

NEWSLETTER

of

TIBUG

DECEMBER 1991

TI - 99/4A - BRISBANE USER GROUP INC
P.O. BOX 3051
CLONTARF MDC, QLD AUST 4019



COMING MEETINGS

31 JAN and 28 FEB

7.30 p.m.
EAST BRISBANE STATE SCHOOL
CNR WELLINGTON RD. AND
STANLEY STREETS,
EAST BRISBANE.

COMMITTEE

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MODULE LIBRARIAN

John Peacock - 074 673 376

EDITOR

Garry Christensen - 888 4857

included in that newsletter at the discretion of the Editor. If you have a disk system, please supply script on disk with diagrams separately on paper and as clear and black as possible to facilitate photocopying.

Most original articles by members of TIBUG in this newsletter are on disk and are available to other User Groups on request.

Submissions of articles, reviews, comments and letters from members is encouraged, however the editor would ask that members keep the following in mind.

Submissions should be about computers, the TI community in particular, or have general interest value.

The preferred media is floppy disk (any format) however cassette tape is most acceptable for those members who do not have expanded systems. Please remember that handwritten submissions have to be retyped into the computer so that they can be reproduced. Typed submissions can also be used directly if the quality of the type is suitable for photocopying.

The newsletter is produced on the weekend preceding the monthly meeting. Any submissions made after the Friday, one week before the meeting will be held over until the following month.

Submissions are best sent directly to the Editor rather than through the PO Box. The address is Garry Christensen, 18 Zammitt St, Deception Bay QLD 4508.

Contact the editor if you have any difficulties with preparing a submission or have any comments about the newsletter.

All items within this newsletter may be reprinted providing the source and author are acknowledged.

The views expressed in articles published in TIBUG are those of the author and do not necessarily reflect the views of the Editor, Committee Members or Members of this User Group.

All items, articles, programs etc in this Newsletter are believed to be public domain.

Contributions to TIBUG are invited from both members and non-members. Articles for inclusion in the succeeding monthly newsletter are required at least two weeks before the monthly meeting and may be

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WISHING YOU A

A
MERRY
CHRISTMAS

AND A

HAPPY NEW YEAR



EDITORIAL

You know, being the editor is not all beer and skittles. Putting the newsletter together is not all that hard but finding something fascinating for the editorial each month can be a problem. I suppose that I could use this space to talk about my philosophy on life or political views but I really should limit it to the computer arena. Admittedly I sometimes cross into the fantasy world of fast machines and big memory (IBM, which stands for Incredible But Misguided) but that is usually to tell you how much I don't like them.

This month had me stumped. I've been trying to think of something for about the last week and there just didn't seem to be anything there so this evening I decided that I would have to work something out.

I first thought "This is the last newsletter of the year so I should wish everyone a Merry Christmas and a Happy New Year, talk about all the things that we did in the last year, and thank all the people who have contributed to the group". I will do that but it hardly seemed enough to fill and editorial. "How about look at what I wrote last year". Good thought, so I dug out the last issue for last year (do you still know where to find your's).

Interruption: here is something that I just thought of. Do you keep you Bug-Bytes? Are they filed away in the corner? Over the Christmas break, find them and read them all again. If you are going away, take them with you and read them while you are relaxing on the beach or taking in the mountain air. You might think that it is crazy but it's not. Can you remember all that has been printed in the newsletter in the last year, let alone 3 years. Are you still doing the same thing with your computer that you were doing 3 years ago. If not then your focus has changed. Information that was no use to you a while ago will mean something to you now. Go on, take out a back issue and you will find it really interesting. The further back the better.

Resumption: What was I saying. That's right I was about to look at what I had written last year. I was quite suprised. It was not the last but the second last edition for last year where I made some predictions for the TI for the year to come. I wasn't far off in some of them.

I started by predicting a greater use for the RAMdisks, that is programs that make use of the extra memory. That was one

that hasn't happened yet. There have been a few programs for the RAMBO modification but it hasn't really taken off. Not yet anyway.

I spoke of an improvement in the graphics with the video upgrades. At that time the TIM was not yet available and everyone was waiting to see what it could do. Now 1 year later we have placed the largest single order (I think) that OPA have received and we await their arrival. More on that in What's News. There have also been quite a few programs that take advantage of the graphics or extra memory so for those who have ordered a TIM there is much to look forward to.

Another area that I talked about was inexpensive expansion for console only users. What I suggested was a mini-PE box with 32K, PIO and a RAMdisk. That hasn't quite happened but it is available in a way. Its still in the experimental stage (and I don't know if it will come to anything formal) but Col has an adapter board that connects a RAMdisk directly to a console and it includes a PIO. This combined with an internal memory expansion, gives the same results that I was looking for and it opens up a lot of possibilities for a portable TI.

I did say that there will probably not be anything radically new in the software department. We certainly have seen a number of new games and many in this group have discovered Page Pro but the year has been mostly in refinements.

Funnelweb has continues its ever upward climb. Here's something. Did you know that there was a period when there was a lot of 'bitchiness' in the TI community, particularly in the US, and the McGoverns were criticised for releasing constant updates to Funnelweb. It was said that they should not release a partially complete project, instead they should hold on to it till it was finished, then release it. Can you imagine what it would be like if that was the way that things worked. The TI would be dead and gone years ago.

There is one area that I would like a bit more attention, and that is in the word processor. I would like to see a word processor that is block-orientated. That means that sections of text can be indicated (blocked) and moved or copied etc. The word processor would also allow you to move from the beginning of one line

to the end of the previous line, and have an insert mode where text moves on one place for each letter as it is inserted into the line. That's all I want. Not much and it should be easy when you have all of 32K of memory to do it in. I might even tackle it myself, or I would if I could get the time.

I did even surprise myself in last year's editorial. I predicted that there may be a new operating system (replacement GROMs) for the TI. This was before Son Of a Board was announced so I can hit it right sometimes. Those who ordered a TIM receive SOB also.

I concluded by saying that there would be more software for the 9640 and here I was also right. This last year has seen a number of major programs for the Geneve released and it is now looking that it can be a real use after all. It's a pity that Myarc wouldn't get their act together.

Well that was the predictions. Next year? That's easy, 'much the same.'

So that's the year at an end. There are some people that I would like to mention in particular. Its not that the others are not doing enough but there are some who put an enormous amount of effort into the group. They are Col, who is the treasurer (or was), photocopies, collates, staples and posts the newsletter (and Mum helps too, thanks Mum), and he does most of the repairs when the TIs get sick. Also John Reynolds who has spent an enormous amount of time putting the disk library into order, and there is John Peacock who has established the module library and has now taken on the tape library as well. To those and all the others who dedicated their time to help the group, thank you.

Well, it's getting time to close the editorial for another year. Christmas is almost here, the New Year follows then I am off into the wilds of northern NSW for a couple of weeks. I probably won't make it to the January meeting (it's on the 31st) because that is Tracey's (my wife) birthday and if I don't take her to dinner she will probably short-circuit my computer so I see many of you at the February meeting.

