  
West Penn UG.....Western Pennsylvania  
Pittsburg UG.....Pittsburg Pennsylvania  
St. Louis UG.....St. Louis Missouri  
Lima Ohio UG.....Lima Ohio  
Kawartha UG.....Peterborough Ontario Canada

### VENDORS:

The following dealers and individuals will have confirmed tables in the exhibit room for software and hardware sales.

**GENIAL COMPUTERWARE:** the Genial Traveler magazine on a disk.

**P&A SOFTWARE (Paul Scheidewantle):** utilities for use with Page Pro and TI Artist.

**HARRISON SOFTWARE:** Classical music disks and The Harrison Word Processor.

**DISK ONLY SOFTWARE:** representing NYARC and the Geneve 9640 computer.

**ASGARD:** The largest publisher of software for the TI and Geneve on disk and on cartridge. Also publishes a bimonthly magazine and manufactures the MIDI interface and the TI MOUSE of Mike Maksimik.

**BUD MILLS SERVICES:** Horizon Ramdisk 3000 series, P-GRAM cards, and MEMEX memory expansions for the Geneve.

**OASIS PENSIVE ABACUTORS:** RAMBO for the Horizon Ramdisk, and "review module library" multiple cartridge expansion systems.

**L. L. CONNER ENTERPRISES:** General dealer in TI and third party hardware and software.

**RANCHARGED COMPUTER:** General dealer in TI and third party hardware and software.

**GREAT LAKES SOFTWARE:** Original assembly language software.

**COMPRODINE:** Software by Rodger Merritt will be sold at the Kawartha 99ers table.

### FORMAL PRESENTATIONS:

The following individuals have requested time for formal presentations. These presentations will be given from 8:30AM through 6PM simultaneously in two separate rooms using 1 hour time blocks with staggered half hour starting intervals. For some presentations we may use half hour time blocks. So far we have requests for a **WORLD RECORD** of approximately 15 HOURS of presentation time. Each presentation will be video taped using both a video camera and direct recording of computer video and audio output. These video tapes will be made available to any user group (not individuals) that provides us with **THREE VHS tapes** and a paid return mailer DR (not "and") \$15. That's \$5 for each of the three VHS tapes, including postage.

Barry Traver (magazine columnist, publisher of Genial Traveler): two one hour presentations, titles to be announced.

Paul Scheidewantle (P&A Software): Demo of Page Pro v1.5, Page Pro fonts, and Page Pro Utilities.

Andy Frueh (Lima OH UG): Home Filer v2.2 and other original software.

Bruce Harrison (Harrison Software): "The secrets of programming classical music in assembly".

Jim Horn: (Disk Only Software): "How to give away computers."

Chris Bobbitt: (Asgard): a two hour presentation showing the TI MOUSE and the MIDI interface of Mike Maksimik, an assembly language spell checker, and other goodies from ASGARD.

Dud Mills (Dud Mills Services): The latest hot hardware from DM Services.

NEXT PAGE

Gary Bower (Oasis Pensive Abicuters): new hardware and software projects.

Carl Romstedt (C.O.N.N.I.): Topic to be announced. Carl has recently published software in the Genial Traveler disk magazine.

Irwin Hott (C.O.N.N.I.): "Programming hints for using Speech with the TI." Irwin is blind.

Bill Hudson (C.O.N.N.I.): Pre-Scan.

Gene Chandler (Great Lakes Software): New software.

Gary Taylor (Pittsburg U6): A demo of TI's Compact Computer 40, TI's HEX BUS peripherals, and Mechatronics' HEX BUS disk drive.

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## HOW TO SEND FAIRWARE DONATIONS TO FOREIGN SOFTWARE AUTHORS

by Charles Good

Lima Ohio User Group

PERSONAL CHECKS are not a good idea. They are difficult and expensive for the foreign recipient to cash. Fees the recipient must pay to cash your check may consume a large part of your fairware donation.

INTERNATIONAL MONEY ORDERS can be purchased at the major offices of most banks, although not at some branch banks and not at some savings and loans. They are easy and cheap for the foreign recipient to cash, but are somewhat expensive for the sender to purchase.

