

AUGUST 1992

NEWSLETTER

of

TIBUG

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



NEXT MEETINGS 28 AUGUST and 25 SEPT

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 John Peacock - 074 673 376

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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 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 mebers 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.

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EDITORIAL

I promised myself when I took over the role as editor to be on time each month, well it is now time to goto press and I have just got tonight to finish. Garry has been doing a great job as editor so I won't be changing to much just a touch here and there to give it the John touch.

For those of you who don't know me I have been a TI user for about seven years,

and a member of the user group since 88. The 99/4A was my first choice of computer after seeing one at a mates place, after a little talk to the boss I managed to get a couple of dollars to buy my toy and thats what it was then, just a toy.

Sixteen months ago I purchased a PE box with one drive, one of our members (Hello Andrew) was going overseas so he lent me his printer untill he returns, then came another drive and add a few programmes like Page Pro, FunnelWeb, TI-Artist, TI-Base and this computer was no longer a toy, I use it to do a newsletter for the fishing club I am President of, my son uses it to do projects for school and now as I start my own bussiness as a disc jockey, it gets used for filing and other various functions.

I hope to get to know you in the time I do the newsletter, don't be shy if you want to say hello or have something you would like to share with the rest of the TI community write or phone me and I will put it in the newsletter, don't think just because it seems like basic sense everybody out there knows, I'm still learning every time I turn the computer on I learn somthing new.

Next month I will try to write a real deep and meaningfull editorial but till then GOOD COMPUTING.

LAST MEETING

Meeting opened at 8.35 pm.

Members welcomed a guest: Mike Wright

from the Boston Computer Society.

Minutes as per last newsletter. Business arising: Larry Reid to demonstrate Text To Speech at August meeting, John Reynolds reported that he had been unable to buy disks at a suitable price yet.

Treasurer reported that the balance

was \$581.51.

General Business:

Bruce Campbell spoke about the establishment of a TI section on a BBS in Redcliffe. The Sysop is Owen Smith, a

previous TI-Bug member.

Val Jones moved (seconded Trevor Campbell) that Col Christensen be reimbursed \$45.79 for photocopy paper and newsletter postage and that Garry Christensen be reimbursed \$12.75 for telephone listing in the white pages. Carried.

Val Jones queried about the need for a Tax File Number.

Col stated that only one sound board remained and that a Cadet had been sent to Rolf Schreiber in Sydney for evaluation. He also discussed a small error in the connection of the PIO port that prevented some printers from working correctly. The problem has been rectified.

New Asgard software had arrived and also some from Texaments. The Asgard mouse

has not yet been received.

Mike Wright spoke for a short while on a project that he and a friend were undertaking. They are writing a TI emulator for the PC computer. The end result is that a PC can run this program and the TI title screen appears. It can then load and run most TI programs and modules. Mike reported that the project is nearing completion. Col Christensen moved a vote of thanks to Mike.

Garry Christensen advised that he had approached OPA for a refund and that it would be available if the TIMs were not ready by the 15th August.

The raffle was won by Lorraine

Campbell.

Meeting closed at 10.05 pm.

WORD PROCESSING #5

By Col Christensen

FORM LETTERS

Form letters are those sent to a number of persons and containing the same information but generally personalised for each recipient. Certain parts of the letter like name, address, salutation change from letter to letter. Such a letter can be created in the normal way on the editor but where the wording has to differ, a variable must be placed. The variable takes the form of *n* where n is a number from 1 to 99.

A value file of data to replace the variables must be created so that it can be called by the Text Formatter while printing. If the .FI command has been used, the data for each variable will be slotted smoothly into the text. The value file can take two forms. Probably the more common is the Mail List file on disk and the other is the list typed in through the keyboard during the course of printing in response to screen prompts. Which method you use depends on a number of factors.

Mainly, if you have need to send out form letters to the same people on more than one occasion, the mailing list is the more efficient and it is too if you have many letters to send. With just a few variables in each of a small number of letters the list typed in while printing takes place seems the more attractive.

Here is a sample of a form letter complete with variables more suited to a disk based mailing list file.

1 *2* *3*, 5

4, 5

5.5

E_F

Dear *1* *3*, 5

The Weeders' Digest's bonanza prize draw is to take place very soon and there could be much rejoicing at *4* at that time. All you need to do, *1* *3*, is to complete the enclosed form and return it together with the YES sticker and your luck might change.5...

MAIL LIST AS A VALUE FILE

A mailing list is compiled with a text editor keeping in mind certain protocols when typing the list. The first character on a line must be a number (1-99) which corresponds to the *n* in the form letter. Next on the same line is a space, then the data for that variable and lastly a , symbol by pressing <ENTER>. Other lines of data follow using the same format until all data for one form letter is entered. On the next line type an asterisk and press <ENTER>. This indicates that that is all the data for that letter. Continue on similarly with data for all letters. Here is a sample mailing list saved to disk as DSK1.MLIST1.

1 Mrs

2 J.5

3 Browns

4 15 Redwood Streets

5 Forestvale Qld 4076

**

1 Mrs

2 E. .

3 Smith

4 28 Brolga Avenues

5 Gumdale Qld 4090%

* F,

FORM LETTERS USING A MAILING LIST

When the text formatter is loaded, the list of screen prompts allows you to incorporate mailing lists in the form letters printed out. If using a mailing list, these prompts will appear:

ENTER INPUT FILENAME Answer the disk filename of the form letter.

ENTER PRINT DEVICENAME Answer PIO.LF or your usual RS232 name complete with the final .LF or you can sent the output to a disk file without the .LF of course. If you happen to print out this disk file, however, you will need to add the .LF to the printer devicename then.

USE MAILING LIST? Answer "Y" this time.

WHICH LETTER(S)? (ALL) Answer "A" for all letters if using the full mailing list or specify by numbers which

letters to print. A selection of letters could look like this: 1,5,9-17,19-20,23,25-E. Each individual number or group must be separated by commas and each group tied by a dash. The "E" can be used to signify the end of the mailing list.

PAUSE AT END OF PAGE? Answer as you normally do. "Y" if using single sheet manually fed paper, otherwise answer "N".

MAILING LIST NAME? There are two ways to inform the Text Formatter the location and filename of the data list. A mail such list dot command as .ML DSK1.MLIST1 towards the top of the text file would take care of that and there would be no need to give an answer to this prompt. Just press the <ENTER> key. If no dot command is included in the text file, it's obvious that you would have to input the filename here.

Printing then begins with a screen display of "PRINTING LETTER NUMBER n" tucked in amongst the other screen text. As printing continues the number of letters shown on the screen and yet to be done counts down.

FORM LETTERS USING ALTERNATE INPUT

If you answer "N" to the prompt, USE MAILING LIST?, and there are variables in the form letter the Text Formatter expects input of data from the keyboard. The screen inputs are slightly different too.

ENTER INPUT FILENAME Same as above.

ENTER PRINT DEVICENAME Same as before.

USE MAILING LIST? Answer "N".

WHAT PAGE(S)? (ALL) The input here is
ignored anyway so just press <ENTER>,

NUMBER OF COPIES? This prompt takes the place of the previous one. Here enter the number of form letters you are going to do. During the course of printing this number on the screen will count down as each letter is printed.

PAUSE AT END OF PAGE? Same as above.

When the formatter encounters the first variable in the form letter file, another screen prompt appears saying, "ENTER DATA FOR VARIABLE *1*" and invites you to supply the data for it. Up to 28 characters (a whole screen line) are allowed for each data input. Once you press <ENTER>, printing will continue if there is sufficient text to send to the printer before the next variable crops up. So you must to be on hand to input all the data values as they arise for every letter to be printed. You need to know the kind of value to type for each variable, like a name for *1*, a street for *2* and a city for *3* etc.

This process of alternate keyboard input through non-descriptive prompts like ENTER DATA FOR VARIABLE *6* leaves a little to be desired. A define prompt dot command (.DP) has been provided to allow you to tailor your own wording for each prompt. Your own prompt would guide you as to the type of information to type in. To achieve this a list of define prompts must be placed in the form letter prior to the first occurrence of a variable. The list might look like this:

.DP1 :NAME?; .DP2 :STREET?; .DP3 :CITY ETC?; .DP4 :Dear;

Then as each variable is encountered, the prompt you defined for that variable number pops up to jog your memory on what kind of response to give.

Form letters seem a breeze to use. I haven't actually tried this function of the WP yet as I didn't really have a need for form letters. As I said in an earlier article, you must have a need for something to get the use out of it. That just about wraps up the series, apart from just a few jottings that come to mind. Some may have already been discussed and some may not.

RANDOM NOTES

* The text formatter defaults are NoFill, NoAdjust, LineSpacing=1 and PageLength=60.