Merry Christmas to you all and all the best for the New Year.... Garry



THE DISK LIBRARY

FILES, HOME.	FILENAME	HOME		
28COL/FILE	18XB. Write new, reads, updates, delete or printout.	005	GOOD	
ADDRESSES.	38XB. Files Prg. No menu or inst. May go with RECORDDATA.	004	FAIR	
ADDRESSES.	38XB. Keeps names and addr. Didn't go into it.	047	OK.	
ADRSBOOK-X	37XB. Address Book. Displays saves loads deletes etc.	260	GOOD	
AMORTIZE.	35XB. Calculates info you give about loans.	007B	OK.	
AUTOMAIN-X	42XB. Auto Maintenance. Displays saves loads deletes adds	260	GOOD	
BANK	19XB. Create your own Bank file, save, load, etc.	050	GOOD	
BIO/RHYTHM.	30BAS. Shows 3 cycles for birthday.	013	OK.	
CARDLIST-X	25XB. Xmas card list. Displays adds loads saves deletes	260	GOOD	
CASH/FLOW.	30XB. Starts files etc. Has menu, seems complete.	006	OK.	
CHEKBOOK-X	21XB. Balances Checkbook. Fairly basic but OK.	260	OK.	
DECOR/HELP.	20XB. Tells how much paint/paper req'd. You give dims.	006	GOOD	
DIET/PLAN.	11V. Goes with DIET/GER. Could be OK.	046	OK.	
DIET/GER.	42XB. Goes with DIET/PLAN. Could be OK.	046	OK.	
DIRECTORY	41XB. Create your own Directory, can save, load etc.	050	GOOD	
FAM/TREE	49XB. Makes database of F/T. Tape save only. Try it.	383	VG.	
FAMILYTREE.	38XB. Seems to be all there to build your Family Tree	004, 047	GOOD	
FAMTREE/PG	40XB. Can list save edit etc. Check, may be for Tape only.	383	VG.	
FILEMGR.	14XB. Seems to have all.	043	OK.	
FLOORCOVR-X	27XB. Floor Covering, Calcs area/cost etc.	260	GOOD	
FREEZER	21XB. Lists food in freezer, with use by dates?	046	OK.	
FUTURAL-X	12XB. Future Value of lump sum, annuity, investment.	260	GOOD	
GENEALOGY RECORD KEEPER.	DSK. Docs and files.	290	GOOD	
GENEALOGY	13XB. May be OK. Has searches, investigate.	007A	OK.	
GENERALINV	18XB. Makes inventory files. Seems OK.	4, 47, 050	OK.	
H/CAPPER.	29XB. Could improve your punting, using form. Try.	007A	OK.	
HOME FINANCE.	3F. EA. Loans, residence, car, savings. Asks questions.	340	VG.	
HOME MANAGEMENT.	3F. EA. VG Tool. Could be useful for other things.	340	VG.	
HOMERECORD	28XB. Record your financial affairs on Cassette.	382	GOOD	
INVESTMENT.	10XB. Calculations on investment. Try.	007A	OK.	
LETTERGRAD.	20XB. Maybe for teachers to mark essays, or parents same.	007A	OK.	
LOAN-X	18XB. Loan info and reports prints enter add change etc.	260	GOOD	
LOANCALC.	22XB. All sorts of calcs on loans.	016, 043	OK.	
MORTGAGE-X	30XB. Amortization. All necessary calcs.	260	GOOD	
NEEDLEPOIN.	21XB. Tells quantities of yarn, each colour. N/P CANVAS	006	OK.	
ORGANIZE.	5XB. Goes with OUTLINE. Has menu, don't understand.	016, 043	OK.	
OUTLINE.	90IV. Goes with ORGANIZE.	016, 043	OK.	
OUTLINER-X	32XB. Outlines and tags. Don't understand it yet.	260	GOOD	
PERS/BANK.	32XB. Makes and runs files on Banking.	4, 7A, 47, 050	OK.	
PERSONAL AUDITOR.	DSK. Files and docs. Maybe corrupt.	210	??	
PERSONAL REPORTER.	3F. EA. Select/manage files for this subject.	340	VG.	
PHONE/DIR1.	28XB. Seems complete. Make your own directory with this.	006	GOOD	
PHYSICAL FITNESS.	3F. EA. Select/manage files for this subject.	340	VG.	
PRESVAL-X	14XB. Present Value calc of lump sum, annuity/investment.	260	GOOD	
QUIZMAKE1	5F. XB. Allows you to make or Take Quiz.	016, 043	OK.	
QUIZTAKE/	5F. XB. QTRIVIA, QVOCAB1, QVOCAB2.	016, 043	OK.	
REAL ESTATE.	3F. EA. Select/manage files for this subject.	340	VG.	
RECIPCON-X	31XB. Recipe conversion helper. Inc/dec ingredients Temps	260	GOOD	
RECORDDATA.	53IF. Goes with RECORDS.	004		
RECORDS.	24XB. Makes files and records. Prints, deletes, adds.	4, 47, 050	OK.	
REPORTS.	Was recommended for deletion.	043	DELETE	
TAX RECORD KEEPER.	5F. EA. Select/manage files for this subject.	340	VG.	
TAXRECORDS/LOAD.	Has all to set up Data Files. Own headers etc.	114	VG.	
TEACHERPET	42XB. Parents rec of C. progress. Up to 35 Rec, 6 Fields	050	GOOD	
TRIPPLAN-X	39XB. All required to plan trip, Cost/fuel/food/reports	260	VG.	
WALLPAPR-X	20XB. Tells paint/paper req'd for room with window Dims.	260	GOOD	
WORKSHEET	10XB. Has all to run your own budget.	006	GOOD	
X/WRITER	25XB. If you don't have F/Web or similar, this would be:	006	VG.	
YARNSTI-X	21XB. Needlepoint calculator for Yarn/Canvas.	260	GOOD	
PRINT, COLUMNS ETC.	FILENAME PRINT			
##	36XB. Used with LABELPRINT.	VGx	245	
*	64IV254. Used with LABELPRINT.	VGx	245	
BANNER	19XB. Creates large letters on printer. 138 max.	OK.	028	
CASSLABL	17XB. Lists Prgs on tape label. Collectively/Tape Cntr.	OK.	007B	
D/N/P	7XB. Print labels with Dsk Name, and not whole catalog.	GOOD	382	
GIANTPRINT	14XB. I don't get it yet. Have to list.	OK.	005	
GOTHICPRINT	49XB. Prints Gothic. CARE: SPECIAL LOAD INST. See Examl.	VG.	364	
LABELPRINT	8XB. Prints labels (1 x 3.5"). Can load, save, create mail list, change append, design, add borders. Good menu, many choices. Uses ## and * see above. Have to change some lines for RANDISK use.	VGx	245	
LETTERHEAD	11XB. Prints out L/H. May have to change Print Commands	F. 006, 007B		
MAILLABELS	29XB. Prints labels for you. Should be OK.	OK.	046	
MPPRINTN	7XB. Imbed print char for Multiplan Spreadsheets. Read Doc	GOOD	382	
MPPRINTNRH	7XB. Imbed print char for Multiplan Spreadsheets. Read Doc	GOOD	382	
MPPRINTS	5XB. Imbed print char for Multiplan Spreadsheets. Read Doc	GOOD	382	
MPPRINTDOCS	29XB. Imbed print char for Multiplan Spreadsheets. Read Doc	GOOD	382	
PRINT/LIST	3XB. Will print from file in columns. Handy.	OK.	046	
SIDEPRINT	Files and docs.	??	306	

LANGUAGE. FILENAME LANG

BOXDEMO\ LINKing Assm routines. Make, clear boxes. Many others.	VG.	382
BOXDOC / Goes with SUB/BOX, SUB/CHAR, SUB/FRME, SUB/PCLS, SUB/SORT.		382
C-TUTORIAL. DISK 1. Gordon Dadrill. See list.		310
C-TUTORIAL. DISK 2. Gordon Dadrill. See list.		311
C99INDEX. DISK 1. Publications Reference Systems.		325
C99INDEX. DISK 2. Publications Reference Systems.		325
C99RELEASE 3A. Clint Pulley. See list.		329
C99RELEASE 3A. Ver 2.1. Clint Pulley. C99 Compiler.		312
C99RELEASE 3B. Clint Pulley. See list.		350
C99WINDOWS LIBRARY. DV080 and demo Prgs about same.		313
FORTH Assorted Files.		319
FORTH DECOMPILER. See list.		262
FORTH SCREENS. Uycove. See list.		295
FORTH SCREENS. Uycove. SIDES A and B.		265A
FORTH TI. Last version.		264+
FORTRAM. See list.		265B
FORTRAM. See list.		280
FORTRAM LIBRARY 1. 83 files. See list.		263
FORTRAM LIBRARY 2. 54 files. See list.		350
FORTRAMV3. 16 files incl. load and small doc.		351
G PROGRAM LANGUAGE. Game of life. See list.		352
LOGO 2 CART. Various files. See list.		293
LUTZ/FORTH. SYS-SCRNS. See list.		261
PULSAR1. Assembly Language Utils. MIKE Amunsden. Files/docs.		281
RAGLINK ASSEMBLY LANGUAGE. Assorted files and docs.		230
TI-FORTH. Last version.		220
TI-FORTH. SCREENS. Uycove.		265B
TI-FORTH SCREENS. Uycove. Sides A and B.		265A
		264+

WHAT'S NEWS

First the TIMs. The order has been placed and construction has begun. As you can imagine, 23 TIMs will not appear overnight. I get the impression that they are hand built. Gary will be shipping them in lots of 5 as they are ready and tested. I haven't been able to speak with Gary since he received the order but the gentleman that I spoke to believed that the first batch would be out in a week (that was a couple of weeks ago). I hope to be hearing something positive in the very near future, of course a lot will depend on the efficiency of the postal service during the Christmas/New Year period.