TRAVELERS CHEQUES can usually be cashed by the foreign recipient easily for little or no fee, and can usually be purchased without any service charge at a bank where you have an account. If your fairware donation is either \$20 or multiples of \$20, then travelers cheques are a cheap convenient safe way of making your fairware donation. Travelers cheques are available in minimum denominations of \$20 and you must get at least \$100 of such checks at the same time. Take one of the cheques, sign it at the top and bottom, and after the words "pay this cheque to" write the recipient's name. This way nobody else can cash the check even though you have signed it. Take the rest of the cheques (remember, you have to get at least \$100 worth at a time) and either use them on your next vacation or sign them and immediately redeposit them into your bank account.

CASH is probably the simplest and easiest way to make a fairware payment. United States currency is easily recognized and accepted by banks all over the world. Fees a foreign recipient pays to deposit United States currency (no coins) into the recipient's bank account will be minimal if any. Just make sure your envelope is sealed and the cash is not visible to someone examining the outside of the envelope.

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

## TETRIS ! by Ian Charles Good

TETRIS is an action packed game with excitement that never ends. You move blocks into spaces and try to get one or more lines with no holes in them. If you do that, then the line or lines disappear and you points according to what level and how many lines you filled up. Every ten filled lines advances you to the next level.

I'm comparing the Nintendo and Alexander Hulpke's TI versions of TETRIS, how they differ and how they are alike. First of all, I think Nintendo has better graphics. the blocks are many bright colors. Nintendo also lets you select any of three different music types or none at all, while the TI version has only one music that can't be shut off. The Nintendo statistics have the block and then a number telling how many times that block has been used, while the TI TETRIS shows a bar graph.

The TI version lets you choose what block you want next, and it is MUCH more challenging.

Both of them have nine levels of experience, the similarly shaped blocks, and the same angles that the blocks can go. Over all I think Nintendo has a slight edge over the TI TETRIS.

(EDITOR'S NOTES: Ian is 11 years old. This editor, and many commentators in exchange newsletters, consider Alexander Hulpke's TETRIS to be the best of several TI versions of this game.)

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## LETTER TO THE EDITOR

(EDITORS' NOTE: This letter, from the author of XHI and a version of TETRIS, refers to description of TI's DIAGNOSTICS module published in the January 1990 issue of BB&P as part of "Never Released Official TI Modules - Part I." I think we have the mentioned GPL manual in our library on disks 288 and 289.)

"Since the "DIAGNOSTICS" module was manufactured for the 99/4 (without "A"), the graphics test should be really in "graphics mode", since the 99/4 had no bit map mode: Graphics mode is the same as in XBasic, but without the limitations of Basic, you have 256 chars to define, which will allow nearly bit mapped graphics. I don't know of provisions for four joysticks, but the GPL manual states that semi-analog joystick could be used, delivering values of 1,4 or 7; the 4 (which made it) being the "standard" value. ... Most of the material in this manual is related to GPL command, but at the end there are interesting sections on user interfaces etc."

Alexander Hulpke

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

## A PROBLEM OCCURRING IN THE P-GRAM CARD FROM BUD MILLS SERVICES

by Harry Muntis  
Lima Ohio User Group

Last day at the Lima Faire I purchased a kit to build a P-GRAM card from Bud Mills. I assembled it with no trouble and used it with great satisfaction.

A few weeks ago I decided to install the clock circuit that I had not previously purchased. By telephone, I ordered a kit of parts from Bud Mills. Without prepayment Bud shipped the clock parts to me and I received them the next day. I installed the parts and sent Bud a check. The clock worked perfectly for several days, then the program in memory was lost. I investigated to determine the cause. I found the voltage from the lithium backup battery was slightly below 3.00 volts, and the voltage on the clock chips was down to about 2.43 volts. This evidently caused the crystal oscillator to shut down. I thought maybe the cell was old enough to be at its end of life, so I purchased a new one and installed it. I reentered the program and kept an eye on the clock for two or three days. The failure occurred again. I obtained a third cell, installed it, and then measured the current drain with the new cell. The current drain was quite normal (approx. 5 micro-amps), but the failure occurred a third time.