- and DefinePrompt FOoter, * HEader, TransLiterate must be on a line by themselves or be the last command on a line.
- The ADjust command must be either on the same line or separately by a FIll command to function at all.
- .IN relative (+,-) is relative only to the preceding LM setting.
- Other relative value commands must be preceded by an absolute value for that same command name.
- * Your printer must have the automatic perforation skip disabled. You are likely to tear your hair out trying to format pages correctly if you don't. Both the formatter and the printer would be issuing form feed commands resulting in blank pages and pages with just a few lines printed on them.
- * Sending print through the RS232 card can be halted by pressing FCTN/4. The printer will stop when its print buffer is empty.
- * Printer problems such as jammed paper can be stopped on most printers by pressing the ON LINE button. Then press FCTN/4 on the computer to cancel its output.
- * When testing the formatter output, you can use a disk filename as the print devicename. You can then inspect the of effect file to see the
- formatting. * The Text Formatter prints 5 lines less than the .PL command setting probably to allow for a header and a footer. Check this out using a disk filename instead of a print devicename.
- * You can outdent when creating lists of definitions or notes such as these. .LM inwards and .IN relatively Set such a command with less .LM5; IN-4.
- * FindString will also search text column e.g. 18 27/REBATE/ search columns 18 to 27 only. Handy for finding a match in a chart or
- table. * FindString will still search for a word even if no slashes surround the input.
- * ReplaceString can take quite a while in a lengthy text file with word wrap on and reformatting taking place. Don't be tempted to to turn word wrap off, though, if the new string is longer than the one to be replaced. You could lose characters spilled off the right

- of the page.
- * ReplaceString must have word wrap turned off if searching through any columnar text such as lists and tables. Make a habit of doing a SaveFile prior to any RS anyway just in case there is some part of your text that is marked for NoFill.
- * Use TransLiterates to print asterisks and circumflexes.
- * Never print out a listed Basic program through the formatter. The multiply sign (*) and power sign (.) will disappear and the string concatenation (&) and the string variable (@) will produce confusing results.

the concludes about That word current our tutorial on processor. I must compliment McGovern on the sterling work he has done to manipulate the old TI-Writer a useful program into such powerful word processor. One thing I haven't mentioned is the ShowDirectory routine to which Tony has made such great improvements. Although it forms of our WP, I feel that part information on its use is best left to the maestro himself so look up his Funnelweb documents for all the gen.

TABLE OF KEYPRESSES

1. Shown on the keyboard overlay.

FCTN 1 Delete Char 2 Insert Char 3 Delete Line 4 Roll Down 5 Next Window 6 Roll Up 7 Tab 8 Insert Line 9 Command/Escape 0 Line Numbers = Quit/Escape	CTRL 1 Oops! 2 Reformat 3 Screen colour 4 Next Paragraph 5 Duplicate Line 6 Last Paragraph 7 Word Tab 8 New Paragraph 9 New Page 0 Word Wrap = No action
---	---

2. Duplicate keystrokes and additional new ones.

CTRL/T Back Tab CTRL/V Beginning of Line CTRL/C Command/Escape = FCTN/9 CTRL/F Delete Char = FCTN/1 CTRL/K Delete End of Line

CTRL/N	Delete Line		f_{ij}
CTRL/X	Down Arrow	=	FCTN/X
CTRL/L	Home Cursor		
CTRL/O	Insert Line	=	FCTN/8
CTRL/G	Insert Char	=	FCTN/2
CTRL/H	Last Paragraph	= =	CTRL/6
CTRL/S	Left Arrow	=	FCTN/S
CTRL/Y	Margin Release		
CTRL/P	New Page		CTRL/9
CTRL/M	New Paragraph	=	CTRL/8
CTRL/J	Next Paragraph	=	CTRL/4
CTRL/Z	Oops!	=	CTRL/1
CTRL/R	Reformat	=	CTRL/2
CTRL/D	Right Arrow	=	FCTN/D
CTRL/A	Roll Down	***.₹	FCTN/4
CTRL/B	Roll Up	=	FCTN/6
CTRL/I	Tab	₩.	FCTN/7
	Up Arrow	=	FCTN/E
CTRL/W	Word Wrap	=	CTRL/7



Disk Of Pyrates

A fascinating 4-disk package by the author of Disk of Dinosaurs! Disk of Pyrates is a veritable cornucopia of Pyrate artwork, Pyrate games, Pyrate music, Pyrate animation and Pyrate history. This extensive package is as graphical as it is entertaining and educational. A must for the pyrate fan! By Ken Gilliland. Requires Disk, 32K, TI or Corcomp Disk controller, and Extended BASIC. TI-Artist recommended.



SHOP

SHOP

All the software listed below is in stock. Prices are in Australian dollars and include postage from the USA. Please add the cost of postage within Australia, if applicable.

Rock Runner	\$14.00
Rattlesnake Bend	\$ 7.75
이 보고 있다면 하는데 이 사람들은 아이들이 되었다. 그는 사람들이 얼마나 나는 사람들이 되었다면 하는데 그는데 그는데 그는데 그는데 그는데 그는데 그를 보고 있다.	
Castle Darkholm	\$ 9.75
Classic Checkers	\$15.00
Solitaire	\$15.00
PrEditor	\$15.00
Doom Games II	\$ 7.75
Doom Games III	\$ 7.75
Page Pro	\$27.00
Page Pro Pics #1	\$ 8.50
Page Pro Pics #2	\$ 8.50
Page Pro Pics #3	\$ 8.50
Page Pro Pics #4	\$ 8.50
Page Pro Pics #5	\$ 8.50
Page Pro Pics #6	\$ 8.50
Page Pro Pics #10	\$ 8.50
Page Pro Pics #14	\$ 8.50
Page Pro Pics #15	\$ 8.50
Page Pro Borders #1	\$ 8.50
Page Pro Borders #2	\$ 8.50
Page Pro Fonts #1	\$ 8.50
Page Pro Fonts #2	\$ 8.50
Page Pro FX	\$16.50
Page Pro Headline Maker	\$11.50
Page Pro Headline Fonts #1	\$ 8.50
Page Pro Headline Fonts #2	\$ 8.50
Page Pro Templates #5	\$ 7.70
Page Pro Templates #6	\$ 7.50
Page Pro Templates #7	\$ 7.50
Pix Pro	\$16.00
Quick Run	\$11.00
Microsoft Multiplan	\$20.00
LOGO II	\$20.00
The Missing Link	\$35.00
Display Master	\$25.00
Artoons	\$20.00
Publications Index	\$25.00
The Organizer	\$25.00
TI Sort	\$25.00
Rapid Copy	\$22.00

THE "GOOD PARTY" PROGRAM



FOOD NO ONE TOUCHED: the liver dip
FOOD THEY DEVOURED: Marilyn's crumb cake
NO MORE THAN TWO DRINKS FOR: Dennis, Sylvia
PEOPLE NOT TO SIT NEXT TO EACH O THER: Lenny/Claire
Bernic/Kate, David and anyone.

WHAT'S NEWS

More mind (and computer) expanding hardware is on the horizon. It seems that Bud Mills is leapfrogging into the disk controller with a SCSI. That stands for Small Computer System Interface and is pronounced 'scuzzy'. This card will allow the TI to connect to almost any device that uses that type of data transfer, including high capacity, high speed hard disk drives, and CD-ROM drives. For the scanners, uninitiated, a CD-ROM drive is just like your music CD player but the disks contain data. The amount of information that is stored on a single disk is mind boggling, about 2.75 million SSSD floppy disks. You can't write to them yet but you can buy the disks for just about any purpose. As example, you can get the whole Encyclopedia Britannica on a single disk.

It is said that it will support up to 7 drives and can transfer data to the PE Box at the rate of 1 megabyte per second. It will also read both TI and IBM disk formats. The price is estimated to be around \$170 US. Bud Mills Services, 166 Dartmouth Dr, Toledo OH 43614-2911, USA.

Don O'Neil has also announced that the Accelerator is back on the tracks again. He apparently has received information from TI that has allowed developement to proceed. The accelerator is a replacement processor that will allow the TI to operate at up to 8 time its present speed. Don is also working on a MEMEX card for the TI that will allow the use of up to 16 Meg of memory. Western Horizon Technologies, 10225 Jean Ellen Dr, Gilroy CA 95020, USA.

OPA. A thorn in my side. Today is the 17th August and I have still not been able to get anything concrete from Gary Bowser about the refund for our TIMs. I will keep trying over the next week or so. Hopefully some good news for the next meeting. I should point out that OPA have agreed to the refund and have also agreed to send the TIMs when they are ready on a COD basis.

Mike Maksimik of Crystal Software is reportedly nearing completion of version 3 of MIDI-Master. This program and interface alows the TI to connect to any musical keyboard that supports MIDI and provides a range of facilities from using the TI to play music on the keyboard, through to playing music on the keyboard and recording the notes in a file for the computer. Crystal Software, 635 Mackinaw St, Calumet City IL 60409-4014, USA.