There is a problem of who will get the first ones. I'm open to bribery and corruption.

The delay in production also provides an opportunity for those who have not placed an order to change their minds. I can still accept orders and get the money over to them so that the TIMs will still be \$165. Contact me urgently if you want one. I will be on holidays in January so keep trying if you can't reach me.

The date for the TI Fair in Sydney has been tentatively set around the 14th November 1992. Mark it on your calander.

Fractured files is a serious condition for floppy disks. It means that files and programs are broken up into many parts and spread over different parts of the disk.

This leads to poor performance. Till now the only way to correct this problem was to copy the disk, file by file, onto a new disk. Mark Schafer has produced a program that will correct this problem on the same disk. Contact him (send \$10) to 539 Whitaker St, Morehead KY 40351, USA.

It had to happen. The word is that Tony Lewis and Al Beard in the US have been working on a maths co-processor card for the TI. A co-processor is just that, it can be performing a task while the computer is doing something else. In this case a maths co-processor can be performing very complex mathematical functions while the TI is working on something else. When it's finished, the co-processor gives the answer to the computer. This card is based on the Motorola 6881 chip and is planned to be compatible with the TI99/4A, 9640, and Accelerator card. It is not complete yet but it is functional.

If you are waiting for Myarc to repair a HFDC or 9640, don't hold your breath. The rumor is that Lou Phillips has 20 HFDCs just sitting in his garage waiting to be shipped out to the owners. I can't say that I am at all surprised.

The Chicago Fair was held on the 2nd of November and anyone who was anybody in the TI world was there. I won't spend pages relating to you what I have read about it but if you have a chance, borrow the November Micropendium from the user group and have a read. Boy, would I like to go

there next year (Keep on dreaming).

The 9640 software explosion (pop?) has begun. Textaments are selling 10 games ported over to the Geneve. They are Space Champions, Cave Explorer, Train Twister, Time Guardian, Jungle Terror, Frenzy, Islander, Car Race, Submarine Revenge, and Sea Terror. No prices available at the moment.

OPA have released the POP-cart. This is a device that contains a number of modules or programs in the one cartridge. When you order, you tell them which ones you want and OPA burn them into an EPROM. The modules/programs can be accessed by a menu and the "Review Module Library" function gives access to some cartridges. The basic unit contains 256K, enough for 5 to 7 modules. Units up to 2Meg are available. The basic unit costs \$100. For an extra \$25 you can get a menu program with extra features like loading assembly, forth or c99 programs.

Some time ago Myarc promised an environment called GENE, allowing multiple windows for the 9640. This program has been completed by Beery Miller and he is distributing it. The cost is \$5 to cover postage. Address PO Box 752465, Memphis TN 38175, USA.

You may have heard of the Disk of Dinosaurs, then it was the Son of the Disk of Dinosaurs, now you can have the Bride of the Disk Of dinosaurs. Each of these disks are full of pictures of dinosaurs (what a surprise) and monsters in TIA format. They are available from Ken Gillard of Notung Software. The price is \$12. Also available is the Disk of Horrors. This disk contains 30 TIA pictures and instances, a HORROR font, gruesome animation, a spooky slideshow, a musical nightmare and a history of horror pulps and 3 original horror stories. The cost is \$12 (+ph). Notung Software, 7647 McGroarty St, Tujunga CA 91042, USA.

The inaugural John Birdwell Memorial Fund award was presented to Barry Traver for his contribution to the TI and 9640 community. This award will be made yearly at the Chicago Fair.

Harrison Software have 2 new games. The first is Scud Buster and you get no prizes for guessing the aim of the game.

The other is Code Breaker where the aim is to solve cryptograms on the screen. The disk contains 380 puzzles and includes an editor to alter them or create your own. Both are \$14.95 and available from Harrison Software, 5705 40th Place, Hyattsville MD 20781, USA.

As I reported last month, Jerry Coffey has taken over the distribution of software previously handled by JP software. These are some of the titles: Triad (terminal emulator, disk manager and word processor in one program) \$20, Chainlink Solitaire \$12, PC Transfer plus utilities \$25, Hypercopy (for 9640) \$15, Identifile \$10, Gen-Tri \$49.95. The address is 9119 Tetterton Ave, Vienna VA 22182.

LGMA (Little Green Men and Associates, I kid you not) have released GenBench for the 9640. This is a shell around MDOS and works with 9640 Windows by Beery Miller. It allows up to 15 programs in the menu and appears similar to Graphic User Interfaces (GUI) for other computers. It also features many utilities, a windows library and a Full-C compiler. It is compatible with the Myarc or Logitech mouse. Contact LGMA, 5618 Applebutter Hill Rd, Coopersburg PA 18036, USA.

Almost everyone who has a disk drive uses DM 1000. It is a great program and is very easy to use. Recently version 5.10 was released. I don't know what improvements have been made, in fact I know nothing else about it. If anyone has a copy, could you bring it along to the next meeting or send me a copy so that I can pass it on to other users. Remember it is fairware. Have you made a donation? Was it years ago? Perhaps it is time to donate or to update your donation.

It seems that there has recently been another editions of Asgard News/Reflections. I haven't seen any that we have subscribed to yet. Its about time for one of THOSE letters.



MODULE LIBRARY

It's so good to see the module library getting used by so many of you, at last count almost one third of our modules are out been used. Maybe while you had a particular module you found something you would like to tell everybody could be just your highest score eg. Ring me and I will put it in this column or write to the editor.

This month Alpiner is in the spot light. Made in 1982 Alpiner was quite good for the day and still rates high on my list of favorite module games. At the start you are given a choice of what language version you would like to play. Yes Alpiner has speech. Next the choice is one or two players. Now type in name or names of the players. There are six mountains to climb, Hood, Matterhorn, Kenya, McKinley, Garmo, Everest. If you are good there are 18 sets to complete, three levels of six sets. Each time a set is finished time allowed to finish a particular mountain gets less. As you get further into the sets the obstacles, I forgot to mention them earlier, fall faster and more of them. Acutaly on set nine the obstacles follow you and it gets real hard.

You must climb to the top of each mountain with out being hit by and avoiding any of eleven obstacles which include trees, stumps, brush fires and wild animals. If any of these obstacles are hit then down you go and you start all over again minus one man.

Extra men are awarded at the end of each climb up a mountain. One other point, to go from right to left or vice versa this program has screen wrap. I found using Joysticks is a must with Alpiner. This game will keep most hard to please video game addict's happy for some time.

If this review is all over the place I must apologise but it is about two am.

Till next month ... good gaming.
GAMES

ADVENTURE :: Adventure game comes with many scenarios, including The Count, Pirate Adventure, Pyramid of Doom, Mystery Fun House, Strange Odyssey, Savage Island Series, The Golden Voyage. This cartridge requires disk drive or tape.

ALPNER :: Climb six of the world's tallest mountains and evade dangerous obstacles with ALPNER. Be careful, the Abominable Snowman is waiting for you atop Mt. Everest! Has speech.

A-MAZE-ING :: A challenging combination of maze games to test your strategy skills. Race against time through increasingly difficult mazes filled with tempting cheese, towering obstacles, and devious cats!

BLACKJACK AND POKER :: These computer-simulated card games allow betting with a bankroll you wish you had. Up to 4 players can play these card favorites.

BLASTO :: Puts you in command of an armored tank traveling through a dangerous mine field. You score points by destroying mines or blasting your opponent's tank!

CAR WARS :: It's your car against the computer's in this exciting race! Score points by out-maneuvering the computer's car as it tries to run you off the track!

MIND CHALLENGERS :: Two exciting and colorful games to challenge your powers of memory and logic. Test the limits of your musical memory with Memory Match, or try to solve the mystery of the baffling Mind Grid.

MUNCHMAN :: Four cunning Hoonos are in hot pursuit of your Munchman while he races to an energiser to change the attack. Can he make it to safety, or does his fate lie in the mouth of the Hoonos?

PARSEC :: You are commander of the starship PARSEC under attack by the most hostile, deadly aliens in the galaxy. Your mission: destroy as many alien fighters and cruisers as possible.