I then called Bud Mills and described the problem to him. After considerable discussion, Bud volunteered to send me another kit of parts to find if I had a bus chip or an inactive crystal. I received them the very next day. I then installed the chips individually one at a time, monitoring the performance several days for each one. Same failure, so it wasn't a chip. Next I observed the battery current drain for several days. The current flow slowly declined to 5 micro-amps and then remained constant for several days. The battery voltage was about 2.85 volts during the steady period.

After some thought, I decided that if I could reduce the voltage drop from the cell to the chips things would probably work OK. Inspection of the circuit schematic showed a diode between the cell and the chips. This is to prevent the P-Box 5.0 volts from attempting to charge the lithium cell when the box is powered up. Charging the cell might cause an explosion. The diode is a silicon 1N914. Silicon diodes have about 0.6 volts forward voltage drop. I reasoned that if that diode was replaced with a germanium diode, there would be about 0.5 volts more available to the chips. So, out came the 1N914 and a higher conductance germanium diode was installed. Presto! I now have 2.75 volts at the chips, and the clock remains active. The germanium diode is rated for 50 volts, and the current rating is very ample.

My system has run OK for several weeks now, and I will monitor it daily to see if any faults occur. If anyone else has had this kind of problem, please let me know. (EDITOR'S NOTE: Harry's address is 719 Wildwood, Elida OH, 45807.)

\*\*DONE\*\*

## PROFILE OF THE LIMA OHIO USER GROUP

by Charles Good

Some local user groups are disappearing. Many local user groups have active memberships of less than 15 and don't have the time, talent, or finances to publish a newsletter. I suspect that as the years go by the numbers of individuals in our hobby will slowly diminish and that increasing numbers of TI users are finding themselves geographically isolated from local user groups without much immediately available local help. One way of keeping up with developments in the TI world for small groups without a newsletter and for isolated individuals is to join a user group through the mail. The Lima Ohio User Group is becoming one of these "by mail" groups.

Annual dues for both local and out of area members are \$15. For local people this is a family membership. Members receive the newsletter and access to anything in the software or video tape library on a "no copy fee" basis.

We have 14 paid members in the local Lima Ohio area. Enough of these are students at the Ohio State University/Lima Technical College Lima Campus to qualify us as a "student organization". This allows us to use campus facilities at no charge. For our local members we meet on campus once a month, 12 months of the year, on the third Saturday of each month at 9:30AM. Demonstrations at these meetings are video taped for the benefit of those local and out of area members who can't attend. Disks from the software library can be borrowed on a lending library basis or copied by paid members at meetings for no copy fee. Between meetings, members can go to the President's home evenings to copy library disks or borrow video tapes from our rather extensive library of TI related video tapes. The President or newsletter editor will also make copies of our video tapes for local members in exchange for a blank tape.

We also have 27 individuals and 5 user groups that are not from the Lima Ohio area. These out of area members receive by first class mail the newsletter and at least annual disk file updates listing what is available in the software library. Software from the library is available to out of area members on a "you send a want list, disks, and a paid return mailer" basis. There is no copy fee beyond the \$15 annual dues. Video tapes are available to out of area members by sending a blank video tape and paid return mailer OR \$5 for each video tape desired.

\*\*DONE\*\*

## NEVER RELEASED OFFICIAL TI MODULES - PART 5

by Charles Good  
Lima Ohio User Group

I'll bet you thought that last month's PART 4 would be the last of this series. Well, so did I. However, some additional "never released" software has been made available to me (thanks in part to Gary Taylor of the Pittsburg UG), and I have found some more literature references to the never released material. The day that this article was being polished up for the last time, prior to newsletter publication, I received some more never released official TI software in the mail from Gary Taylor. This means that next month there will be a "Part 6" to this series.

### SOME MORE HISTORY:

This is an "official" description of WINGWAR (described in part 4 of this series) contained in a booklet that was packaged in a TI module purchased in early 1984. The booklet says "copyright 1983 TI" and bears the number 1056414-1. "You're a great dragon in a world of primordial beasts, magic crystals, and powerful demons. Battle these menacing foes with fireballs, inner strength, and superior strategy. Speech Synthesis optional."

