

NEWS DIGEST

Focusing on the TI99/4A Home Computer

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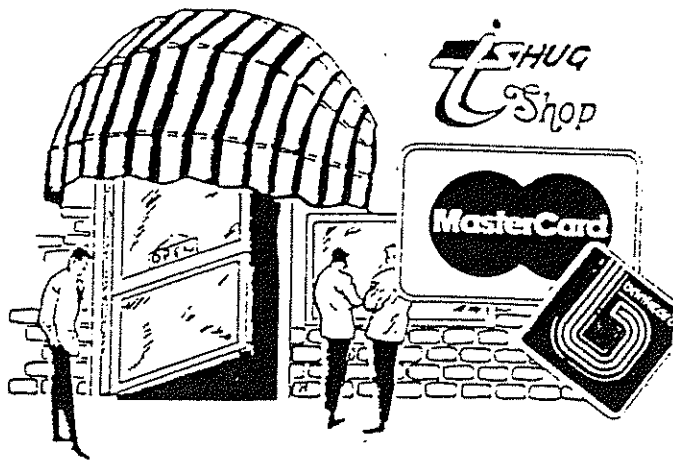
Annual Family Dues \$35.00
Associate membership \$10.00
Overseas Airmail Dues A\$65.00
Overseas Surface Dues A\$50.00

TiSHUG Sydney Meeting

The July Meeting will start at
2.0 pm on the 1st July 1995
at Meadowbank Primary School,
Thistle Street, Meadowbank.

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Perhaps the best Ti news of the month is that the latest Funnelweb disk is available. It is for 80 column users, and Larry has been working flat out to set it up for our use, together with appropriate documentation. Larry tells me that it is fantastic. He claims that you can work on four files at once, and that each file can be almost 2000 lines (yes I said "lines") at the one time. Larry is very impressed, at the ease of use, the presentation on screen, and the way it prints out. We intend to release this disk at the next meeting, a must for all Ti users. I am also hoping to have an 80 column version of multiplan available as well.

Have you considered the likelihood that if you buy up big in the Ti field, you may soon be the proud owners of valuable vintage systems. I'm sure they will acquire a real value in time. Perhaps this may be a way to beat inflation and the tax-man. See you at the next meeting.

Bring your money with you.

Dick Warburton.

with Dick Warburton

Well, you know now that Percy has resigned from the shop position, and that I will try to fill his shoes, well perhaps one shoe, because I will be looking after the Ti equipment only, while Cyril will look after the IBM equipment sales. There will be no radical changes, but I do intend to look at all the available stock, and see if we can sell off any cheaply where it is moving slowly. We still have a fair stock of all basic Ti hardware and software. We have about 150 club software disks available at any meeting. which can be copied or ordered. Go through the catalogue and catch up on any disks you are missing. We still have quite a number of commercial software packages and games, and I intend to see if we can distribute them by reducing the prices significantly.

I was pleased to see that 14 members renewed their memberships in May. It is reaching the stage where we must attract some new members to maintain our viability. Most of you now use dos machines, and your friends and workmates do also. If you have friends or family or workmates who use a computer but need some help, invite them along and we will make the welcome. If we get a number we could run classes in various areas. We take computer usage for granted, however there are many people out there who are lost doing anything but the most simple thing on a computer. We can offer them help, support, perhaps training, and the chance to buy reasonably priced quality accessories. Most of all, we can offer to simply be available on the phone, when they get into trouble.

We still have a number of systems available. If we haven't exactly what you want, I'm sure that someone else in the club will. If you have a specific need, we will try to meet it for you. We still have a small number of ram disks in stock. I think that a ramdisk is almost essential if you want to use your Ti profitably. We still have three 80 column cards. We have a variety of all types of things for the Ti. Check our catalogue at the next meeting and see what you are missing.

EXTRAORDINARY DIRECTORS MEETING

21st MAY 1995
Meadowbank Primary school

Meeting opened 1.00pm

PRESENT: Cyril Bohlsen, Percy Harrison, Thomas Marshall and Richard Warburton.

PURPOSE: To decide how the shop will be managed in the future since no volunteers were found at the last monthly meeting (6th May)

OUTCOME: Cyril is to manage IBM and is to establish bona fides with HARTLAND COMPUTERS WESTMEAD. Necessary paper work completed. Percy to let AROMA know we will be dealing with them through Cyril.

Richard (Dick) will be managing the TI side of the shop.

CONCLUSION: The situation has some difficulties however it is anticipated we will work them out as we go.

Meeting Closed 2.00pm.

Techo-Time

from Geoff Trott

Electronic Mail from Tony McGovern

This week I received three items of email from Tony McGovern. I am including two of these items here for your interest, while the third is a new version of the editor for me to test out on my system. Tony sends out new versions of his software for other to test to make sure that it works on hardware which he does not have. I shall report on the editor some other time but I thought you might like to find out how we use email to communicate between each other.

Tony works for the University of Newcastle in the Department of Physics and has a PC at home and at work. I think he uses OS/2 on one of these machines if not on both. I am not sure how he transfers files between the TI99/4A and the PC at work or if the PC at work gets used in the process at all. I can tell you how I do things at my end and you can imagine how he might do it at his end. I work at the University of Wollongong in the Department of Electrical and Computer Engineering and we both have access to our university's computer network, and these networks are connected to the Australian internet (AARNET). Email is available on campus and to anyone around the world connected to the internet.