RETURN TO PIRATES ISLE :: More adventure as you search for the treasure. This time you can see what is happening. Good graphics.

STAR TREK :: Search out and destroy the invaders.

THE ATTACK :: You and your ship have been given a mission: Destroy the aliens before they destroy you!

TI INVADERS :: Numerous downright nasty space creatures challenge your survival instincts when they attack your world. Try

to destroy these swarming invaders before they demolish your missiles.

TUNNELS OF DOOM ::Enter a world of fantasy where your instincts and imagination determine your chances of survival. Your journey is about to begin-prepare your self. Adventure game with two versions Pennies and Prizes and Quest of the King.

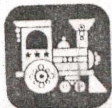
VIDEO CHESS ::Choose your own opponent or play against the computer on any of 3 levels. With this module, your computer can serve as a willing teacher or a challenging opponent.

VIDEO GAMES ::

VIDEO GAMES 1 ::Contains hundreds of variations of three basic games, Pot Shot, Pinball, Doodle.

YAKTZEE ::This exciting dice game combines strategy and chance. Players build points by rolling certain number combinations.

GENERAL



DEMONSTRATION ::This is a very early Demonstration of what the TI could do and is well worth a look and see how far they have advanced since 1979.

HOUSEHOLD BUDGET MANAGEMENT ::A step-by-step guide to better money management. Helps you set budget guidelines, track income and expenses, spot problem areas, keep easily accessible records. Easy to use!

HOME FINANCIAL DECISION ::A valuable, step-by-step guide to help answer your everyday financial questions. Helps you make informed decisions regarding general loans, home and car buying and personal savings. Also lets you compare difference between leasing versus buying and much more.

MUSIC MAKER ::Use the computer to compose music! Simply enter your composition, and the computer plays it back for you instantly.

PERSONAL REAL ESTATE ::Many alternative personal real estate investments can be easily evaluated with

this module. It can be a valuable educational tool. Closely follows techniques used by the Realtors National Marketing Institute.(AMERICA)

PERSONAL RECORD KEEPING ::A step-by-step guide to creating, maintaining and utilizing your own computer-based filing system. Useful and convenient for a variety of applications.

VIDEO-GRAPHS ::Interact with preprogrammed graphics - or create your own designs to explore the unique colour and graphics capabilities of your computer.

EDUCATION

ADDITION ::A self-paced addition "tutor" to help your child develop strong math skills. Suitable for children from Kindergarten up to grade 8.

ADDITION AND SUBTRACTION 2 ::Guides your child through addition and subtraction skills for numbers up to 18 with colourful tutorial routines and reinforcing drills.

ALLIGATOR MIX ::An arcade game format provides fun and challenge while increasing math skills in addition and subtraction of numbers from 0 to 9.

BEGINNING GRAMMAR ::Engaging and colourful activities that introduce the basic parts of speech and how they're used.

DIVISION ::A self-paced division tutor to help your child develop strong math skills

MINUS MISSION ::An arcade game format provides fun and challenge while increasing skills in subtraction.

MULTIPLICATION ::Teaches the basics of multiplication

MULTIPLICATION 1 ::Provides practice in the fundamentals of multiplication skills.

NUMBER MAGIC ::Drills basic maths using colours and graphics.

READING ON ::Teaches an understanding of maps, graphs and schedules.

SCHOLASTIC SPELLING no's. 3,4,5 ::Spelling lessons for various levels.

not enough to change that state of one of those pulses so that any copy is a perfect replica of the original. Even after numerous copies, the quality will be the same.

This has obvious advantages but as everyone knows, there has to be a down side, nothing is all good news. The problem with digital electronics is that it can only approximate what is happening in an analogue world. States can be either on or off and nothing in between. This presents some problems when getting the computer to simulate a real life experience, it cannot be perfect. Fortunately that is a problem that we do not have to consider here.

Warning - read all of this paragraph. Now we come to the maths. In the 1600 a mathematician called Gottfried Leibniz deduced that all numbers can be represented by a code using only ones and zeros. $0=0$
 $1=1$ $2=10$ $3=11$ $4=100$ $5=101$ $6=110$ $7=111$
 $8=1000$ and so on. It is called binary notation and I will have more to say about binary at a later date. Here then was a perfect way for computers to represent numbers. If a voltage is present (usually 5 volts in today's machines), it represents a 1. No voltage represents a 0. This way a series of discrete voltages can represent a number. By the way, I gave the warning so that the word 'maths' wouldn't frighten you away.

Next is the problem of how the binary codes are sent from one part of the computer to another. There are two ways that this could be done, one called SERIAL and the other called PARALLEL.

Serial first. In this type each digit of the code is sent one after the other. Take the code for 5 (101). Send the first 1 then the 0 then the last 1, always starting at the beginning of the code. Each of these digits are called a BIT. A bit can be either a 0 or a 1. For the number 5, we need 3 bits. To send the number 8 we send 4 bits, a 1 followed by 3 0's.

As you can see, serial communication needs only 1 connection between parts of the computer. As the name suggests, parallel uses a number of connections. Each of these connections is called a line. 2 lines means that 2 bits can be sent at the same time, 4 lines means that 4 bits can be sent at the same time. For the number 8 (1000), the first line sends the 1 bit and

the other 3 send each of the 0 bits. A number of bits can be sent in parallel.

Remember 5 (101), how do you think it can be sent on 4 lines? The number must be made into 4 bits by placing a 0 bit at the beginning, 0101.

Parallel has the advantage of speed over serial but it does need more connections. Also the more lines, the faster the data can be transferred.

In computers, a 'bundle' of lines is called a BUS. If you have an opportunity to look inside the TI you will not see bundles of wires all neatly grouped together, in fact no wires as such at all. For the moment though lets consider that they are always kept side by side.

In the computer there are 3 types of bus. One is called the data bus, the other is called the address bus and the other is called the control bus. The data bus is used to move the numbers around inside the computer, the address bus tells the numbers where they have to go and the control bus tells them when to go.

A bit more about the control bus and data communication. There are two types of communication, synchronous and asynchronous. They are big words, I know, but don't let that put you off. The prefix 'a' in the second type means "not", so one is synchronized and the other is not synchronized.

Synchronous communication needs to extra bits of information. One to say that data is being sent and one to say that the data has been received. It goes something like this: The sender says "I'm sending some data" then it waits till the receiver says "OK, I've got it, send some more" then the sender sends some more data, sets its signal and waits again. This process goes on till there is no more to send. The two extra lines needed form part of the control bus in computers, they use synchronous communication.

In asynchronous communication both the sender and receiver decide upon a speed that the data is to be sent, lets say one per second. Then the sender starts sending, at the decided rate and the receiver starts receiving. This type provides no control over whether the data was received. If it is not, then too bad, the next one is coming.

BITS AND PIECES

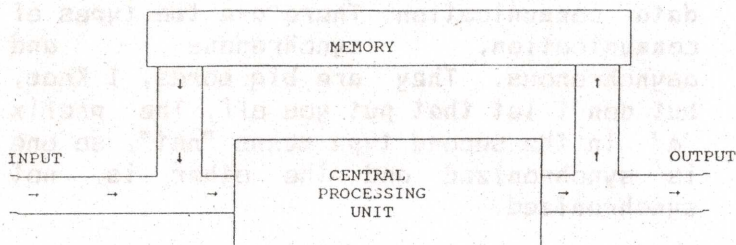
by Col Christensen

A couple of conventions. As I said, a bit represents a 1 or a 0, or the data on one line in a bus. A BYTE represents a group of 8 bits or the data that can be carried by a bus with 8 lines.

OK, a bus carries information from one part of the computer to another, well what are the parts? One I have mentioned already, memory. The most important is the CPU. That stands for the Central Processing Unit. In days of old, when computers occupied whole floors, this device was quite large. Today it is a single chip.

The CPU is the heart of the computer. It takes input, stores it in memory, performs mathematical and logical operations on data, shifts the data around and sends the result out to the output. It does the computing.

The above description really gives a good overview to the computer. ALL parts of the computer are dedicated to one of those areas - CPU, memory, input and output, and connecting them all are the data, address and control busses. Here is the first figure of the series. It shows diagrammatically the basic layout of the computer.



That is perhaps a good place to leave it. Next month: CPU and memory, more details.



"YO! I THINK WE GOT A NEW KINDA VIRUS HERE."