Beery Miller reports that the purchase of MDOS is well underway and that Lou Phillips of Myarc hopes to return to developing applications for the Geneve when the transaction is complete. He also reports that Lou Phillips indicated that fewer that 1000 Geneves were sold.

Mike Wright from the Boston Computer Society in the US visited the last TI-Bug meeting. He reported that he and a friend had been working on a TI simulator for the IBM PC and clones. A simulator operates by making the computer look and feel like some other computer. For the technically minded, the aim was to reserve a section of memory for what would be TI address space and to write a machine code interperator for each instruction. The ROMs and GROMs from a TI console were then copied and loaded with the interperator. The present state is that it will run BASIC programs, modules and even programs using Extended BASIC.

Some areas are yet to be completed, like speech and sound and disk access. It it envisaged that the PC will create a single file on hard disk and access it as a floppy disk, much the same as an emulate file works on the Myarc HFDC. At present the operation is quite slow, due to the execution overhead that is involved but Mike envisaged that some of the faster 386 or 486 PCs should have it running at about the same speed as a TI.

It seems that the project will be quite popular and Mike was asking for expressions of interest from those who would expect to buy it when complete. He suggested that \$1 accompanying a postcard would be a good idea. The final price has not yet be established but he expected that it would be several hundred dollars. I will try to get a contact address for the next newsletter.

Finally, Barry Boone has called in the security guards for his latest project. He won't say what it is but he does say that it will be ready by October 31st. We'll just have to wait and see.

Murphy's Computer Laws

Courtesy of D.S.B. Systems

Laws of Computer Programming

- 1. There is always one more bug.
- Any given program, when running, is
- If a program is useless, it will have to be documented.
- If a program is useful, it will have to be changed.
- 5. Any program will expand to fill all available memory.
- The value of a program is proportional to the weight of its output.
- 7. Program complexity grows until it exceeds the capability of the programmer to maintain it.
- write in English and you will find out that programmers cannot write in English.

Weinbero's Law

If builders built buildings the way programmers wrote programs, then the first woodpecker that came along would destroy civilization.

Hare's Law of Large Programs

Inside every large program is a small program struggling to get out.

Troutman's Programming Laws

- 1. If a test installation functions perfectly, all subsequent systems will malfunction.
- 2. Not until a program has been in production for at least six months will the most harmful error then be discovered.
- Job control cards that cannot be arranged in improper order will be.
- Interchangeable tages won't
- If the input editor has been designed to reject all bad input, an ingenious idiot will discover a method to get bad data past it.
- Machines work, people should think.

Golub's Laws of Computerdom

- 1. A carelessly planned project takes . three times longer to complete than expected; a carefully planned project will take only twice as long.
- 2. The effort required to correct the error increases geometrically with

Bradley's Bromide

If computers get too powerful, we can organize them into a committee -that will do them in.

Murphy's Laws

Nothing is ever as simple as it seems.

Everything takes longer than you expect.

If there is a possibility of several things going wrong, the one that will go wrong first will be the one that will do the most damage.

Left to themselves, all things go from bad to worse.

If you play with something long enough, you will surely break it.

If everything seems to be going well, you obviously have overlooked something.

If you can see that there are four possible ways in which a procedure can go wrong, and circumvent these, then a fifth way, unprepared for, will promptly develop.

Nature always sides with the hidden flaw.

Mother Nature is a bitch.

It is impossible to make anything foolproof, because fools are so ingenious.

CONT

If a great deal of time has been expended seeking the answer to a problem with the only result being failure, the answer will be immediately obvious to the first unqualified person who looks at it.

It always gets worse before it gets better.

It never gets better. (Glenn's addendum)

It's always the wrong time of the month (Husband and Boyfriend's lament)

TRADING POST

FOR SALE - As a complete unit, TIBUG's off her chair after she opened the package fully expanded system including console, from her confused client and found modulator, transformer, Expansion RS232 card, Memory expansion card, Disk controller card, 2 slimline DSSD drives, and Extended Basic module and manual. \$450. Phone Col on 284 7783.

FOR SALE - Geneve 9640. Complete with manuals and lots of software. \$500. Phone Larry 07 202 1884

- Expanded system with two SALE consoles and Extended Basic. Has one double sided disk drive but no RS232 cord. Two full height single sided drives included but not connected. \$275 the lot or make an offer. Phone Ross 285 2173.

DISK BACKUP

Picture this:

A frustrated computer expert trying to tell someone how to fix something on their computer over the phone - and not having much success.

Eventually the computer expert told her client to "send a copy of the computer disk through the mail" to see if there was a problem with it.

A couple of days passed, and then

Computer expert then fell backwards box, photocopy of the disk.

True story.

FOR SALE - Compumate CP-80 printer, 80 9pin dot matrix, 16k buffer, includes manuals, cable for TI, 2 ribbons. Quick sale \$150. Phone Chas on (07) 373

6254.

WANTED - FOR SALE - FOR EXCHANGE What do you have or need that can be listed in this column? Contact Garry, John Peacock or Col with details.

Myarc 9640 Geneve Computer TMS9995 12MHz Microprocessor 512k User Addressable RAM, Yamaha V9938 VDP, SN76496 Sound Processor. Battery- Backed Real-time clock, Mouse & Joystick Ports, Manual, Plus lots of Software. \$450

Myarc Hard & Floppy Disk Controller Flus Tandon 20 Meg Hard Drive (7M262), with lots of Software, Manual (Controller allows up to three 134 Meg Hard Drives and Four DSDD Floppy Disk Drives. \$500

T199/4A Computer & Expansion System with 32K Card, (TI) RS232, (TI) Disk Controller, Two DSDD Slimline Disk Drives, Extended Basic Cartridge, TI Joysticks, Manuals. \$450

Power Supply for Hard Drives & Floppy Drives(Large capacity Will power more then three hard drives). \$150

192k Horizon Ramdisk. \$160

Contact Larry 202 1884(limited time offer)

Lift Out 1 put together by Larry Reid

Call Loads

CALL LOAD(-24578,8)	Allows Mini Memory to use "EXPMEM2" for
CALL LOAD(-27648,x,x,x,x)	storage. Sound chip locations.
CALL LOAD(-28672,96)	Speech Syn.
CALL LOAD(-28672,0)	No speech.
CALL LOAD(-30945,0)	Creates a white edge character
CALL LOAD(-31572,x)	Varies the keyboard response
CALL LOAD(-31730,33)	Quits Extended Basic to master Title
CALL LOAD(-31740,x,x,x,x)	Screen Loads Sound Chip.sound continues until
CALL LOAD(-31744,x)	a CALL SOUND, INPUT, or ERROR. Continue last sound. O =Loud 15 = quiet
CALL LOAD(-31745,0)	Freezes screen & blanks screen(restore
CALL LOAD(-31748,x)	with FCTN-) Set cursor blink rate (value 0 to 255)
CALL LOAD(-31788,160)	Blank screen on next key press
CALL LOAD(-31788,192)	Disable Sprite motion and automatic sound.
CALL LOAD(-31788,224)	Normal Operation.
CALL LOAD(-31788,225)	Magnified Sprites.
CALL LOAD(-31788,226)	Double sized Spries.
CALL LOAD(-31788,227)	Magnified, double sized Sprites.
CALL LOAD(-31788,232)	Multi- color mode(48x64 squares).
CALL LOAD(-31794,x)	Timer for CALL SOUND 9x=0 to 255).
CALL LOAD(-31804,x)	Set cursor blink rate (x=0 to 255)
CALL LOAD(-31804,0,36)	Quit Extended Basic to Master Title
CALL LOAD(-31806,0)	screen. Enable Sprite motion, Quit key, & sound
CALL LOAD(-31806,16)	chip. Disable Quit key.
CALL LOAD(-31806,30)	Stop Sprite motion,& disable Quit key.
CALL LOAD(-31806,32)	Disable Sound chip.
CALL LOAD(-31806,-32)	Continue sound.
CALL LOAD(-31806,48)	Disable sound and Quit key
CALL LOAD(-31806,64)	Stop Sprite motion.
CALL LOAD(-31806,96)	Stop Sprite motion & disable sound.
CALL LOAD(-31806,128)	Disable sound, Quit key, & Sprite motion.