I use a Macintosh at work and have a Macintosh at home. I receive email at work on my Macintosh and can save it as a file. I can then put this file on a floppy disk and carry it home where I can load it onto my Macintosh at home. I use Clarisworks communication program to make a direct connection to my TI99/4A, which happens to be on another floor of my house, via a telephone cable. I run 4A/TALK on the TI99/4A and use Xmodem transfer mode to transfer the files between the Macintosh and the TI99/4A. I have tried MassTransfer and TELCO and find that 4A/TALK is the best so far. I only used MassTransfer for connection to a modem, and TELCO was better for that. TELCO has Xmodem transfer but 4A/TALK is better at this. I have not used 4A/TALK for modem work as the modem is now on the Macintosh. Before the Macintosh arrived (earlier this year), I did the transfer by connecting into the University's computer system via the modem and doing an Xmodem transfer between the Unix system at work and the TI99/4A. This involved saving the email in a file on the Unix system at work first, which involved doing an FTP of the file from my Macintosh to the Unix system across the University network.

Xmodem is a well known file transfer protocol, which sends the data in blocks (of 128 bytes, I think) with a checksum of some sort so that the receiving program can determine that there was no error in transmission. The blocks are all numbered so the receiver can make sure that all the blocks are received. Between sending each block, the transmitter waits for the receiver to acknowledge correct reception of the block. Apart from all the error checking, this way of transferring the file makes sure that when the receiver cannot take any more data, the transmitter stops sending. This is important in the case of the TI99/4A and large files, as the lack of memory means that it must transfer the data to disk at frequent intervals and this is a slow operation.

The nice thing about the 4A/TALK Xmodem implementation is that it handles text files in a sensible way. By that I mean that you can send a DV80 file directly out and the program puts it into the 128 byte blocks and if it receives an ASCII Xmodem transfer, it saves the data into a DV80 file ready to be edited or printed. TELCO only transferred DF128 files in either direction, which is fine for archiver files or GIF files, as this is what they need. A text file needed extra processing, both on reception and transmission, which was a pain.

Large files are normally sent in archived form as this gives a smaller file to be sent. When Tony wants to send me the new editor, for example, he archives the five (in the latest case the 3 program files and the two DV80 help files) files into one file and then converts the resultant binary file into a text file using the TIED program from Clint Pulley. This is the file he sends me as an enclosure attached to a message, as it is too big to put in the message itself (32 Kbytes maximum). I have received large programs from Eric Bray in Philadelphia similarly processed, although Eric uses the UUENCODE program to convert the archived files from binary to ASCII. In the case of the TIED processed file, I send the ASCII file to the TI99/4A and then process it with TIED to get the file which is then run through the archiver to extract the original files. For the UUENCODEd file, I first need to UUENCODE it on the Macintosh to get the archived binary file and then do a binary Xmodem transfer to the TI99/4A to be run through the archiver to extract the files. Whichever way it is done, the transferring of files between different computer systems is now quite easy to do, provided you have access to the email of the world.

The first message from Tony contained the following plea.

I am having Floppy Disk troubles: one of the DSQD died. The second head seems to give trouble; a scope on the preamp output shows a low output for a while before

it jumps up to normal. Maybe there is wear in the mechanism; multiple cleanings have not helped. Will left behind some 5" drives, details sought as follows, with any information appreciated.

The 5" drives I have here (ex Willian's Aniga A-500 days) are NEC FD1157C (dated 1988). I think he originally found the jumper settings to suit the Aniga (it was emulating the Aniga internal drive) by trial and error. What they have to be to be restored to TI and PC operation at 720 Kb (80 track per side, normal density) is also a matter of guess, as we have no technical information. So if anyone can help, the details from inspection are:

Drive Type : NEC FD1157C (1988)
 Jumper fields : labels as on circuit board
 Located near drive cable edge connection at rear
 DX -- 0,1,2,3 pairs --- that one is easy - drive select
 MON -- 1,2,3 pairs
 USE -- 1,2 pairs
 VC -- single pair -- presumably either jumpered or open
 DCG -- 3 triples labelled LMO, LMI, LM2, positions 1,2
 Located near cable connectors on side
 HDR -- 1 triple, positions 1 2
 DEN -- 1,2,3 pairs
 Useful information will be much appreciated.

The second message was sent on from Tony for inclusion in the TND from Oliver Arnold as follows.
 Hello Tony!

Last month I finished my project for a TELETEXT-CARD for the TI99/4A. I have developed a single-sided PCB and software written in C language. You only need a TI99/4A, 32K and a RS232 interface. As a source for the CVBS signal you need a TV or something else with a SCART connector for example, videorecorder, satellite receiver, or similar.

The name of the teletextdecoder circuit is SAA5246A/PE. It can handle PAL or NTSC mode. I have written a menu program like the standard Teletext handling from your TV. In this program you can dump or save the pages. I also include the documented C-Routines to write your own Videotext program without knowledge of the format. The routines emulate the I2C-Bus completely. In the following you see some examples of TELETEXT pages:

THE INTERNATIONAL TELETEXT SERVICE

News 101
 CNN TV Guide 200
 Hotel Guide 300
 Travel/Weather 400
 Sport 500
 Business 600
 Finance 700

24-HOUR DIRECT DEALER ACCESS TO THE
 WORLD'S FOREX MARKETS 692

Latest News 150 World Times 450

CNNTEXT Help 290 Markets Latest 750

DEP SIT RATES 690

295

M1 CNNTEXT P100 Tue Mar 21

ECONOMIC NEWS
 ECONOMIC WEEK IN REVIEW
 MONDAY 20 MARCH 1995

2/2

British lending figures showed the housing market was subdued, with new mortgage commitments falling to \$4.28 billion in February from \$4.65 in 1994. The European Union was to lend Belarus 75 million European currency units (\$97 million) to help its balance of payments. South Africa was to get loans of \$390m over two years. Monthly inflation in Romania slowed to 1.4 per cent in February for a year-on-year rate of 50.6pc.