FONTS

The font used in printing some items in this newsletter is Gothic2, one of the large fonts of PagePro. Of course the original file has been manipulated and converted to a form suitable for downloading into the BJ-130 bubblejet printer.

ERRATA

A few errors crept into the printout of my article on Image and Print Using in last month's newsletter. A number of ampersand signs were omitted in the program lines 160, 180 and 250 which should read:

```
160 DEF Y$=Z&"#### etc
190 DEF M$=Z&N&O$
250 DEF J$=Z&RPT$(etc
```



GW-BASIC

Lately I had an opportunity to do some programming on a compatible using GW-BASIC. Although there are a few useful commands in that version of basic that were new to me, it doesn't match the power of TI Extended Basic by a long shot. Sadly lacking is an equivalent to ACCEPT AT with validation of input and size of input, the two most important parameters of the command. I have been spoiled by using ACCEPT AT and can't seem to get by without it especially with this program that others will use to input data. I dread to think what trouble these non-computerers will get into if let loose on a straight INPUT that in some cases requires a string and in others a number. What a heap of error trapping the program would need to make sure that later processing of the inputs to strings or numbers as required didn't cause fatal errors. I finally ended up by having to write a GOSUB routine to imitate the TI's ACCEPT AT. GW-BASIC seems to have the bare minimum of commands needed to create a basic, and I mean very basic, program.

REPAIRS

A few console repairs have come in lately but mainly with defunct 9900 processor chips. Our stock of spare motherboards is now getting low and we might have to look to a source of TMS9900 chips for the future. Maybe you have some

Outs by Bruce Harrison (Ass), Chicago Fair by Gary Cox, Newsbytes, Digitising Graphics with a PC and Transferr to TI by Ray Kazmer, review of Scud Busters and Code Breaker by Stan Krajeuski, review of GenBench Shell by John Koloen, review of Thumbnails by John Taylor, User Notes.

LAG99er, November 1991: Ramblin thoughts of the President, You Don't have to Have It All by Jim Peterson, X BASIC Miscellany by Earl Raguse, Funnelweb V4.4 by Charles Good.

TISHUG News Digest, December 1991: Editors Comment, TI Fair A Few Thoughts by Garry Christensen, Secretaries Notebook, Treasurer's Report, Shop, Software Column, Visiting TI99/4A Users in the USA by Ben Takach, TI99/4A World News by Jim Peterson, Extended Basic Tips by Bob Relyea, Coming to Grips with Tips by Alf Ruggeri, Printing Graphics with a Tandy DMP-105 by Geoff Trott, Hollywood Hijinx, Reviews and Rambles by Steven Shaw, Jenny's Younger Set, Sorting by Ron Brubaker, TI-Bits and XB Tips by Jim Swedlow, A Few Tips on Tips by Ed Machonis, Contract Bridge by John Bull, Hints Tips and Answers by Bill Sponchia, Colour Monitor Fault by Dry Cell, A Look at Assembler and A Look at GPLLNK by R A Green, Decoding EPROM Files by Ben Takach.

Tit Bits (Perth), August 1991: President's Page, From the Mail Box, Module Library, A Printer Utility, History Re-written by Earl Raguse, Printers #1 by John Willforth, Merve's Follow-up Article by Merve Teubridge, Kid's Stuff, More Honest Than Most.

Tit Bits, October 1991: Editorial, Page Pro 99, 3.5 Inch Disk Drives, The brother M-1209 Printer, and Tips-TIA-Page Pro Graphics by Geoff Warner, Printers #2 by John Willforth, XB to TIA Instance by

Terry Atkinson, News from the Committee.

Wordplay (Portland Oregon), May 1991: From the President, From the Editor, News and Views, A Note from the VP, Organize by Chuck Ball, Outline of Standards for Types of Devices by Rich Gilbertson, Word Processing by Ted Peterson, Call Sound by Dan Eicher, review of Cardshop by Jim Juque, Book Review by Mile Calkins.

Wordplay, July 1991: From the Editor, News and Views, Computer TV by Ted Peterson, Printhead Problems by Terry Priest, review of Newsletter Printer by Deanna Sheridan.

Wordplay, Aug/Sept 1991: From the President, From the Editor, Computing - The Future by Garry Christensen (2 R's guys), Communication, In-Console Accelerator by Richard Hay, Exploring Tinkertoy Technology.

Wordplay, October 1991: From the President, News and Views, From the Editor, Tacoma Fair by Mike Calkins, Label Program by Ted Peterson, DV80APPEND (B) by Wesley Richardson, Keno Tester by Don Steffens.

Wordplay, November 1991: From the President, From the Editor, USA Is Killing the TI99/4A by Rich Gilbertson (an interesting view that users overseas give better support to new products), review of TI-Casino by Charley Summerhill, How to do a Person to Person Download by Jeff Overton, Why Didn't Indent (.IN) Work by Phil Van Nordstrand and John Owen.

Wordplay, December 1991: From the President, From the Editor, Barry's Corner by Barry Traver, Appreciate Your Programmers by Jim Peterson, Who's Obsolete Now by Chris Bobbitt, Women and Computing by Jan Knapp, Letter Header by Dave Swartz.



SEASON'S GREETINGS



TIPS FROM THE TIGERCUB

#36

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Columbus, OH 43213

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Some old business to take care of -

Tom Wible (? - handwritten signature), in the MANNERS NEWSLETTER for April, points out that I am all wrong in my comments about updating a FIXED SEQUENTIAL file. There is no such thing as a fixed sequential or fixed relative file, only fixed files accessed sequentially or randomly (relative). Sequential and relative are access modes, not file attributes. There is no reason to open a fixed file in anything other than RELATIVE mode, because if you do not specify the REC clause in your INPUT or PRINT, the computer defaults to sequential processing.

In one paragraph, that gentleman told me something about files I had't learned from the TI manuals and from the 2000+ newsletters on my shelf. File handling is apparently easy to understand for those who have had formal computer training, but it is a frustrating mystery to those of us who try to learn by hacking it. Won't somebody please write a series of articles, somewhere, in plain, non-computerese English?

And here is the last word on printing lines of more than 80 characters out of the TI-Writer Formatter, by W. Stewart Ash in a MANNERS newsletter of May-June 1986. It is only necessary to use the .FI command, and to set the right margin to the length you want, for example .FI;RM 120 for lines of 120 characters; and then use .TL or CTRL U commands to select a type font which will fit that many characters on a line (136 or 132 in condensed, depending on your printer; 96 in elite).

Here's a new way to make music, for you music programmers and country music fans.

```
100 CALL CLEAR
110 PRINT " WILDWOOD FL
OWNER": : " on the hammered
dulcimer": : : : : : : : "
      by Jim Peterson"
120 DIM S(26)
130 F=262
140 FOR N=1 TO 25
150 S(N)=INT(F*1.059463094^(
N-1))
160 NEXT N
170 READ N
180 C=S(N)
190 D=S(N)
200 CALL SOUND(-350,S(N),0)
210 RESTORE 350
220 FOR J=1 TO 63
230 GOSUB 260
240 NEXT J
250 GOTO 200
260 READ N
270 CALL SOUND(-350,S(N),0)
280 X=1*100
290 CALL SOUND(-350,S(N),0,C
,9)
300 X=1*100
310 CALL SOUND(-350,S(N),0,C
,9,D,19)
320 D=C
330 C=S(N)
340 RETURN
350 DATA 5,6,8,8,10,13,5,5,6
,5,3,3,5,3,1,1
360 DATA 5,6,8,8,10,13,5,5,6
```

```
,5,3,3,5,3,1,1
370 DATA 8,13,17,17,17,15,13
,13,8,8,10,10,13,10,8,8
380 DATA 1,1,1,3,5,5,8,5,3,3
,5,3,1,1,1
```

Lines 120-160 set up a scale of two octaves, beginning with the frequency in line 130 - to change the key, just change that frequency. Lines 170-190 set up the initial values, line 200 prevents a pause while data is being restored. Then the routine reads the data and plays the music.

Note the dummy calculation in lines 280 and 300, which does nothing but create a brief pause while the value of X is computed. This is a good method for a delay because it can be adjusted so exactly by changing the exponent, but use a value of 1 to avoid a numeric overflow.

Leave out lines 280 and 300 if you run it in Basic, but it is better in XBasic.

To write your own music by this method, just list the notes of a 2-octave scale from your starting frequency C C# D E F F# G - etc. and number them 1 to 25.