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CALL LOAD(-31962,100,126)	Executive CONTINUE command - from command mode only.
CALL LOAD(-31962,100,128)	Another LIST command from command mode only.
CALL LOAD(-31962,100,130)	Executive BYE command - closes all file
CALL LOAD(-31962,100,132)	Executive default NUM command - when running programme ends. Line 100 contains garbage, so place a REM there.
CALL LOAD(-31962,100,136)	Executive default RESEQUENCE command.
CALL LOAD(-31962,160,000)	Generates a colorful Title Screen.
CALL LOAD(-31962,160,04)	Executives RUN without pre- scan.
CALL LOAD(-31962,255)	Automatic RUN "DSK1. LOAD" & restart of Extended Basic.
CALL LOAD(-32112,8)	Searches disk ???
CALL LOAD(-32114,2)	random garbage.
CALL LOAD(-32114,13)	Screen goes wild.
CALL LOAD(-32116,2)	Random characters on the screen.
CALL LOAD(-32116,4)	Go from Extended Basic to console Basic, after NEW. Cannot use Memory
CALL LOAD(-32187,9)	Expansion. O line number.
CALL LOAD(-32188,1)	Change colour, generate syntax error.
CALL LOAD(-32188,127)	Change colour, generate breakpoint.
CALL LOAD(-32572,1)	Produce distorted Keyboard response.
CALL LOAD(-32572,128)	Disable Keyboard.
CALL LOAD(-32630,0)	Master Title Screen without graphics.
CALL LOAD(-32699,14)	Stop TRACE.
CALL LOAD(-32699,16)	Start TRACE.
CALL LOAD(-32699,128)	Protect Extended Basic program.
CALL LOAD(-32730,32)	Quit Extended Basic to Master Title Screen.
If you know any CALL LOADS that	are not listed please let us know

If you know any CALL LOADS that are not listed please let us know Phone Larry on (07) 202 1884 (I take no responsibility for your use of this list, they have been put together from many different sources, and have not been tested by me as yet.)

es.

CALL LAOD(-31806,x,y)	Double Random number generator (requires RANDOMIZE).
CALL LOAD(-31860,4)	Go from extended Basic to Console Basic after NEW. CANNOT use memory expansion.
CALL LOAD(-31860,8)	Automatic RUN "DSK 1 LOAD" & restart of
CALL LOAD(-31866,x)	Extended Basic. Does not allow the access of full 32k (x=1
CALL LOAD(-31868,0)	to 159). No RUN or LIST after FCTN 4.
CALL LOAD(-31868,0,0)	Memory Expansion OFF.
CALL LOAD(-31868,255,231)	Memory Expansion ON.
CALL LOAD(-31873,x)	Start printing at column x (x=3 to 30).
CALL LOAD(-31877,x)	32= Sprite coincidence, 64=5 Sprites
CALL LOAD(-31878,x)	on a row. Turn off Sprites (x=# of sprite, if x=0
CALL LOAD(-31879,x)	then turn off all Sprites). UDP Timer (x= 0 to 255).
CALL LOAD(-31880,x)	Single Random number generator (x=0 to
CALL LOAD(-31884,x)	99). Also requires RANDOMIZE. Check keyboard mode (x=0 to 5)
CALL LOAD(-31888,63,255)	Turn Disk drives off. Use NEW to free
CALL LOAD(-31888,55,215)	memory. Turn disk drives ON, Use New for buffers.
CALL LOAD(-31931,0)	Unprotect Extended Basic programme.
CALL LOAD(-31931,2)	Set Command ON WARNING NEXT.
CALL LOAD(-31931,4)	Set command ON, WARNING STOP.
CALL LOAD(-31931,16)	Set command TRACE.
CALL LOAD(-31931,64)	Set command ON BREAK NEXT.
CALL LOAD(-31931,128)	Protect Extended Basic programme.
CALL LOAD(-31952,x)	If x= 55, then Memory Expansion is OFF else it is ON.
CALL LOAD(-31952,x,x,x,x)	Line number table in Memory Expansion.
CALL LOAD(-31961,51)	Quit Extende Basic to Master Title
CALL LOAD(-31961,149)	Screen. Automatic RUN "DSK1.LOAD".
CALL LOAD(-31962,0,32)	Executive power up routine- does
CALL LOAD(-31962,33,111)	not close files. Go directly into TI Basic.
CALL LOAD(-31962,99,114)	Automatic RUN "DSK1. LOAD " & restart
CALL LOAD(-31962,101,190)	of Extended Basic. Execute LIST from command mode only.
CALL LOAD(-31962,100,155)	Executive RUN.
CALL LOAD(-31962,100,124)	Executive NEW.

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This mainly for new comers to the TI world, to help with old tips and tricks which have been printed many times before. So if you know any old

or new tips or tricks, please pass them on to me.

Game Cartridges Moonmine, Alpiner, Munchman, Munchmobile and Hooper have test modes, where you can select the starting level. So if you wish to see what it is like at those levels you could never reach, or you are sick of working your way through the low levels. The test mode is obtained by pressing Shift/838 at th game title screen. Shift/8 for Hopper, and on Burgertime pressing Shift/8 gives a massege: (code modifications by John M phillips).

On Parsec, if the fire buttons on both joysticks are pressed simultaneously, the space ship Parsec will not over heat. Horizontal lines will appear on the screen, but they do not disturb the game, & would allow

one to see the Bynites when they turn invisible.

On the new Munchman Module has a testmode built in, you have three seconds to access the test mode from the time the Munchman screen appears, during this time, you type in *#*, you will be prompted as to which round you want, RND(0-2), type in the round you want. Round two is the highest level. The next prompt will be for the screen you want, SCN(0-19). Type in the screen number you prefer. The final prompt will be for the number of Munchmen you want to appear play with . MM(1-9) will appear on the screen. You then choose number from 1-9 and type it in. With nine men, this will give you a chance for extended play.

On Personal Record Keeping, you can implement Display At and Accept At with out extended basic. PRK module contains the commands Call D() & Call A(), similar to Display At and Accept At. It seems this is the result of Hybrid nature of certain modules, containing both GPL and basic coding.

On TE-11 module and the speech synthesizer bring a program into memory. When the flashing cursor appears, type LIST "SPEECH", & press ENTER. The computer will then speak out the entire program listing.

BBS

To those who are even slightly into computer communications the ancronym BBS (Bulletin Board System) means many things. So now it is with great pleasure that TIBUG announces the start of its own BBS system. Well, maybe not a complete BBS, but the Redcliffe City Council has kindly given us space for File and Message areas on their BBS. Membership (to the whole BBS) is free once you have answered the questionare. The phone numbers are (07) 284 6853 - Electronic Library, (07) 283 0314 - Swiss Connection and (07) 283 0315 Redcliffe Library. The same password is to be used on all three systems (their rule!). Settings to log on are 8 data bits, No parity and 1 stop bit. Speeds are 300, 1200, 2400 and one supports PEP modes (Swiss connection). TIBUG areas are FILE - H4 and MESSAGE areas - 06. On there will be selected public domain software from the club library and extracts from monthly newsletters. For further info leave a message or phone (07) 351 3107 (my number). Submissions for the monthly newsletter may also be left there. Redcliffe BBS doesn't only have TI stuff on there. support other brands of computers as well and have a wide range of graphics (GIFs) and sounds (Sound F/X compatible). If you can't actually call the BBS you can send a message via Fidonet (world wide message network) to Bruce Campbell at 3:640/203 on the general message area. I hope to see you there!

From Bruce Campbell (Sysop - TIBUG)

TIPS FROM THE TIGERCUB

#42

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TIGERCUB SOFTWARE 156 Collingwood Ave. Columbus, OH 43213

The Hyphenated Fill and Adjust in Tips #41 will crash if the file contains a line with one character too many, which may be only an unnecessary control character. This fix will help -

300 IF LEN(M\$)<=L THEN 310:
: CALL SOUND(200,110,0,-4,0)
:: PRINT M\$;" is";LEN(M\$);"c
haracters long":"Truncated t
o ";SEG\$(M\$,1,L):"OK? (Y/N)"
305 CALL KEY(3,K,S):: IF S=0
THEN 305 ELSE IF K<>89 THEN
STOP ELSE M\$=SEG\$(M\$,1,L)
310 PRINT #2:M\$:: IF EOF(1)
<>1 THEN 220 ELSE CLOSE #1:
: CLOSE #2

I know that this line is wrong, but key it in just as it's printed, and see what kind of error message you get -

100 !DISPLAY AT(3,1): "Progra m must be SAVEd in: "MERGE fo rmat."

A friend asked me for a program to help him solve the Scram-Lets puzzles in our local newspaper, so I rewrote the Anagrammer that was published way back in Tips #12. It will print out all possible combinations of any 3- to 6-letter word, or only those which have one or two letters in specified positions.