Main Index 100 Business News 600

SURGE TRADING S.A. 24 HOUR DESK
 FOREX AND FUTURES BROKERS SEE 695

MO CNNTEXT P661 Tue Mar 21 19:15:58

Donnerstag, 23.3.	Geld	Brief	This is
USA (1 US-Dollar)....	1,3958	1,4038	from a
England (1 Pfund) ...	2,2183	2,2323	German TV
Irland (1 irl.Pfund)	2,2240	2,2380	program
Kanada (1 kan.Dollar)	0,9905	0,9985	
Niederlande (100 hfl)	89,088	89,308	
Schweiz (100 sfr) ...	120,600	120,800	
Belgien (100 bf s) ..	4,8262	4,8462	
Frankreich (100 FF) .	28,090	28,210	
D(nemark (100 dkr) ..	24,885	25,005	
Norwegen (100 nkr) ..	22,297	22,417	
Schweden (100 skr) ..	19,040	19,160	
Italien (1000 Lit.) .	0,8039	0,8119	
\sterreich (100 S) .	14,189	14,229	
Spanien (100 Ptas) ..	1,0784	1,0864	
Portugal (100 Esc) ..	0,9462	0,9522	
Japan (100 Yen)	1,5850	1,5880	
Finnland (100 Fmk) ..	31,800	31,960	
Australien (1 Dollar)	1,0070	1,0270	
ohne Gew(hr		>> 444	
MO 443 ARD/ZDF Fr 24.03.95		14:12:05	

The price of the PCB + SAA5246 + Docs + Software is 50 DM. You will need also some resistors and capacitors, a transistor, a Quartz crystal, 8K static RAM and 5V DC supply. Please give this information to other TI-Users in Australia.

Yours... Oliver Arnold oliver@thorin.swb.de

The strange letters after Oliver's name is his email address.

END OF ARTICLE

BRIEF NOTES FOR FUNNELWEB 80-COLUMN EDITOR PACKAGE

Multi-Mode 128 / 2x64 / 4x32 Kb EV-RAM Text Buffer

The notes below have come from the full Funnel Web Farm Doc's. Listed are the most important parts and I have made some changes to the doc's below to make it a little easier to understand.

Editor Modes and Loading

The Funnelweb system editor supports two main modes, Word Processor and Programmer's Editor, from the same set of files. The choice is made implicitly from the alternate main Funnelweb selection screens, but may be intercepted and reset at load time.

If you select EDIT and if you want to get the user selection screen press <spacebar> AND HOLD DOWN until the Menu comes up.

First choice presented is between Word Processor and Program Editor. This is replaced after the selection has been made by a choice of Editor buffer configuration.

(1) A single large text buffer of 128 Kb capacity in up to almost 4500 lines.

(2) Dual buffer Edit-ring format with 2 independent 64 Kb text buffers, each with about 2600 line capacity.

(3) Quad buffer Edit-ring format with 4 independent 32 Kb text buffers, each with about 1300 line capacity.

This choice is not presented if the Editor fails to detect the 64 Kb extension EV-RAM.

The second MENU that comes up.

- 1 Default 8-Bit
- 2 Select Language
- 3 TI Euro-Writer

If select 2 or 3 a third MENU comes up with Languages.

List/Selection boxes

At various times from the command line, usually when more than one selection is available, a box will pop up showing a list indexed by number <1> up to at most <8> for selection. Pressing <1> up to <8> will select the numbered item, and where appropriate presents it for further editing on the usual command entry line. Pressing <enter> will usually return the last selection made from that box.

EDIT RING - When you press E for EDIT this box comes up if you have selected DUAL or QUAD from the FunnelWeb System Editor this box shows the current buffer state the filename, the number of lines in the file, and an "E" if the buffer has been edited (characters entered) since loading or last saving. and in multiple buffer modes the first buffer behaves like a single buffer mode until other buffers are invoked.

EDIT RING - If you have select DUAL the Edit Ring will show you.

- 1. 1
- 2. noname 0

If you pick 1 you are in WINDOW (1) or 2 you are in WINDOW (2). Each window can have a file in it and you can toggle between the windows. You can COPY or MOVE line(s) between windows. To TOGGLE between windows you must go back to the COMMAND LINE and hit E.

Edit Ring -- If you have select Quad the Edit Ring will show you.

- 1. 1
- 2. noname 0
- 3. noname 0
- 4. noname 0

Load / Save WINDOW - keeps a running record of up to 8 of the most recent files loaded or saved, or marked from in SD.

SD in Show Dir you can mark up to 8 work files by moving CURSOR to file and hitting SPACEBAR. You can also mark 1 Temporary file by moving CURSOR to file and hitting "T".

NOTE: Work files will wipeout a file in a WINDOW that you are working on if loaded into that Window.

View File -- allows previously viewed files

Help Screens -- a list of the 8 help screen titles

New and Updated Editor Command Line Entries

E - in single buffer mode returns directly to the Edit mode as always.

T - for Tabs

V - for View of whatever file is selected from the List/Selection box.

H - for Help mode brings up a series of up to 8 help screens

CO - for COpy now sets up Mark/Copy/Append to the clipboard

FCTN 4 - extends the the marked lines (indicated by the secondary color set) down a line at a time.

FCTN 6 - shrinks the marked area up from the bottom a line at a time. If this makes the marked area vanish, the mark mode is exited.

FCTN X - shifts the whole marked block down a line.

FCTN E - shifts the whole marked block up a line.