Then, list the notes of your song by their number in the DATA statements. For a longer note, list it twice or more. Change the TO value in line 220 to your total number of notes, and RUN!

```
100 CALL CLEAR :: ON WARNING
NEXT :: CALL CHAR(128,"FF00
0000000000FF81818181818181
8180808080808080FFFF8080808080
8081")
110 CALL CHAR(132,"810101010
10101FFFF01010101018181000
00000000081"):: T=1 :: DIM K
$(15)
120 DISPLAY AT(3,7):"GORDIAN
KNOT": :TAB(12);"by Jim P
eterson"
```

```

130 DISPLAY AT(8,1):" Use ar
row keys to create a "3-dim
ensional maze."
140 DISPLAY AT(11,1):" When
you cross your track, "pres
s O to go over, U to go "un
der, C to go across."
150 DISPLAY AT(15,1):" You m
ay at any time press "Q to
clear the screen, or P "to
save a manually created "sc
reen."
160 T=1 :: DISPLAY AT(20,1):
"Choose - " (1) Manual":
(2) Automatic": (3) Retrace
": (4) Load"
170 ACCEPT AT(20,1)VALIDATE
("1234")SIZE(1)BEEP:Q :: ON
Q GOTO 180,230,290,400
180 GOSUB 430
190 CALL KEY(3,K,ST):: IF ST
=0 THEN 190 ELSE D=POS("EDXS
QP",CHR$(K),1)+1 :: ON D GOT
O 190,210,210,210,210,200,36
0
200 CALL CLEAR :: GOTO 160
210 D=D-1 :: IF ABS(D-D2)=2
OR R+(D=1)=0 OR R-(D=3)=25 O
R C+(D=4)=2 OR C-(D=2)=31 TH
EN 190 :: GOSUB 490 :: IF D<
>D2 THEN GOSUB 440
220 GOSUB 480 :: GOSUB 500 :
: GOTO 190
230 GOSUB 430 :: RANDOMIZE
240 D=D+1+(D=4)*4 :: CALL KE
Y(0,K,ST):: IF ST=0 THEN 260
250 IF K=80 THEN 360 ELSE IF
K=81 THEN CALL CLEAR :: GOT
O 160
260 T=INT(4*RND/2)*2-INT(2*R
ND):: FOR J=1 TO T :: IF D<>
D2 THEN GOSUB 440
270 GOSUB 480 :: CH=128-(D=1
)-(D=3):: CALL GCHAR(R,C,G):
: IF G<>32 THEN IF INT(2*RND
+1)<>1 THEN CH=G
280 GOSUB 510 :: NEXT J :: G
OTO 240
290 IF LEN(K$(1))=0 THEN DIS
PLAY AT(24,1):"CAN'T DO THAT
" :: GOTO 170
300 CALL CLEAR :: GOSUB 430
:: FOR J=1 TO T :: FOR JJ=1
TO LEN(K$(T)): D=POS("EDXS"
,SEG$(K$(T),JJ,1),1)
310 IF D=0 THEN 350 :: IF D<
>D2 THEN GOSUB 440
320 GOSUB 480 :: CH=128-(D=1
)-(D=3):: CALL GCHAR(R,C,G):

```

```

: IF G=32 THEN GOSUB 510 ::
GOTO 350
330 K=ASC(SEG$(K$(T),JJ+1,1)
):: IF K<>67 AND K<>79 AND K
<>85 THEN JJ=JJ+1 :: GOTO 33
0
340 GOSUB 470 :: GOSUB 510
350 NEXT JJ :: NEXT J :: GOT
O 170
360 IF LEN(K$(1))>0 THEN 370
:: DISPLAY AT(12,1)ERASE AL
L:"CAN'T DO THAT!" :: GOTO 1
60
370 DISPLAY AT(12,1)ERASE AL
L:"Save to - " (1)Cassette
": (2)Disk" :: ACCEPT AT(12
,1)VALIDATE("12")SIZE(1):S
:: IF S=1 THEN OPEN #1:"CS1"
,INTERNAL,OUTPUT,FIXED 192 :
: GOTO 390
380 DISPLAY AT(16,1):"Filena
me DSK" :: ACCEPT AT(16,13):
F$ :: OPEN #1:"DSK"&F$,INTER
NAL,FIXED 192,OUTPUT
390 PRINT #1:T :: FOR J=1 TO
T :: PRINT #1:K$(J):: K$(J)
=" " :: NEXT J :: CLOSE #1 ::
GOTO 160
400 DISPLAY AT(12,1)ERASE AL
L:"Load from - " (1)Cassett
e": (2)Disk" :: ACCEPT AT(1
2,13)VALIDATE("12")SIZE(1)BE
EP:L :: IF L=1 THEN OPEN #1:
"CS1",INTERNAL,FIXED 192,INP
UT :: GOTO 420
410 DISPLAY AT(16,1):"Filena
me? DSK" :: ACCEPT AT(16,14)
BEEP:F$ :: OPEN #1:"DSK"&F$,
INTERNAL,FIXED 192,INPUT
420 INPUT #1:T :: FOR J=1 TO
T :: INPUT #1:K$(J):: NEXT
J :: CLOSE #1 :: GOTO 300
430 CALL CLEAR :: CALL COLOR
(13,5,11):: R,R2=12 :: C,C2=
14 :: D2=3 :: CH=129 :: CALL
HCHAR(R2,C2,CH):: RETURN
440 CH2=128+((D2=1)*(D=2)*3)
+((D2=1)*(D=4)*5)+((D2=3)*(D
=2)*2)+((D2=3)*(D=4)*4)+((D2
=2)*(D=1)*4)+((D2=2)*(D=3)*5
)
450 CH2=CH2+((D2=4)*(D=1)*2)
+((D2=4)*(D=3)*3):: CALL HCH
AR(R2,C2,CH2):: RETURN
460 CALL KEY(3,K,ST):: IF ST
=0 THEN 460 ELSE IF POS("COU
",CHR$(K),1)=0 THEN 460
470 GOSUB 490 :: IF K=67 THE
N CH=134 :: RETURN ELSE IF K

```

```

=85 THEN CH=G :: RETURN ELSE
RETURN
480 R=R+(D=1)-(D=3):: C=C+(D
=4)-(D=2):: RETURN
490 IF Q<>1 THEN RETURN ELSE
K$(T)=K$(T)&CHR$(K):: IF LE
N(K$(T))<193 THEN RETURN ELSE
E T=T+1 :: RETURN
500 CH=128-(D=1)-(D=3):: CAL
L GCHAR(R,C,G):: IF G>32 THE
N GOSUB 460
510 CALL HCHAR(R,C,CH):: R2=
R :: C2=C :: D2=D :: RETURN

```

I think that educational programs should teach, not just test. This one makes up the kind of problems we all hated in school, but if you get the answer wrong it will show you how to work it.

```

100 CALL CLEAR :: RANDOMIZE
110 DATA LUMBERJACK,CUT,CORDS OF WOOD,BOY,PICK,QUARTS OF BERRIES,ELEPHANT,EAT,BALES OF HAY,COW,GIVE,GALLONS OF MILK
120 FOR J=1 TO 4 :: FOR L=1 TO 3 :: READ M$(J,L):: NEXT L :: NEXT J
130 A=INT(5*RND/2):: IF A=A2 THEN 130 ELSE A2=A
140 B=INT(9*RND/2):: IF B=B2 THEN 140 ELSE B2=B
150 C=INT(9*RND/2):: IF C=C2 THEN 150 ELSE C2=C
155 X=B/C/A :: IF LEN(STR$(X))>4 THEN 130
160 D=INT(4*RND/1):: IF D=D2 THEN 160 ELSE D2=D
170 DISPLAY AT(3,1)ERASE ALL:"IF";A;M$(D,1);"S CAN ";M$(D,2);B;M$(D,3);" IN";C;"DAYS,"
180 DISPLAY AT(6,1):"HOW MANY";M$(D,3);" CAN 1 ";M$(D,1);" ";M$(D,2);" IN 1 DAY?"
190 ACCEPT AT(9,1)VALIDATE(NUMERIC)BEEP:Q
200 IF Q<>X THEN 300 :: DISPLAY AT(11,1):"CORRECT!"
210 DISPLAY AT(23,1):"PRESS ANY KEY" :: CALL KEY(0,K,ST) :: IF ST=0 THEN 210 ELSE 130
300 DISPLAY AT(11,1):"NO -": "IF";A;M$(D,1);"S CAN ";M$(D,2);B;M$(D,3);" IN";C;"DAYS,"
310 DISPLAY AT(15,1):"THEN";