The SUMMER 1983 CONSUMER ELECTRONICS SHOW in Chicago, as described in the August 1983 issue of COMPUTE! may go down in history as the show where the most "orphans" were initially introduced. Computers first displayed for the public at this show include the Coleco Adam, the Atari 600XL 800XL 1400XL and 1450XL, the North American version of the Sinclair ZX Spectrum called the Timex Sinclair 2048, and the Mattel Aquarius and Aquarius II. Some of these machines never actually made it to market. The rest are now all orphans. The same August 1983 COMPUTE! article talks about the rumored near release of the TI 99/4B. "The 99/4B, they say, will fall somewhere between the 99/4A and the 99/0 in features and price." COMPUTE! says that at this Summer 1983 show, "TI introduced....six educational packages, including three games based on E.T. the Extra Terrestrial." What were these E.T. games? Were they really released, or just displayed, or perhaps only mentioned in promotional literature given out at the show? Read on.

This comes from page 35 of the June 1983 issue of 99ER HOME COMPUTER MAGAZINE. "The remaining 5 (educational) packages for 4th quarter release include 3 E.T. based educational software games from Looking Glass Software, and 2 vocabulary/grammar games from Development Learning materials Inc. All game and education cartridges carry a \$39.95 SRP." I wonder if one of these DLN modules is VERB VIPER, described in part 2 of this series. The only Looking Glass Software educational game that I know of is ET AT SEA. The ET game module, described later in this article, is an in house TI game (non-educational) that does not mention Looking Glass software. Does anyone know anything about the other two Looking Glass "E.T. based educational software games"?

This quote concerning TI's own E.T. module is from the INTERNATIONAL 99/4A USER GROUP NEWSLETTER dated Nov. 15, 1982. "TI is expected to announce a new Command Module which will feature the familiar E.T. space creature. The new E.T. Command Module is due to be ready some time in the second quarter of 1983."

### PINOCCHIO'S GREAT ESCAPE:

According to the title screen, this is another "WALT DISNEY PERSONAL COMPUTER SOFTWARE DESIGNED EXCLUSIVELY FOR THE TEXAS INSTRUMENTS COMPUTER." No copyright date is indicated, but I suspect that the date would be 1983. This is a language arts module designed to teach children how to recognize and pronounce long and short vowel sounds in printed words. Speech Synthesis is optional but highly recommended.

Pinocchio is in a cage suspended from the ceiling. His friend Jiminey Cricket has to get him out by making a stairway to the cage, climbing the stairs, and unlocking the cage's padlock. Each correct answer adds one additional stair.

The first menu says:  
CHOOSE THE VOWEL SOUND:  
1) SHORT VOWEL SOUNDS  
2) LONG VOWEL SOUNDS

Whichever choice you make, you are then advanced to the second menu:  
CHOOSE THE LEVEL OF GAME PLAY  
1) BEGINNING  
2) INTERMEDIATE  
3) ADVANCED

When you make your choice of difficulty level, the game begins. If you choose long vowel sounds, Pinocchio suspended in his cage may say "Jiminey, choose the word with the long o sound, as in goal." Five words are then displayed, such as NIGHT BLACK TRUE FLASH and HOSE. You move Jiminey next to the one correct word (using the EX keys or the joystick) and then press 0 or the fire button. Jiminey touches the indicated word with his umbrella. If the guess is correct, Pinocchio asks for another vowel sound and 5 new word choices are displayed. You always get a different selection of 5 word choices because the module has a vocabulary of 1000 words, each 2-5 letters in length. I know this to be true because I used my GramCracker to display the contents of the WORDS in order to read and count the words.

For each game Jiminey gets 3 umbrellas. The game is over if all 3 are used up before Pinocchio is released from the cage. You get points for each correct answer, and another stair is added to the staircase leading to Pinocchio's cage. If Jiminey guesses incorrectly, you are

told that the guess is incorrect and given unlimited additional opportunities to guess the correct word with no loss of points or umbrellas. Each attempt is timed, with a timer displayed at the top of the screen. If time runs out there is no loss of points or umbrellas. Instead, the correct answer is indicated and you are then presented with another problem complete with five new words from which to choose.