ESCAPE - exits the marking mode immediately.

FCTN C - copies the marked block to the clipboard, replacing any previous clipboard contents, and then exits the marking mode.

FCTN A - appends the marked block to the clipboard contents within the size limit, and then exits mark mode.

PA - for PASTE of the COPIED clipboard contents

QQ - for Quick Quit back to Funnelweb.

LT - for LoadTemporary file.

ST - for SaveTemporary file.

DP - for set show Directory Printer name.

MK - for MarK position in file.

WC - for choice of WildCard character for use in FS/RS search strings.

number - from the main command line a number acts like a Show lines command.

CTRL M - now writes the current top of page line number at the cursor position on the command line setting insert mode.

CTRL N - toggles the VDP between NTSC and PAL display standards.

CTRL 1 - exits from command mode to the current top of page.

CTRL 2 - exits from command mode to the original departure point from edit mode.

CTRL 4 - cycles through command and ruler line colors

CTRL 5 - toggles the bottom ruler line on and off. (COMMAND MODE ONLY)

CTRL 6 - toggles the VDP in and out of interlace mode.

Find and Replace String

Find/Replace String commands now take up to 3 numbers ahead of the string entry. Two numbers give the start and finish column for the search.

New Edit Mode Functions

CTRL Q - pages towards the start of file (<fctn-6>).

CTRL A - pages towards the end of file (fctn-4>).

CTRL Z - places the cursor after the end of the current line and is no longer the alternate Oops key which remains on <ctrl-1>.

CTRL H - shows the first page of the current workfile.

CTRL J - shows the last page of the workfile.

CTRL B - breaks the current line at the cursor in all modes.

CTRL R - has various functions. In all modes other than wordwrap in W/P it inserts the contents of the next non-blank line (blank includes paragraph break lines with <cr> only) into the current line at the cursor position. Leading spaces and trailing spaces and <cr>s are trimmed from the inserted material. If the effect displeases, just use Oops <CTRL 1> immediately. So there is now a way in the various fixed modes to insert material into a line without having to retype it. This also acts to undo the effects of line splitting with <CTRL B>.

CTRL R - in wordwrap mode no longer shadows <CTRL 2>, but takes the lines as they would be reformatted by

CTRL 2 - and does a Right Margin Adjust on each line to the current right margin. The Formatter is thus no longer needed for this function.

CTRL N - in Edit mode now inserts a New line

CTRL F - now freezes the edit screen below the cursor line

FCTN ; - sets a bookmark for the line at the current cursor line.

CTRL O - returns to the Original line after some operations such as <fctn=>, RS, and FS.

CTRL M - in the Program Editor only, inserts a blank line

CTRL 2 - in the Program Editor only, deletes the current line

CTRL , - has effect only in All-Chars default or national language modes.

FCIN , - in Euro-Writer mode only, modifies the normal vowel under the cursor to one with a circumflex accent.

Previous Performance Enhancements

CTRL Y - now gives full release on both left and right margins. (TOGGLES)

The Recover Edit <RE> function from the command line is no longer included.

The Oops line recovery function remains unaltered on CTRL 1

SPACEBAR - marks the Display/80 file under the cursor bar as the current workfile, as used for LF and SF.

T - marks the Display/80 file under the cursor bar as the editor temporary file name for LoadTemp or SaveTemp.

CTRL P - prints a directory out to the DirectoryPrint device as a DV/80 file in Append mode.

FCIN 4 - enters the Mark/Copy to clipboard function as described under the <CO> command line function.

DM	33 Prog	DN	27 Prog
DU	33*Prog	DV	33*Prog
DW	30*Prog	EA	9 Prog
ED	33 Prog	EE	33 Prog
EF	17 Prog	F8TXAE	5 Prog
F8TXBE	7 Prog	F8TXCE	5 Prog
F8TXDE	5 Prog	F8TXEE	5 Prog
F8TXFE	5 Prog	FO	33 Prog
FP	16 Prog	FSAVE	7 D 80
FW	33 Prog	FWDOC	40 d 80
FWDOC/ARC	153 I128	HELP00	10 Prog
HELP01	10 Prog	HELP02	10 Prog
HELP03	10 Prog	HELP10	10 Prog
HELP20	10 Prog	HELP30	10 Prog
HELP40	10 Prog	HELP50	10 Prog
HELP8P	65 d 80	HELP8W	65*d 80
HELPMAKE	4 Prog	INSTALL	9 Prog
INSTALL/ED	8 Prog	LDFW	10 D 80
LH	16 Prog	LL	10 Prog
LOAD	5 Prog	MEMED	23 Prog
ML	4 Prog	QD	12 Prog
QF	11 Prog	ROOT	28 Prog
SCREAMER	19 Prog	SCRIPT	4 d 80
SL	13 Prog	SYSCON	6 Prog
UL	4 Prog	UTIL	33 Prog
XB4THLD	2 Prog		

Diskname U134

Used= 355 Free= 3

Funnel Web Farm (Window Version)

Bare Bones : Has Editor,Formatter and Archiver only.

AR	33 Prog	AS	33 Prog
CHAR@1	9 Prog	EA	9 Prog
ED	33 Prog	EE	33 Prog
EF	17 Prog	FO	33 Prog
FP	16 Prog	FW	33 Prog
FWDOC	40 d 80	LOAD	5 Prog
ROOT	28 Prog	UTIL1	33 Prog

Diskname U133

Used=1408 Free= 30

Funnel Web Farm (Window Version)

This is a full Double Side Double Density diskette.