```



```

A;M$(D,1);"S CAN ";M$(D,2):B
;"/";C;M$(D,3);" IN 1 DAY":B
;"/";C;"=";B/C
320 DISPLAY AT(19,1):"SO 1 "
;M$(D,1);" CAN ";M$(D,2);B/C
;"/";A;M$(D,3);" IN 1 DAY":B
/C;"/";A;"=";X :: GOTO 210

```

```

IF L>28 THEN 110 :: C$=SEG$(
"ABCDEFGHIJKLMNPOQRSTUVWXYZ[
\",1,L)
120 FOR J=1 TO L :: RANDOMIZ
E :: X=INT(LEN(C$)*RND#1)::
Y=ASC(SEG$(C$,X,1))-64
130 DISPLAY AT(2,13-L/2+Y):S
EG$(M$,Y,1):: C$=SEG$(C$,1,
X-1)&SEG$(C$,X+1,255):: NEXT
J
140 GOTO 140

```

Emulator II, Speech Synthesizer, and a preschool child, it's a fine way to learn the alphabet, the Keyboard, to spell his name, or just to have fun with - try a string of KK's for a train chugging uphill.

```

Here's a new way to put a
title on the screen -
100 /SCATTERPRINT by Jim Peterson
erson
110 CALL CLEAR :: M$="TIGERC
UB SOFTWARE" :: L=LEN(M$)::

```

This one is very basic, but if you have Terminal

```

100 OPEN #1:"SPEECH",OUTPUT
110 CALL KEY(3,K,S)
120 INPUT M$
130 PRINT #1:M$
140 GOTO 120

```

Memory full - Jim P.

PROGRAM LISTING

```

100 REM CD: 0034-01T-
110 REM ID: SNOOPYNOEL
120 REM BILL CHRISTENSEN
130 REM 18 CORTE ENCINA
140 REM MORAGA, CA 94556
150 REM (415) 283-1655
160 REM
170 CALL CLEAR
180 CALL SCREEN(16)
190 FOR C=1 TO 16
200 READ F,B
210 CALL COLOR(C,F,B)
220 NEXT C
230 FOR C=32 TO 159
240 READ A$
250 CALL CHAR(C,A$)
260 NEXT C
270 FOR V=3 TO 22
280 FOR H=6 TO 28
290 READ A
300 CALL HCHAR(V,H,A)
310 NEXT H
320 NEXT V
330 GOTO 390
340 RESTORE 910
350 CT=0
360 FOR X=1 TO 2000
370 NEXT X
380 RANDOMIZE
390 X=INT(RND*14)+3
400 CALL COLOR(15,X,3)
410 CT=0
420 CT=CT+1
430 CT2=CT2+1
440 READ D,F1,F2
450 CALL SOUND(D,F1,0,F2,0)
460 IF CT2=72 THEN 340
470 IF CT=3 THEN 390
480 GOTO 420
490 DATA 3,2,16,2,16,2,16,2,

```

```

2,16,9,2,16,3,9,16,16,2,2,16
,2,16,2,16,15,3,12,3,10,3,11
,11
500 DATA 0,0103070F1F3F7FFF,
80C0E0F0F8FCFEFF,FFFFFFFFFFF
FFFF,060606063F7F0000,E7A5C
30000C3A5E7
510 DATA E7C3A524A5C3E7E7,00
99C3E737C39900,FFFFFFFFFFFF
FFF,E0F8FCFFFFFFFFFFFF,0000000
080C0C0E0
520 DATA E0F0F0F8F8FCFCFC,FC
FCFCF8F8F0F0F0,FFFBFBFBF7EFD
CB1,FFFFFFFF7F7FBFBFD
530 DATA E0E0C0C08000C0E0,FF
FFFFFFFF7F00,EF3FCFFFFF
F1F,FFFFFC03FFFFFFFF
540 DATA FFFC10E0C0808000,03
070F0F0F0F0703,E0C0F8F8F0F
8FC,0F07030101010000
550 DATA 000000000071F7F,07
0F1F3FFFFFFFFF,FEFEC0C0C08
000,FFFFFFFFFFFF0CF
560 DATA 7FBFBDFEFC03FFF,FE
F0EFD8FB7FFFFC,80C0E0F0F8FCF
EFF,FFFEFFFEFCFEF480
570 DATA FFFFFFFFFFFFFFFF7F6,01
02040810204080,000C1E3E3E3C1
800,1C3C7C7C78300000
580 DATA 00000000070F1F1F,00
00000080E0F0F8,0F07030000000
000,F8F8F8F000000000
590 DATA E0F0F8FCFEFEFFFF,00
000000071F3FFF,0000000080FCF
EFF,000000010F1F3F7F,00010FF
FFFFFFFF
600 DATA FFFFFFFFFFFFFFFF7F
7F7F7FFFFFFFFF,FFFF7F7F3F1F1
F0F,0F07070303010000
610 DATA A050A85428150807,05
0A152AD4A8D0A0,0,0,0,0,0,0,F
FFFCF8F0E0C080,FFFFFFFFFFFFB

```

```

5000,0,0
620 DATA 0000FFFFFFFFF0000,0,
0,0,10385454546C4400,183C7E5
66AFF1020,2A1C7F1C2A000000,1
818FE1818244200
630 DATA 182C564A762C1800,18
3C427E423C0000,1828180808492
A1C,0,FAF0908080C08000,80000
0C08080F8F9
640 DATA C7838181C1FEFFFF,FF
FFFEFEFEFEFCFC,0000000000201
F00,000000000003FC00,0000000
30783874F,F8F8F0F0E0C08088
650 DATA 0000000001010307,3F
3F7F7FFFFFFFFF,FF80C1FFFFFFFF
FFF,1C3EFEFFFFFFFFFFFF,0004040
402010000
660 DATA 0F1F0F0703FF0000,FF
FFFFFFFFF2010,FFFFFFFFFFFFF1
F0F,FFFEF8E080808080,0000010
804040404
670 DATA 0804824121212121,07
834121111111111,F6EED6F8D8E6F
6FE,5F6F573F374F5F7F,4F0F1F0
F0F030300
680 DATA FFFFEBC9F7C9EBFF,18
3C3C3C7EFFFF18,183C7EFF7F3C1
818,00183CFFFF3C1800,0,0,0,0
,0,183C3C3C7EFFFF18
690 DATA 183C7EFF7E3C1818,00
183CFFFF3C1800,0,0,0,0,0,183
C3C3C7EFFFF18,183C7EFF7E3C18
18,00183CFFFF3C1800
700 DATA 0,0,0,0,0,FFFFFFFFF
FFFFFFFF,0,0,0,0,0,0,0
710 DATA 32,32,32,32,32,32,1
27,32,32,32,32,32,32,32,1
24,125,32,32,127,32,32,32
720 DATA 32,127,32,32,32,32,
32,32,32,32,32,127,32,32,32,
33,34,32,32,32,32,127
730 DATA 32,32,32,32,32,32,3

```


THE BROTHER M - 1209 PRINTER

The Brother M-1209, a 9 pin impact dot matrix printer, comes complete with both serial (RS232C) and parallel (Centronics-compatible) interfaces built in. The unit has a single cut sheet guide and a "pin feed" unit supplied as standard. There is a connector for an automatic cut sheet feeder, however apart from it being shown on the "NAME OF EACH PART" diagram, I could not find any mention of it in the manual

Capable of printing at speeds of up to 168 characters per second (c.p.s.) in the DRAFT ELITE mode, the M-1209 emulates the EPSOM FX and IBM PROPRINTER XL series printers. (This meant that I merely plugged the lead from the PIO port of my RS232 card and was up and printing immediately). Only the Epsom character set gives you italics printing, but the printer is able to combine the Epsom character set with the IBM emulation mode and vice-versa, giving you access to all of the fancy character sets that the printer supports

The standard printer styles are available: emphasised, superscript, subscript, underline etc.; as well as condensed, proportional and double width pitches. The double height mode puts the M-1209 amongst the "modern" school of printers, as does the front panel selection of print pitch, print quality and style, page length, printer control (paper empty, perforation skip etc.), NLQ fonts and reset features. The "Check settings" mode, which gives a print out of the current settings is a nice touch