The three difficulty levels differ from each other in two respects. At each successive difficulty level there are increasing numbers of mice running around and they move faster. If Jiminey touches a mouse while attempting to touch a word with his umbrella, he loses the umbrella. This is the only way to lose umbrellas and possibly terminate the game unsuccessfully. Also, the word choices are more difficult at each successive difficulty level. At the BEGINNING level, there is only one word displayed that contains the correct vowel, so selecting the correct answer is a piece of cake. At INTERMEDIATE there are either two or three of the 5 displayed words with the correct vowel, but only one of these has the desired vowel sound. At the ADVANCED level all of the displayed words include the desired vowel but again only one of these words has the correct vowel sound.

After 6 correct answers the stairway is complete. Pinocchio says, "You did it Jiminey Cricket, you did it!" Jiminey climbs the stairs and unlocks the padlock. Pinocchio comes down to the bottom of the screen and dances to the music singing "I'm free! I'm free!" When you get tired of watching him dance press (enter). Pinocchio bows, and you are given the opportunity to play another similar game or return to the first menu to select a different set of parameters for the next game.

This module truly is "self teaching". As long as the student is capable of reading the 2-5 letter words that make up the possible choices, the student should be able learn all about long and short vowel sounds from scratch without intervention from a human teacher. Remember, I said that when time runs out the correct answer is indicated and there is no penalty. Students unfamiliar with the concept of long and short vowel sounds can just sit in front of the monitor as the computer pronounces (using speech) vowel sounds and then correctly shows words that contain the just pronounced sound.

The module provides rewards for positive effort without penalizing mistakes. The only way to mess up and terminate the game without rescuing Pinocchio is to allow Jiminey to touch too many mice while trying to guess the correct answer. This is strictly an eye/hand coordination thing unrelated to getting correct answers and learning about long and short vowel sounds.

I give PINOCCHIO'S GREAT ESCAPE my highest rating. Its use of color bit map graphics, music, and sound are excellent. The game is fun. A lot of careful thought went into the "self teaching" design of this module.

#### STARSHIP PEGASUS:

Copyright 1983 by Milton Bradley Co.

This game reminds me of some of the "junk extended basic" games that form part of the early history of the TI, games such as those in the early part of the libraries of the International Users Group or the Amnion Free Access Library. In speed, graphics, and the use of sprites, Starship Pegasus really does resemble an extended basic game rather than an assembly language game.

Your starship is in the middle of the screen and there it stays. You have guns top/bottom and left/right which you can shoot with the joysticks or arrow keys. If you shoot a second bullet before the previously fired bullet goes off the edge of the screen, than the previous bullet disappears! Only one of your bullets can be on the screen at a time. The bad guys, looking very much like magnified XB sprites, wander onto and off the screen using more or less random motion. They shoot at you and you shoot at them with your four fixed position guns firing outward from the center of the screen. If you get hit with a bad guy bullet you explode and the game ends. You are then given the opportunity to play again.

BORING! I can understand why Milton Bradley never released this one. In fact, considering the neat stuff that Milton Bradley has produced for the TI (such as the NMX system and associated modules), I am surprised that the company would allow its name to be used with this game in the first place.

#### E.T.

Copyright 1982 by Texas Instruments. The XB module demo version of this game calls it ET GO HOME.

This is yet another in a long line of "frogger" type game. In fact, in addition to crossing the freeway etc., ET must also hitch a ride on a frog in order to get from the bottom to the top of the screen. You need to get three different ET's to the top of the screen in order to win the game. Each ET is deposited in a bicycle which then moves to the space ship. Each attempt is timed from the "press any key to begin" to the successful placing of an ET on his bicycle.

I think the "frogger" theme can only be taken so far before there is nothing new in the game. There are several extended basic "frogger" type games for the TI in our group library that are, in my opinion, every bit as good as TI's E.T. If I were a game enthusiast, I wouldn't spend my money on E.T. Probably TI realized this too and that is probably why ET was not released in the second quarter of 1983 as was originally expected.

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

Barry Traver's first T.I. column is scheduled for the April 1990 issue. The single issue cover price of COMPUTER BUYER'S GUIDE is \$1.95. You can buy it most places where COMPUTER SHOPPER is sold.