AR	33 Prog	AS	33 Prog
AT	23 Prog	C1	5 Prog
C2	5 Prog	CF	32 Prog
CG	26 Prog	CHAR@1	9 Prog
CHAR@2	9 Prog	CHAR@3	9 Prog
CHAR@4	9 Prog	CHAR@5	9 Prog
CHAR@6	9 Prog	CHAR@7	9 Prog
CHAR@8	9 Prog	CHARA1	9 Prog
CHARAA1	7 Prog	CHARB1	7 Prog
CHARC1	7 Prog	CHARD1	7 Prog
CHARF1	7 Prog	CHARF1	7 Prog
CHARUTIL	5 Prog	CHRCOAL/S	58 d 80
CON/ED	2 d 80	CONFIG/ED	39 d 80
CP	4 Prog	CT8K/O	17 D 80

Diskname U135

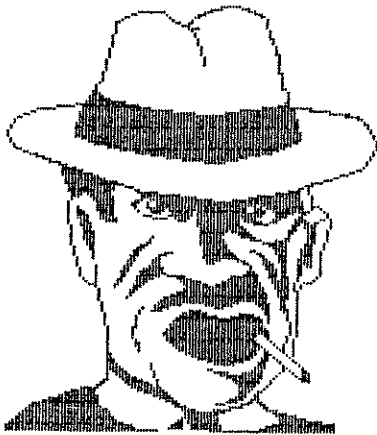
Used= 348 Free= 10

Funnel Web Farm (Window Version)

Chara files archived, Full DOC's archived Help files archived and Syscon.

CHARA/ARC	39 I128	FWDOC/ARC	153 I128
HELP/ARC	98 I128	SYS/ARC	58 I128

END OF ARTICLE 



PUZZLE

This months list of words is based around the subject of "TOGETHER"

A B K W Q Y N R P M L Y O L I I Z P H C
 E Y G J R E K A O Y C H Q I Z E J M B H
 W X Y R X V L U M S B P O M B X K C F Z
 T O A N Q N L P F A T L W U Q E O V V X
 Q M I P X D I F U H L J E V P M L Z A L
 P D R S U S T F P O L G T N B C W Y T O
 P R E T B O U A F O C K A I D L N J A P
 R Q J M H S I W K R N K N H I B O K G F
 X E L U E R D B X I D E S N A I N S O H
 X P J A E B C J T G L C K V N T M D A Z
 T I X R Y G O T C G K N V T X B E T H D
 C P M Z P H R B W C Z K Z A J F C X V L
 N E T V Z S H E O D W F K E E H K V N H
 D P T Y S W E Q M N R Y X T E H B Y T Z
 O G J N L Y B L T E D S I C Z A U F J O
 A A L X U L B A G H E N D Y W F L G D H
 I S B U O L A R F N U D G E F F M U T L
 W Q I K E C U E N K I B X O W I K L H I
 C V Z O Q K W K B N O M E C D F N A P J
 X M Q A F A P I D O Z A A W L F P U Q U

TREASURER'S REPORT

by Cyril Bohlsen

Income for previous month \$ 1920.00
 Expenditure for previous month \$ 1401.59
 Profit for previous month \$ 518.41
 Membership accounted for \$ 140.00 of income
 Shop sales \$ 1780.00 of income

The expenditure was made up of the following :-

Administration \$ 43.78
 Printing and posting of TND \$ 259.71
 Shop purchases \$ 1098.10

WANTED TO BUY

1 only Colour Monitor suitable for use with TI99/4A

and

Manual or instructions on TI Pascal.

Please contact: Mick Khan
 PO Box 344
 CAMPSIE NSW 2194

Phone 02 7505299

Find these hidden words

HOW TO PLAY

In this puzzle there are (20) words somewhere horizontally, vertically, diagonally even backwards

GOOD LUCK

ALLY	AMALGAMATE	BLEND
BOND	COMBINE	COUPLE
FUSE	GLUE	JOIN
KNIT	LINK	MARRY
MATCH	MERGE	MINGLE
MIX	MOULD	PAIR
UNIFY	UNITE	

This puzzle was compiled using Ashley Lynn's programe "Word Puzzle" which can be ordered through TISHUG.



COMPARING PIXEL EDITORS

PICASSO PUBLISHER V2 AND TI-ARTIST PLUS

by Alf Ruggeri

In this article, neither a detailed comparison between PICASSO PUBLISHER V2 and TI-ARTIST PLUS, nor a review or user walk-through is intended. These topics have been more than adequately featured as articles in past newsletters, Micropendiums, etc, etc.

Given the length of time since the products were first released, it is fairly conceivable that any potential users would have long since bought the same. Assimilated the fairly descriptive documentation supplied, and no doubt have had excellent service from them, however a particular feature requires further comment.

PIXEL EDITORS

So what purpose is this article meant to serve. Although the two products have very similar properties, the only performance overlap is in their capacity as graphic or pixel editors of 256 x 192 pixel images.

Pixel status adjustment as used in 'touching up' scanned images can be a time consuming and extremely daunting task, if not entirely an exercise in masochism. Therefore if enthusiasm for creative graphic production is to be maintained, the most expedient method to reduce the mundane process must be utilized.

USING TI-ARTIST PLUS AS A PIXEL EDITOR

The procedure is:

a/ Access the ARTIST option from the SELECT MENU.

b/ Load an image to be processed.

c/ Set the PLOT/ERASE icon for the intended task.

d/ The individual pixels need to be identified and for this to take place the ZOOM facility has to be set.

e/ The cursor is advanced to the appropriate pixel area via the joystick or keyboard arrow/FCTN key combination. The pixel is adjusted via the fire button

or ENTER key.

f/ The status of the PLOT/ERASE facility can be toggled in the ZOOM mode by pressing "FCTN ." or simply ".".

g/ The ZOOM mode is cancelled by a Z keystroke in order to observe the overall effect of the pixel status alteration.

h/ If further pixel alteration is required, the sequence from c/ to g/ is repeated.