In draft mode, Pica and Elite characters are available and Standard, Prestige, Gothic and Quadro (a squarish style) are the NLQ fonts. Unless I have done something wrong in selecting the styles, the Gothic is not the Old English style that I was expecting. Down-loadable characters are another handy feature and the 5.3Kb buffer should allow you to utilise some of the programmes published in Micropendium and various UG Newsletters to generate and utilise custom fonts to your heart's content

As mentioned earlier, selection of various modes and functions can be made from the front panel. Functions are clearly marked and indicated by lamps, and the switches are positive in their operation. The FUNCTION mode allows you to choose from the functions listed earlier, but the process is a series of switch presses that you need to keep track of in order to end up where you wish to be. It is here that the manual's short-comings become evident as the examples must be followed and then translated into what you want to do in order to become skilled in switching from function to function. There aren't too many functions that are selected by the DIP switches and with a total of three indicator lamps that can be on, off or flickering, there are quite a few permutations and combinations to be worked through here. You can, however, cycle through the modes until you get back to where you wish to be (if you can remember)

Once set, these functions become the default, even after you turn the printer off, until they are reset

The print quality is reasonable, but not to the exceptionally high standard set by Colin Bingham's Star (also a 9 pin printer in the same price range). One major disadvantage is that the unit is intolerably noisy when printing NLQ in the 12 CPI mode. The italics mode is typical of many 9 pin printers i.e. jagged and not very good, especially in the draft mode, and is reminiscent of my 5 year old Epsom LX-86

Small in size, but rather rugged in construction, the M-1209 is worth a look for those in the 9 pin printer market. The serial interface is an extra that may not be useful to many TI'ers these days, but was the main reason this particular unit was purchased for a project I have going in my employment. The manual suffers in comparison to those supplied with the Epsom and Toshiba printers that I am familiar with in that there are many more "Jinglish" descriptions and spelling mistakes which may confuse the new printer user. Luckily the worst one that I found would not actually prevent anyone from printing, and most of the information required is available and fairly easy to locate

Geoff WARNER



WHY DIDN'T INDENT (.IN) WORK?

Courtesy of WORDPLAY

by Phil Van Nordstrand and
John Owen, JSC USERS GROUP

At the May JUG meeting, we were showing a new member (Shannon Thompson) how easy it is to use TI-Writer Editor and Formatter to prepare and print a letter. Everything worked fine but the date on the first line, which did not indent 50 spaces like it was told to do. It did not move over one space! Then we tried the "CENTER" command (.CE 1) and that didn't work for the first line either. Here are the formatting commands so you see if you can spot our mistake.

.IN 50
May 20, 1991
.LM 5;RM 75;AD:FI
Dear Sir,
.IN +5
etc., etc.

After the meeting, we reread the INDENT (.IN) instructions in the TI-Writer Word Processor Manual, Pages 54, 113 and 143. but did not find the answer to the problem. After rereading all of the Formatter instructions from the start, we found that the FILL (.FI) command MUST be used WITH or BEFORE using the INDENT command. We suggest you correct your manual on Pages 54, 103, 105 and 143 with the following note:

"The FILL (.FI) command must be used with or prior to using INDENT (.IN) [or CENTER (.CE) command]."

It is a good idea to always insert the .FI command on the first line of every document that is to be printed via the Formatter. The only time you ever want to use the NO FILL default is when you want to print the text exactly as shown in the EDITOR (i.e., tables and columns, etc.). The NO FILL command (.NF), which is the default, prevents the Formatter from moving or adjusting any of the text, even though commands to do so are included. If anyone ever revises the TI-Writer program, please make the FILL command, (.FI), the default command. (Attention: Will McGovern and R.A. Green). It is needed 99% of the time at the start of a document.

This change would prevent frustrating and embarrassing demos as described above when being given by senior citizens that have "RAM" (Random or Absent Memory) problems.

P.S. This demo shows why it is a good idea to bring a printer to your meeting. Many demos don't need one but Word Processing and Graphics demos need one. In fact, most programs except for games have a printed output, e.g., Multiplan, DM 1000, DISKU, Calendar programs, Scheduling programs, etc., etc.



-from Johnson Space Center UG Newsletter, League City, TX

A Simple Sort Routine

The following program is a very simple sorting routine. It is neither elegant nor efficient but it does work.

```
130 REM
140 REM ***** SIMPLE BRUTE FORCE SORT
150 REM
160 FOR J=1 TO N-1
170 FOR I=1 TO N-1
180 IF A(I)<A(I+1)THEN 220
190 T=A(I)
200 A(I)=A(I+1)
210 A(I+1)=T
220 NEXT I
230 NEXT J
240 REM
```

Let us examine this program in detail. Recall that N was defined in the first segment as the number of values to be sorted. Line 180 of the sorting routine compares a given value with the value that follows it in the array. Thus, the inner loop will start by comparing the first value with the second and should end by comparing the next to last value (N-1) with the last value (N). Line 180 is written for an ascending sort. If the value A(I) is less than or equal to A(I+1) then the program goes immediately to the next value of the loop index I. If, however, the value of A(I) is greater than that of A(I+1) then the value of A(I) is placed in a temporary location (T) and the value of A(I+1) is placed in A(I). The exchange is completed by placing the original value of A(I), which was sorted in T, into A(I+1). Thus, lines 190 through 210 effectively swap the values stored in two adjacent array locations.

Although a single pass through the list of numbers will make some improvements it will take more than once through to complete the task. The obvious question is how many passes are necessary. The answer may be obtained from the following reasoning. If a number is at the wrong end of the list how many times must it be

swapped to move it to where it belongs? For a list 15 items long it would take $15 - 1 = 14$ swaps to move it to the opposite end. Thus, the outer loop has also been set to run n-1 times.

Starting with the set of numbers obtained above:

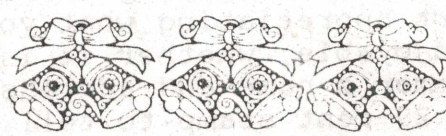
64 48 2 79 36 5 66 71 100 24 14 67 57 13 34

The following shows the arrangement of the numbers after the indicated number of passes through the array (i.e. the number on the left corresponds to the value of J).

- 1) 48 2 64 36 5 66 71 79 24 14 67 57 13 34 100
- 2) 2 48 36 5 64 66 71 24 14 67 57 13 34 79 100
- 3) 2 36 5 48 64 66 24 14 67 57 13 34 71 79 100
- 4) 2 5 36 48 64 24 14 66 57 13 34 67 71 79 100
- 5) 2 5 36 48 24 14 64 57 13 34 66 67 71 79 100
- 6) 2 5 36 24 14 48 57 13 34 64 66 67 71 79 100
- 7) 2 5 24 14 36 48 13 34 57 64 66 67 71 79 100
- 8) 2 5 14 24 36 13 34 48 57 64 66 67 71 79 100
- 9) 2 5 14 24 13 34 36 48 57 64 66 67 71 79 100
- 10) 2 5 14 13 24 34 36 48 57 64 66 67 71 79 100
- 11) 2 5 13 14 24 34 36 48 57 64 66 67 71 79 100
- 12) 2 5 13 14 24 34 36 48 57 64 66 67 71 79 100
- 13) 2 5 13 14 24 34 36 48 57 64 66 67 71 79 100
- 14) 2 5 13 14 24 34 36 48 57 64 66 67 71 79 100
- 15) 2 5 13 14 24 34 36 48 57 64 66 67 71 79 100

Note that on the first pass the largest number has been moved all the way to the end of the list. On each succeeding pass the list becomes increasingly organised with the largest remaining number moving immediately to the end. The smaller numbers move toward the beginning of the list in a more gradual fashion. Note also that the list has been completely sorted in less than N-1 passes.

The observations suggest several improvements that can be made to make the routine more efficient and increase its speed. This will be the topic of next month's article.

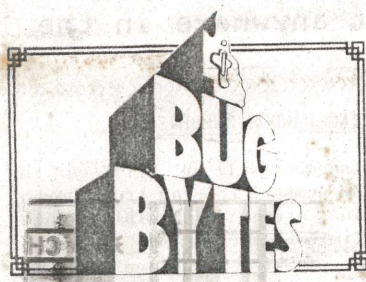


22
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