The address to send your subscription request is:  
 Computer Buyer's Guide  
 P.O. Box 55886  
 Birmingham AL 35255

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**1-800-366-0676**

**NEVER RELEASED OFFICIAL TI MODULES - VIDEO TAPE**

A public domain video tape illustrating most of the "never released" modules described in this series of articles is available to anyone, including individuals, who sends either \$5 OR a VHS tape and paid return mailer to the Lima UG at P.O. Box 647, Venedocia OH 45894. The video tape is the only chance that many TI users will ever have to see this software that "might have been". Run time on this video is approximately 3.5 hours. Parts were recorded live at regular monthly meetings of the Lima User Group, and include the following "never released modules" in this order:

- PETER PAN'S SPACE ODYSSEY
- AN INTRODUCTION TP PLANT GENETICS
- NUMBER BOWLING
- VON BRAKE'S MOLECULAR MISSION
- WING WAR
- BUB OCEANIC
- PIMOCCHIO'S GREAT ESCAPE
- DIAGNOSTIC TESTS
- DISK DUPLICATOR

**SIMON SAYS!**

- GERM PARTOL
- E.T.
- STARSHIP PEGASUS
- HIGHTY MULTIPLICATION
- GASTION PRIVEE
- PADDLE BALL
- VERR VIPER
- E.T. AT SEA

The last part of the video tape includes other TI demos from monthly Lima UG meetings not related to the "never released modules". Included is a demonstration/tutorial on the use of XHI's HARDCOPY utility. Written by Alexander Hulpke, HARDCOPY prints multicolored MYART graphics to a dot matrix printer in black and white. A demonstration of Alexander Hulpke's version of TETRIS for the TI is also included on the video tape, as is a demo of BIBLE TRIVIA v2.0 by Steven Degare.

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## FIXING DISKS

By: Andy Frueh, Lima US

We've all seen them. Those horrible little disk errors. For example, having 4394 free sectors on a SS/SD disk or when the computer refuses to find a file you just know is there somewhere. Some people throw these disks away saying they're useless. DON'T! Although these situations may look hopeless, a blown disk can be repaired.

Blown or glitched disks come in three major categories. Physically altered, blown disk header, and blown file header(s).

The first type is not repairable. Doing things such as cutting the disk or finding that a small child has fingered it (after eating chocolate chip cookies of course) effectively destroy both the contents of the disk and the actual media itself. Throw it away. Of course if the disk was in its envelope when not in use, it should be fairly safe.

The second type, blown disk headers, are slightly more complex. These usually have to do with the first sector or the directory map. You almost always need to use a special disk fixer program to set things straight. Although a skilled programmer may not need to use such a program, I feel it's a lot safer.

The third type, blown file header(s) are very easy. Suppose you catalog a disk and it looks like this:

```
FILEA
FILEB
FILET
FILEC
FILED
```

Obviously, file FILET is out of order, which shouldn't happen. Let's also suppose that you can't manipulate FILED in any way (delete, copy, load, ect.). Using a cataloger, list all the files on the disk and place them in alphabetical order. Next, use a sector editor to inspect sectors 1-x. The value for x depends on the number of files.

Keep looking until you have found each filename. As you spot the filename, put a small check by it as well as the sector number the name is found in.

Next, edit sector 0001. Enter the hexadecimal mode. Every four characters equals one file header. Since your list is in alphabetical order, type each number of the sector header. For example if FILED has its header at sector 2, I would enter 0002 for the first four digits and so on. When you are done, write the sector and try cataloging and manipulating the files. The easiest way to do this is catalog then protect/unprotect all the files. If you can,

you are in the clear. If not, more work will be required. Before you give up, try repeating this procedure, or find someone with lots of disk skill.

\*\*\*DONE\*\*

## USER GROUP COLLECTION

By: Andy Frueh, Lima US

I would really be interested in compiling a disk of both Fairware and Public Domain programs that our members have written. I have found a few programs from newsletters and from my own stock. If you have written an article or some kind of program for the TI, please send it to me. If credit isn't given in the program itself, I will give credit in a TI-Writer file list.

This kind of disk collection would really aid in establishing our member's talents to the rest of the TI community. I have found programs and articles from myself, and a few programs from Charles Good that I plan to include. So, if you have written ANY program or article that concerns the TI, please send it!