100 CALL CLEAR :: DISPLAY AT (3,5)ERASE ALL: "SCRAM-LETS S OLVER": :! by Jim Peterson 110 DISPLAY AT(8,1): "OUTPUT TO? 1":" (1) SCREEN":" (2)

PRINTER" :: ACCEPT AT(8,12) VALIDATE("12")SIZE(-1):P :: P=P-1 120 IF P=1 THEN DISPLAY AT(1 2,1): "PRINTER? PIO" :: ACCEP T AT(12,10)SIZE(-18):PS :: 0 PEN #1:PS 130 PL(1), PL(2)=0 :: L\$(1), L \$(2)="" :: DISPLAY AT(5,1)ER ASE ALL: "TYPE A 3-, 4-, 5- OR 6-LETTER WORD " :: ACCEPT A T(6,6):AS :: W=LEN(AS):: IF(W<3)+(W>6)THEN 130 140 DISPLAY AT(14,1): "SEARCH FOR COMBINATION WITH": "LETT ER IN KNOWN POSITION? N" :: ACCEPT AT(15,27)VALIDATE("YN ")SIZE(-1):Q\$:: IF Q\$="N" T **HEN 180** 150 DISPLAY AT(17,1): "LETTER ?" :: ACCEPT AT(17,9):L\$(1): DISPLAY AT(19,1): "POSITION ?" :: ACCEPT AT(19,11):PL(1) 160 DISPLAY AT(21,1): "ANOTHE R LETTER/POSITION? N" :: ACC EPT AT(21,26) VALIDATE("YN")S IZE(-1):X\$:: IF X\$="N" THEN 180 170 DISPLAY AT(21,1): "LETTER ?" :: ACCEPT AT(21,9):L\$(2): : DISPLAY AT(23,1): "POSITION ?" :: ACCEPT AT(23,11):PL(2) 180 PRINT #P :: FOR J=1 TO W :: B\$(J)=SEG\$(A\$, J, 1):: NEX T J :: FOR J=2 TO W :: IF B\$ (J)>=BS(J-1)THEN 220190 T\$=B\$(J):: FOR L=J-1 TO 1 STEP -1 :: B\$(L+1)=B\$(L) 200 IF B\$(L-1)>=T\$ THEN 210 :: B\$(L)=T\$:: GOTO 220 210 NEXT L 220 NEXT J 230 FOR A=1 TO W :: FOR B=1 TO W :: IF B=A THEN 440 240 FOR C=1 TO W :: IF (C=A) +(C=B)THEN 430 250 IF W=3 THEN 310 260 FOR D=1 TO W :: IF (D=A) +(D=B)+(D=C)THEN 420 270 IF W=4 THEN 320 280 FOR E=1 TO W :: IF (E=A) +(E=B)+(E=C)+(E=D)THEN 410 290 IF W=5 THEN 330 300 FOR F=1 TO W :: IF (F=A) +(F=B)+(F=C)+(F=D)+(F=E)THEN400 ELSE 340 310 W\$=B\$(A)&B\$(B)&B\$(C):: I

F W\$<=V\$ THEN 430 ELSE 350 320 W\$=B\$(A)&B\$(B)&B\$(C)&B\$(D):: IF W\$<=V\$ THEN 420 ELSE 350 330 W\$=B\$(A)&B\$(B)&B\$(C)&B\$(D)&B\$(E):: IF W\$<=V\$ THEN 41 0 ELSE 350 340 W\$=B\$(A)&B\$(B)&B\$(C)&B\$(D)&B\$(E)&B\$(F):: IF W\$<=V\$ T **HEN 410** 350 IF Q\$="N" THEN 380 360 IF SEG\$(W\$, PL(1), 1)<>L\$(1) THEN 390 370 IF X\$="N" THEN 380 ELSE IF SEG\$(W\$, PL(2), 1) <> L\$(2)THEN 390 380 PRINT #P:W\$&" ";:: G=G+1 390 V\$=W\$:: ON W-2 GOTO 430 ,420,410,400 400 NEXT F 410 NEXT E 420 NEXT D 430 NEXT C 440 NEXT B 450 NEXT A 460 PRINT #P: :" ";G; "TOTAL COMBINATIONS.": ::: G=0 :: VS="" :: PRINT "PRESS ANY K 470 CALL KEY(0,K,S):: IF S=0 THEN 470 ELSE 130 And here is a muchimproved XBasic version of the Adder-Upper which first appeared in Tips #13. I find it very useful in adding up several categories figures in one pass. 100 CALL CLEAR :: CALL SCREE N(16):: FOR SET=1 TO 14 :: C ALL COLOR(SET, 5, 1):: NEXT SE 110 DISPLAY AT(3,4) ERASE ALL :"TIGERCUB ADDER-UPPER": :"T o add up several categories" :"at one time.": :"Input cat egories - END when": "finishe 120 CALL KEY(3, K, S):: DIM CS (22),T(22)130 X=X+1 :: DISPLAY AT(12,1): "Category #"; STR\$(X):: ACC EPT AT(12,13):C\$(X):: IF C\$(

X) = "END" THEN X = X - 1 :: GOTO

170 140 A\$=SEG\$(C\$(X),1,1):: IF POS(F\$, A\$, 1)=0 THEN F\$=F\$&A\$:: IF X<17 THEN 130 ELSE 17 150 DISPLAY AT(15,1): "Code 1 etter ";A\$; " already": "used. ": "Pick another code letter" :: ACCEPT AT(17,26)SIZE(1): A\$ 160 IF POS(F\$, A\$, 1) <> 0 THEN DISPLAY AT(15,1):;:;;:;:: GOTO 150 ELSE F\$=F\$&A\$:: C\$ $(X) = A \leq C \leq (X) :: DISPLAY AT(15)$,1):;:;:;:: IF X<17 THEN 1 30 ELSE 170 170 CALL CLEAR :: R=2+(X>8): : FOR J=1 TO X :: DISPLAY AT (R,1):"(";SEG\$(C\$(J),1,1);") "; SEG\$(C\$(J),2,255):: R=R+2+ (X>8):: NEXT J180 DISPLAY AT(R+2,1): "Categ ory ";F\$:: DISPLAY AT(R+4,1): "Amount" 190 DISPLAY AT(24,1): "Use mi nus value to subtract" 200 ACCEPT AT(R+2,11+LEN(F\$))SIZE(1)VALIDATE(F\$):Z\$:: Y =POS(F\$,Z\$,1)210 ACCEPT AT(R+4,8)VALIDATE (NUMERIC): A :: T(Y)=T(Y)+A : : DISPLAY AT(Y*(2+(X>8)),20) :T(Y):: GOTO 200

Can you figure this one out? (I can't!) - (the answer was published in Tips No. 59. - Ed.)
100 DISPLAY AT(3,4)ERASE ALL: "ILLOGICAL COMPUTER!!"::"

by Tigercub" 110 DISPLAY AT(7,1):"100 IF A=2 THEN IF B=2 THEN C=4 ELS E IF A=2 THEN IF B=3 THEN C= 6 ELSE IF A=3 THEN IF B=3 TH EN C=9 ELSE IF A=3 THEN IF B =4 THEN C=12 ELSE C=9" 120 DISPLAY AT(14,1): "Why ca n't you get C to ": "equal 9 or 12 or 99?" 130 DISPLAY AT(18,1): "A? ": : ACCEPT AT(18,4):A :: DISPL AY AT(20,1): "B? " :: ACCEPT AT(20,4):B 140 IF A=2 THEN IF B=2 THEN C=4 ELSE IF A=2 THEN IF B=3 THEN C=6 ELSE IF A=3 THEN IF

B=3 THEN C=9 ELSE IF A=3 TH

EN IF B=4 THEN C=12 ELSE C=9
9
150 DISPLAY AT(22,1):"C=";C
:: GOTO 130

This might come in handy to dress up a program -

100 CALL CLEAR :: CALL COLOR (2,5,16):: CALL HCHAR(1,1,42,768)
110 X=X+1 :: DISPLAY AT(X,9)
:"**************;:: DISPLAY AT(X,1,9):"PRESS ANY KEY";:: DISPLAY AT(X+1,9):"PRESS ANY KEY";:: DISPLAY AT(X+2,10):"TO CONTINUE";
120 CALL KEY(0,K,S):: ON S+1 GOTO 110,130
130 !continue program here

Or, if you'd rather do it backwards -

100 CALL CLEAR :: CALL COLOR (2,5,16):: CALL HCHAR(1,1,42,768)
110 FOR X=10000 TO 1 STEP -1
:: DISPLAY AT(X+2,9): "****
*******";:: DISPLAY AT(X+1,9): "*TO CONTINUE*";:: DISPLAY AT(X,9): "PRESS ANY KEY";
120 CALL KEY(0,K,S):: ON S+1
GOTO 130,140
130 NEXT X
140 !continue program here