USING PICASSO PUBLISHER AS A PIXEL EDITOR

The procedure is:

a/ From the title screen press "FCTN =" to access the FILE UTILITY MENU.

b/ Load an image to be processed.

c/ Set the draw/erase mode for its intended task via a U keystroke.

d/ The individual pixels need to be identified and for this to take place the ZOOM facility has to be turned on by pressing the spacebar.

e/ The cursor is advanced to the appropriate pixel area via the joystick. The pixel is adjusted via the fire button.

f/ The status of the draw/erase facility can be toggled in the ZOOM mode via a U keystroke.

g/ The ZOOM mode is cancelled by a D keystroke in order to observe the overall effect of the pixel status alteration.

h/ If further pixel alteration is required, the sequence from c/ to g/ is repeated.

THE COMPARISON

Both sequences have exactly the same number of keystrokes and steps and therefore offer little choice by way of a method short cut between the two.

There are however two major advantages that PICASSO PUBLISHER has over TI-ARTIST plus. They are:

1. The ZOOM mode activation and cancellation performance time in PICASSO is instantaneous.

The zoom mode performance time for TI-ARTIST PLUS is ten seconds for activation and two seconds for cancellation. The manufacturers are aware of the delay, and in the documentation ask the user to be patient, but having to wait for a total twelve seconds turnaround between numerous pixel 'touch-up' operations is not very appealing.

2. In the ZOOM mode of PICASSO PUBLISHER, the status and location of pixels in the magnification area are clearly identified individually in a matrix grid.

The ZOOM mode of TI-ARTIST PLUS displays the presence or absence of pixels by areas of black or white. It is not an easy task to recognize individual turned on pixels not to mention those that are turned off. Not too many of us have sufficiently calibrated vision that allows recognition of discrete areas as pixel occurrence and non occurrence .

This ambiguity is particularly noticeable in the apparent different line widths of TI 99/4A screen display areas, that are assigned to linearly consecutive pixels arranged as vertical or horizontal lines.

The screen display problem mentioned in the previous paragraph is certainly a result of the 99/4A's limitations and TI-ARTIST PLUS copes with the problem as best as it can. Objectively the screen distortion situation must be related to the fact that the TI 99/4A was primarily designed for the NTSC system as used in the USA, not the PAL system used in AUSTRALIA. I have not seen a screen display produced by an NTSC system so I cannot make a further comment on the subject.

On the other hand PICASSO PUBLISHER's matrix grid approach very elegantly avoids the problem altogether.

A CRITICISM OF PICASSO PUBLISHER

In spite of my hopefully objective appraisal of PICASSO PUBLISHER as the better pixel editor, and that appraisal is based on very intensive use of both products since they were made available, not all is a source of joy with PICASSO. It is sadly lacking two very useful features available in TI-ARTIST PLUS, notwithstanding the difference in ZOOM mode performance.

The two missing features relate to cursor location management and are:

- 1/ Single step control of the cursor speed.
- 2/ Keyboard control of the cursor's movement.

The absence of the first feature is in part offset by the many increments of '-' and '+' inputs (65000 are

quoted in PICASSO's documentation) but all the same it is very easy to lock cursor mobility and then it becomes necessary to gingerly press the '+' key x number of times to restore movement. TI-ARTIST's approach of ten discrete speeds set by keystrokes '1' to '0' is definitely more comfortable.

I would advise that PICASSO's lowest speed be initially set up and used right throughout the PIXEL EDIT operation. This setting should be suitable for most operations and it will certainly provide the most accurate pixel location seeker in what is really not a 256 x 192 but part of a larger 480 x 336 pixel screen.

The absence of the second feature is definitely a design oversight. Whereas all but the directional arrow keys E and X are already assigned single key PICASSO function, all the arrow keys could have been utilized as in TI-ARTIST via their conjunctive use with the FCTN key.

The concept of the joystick facility used by PICASSO was quite sound and it effectively maximized the TI's input resources , but the accuracy of the TI joysticks appliance (not the actual joystick port circuitry or software) was only intended for games playing, where the element of luck and furtive manual twitching, is likely to mask the joystick's lack of positional certainty.

AN ALTERNATE PICASSO CONTROLLER

I was quite motivated for my GREETING CARDS presentation, and subsequent article publication in TISHUG's November 1990 newsletter, to find a better way of controlling the the cursor. I tried Larry Saunders's microswitch joystick but in spite of better control, it still took a lot of concentration to ensure that a vertical or horizontal line when drawn would not infuriatingly veer diagonally off the intended path.

Ultimately I decided to scrap the joystick control altogether. I replaced it with four directional pushbutton switches, a 'fire button' pushbutton switch, and a single pole double throw toggle switch wired across the 'fire button' switch to advance the cursor in a locked draw or erase mode.

I determined the joystick connections by disassembling a TI joystick and checking with an ohmmeter, the continuity of the exposed membrane switch elements back to the joystick cable's 9 pin D type female connector.

Simply put, my controller works extremely well.

Since 1990 I have built two of them, the latter one with a few specific features that allow extremely accurate pixel manipulation. The unit described above and in the accompanying circuit diagram is for the simpler configuration. PICASSO steered via my simple controller allows as effective a key activated control as TI-ARTIST PLUS.