Submissions can be in either written, cassette, or SS/SD disk form. It doesn't have to be recent, or even completely original. Any material you have will be welcome, and I promise that each and every submission will be included. If two programs are similar, or if I get two articles on the same subject, then I will include both. If I get a lot of input for this idea, I may be able to fill more than 1 disk.

This disk or disks could be given to other user groups. I have seen several "collections" on either one or several subject from user groups, and they are usually very well done. Please do not include any type of LOAD file. I plan on designing my own. Such a program will be included, but will be edited down to a "general" loader, and then included. I hope that I can gather lots of material. Remember, it doesn't have to be glitzy, it just has to work!

Andy Frueh, Lima US  
638 Maplewood Dr.  
Lima, OH 45805

All members who send me submissions will receive this disk (if I get enough submissions) free of charge. However, if I can't gather enough files, I will return your submissions.

\*\*\*DONE\*\*

## CORCOMP REPAIR INFORMATION

The following information was obtained from the March 1990 issue of PUG PERIPHERAL, the newsletter of the Pittsburg User Group. The information is IMPURIANI to all owners and potential purchasers of all CorComp products.

CorComp has been taken over by a new company. The company still manufactures and repairs CorComp items. For in or out of warranty service you must call 714-956-4450 and get a RMA (Return Material Authorization number). Of course, you are talking to a tape and you give all the information.

Your RMA, when received comes with instructions as to what you do. You must prepay, and as of 2/2/90 the price was \$30 for each individual item except it was \$20 for the PIO PLUS and IBM CONNECTION. The new address is not N. Tustin Rd. as may be listed in your old manual. Their letterhead reads:

International Diversified Technologies Inc.  
2211-G East Winston Road  
Anaheim CA 92806 USA  
714-635-1815  
Telex 9102400820, answer Back: IDT UG

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

## REDUCING DISK COSTS

By: Andy Frueh, Lima UG

I have recently received disks from people either full of their own stuff, or asking me to fill them with my stuff. The problem is, these disks cost a lot of money!

Maybe people don't realize it, but there is no need to buy expensive SUNY, PANASONIC, or MAXELL disks. The TI doesn't cram a lot of data on disk, and thus is VERY tolerable of disk imperfections. The little things that send a PC up the wall usually don't bother a TI. In fact, try using a damaged IBM disk on a TI (after reformatting). You can probably use it. I wonder why people send disks that are \$12 for a 5 pack when you can get 10 generic disks for about \$3. That's 30 cents a disk.

Also, remember that while most people seem to hate using them, floppy disks save money when mailing them. You not only have to buy half as many disks, but you can send 1 instead of 2 through the mail (and the way the U.S. post office is raising its postage fees, this could save big bucks in the future.)

Flippies aren't hard to make either. Just take a templet and punch out the appropriate parts of the outer jacket of the disk. This works for all formats. The reason that they are single sided only is because the second side simply wasn't checked. It doesn't mean it won't work. Usually, there are slight imperfections in side 2, but like I said, a TI usually doesn't notice small glitches in the disk.

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

## THE GREAT PAPER QUESTION

By: Andy Frueh, Lima UG

A few months ago, I purchased a GE thermal/ribbon printer. I noted that ribbon costs were getting quite expensive. I started searching for my only alternative, which is thermal paper.

I figured that some office suppliers must carry it. I called nearly 20 computer/office supply stores. All of them said they no longer carried thermal paper. Well, I was lucky in the fact that two stores did carry this paper, but the experience gave me some new knowledge.

Although people will tell you the thermal paper is outdated, there is an alternative that can be found everywhere. FAX paper. It seems that FAX machines use the same chemical coating to print. The one disadvantage is that you usually have to cut the paper yourself (since it's often found on rolls instead of sheets.), but this shouldn't pose a big problem.

This is another example of something that is outdated one day, and reinstated as high-tech the next. Take the TI's 16 bit processor. Not only is that a major selling point of some computers, it is the new thing in video technology in game systems such as SEGA Genesis, Turbo GRAPHX (NOT the artist program!), and others. I guess all of this amounts to the fact that the 4A is quite literally the gift that keeps giving!

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