You might find this one useful -100 ! PAINT CALCULATOR by Ji m Peterson 110 CALL CLEAR :: FOR SET=1 TO 12 :: CALL COLOR(SET, 2, 8) :: NEXT SET :: CALL SCREEN(5):: CALL KEY(3, K, S):: ON WAR NING NEXT 120 DISPLAY AT(3,7) ERASE ALL :"PAINT CALCULATOR": : "To de termine the amount of": "pain t needed for a room." 130 DISPLAY AT(8,1):"Is the room a regular square or rec tangle? Y" :: ACCEPT AT(9,16)SIZE(-1)VALIDATE("YN")BEEP: Q\$:: IF Q\$="Y" THEN 160 140 DISPLAY AT(11,1): "How ma ny rectangular areas": "does the room contain?" :: CALL A CCEPTER(12,24,A):: IF A=1 TH

EN 160 150 FOR B=1 TO A :: DISPLAY AT(3,10)ERASE ALL: "AREA #"; B :: GOTO 170 160 CALL CLEAR 170 DISPLAY AT(5,1): "How hig h is the ceiling?": " ft. in." :: CALL ACCEPTER(6,2 .HF) 180 CALL ACCEPTER(6,9,HI):: HI=HI/12 :: H=HF+HI 190 DISPLAY AT(8,1): "How man y walls?" :: CALL ACCEPTER(8 ,17, W):: CALL HCHAR(5,1,32,6 40) 200 FOR J=1 TO W :: DISPLAY AT(5,10): "WALL #"; J: : "Width ft in" :: CALL ACCEPT ER(7,7,WF) 210 CALL ACCEPTER(7,13,WI):: WI=WI/12 :: WW=WF+WI :: SQ= 220 DISPLAY AT(11,1): "How ma ny doors, windows or": "other areas not to be": "painted i n wall #"; J; "?" 230 CALL ACCEPTER(13,19,D):: IF D=0 THEN 280 240 FOR L=1 TO D :: DISPLAY AT(15,1): "AREA NOT TO PAINT #";L: :; "Width ft in" :: CALL ACCEPTER(17, 10, WDF) 250 CALL ACCEPTER(17,16,WDI) :: WDI=WDI/12 :: WD=WDF+WDI 260 DISPLAY AT(19,1): "Height ft in" :: CALL ACCEPTER(19,11,HDF) 270 CALL ACCEPTER(19,17,HDI) :: HDI=HDI/12 :: HD=HDF+HDI :: SQ=SQ-WD*HD :: NEXT L 280 NEXT J :: DISPLAY AT(21, 1): "Paint the ceiling?" :: A CCEPT AT(21,20)SIZE(1)VALIDA TE("YN"):QQ\$:: IF QQ\$="N" T HEN 320 290 CALL HCHAR(5,1,32,640):: DISPLAY AT(5,1): "Ceiling di mensions": : " ft in by in" :: CALL ACCEPT ft ER(7,2,CWF) 300 CALL ACCEPTER(7,8,CWI):: CWI=CWI/12 :: CW=CWF+CWI 310 CALL ACCEPTER(7,17,CLF): : CALL ACCEPTER(7,23,CLI):: CLI=CLI/12 :: CL=CLF+CLI :: SO=SO+CW*CL 320 CALL HCHAR(5,1,32,640):: IF Q\$="Y" THEN 340

330 NEXT B 340 DISPLAY AT(3,1)ERASE ALL :"Total of"; INT(SQ+.5); "squa re feet." 350 DISPLAY AT(5,1): "How man y square feet will": "one gal lon of your paint": "cover?" 360 ACCEPT AT(7,8)SIZE(3)VAL IDATE(DIGIT)BEEP:SF :: DISPL AY AT(9,1): "How many coats?" :: CALL ACCEPTER(9,17,C):: G=SQ/SF*C :: G=INT(G+.5) 370 DISPLAY AT(15,1): "You wi 11 need"; G; "gallons or": G*4; "quarts of paint." 380 CALL KEY(0,K,S):: IF S=0 THEN 380 ELSE STOP 390 SUB ACCEPTER(R,C,Q):: AC CEPT AT(R,C)SIZE(2)VALIDATE(DIGIT) BEEP: Q :: SUBEND

Memory full! - Jim P.

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IN THE P.O. BOX

In the Po Box.

Since I am writing this about 10 days earlier this month to allow time for our new editor to put it all together, the picking from the PO box have been slim.

TISHUG News Digest, August 1992: Editor's Comment, Secretaries Notebook, Shop, Computers in Education, Assembly Class, Treasurer's Report, Software Column, Dijit AVPC 80 Column Card, Programs, TI-Bits, Cataloguing Disks in XB, Tips from the Tigercub, Tigercub Printall, XB Tips, Harnessing the Power Of Speech, Newsletter Update, To See or Not to C, Tutorial, Making a TIPS Label Letterform, Computaholics Exam, Beginning Writing in Machine Jenny's Younger Set, Code.



If you develop, after, or debug Basic or Extended Basic programs, XB Detective is for you! This powerful utility works transparently in the Extended Basic environment, and is instantly accessed by a "hot key" without disrupting your program in memory. Fully menu driven, XB Detective lets you:

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Requires: 32K, disk system, and XB. Will not operate with The Missing Link.

Courtesy of TISHUG

The II Learning Machine

by M. Amundsen, OH USA

Below is a program that actually learns from the user! This program uses a binary search tree routine to ask you questions, look into it's "memory" for an answer and respond accordingly.

It is a great program for children (they get to "teach" the computer, not the other way around!) and it is an excellent example of the use of subroutines and the binary search tree.

Teaching the Learning Machine

The Learning Machine can only learn by asking questions. The first time you ever run The Learning Machine, you have to give it the first answers. After that, Learning Machine will build upon each new bit of information you give it. Below is a sample session with The Learning Machine:

- 1) At the Main Menu select for Begin Session.
- 2) Answer N to the question "Is a file in memory?"
- 3) At the next menu select 2 to start a new file.
- 4) The Learning Machine learns to recognize something through a single distinguishing characteristic. In this session we will teach the Learning Machine about books. At the first prompt type "A Novel" for the first characteristic.
- 5) At the next prompt type the answer "Oliver Twist." The machine is now ready to start learning new items.
- 6) The Learning Machine will now ask you a question: "Is it a novel?" For now answer NO.
- 7) Since the Learning Machine knows of no other books, it gives up and asks you for the correct answer. This time type "Starting FORTH."
- 8) When it asks you for the distinguishing characteristic, type "about computers." $\hfill\Box$
- 9) Continue this process until you have amassed a good body of questions (at present the Learning Machine can only keep track of 50 answers change this in line 450 if you wish!).
- 10) To end a session just select $\langle E \rangle$ at the Main Menu and save your file to disk or cassette.

```
100 REM
110 REM
120 REM
                THE
130 REM
        * LEARNING *
140 REM
150 REM
160 REM
           MACHINE
170 REM
180 REM
190 REM
200 REM
              TI-BASIC
210 REM
220 REM
             M AMUNDSEN
230 REM
             TOLEDO, OH
240 REM
               7/8/84
250 REM
260 REM
             ******
270 REM
             *VARIABLES*
280 REM
             ******
290 REM
          A$-ANSWER
300 REM
310 REM
          C$-CHARACTERISTIC
         Q1$-QUEST HEADER
320 REM
         Q2$-QUEST TAIL
330 REM
340 REM T1$-TEMP$
350 REM T2$ TEMP$
```

```
LL-LEFT LINK
 360 REM
             RL-RIGHT LINK
 370 REM
              P-ARRAY POINTER
 380 REM
              N-# OF ITEMS
 390 REM
 400 REM
 410 DEF TABR=29-LEN(M$)
 420 DEF TABC=(28-LEN(M$))/2
 430 Q1$="IS IT"
440 Q2$="?(Y/N)"
 450 DIM C$(50), A$(50), LL(50), RL(50)
 460 REM
 470 CALL CLEAR
 480 CALL SCREEN(6)
 490 FOR L=1 TO 12
  500 CALL COLOR(L,16,1)
  510 NEXT L
 520 REM
 530 REM *LOGO*
 540 REM
550 FOR X=133 TO 143
 560 READ X$
570 CALL CHAR(X,X$)
580 LOGO$=LOGO$&CHR$(X)
 590 NEXT X
 600 DATA 3C4299AlA199423C,63242423202022473,
0C92928C929292DC,1010505078101038,6094F79494949090
610 DATA 0000679494170404,00001C91911C,
0304E21111E10106,000039444438,4088DC88888888804
 620 REM
              *****
 630 REM
              *TITLE SCREEN*
 640 REM
 650 REM
 660 REM
 670 REM
 680 FOR L=1 TO 14
 690 READ M$
700 PRINT TAB(TABC);M$
 710 NEXT L
 720 DATA T H E, L E A R N I N G, M A C H I N E, . . . , , ,
 730 REM
 740 CALL HCHAR(8,7,42,19)
750 CALL HCHAR(16,7,42,19)
760 CALL VCHAR(9,7,42,7)
 770 CALL VCHAR(9,25,42,7)
 780 M$=LOGO$
 790 PRINT TAB(TABC);M$:::
800 GOSUB 3800
 810 REM
 820 REM ***********
 830 REM *MAIN SUPERVISOR*
 840 REM
 850 REM
 860 CALL CLEAR
 870 PRINT "SELECT ONE:"::::
 S80 PRINT TAB(7);"<B>EGIN SESSION":::TAB(7);"<L>IST ITEMS":::TAB(7);"<I>NSPECT FILE":::TAB(7);
 "<E>ND SESSION"::::
 890 XR$="BLIE"
 900 GOSUB 3710
 910 ON XR GOSUB 960,1120,1230,1340
 920 GOTO 860
 930 REM
 940 REM *BEGIN SESSION*
 950 REM
960 CALL CLEAR
970 PRINT "IS A FILE IN MEMORY?(Y/N)":::
980 GOSUB 3960
990 IF XR=1 THEN 1070
1000 PRINT "SELECT ONE:"::::TAB(5);"1 - OPEN OLD FILE"
:::TAB(5);"2 - START NEW FILE"::::
 1010 XT=2
1020 GOSUB 3880
1030 IF XK=1 THEN 1060
 1040 GOSUB 3490
 1050 GOTO 1070
 1060 GOSUB 2900
 1070 GOSUB 1480
 1080 RETURN
 1090 REM
 1100 REM *LIST ITEMS*
 1110 REM
 1120 CALL CLEAR | 1130 PRINT "USE FILE IN MEMORY?(Y/N)":::
 1140 GOSUB 3960
 1150 IF XR=1 THEN 1180
```

```
1160 GOSUB 3170
                                                                             1990 NEXT L
 1170 GOSUB 2900
                                                                             2000 RETURN
 1180 GOSUB 2290
                                                                            2010 REM
  1190 RETURN
                                                                            2020 REM
  1200 REM
                                                                            2030 REM
                                                                                        *LEARN NEW ITEM*
 1210 REM *INSPECT FILE*
                                                                            2040 REM *********
 1220 REM
                                                                            2050 REM
 1230 CALL CLEAR
1240 PRINT "USE FILE IN MEMORY?(Y/N)":::
1250 GOSUB 3960
                                                                            2060 CALL CLEAR
2070 PRINT "I GIVE UP!":"=======":::
2080 PRINT "WHAT IS THE ANSWER?"::
 1260 IF XR=1 THEN 1290
1270 GOSUB 3170
                                                                            2090 INPUT T1$
                                                                            2100 PRINT ::"I SEE...":::"WHAT'S DISTINGUISHES"::T1$::
"FROM"::A$(P);"?":::
 1280 GOSUB 2900
1290 GOSUB 2570
                                                                            2110 INPUT T2$
 1300 RETURN
                                                                            2120 RETURN
 1310 REM
                                                                            2130 REM
 1320 REM *END SESSION*
                                                                            2140 REM
 1330 REM
                                                                            2150 REM *UPDATE LINKS*
 1340 GOSUB 3170
1350 PRINT ::"CONTINUE THE SESSION?(Y/N)":::
                                                                            2160 REM
                                                                            2170 REM
 1360 GOSUB 3960
                                                                            2180 N=N+1
 1370 IF XR=1 THEN 860
                                                                            2190 C$(N)=T2$
 1380 REM
                                                                            2200 A$(N)=T1$
 1390 PRINT :::"PROGRAM TERMINATED":::
                                                                            2210 LL(N)=N
 1400 FOR L=1 TO 500
                                                                            2220 RL(N)=999
 1410 NEXT L
                                                                            2230 RETURN
 1420 CALL CLEAR
                                                                            2240 REM
 1430 END
                                                                            2250 REM
 1440 REM
             *****
                                                                            2260 REM *LIST ITEMS*
 1450 REM
            *TAKE A GUESS*
                                                                            2270 REM
 1460 REM
            ******
                                                                            2280 REM
                                                                           2290 CALL CLEAR
2300 PRINT "LIST FILE":"=======":::
2310 PRINT "WANT A PRINTOUT?(Y/N)"::
 1470 REM
 1480 P=1
 1490 CALL CLEAR
 1500 PRINT "LEARNING SESSION": "=========":::
                                                                           2320 GOSUB 3960
2330 IF XR=0 THEN 2380
2340 PRINT "ENTER DEVICENAME:"::
 1510 REM
 1520 REM CHARACTERISTIC
 1530 REM
                                                                           2350 INPUT DN$
 1540 M$=Q1$&C$(P)&Q2$
                                                                           2360 DN=1
 1550 GOSUB 4080
                                                                           2370 OPEN #DN:DN$
 1560 GOSUB 3960
                                                                           2380 FOR L=O TO DN .
2390 PRINT #L:"THE FOLLOWING ITEMS:ARE IN":"THE FILE:
 1570 IF XR=1 THEN 1750
 1580 REM
                                                                           ";FN$::
 1590 REM
                 WRONG
                                                                           2400 NEXT L
 1600 REM
                                                                           2410 FOR L=1 TO N
 1610 IF RL(P)=999 THEN 1680
                                                                           2420 FOR L2=0 TO DN
 1620 P=RL(P)
                                                                           2430 PRINT #L2:A$(L)
 1630 PRINT :
                                                                           2440 NEXT L2
 1640 GOTO 1540
                                                                           2450 NEXT L
 1650 REM
                                                                           2460 IF DN=0 THEN 2490
 1660 REM
             I GIVE UP!
                                                                           2470 CLUSE #DN
 1670 REM
                                                                           2480 DN=0
 1680 GOSUB 2060
                                                                           2490 PRINT
1690 RL(P)=N+1
                                                                           2500 GOSUB 3800
1700 GOSUB 2180
                                                                           2510 RETURN
                                                                           2520 REM
1710 GOTO 2000
                                                                                       ******
                                                                           2530 REM
1720 REM
                                                                           2540 REM *INSPECT FILE*
1730 REM ACTUAL ITEM
                                                                           2550 REM
                                                                                     *******
1740 REM
1750 PRINT :::
                                                                           2560 REM
                                                                           2570 CALL CLEAR
1760 M$=Q1$&A$(P)&Q2$
1770 GOSUB 4080
1780 GOSUB 3960
                                                                          2580 PRINT "INSPECT FILE":"=======
2590 PRINT "WANT A PRINTOUT?(Y/N)"::
                                                                          2600 GOSUB 3960
1790 IF XR=1 THEN 1970
1800 REM
                                                                          2610 IF XR=0 THEN 2660
2620 PRINT "ENTER DEVICENAME:"::
1810 REM
               WRONG
                                                                          2630 INPUT DN$
1820 REM
                                                                          2640 DN=1
1830 IF P=LL(P)THEN 1900
                                                                          2650 OPEN #DN:DN$
1840 P=LL(P)
                                                                          2660 FOR L=0 TO DN
1850 PRINT :
                                                                          2670 PRINT #L:"THE FOLLOWING ITEMS ARE IN": "THE FILE:
1860 GOTO 1540
                                                                          ";FN$::
1870 REM
                                                                          2680 NEXT L
1880 REM
             I GIVE UP!
                                                                          2690 FOR L=1 TO N
                                                                         2690 FOR L=1 TO N
2700 FOR L=0 TO DN
2710 PRINT #L2:" L -";L
2720 PRINT #L2:"C$(L)-";C$(L)
2730 PRINT #L2:"A$(L)-";A$(L)
2740 PRINT #L2:" LL -";LL(L)
2750 PRINT #L2:" RL -";RL(L)
2760 PRINT #L2:
2770 NEXT L2
1890 REM
1900 GOSUB 2060
1910 LL(P)=N+1
1920 GOSUB 2180
1930 GOTO 2000
1940 REM
1950 REM
              CORRECT!
1980 FOR L=1 TO 500
                                                                         2770 NEXT L2
                                                                         2780 NEXT L
                                                                         2790 IF DN=0 THEN 2820
```

```
2800 CLOSE #DN
                                                                    3620 *REM
 2810 DN=0
                                                                    3630 REM
 2820 PRINT
                                                                    3640 REM
                                                                                  SUBROUTINES
 2830 GOSUB 3800
                                                                    3650 REM
 2840 RETURN
                                                                    3660 REM
 2850 REM
                                                                    3670 REM
                                                                    3680 REM
 2860 REM
                                                                    3690 REM
 2870 REM
             *OPEN FILE*
                                                                                *KEY-LET/B*
 2880 REM
                                                                    3700 REM
 2890 REM
                                                                    3710 CALL SOUND(150,1400,0)
 2900 CALL CLEAR
                                                                    3720 CALL KEY(O, XK, XS)
 2910 PRINT "LOAD FROM:"::::TAB(5);"1 - DISK":::TAB(5);
                                                                    3730 IF XS=0 THEN 3720
                                                                    3740 XR=POS(XR$,CHR$(XK),1)
 "2 - CASSETTE":::::
                                                                    3750 IF XR=0 THEN 3720
 2920 XT=2
 2930 GOSUB 3880
                                                                    3760 RETURN
 2940 IF XK=2 THEN 2980
2950 INPUT "FILENAME: DSK":FN$
                                                                    3770 REM
                                                                    3780 REM
                                                                                *KEY-CON/B*
 2960 FN$="DSK"&FN$
                                                                    3790 REM
                                                                    3800 PRINT " PRESS ANY KEY TO CONTINUE "
 2970 GOTO 2990
 2980 FN$="CS1"
                                                                    3810 CALL SOUND(150,600,5)
 2990 OPEN #1:FN$, SEQUENTIAL; INPUT INTERNAL, FIXED 192
                                                                    3820 CALL KEY(3, XK, XS)
 3000 PRINT :::TAB(7);"LOADING FILE...
                                                                    3830 IF XS=0 THEN 3820
 3010 REM
                                                                    3840 RETURN
                                                                    3850 REM
 3020 REM GET DATA
 3030 REM
                                                                    3860 REM
                                                                                *KEY-NUM/B*
3040 INPUT #1:N
3050 FOR L=1 TO N
3060 INPUT #1:C$(L),LL(L),A$(L),RL(L)
                                                                    3870 REM
                                                                    3880 CALL SOUND(150,1000,0)
                                                                    3890 CALL KEY(3, XK, XS)
                                                                    3900 IF (XK<49)+(XK>XT+48)+(XS=0)THEN 3890
3910 XK=XK-48
 3070 NEXT L
 3080 CLOSE #1
 3090 PRINT :: "THERE ARE"; N: "RECORDS ON FILE.":::
                                                                    3920 RETURN
3100 FOR L=1 TO 500
                                                                    3930 REM
 3110 NEXT L
                                                                    3940 REM
                                                                               *KEY-ANS/B*
                                                                    3950 REM
3120 RETURN
3130 REM
                                                                    3960 CALL SOUND(150,800,0)
                                                                    3970 CALL KEY(3, XK, XS)
3140 REM
             *SAVE FILE*
                                                                    3980 IF XS=0 THEN 3970
3990 IF XK<>89 THEN 4020
 3150 REM
            ******
3160 REM
3170 CALL CLEAR
                                                                    4000 XR=1
3180 PRINT "SAVE THIS FILE?(Y/N)":::::
                                                                    4010 GOTO 4040
3190 GOSUB 3960
                                                                    4020 IF XK<>78 THEN 3970
3200 IF XR=1 THEN 3220
                                                                    4030 XR=0
3210 GOTO 3430
3220 PRINT "SAVE TO:"::::TAB(5);"1 - DISK":::TAB(5);"2
- CASSETTE":::::
                                                                    4040 RETURN
                                                                    4050 REM
                                                                               *WRAP/B*
                                                                    4060 REM
3230 XT=2
                                                                    4070 REM
3240 GOSUB 3880
                                                                    4080 X1=0
3250 IF XK=2 THEN 3290
3260 INPUT "FILENAME: DSK":FN$
                                                                    4090 M$=M$&" "
                                                                    4100 X2=POS(M$," ",X1+1)
                                                                    4110 PRINT SEG$(M$, X1+1, X2-X1);
3270 FN$="DSK"&FN$
3280 GOTO 3300
                                                                    4120 IF X2=LEN(M$)THEN 4150
3290 FN$="CS1"
                                                                    4130 X1=X2
3300 OPEN #1:FN$, SEQUENTIAL, INTERNAL, OUTPUT, FIXED 192
3310 PRINT :::TAB(7); "SAVING FILE..."
                                                                    4140 GOTO 4100
                                                                    4150 RETURN
3320 REM
3330 REM SAVE DATA
3340 REM
3350 PRINT #1:N
3360 FOR L=1 TO N
3370 PRINT #1:C$(L),LL(L),A$(L),RL(L)
3380 NEXT L
3390 CLOSE #1
3400 PRINT :::"THERE ARE NOW"; N: "RECORDS ON FILE.":::
3410 FOR L=1 TO 500
3420 NEXT L
3430 RETURN
3440 REM
3450 REM
           ********
3460 REM
           *START NEW FILE*
3470 REM
           ******
3480 REM
3490 CALL CLEAR
3500 PRINT "START NEW FILE":"=======":::: 3510 PRINT "ENTER FIRST CHARACTERISTIC:"::
3520 INPUT C$(1)
3530 PRINT: "ENTER THE FIRST ANSWER:"::
                                                                                                     The will four
3540 INPUT A$(1)
                                                                                                    INI BUDDINE
3550 LL(1)=1
3560 RL(1)=999
3570 N=1
3580 PRINT :::
3590 GOSUB 3800
                                                              VI Marine
3600 RETURN
3610 REM
```