If you plan to build the controller, keep in mind that the four directional and 'fire button' pushbutton switches are going to be subject to a lot of wear and tear. Unless you want a poor imitation of a TI joystick, do not buy the switches in blister multi packs from suburban budget outlets, quality certainly counts. The cost for the complete unit should not come to more than \$30.00.

The plastic box in which the six switches are mounted can be as small as can comfortably house the components yet allow ease of switch operation. The length of cable can be anything up to the odd metre length of the standard TI joystick cable, although 350mm should be sufficient.

A word of warning, avoid bad soldering techniques when connecting the switches and especially the terminals on the back of the 9 pin D type female connector, unless you enjoy coming to grief. Neither I, nor this newsletter article, nor TISHUG will be held responsible for adverse results to your system in the event of faulty construction practice.

A CONCLUDING THOUGHT

My simple controller is not presented as an inspired solution to what I consider a software oversight, but rather as a simple improvisation to enhance a very useful program. Without backtracking through endless TI documentation, I am sure that similar solutions have been considered and built, if not already published, by other users.

As a matter of fact this entire article, on an agreeably dated topic as it is, is presented in the interest of continued support to dedicated TI 99/4A users.

The contents of this article were presented by myself as a mini workshop at the May 1995 Sydney TISHUG meeting. I was encouraged by the feedback from the members in attendance to share the article with the readers of this newsletter.

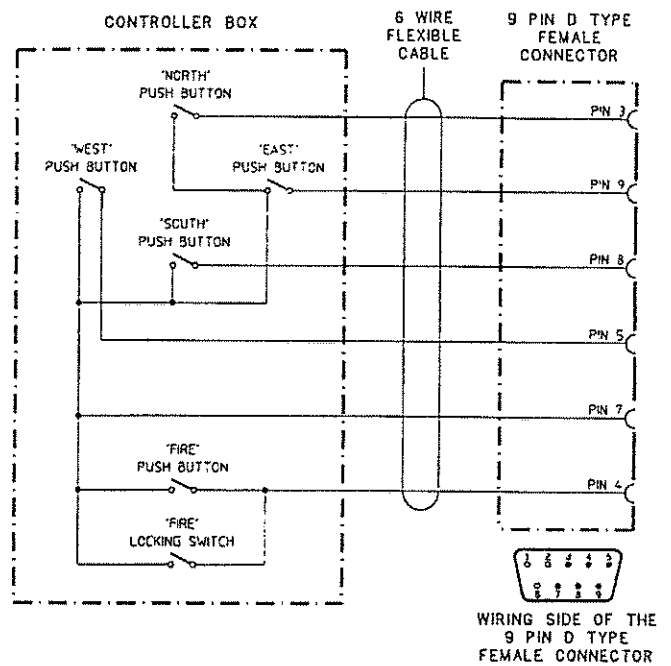
If members who were unable to attend the above meeting, because of the extremely inclement weather of the day, and would like to have the mini workshop

repeated, please let me know so a suitable future venue can be arranged.

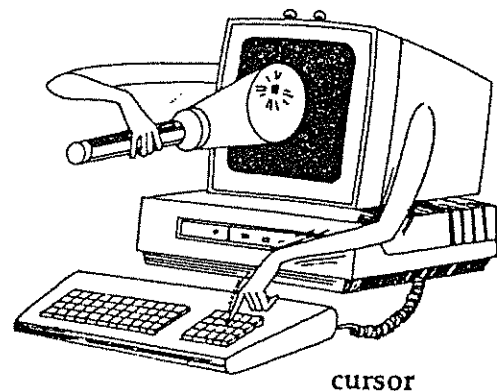
Best regards
Alf Ruggeri

AN ALTERNATE JOYSTICK, OR, A BETTER CONTROLLER FOR PICASSO PUBLISHER V2 PREPARED BY Alf Ruggeri

REFER TO THE ACCOMPANYING ARTICLE 'COMPARING PIXEL EDITORS. PICASSO PUBLISHER V2 AND TI-ARTIST PLUS' DESCRIBING THE CONTROLLER'S DERIVATION AND PURPOSE.



END OF ARTICLE



CURSOR

LEARN TO KNOW YOUR TI

LESSON 28

with Percy Harrison

TI calls its joysticks "Wired Remote Controllers". This lesson will introduce the function CALL JOYST. The statement CALL KEY is used to test if the "fire button" is being pressed.

Joysticks are commonly used in animated graphic games. In this lesson, the joystick will be used to move a dot around on the screen.

The JOYST(N,X,Y) statement has 3 arguments. The first indicates which stick is being interrogated. The second contains -4,0, or 4 depending whether the stick is left, centre or right. The third contains -4,0, or 4 depending on whether the stick is up, centre or down.

When drawing moving objects, you need to erase each old image before the next image is drawn. The erasing is best done just before the new dot, or image, is drawn, to minimise flicker on the screen.

BASIC is very slow for action games. Maximum speed can be obtained if the "working" part of the program is first, and the "initialisation" part is at the end, reached by a GOTO in line 1 or 2. This idea will be further developed in lesson 32 on User Friendly Programs.

The joystick is also used for picking selections in menus.

LESSON 28 JOYSTICKS FOR GAMES

Plug the joystick cable into the socket on the left side of your computer.

(Do NOT plug it into the socket on the back of the computer. That is where the tape recorder plugs in).

THE JOYSTICKS

There are two joysticks. Test them out with this program:

Run:

```
10 REM === JOYSTICKS ===
15 CALL CLEAR
30 PRINT "PUSH THE JOYSTICK AROUND"
38 REM CHECK THE STICKS
44 PRINT" X Y H V"
45 FOR I=1 TO 23
50 CALL JOYST(1,X,Y)
51 CALL JOYST(2,H,V)
60 PRINT X;Y;H;V
65 NEXT I
70 PRINT
99 GOTO 44
```

Use the FCTN CLEAR keys to end the program. Save to tape or disk.