GAMES

by Steve Burns

Walk into any store that handles computer software and notice what actually fills the shelves; not rows and rows of data bases, word processors and spreadsheets, endless shelves of GAMES! This is not necessarily an indication that computer users do not have a need for serious software, they do, but games are something that everyone can "use" and are also not "threatening" to the computer neophyte or non-user. They are an introduction to computing to many people, both young and old, and continue to be a source of entertainment and a challenge to enjoys them. What anyone who bearing does this have on the TI "world"? In the past, games were an integral part of the TI software library, since it was the ORIGINAL home computer. Since then, the TI "world" has sought to prove its worth as a productive machine and to many, games have been all but forgotten. Some users are content to play an occasional game of Munchman or one of the other early games. This is not true for all though, and the TI is lacking in the area of new graphic-intensive games. Exceptions to the rule are Tetris, Rock Runner, and a few others. interest new users we need more of these types of games. Many parents buy computers for their kids and we ALL know what the kids are in. The interested NINTENDO Connection Can the TI compete with the Nintendo and other new game systems? I feel it can. We need to keep in mind what type of games are popular now. Baker Software has been selling a SUPER MARIO BROS. "clone" for the TI and although the reviews I have read are far less than stunning, the game still seems to be selling well. Tetris made it through the conversion a little better. My family actually prefers the TI version to the Nintendo game. Other Nintendo games that would convert well include LOOFZ and LOLO (if you do have a NES, I recommend

you check these out). Both of these could possibly even be programmed in XB without a serious loss in play value although most conversions would require the talents of an assembly language programmer. One point that should be noted here is the fact that many Nintendo games are very similar. Most have a character, usually with a weapon of some type that some type that goes through an "obstacle course" of some type: Many of the same assembly routines could be used in a clone of Nintendos' Mutant Ninja Turtles and the game Contra. These are not necessarily the types of games T would like to see converted, just the ones that seem to be the most popular (I made my suggestions earlier in the column). Don't get me wrong. Copying software from other machines is not vital to the survival of the TI, but it is a practice that has gone on since the beginning of computers. Most people who see something on another machine that they like are willing to purchase a version for their own system. Remember all the Frogger clones from years past? Original ideas are still the most welcome addition to any computers "arsenal" of software. Unique games like DIABLO (there are clones of this for both Nintendo and Amiga) and Tunnels of Doom (the basis for most more than a few of todays popular games), will always find a market. The main things to keep in mind are bold, modern looking graphics, popular character types, and good play value. Coupled with our advantages such as speech, a full keyboard, and the new Asgard Mouse, the TI could easily keep up with the new offerings. Next column we get down to reviews! This column is not MY column. It is open to anyone who would like to do a review or even a general commentary on games. Even if you are reading this through the news letter exchange and feel that you would like to say something here, please feel free to send it to us (preferrably on disk). This column is dedicated to the memory of Boyd Shugert.

Larry has sent me a disk to put in the club library here is the list of programmes and a small description if you want a copy see John at the next meeting or phone him on 357 9758 and i'm sure he will send you a copy.



THE ENTIRE SYSTEM IS DOWN. THE COMPUTER PEOPLE BLAME THE MODEM PEOPLE WHO BLAME THE PHONE PEOPLE WHO BLAME IT ON OUR MOON BEING IN THE FIFTH HOUSE WITH VENUS ASCENDING."

E/AJGAMES

These games run out of E/A3 they are from Arcade Action Soft-ware they not real mind bending but they do have source code Klingon Attack
Kluuto Empire

CROSSTITCH

Desert rat
One for the ladies, Crosstitch Patterns by Walter,
Moore. Not sure how to rate this one. Patterns are
No bell allowed, No drinking, No smoking,
No Democrats allowed, cance on the pearl,
Marilyn, Hug a warm puppy, Cotton ball,
Magnolia blosspm.

GPL/V098

BPL V0.98 For Myarc 9640 Geneve (update) if you have one.

FORTHWORD

Wycove Forth Word Processor looks good but I'll

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BUG-BYTES

AUGUST 1992



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