THE CALL JOYST STATEMENT

Use the CALL JOYST(1,X,Y) statement to ask which way joystick 1 has been pushed.

Left, centre, or right puts -4, 0, or 4 into the X variable box.

Up, centre, or down puts 4, 0, or -4 into the Y variable box.

CALL JOYST(2,X,Y) does the same for stick 2.

Run:

```
10 REM MOVE A SPOT
12 CALL CLEAR
25 CALL CHAR(42,"FFFFFFFFFFFFFF")
27 CALL COLOR(2,7,1)
50 X=15
51 Y=12
59 REM ----- LOOK AT JOYSTICK
60 CALL JOYST(1,H,V)
61 DX=H/4
62 DY=V/4
63 REM ----- ERASE OLD SPOT
64 CALL HCHAR(Y,X,32)
67 X=X+DX
68 Y=Y-DY
79 REM ----- PUT SPOT ON SCREEN
80 CALL HCHAR(Y,X,42)
99 GOTO 60
```

Use the FCTN CLEAR keys to stop the program. Save to tape or disk.

In line 68, you need the negative sign because HCHAR measures Y down while the joystick measures Y up.

ERASE AND PUT

"Erase and put, erase and put ". Every time you put a dot, you have to erase it again before putting it somewhere else. Otherwise, you will get more and more dots. (To see this happen, remove line 64).

Line 64 erases the old dot.

Line 80 puts a new dot on the screen.

THE FIRE BUTTON ON THE JOYSTICK

Use CALL KEY() to see if the fire button is down.

Add the following lines to the last program:

```
70 CALL COLOR(2,7,1)
85 CALL KEY(1,K,S)
86 IF S=0 THEN 99
89 CALL COLOR(2,8,1)
```

This CALL KEY statement is just like the one in Lesson 23. The status variable S is zero when you are pushing the fire button.

Assignment 28

1. Add a coloured border to the MOVE A DOT program.
2. Make the dot stop when it reaches the border.
3. Change the program above so that the dot disappears when the fire button is pushed.

ANSWERS TO LESSON 27

Assignment Question 27-1


```
10 REM BACKWARD ADDED TO FORWARD
15 CALL CLEAR
20 PRINT "GIVE ME A NUMBER"
21 INPUT N
22 N$=STR$(N)
35 L=LEN(N$)
40 FOR I=1 TO L
41 B=L-I+1
45 B$=B$ & SEG$(N$,B,1)
50 NEXT I
55 B=VAL(B$)
57 PRINT
60 PRINT " ";N
61 PRINT "+";B
62 L$="-----"
```

```
65 PRINT " "; SEG$(L$,1,L+2)
70 A=N+B
72 A$=STR$(A)
75 IF LEN(A$)<>L THEN 80
76 PRINT " ";A
77 END
80 PRINT A
```

Assignment Question 27-2

```
10 REM MARCHING NUMBERS
15 CALL CLEAR
20 PRINT "GIVE ME A NUMBER"
21 PRINT
22 INPUT N
23 CALL CLEAR
25 N$=STR$(N)
26 L=LEN(N$)
40 FOR I=1 TO 32-L
43 B$=SEG$(N$,2,L)
44 B$=B$ & SEG$(N$,1,1)
45 N$=B$
50 C$=SEG$(N$,L,1)
52 C=ASC(C$)
56 IF I<L+1 THEN 60
58 CALL HCHAR(12,I-L,32)
60 CALL HCHAR(12,I,C)
65 FOR T=1 TO 100
66 NEXT T
70 NEXT I
```

Bye for now.

END OF ARTICLE 

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5 RE-INKED RIBBONS
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FROM THE BBS

MAIL TO : ALL

MAIL FROM : ADVANCED

SENT ON Monday 24/04/95 at 18:54:59

At the recent PC-95 I bought an Avtek MEG-MODEM for only \$99 instead of the usual \$199. Well, it has an Austel number on it, so there is less risk of the FEDS at the door when I shove the jack in, now for WHY it was half price, it has taken weeks to find software that would work with it at all, so I have some shareware that more or less works, and can write a long article for TND about what bugs it has, plus how to put those extra commands you have to learn to make HAYES-COMPATIBLE AUTOMATIC MODEMS work at all. The magic button, one of them, is ATF which undoes the effects of ever typing anything at all when the MODEM is not logged on. It interprets all your practice typing as commands, and maybe Ross could work out what it makes of them all, but the way to lose the inadvertently created program to go to ten million baud and convert ASCII to the written codes employed by Martians is to enter ATF. Then, for safety, all dialling protocols have to include the message, P. This means you have to send ATDP####. where ####. is the number you mean to dial. Anyway, I am sending before something else happens to the system, and in case I never again find out what I did right to make this thing work in the first place. Those of you used to my long boring E-mail will sigh, No!!! Not again!!! Those used to my talents and occasionally welcome suggestions will find some more entries in the TND that make for pleasant and useful reading. Incidentally, I come at reasonable rates to resolve some if not all the beasts that attack the user of DOS, including the matter of choosing the screen colours which Microsoft appear to have avoided documenting, although this issue is not important to those who have mastered the WINDOWS operating environment, but those trying to create their own boot disks and accessories in the DOS environment, still the quickest way to go for the power user, will find some of my skills of avail. Needless to say I can type at a fair clip, certainly above the line refresh rate on this screen. Well, have a nice ANZAC DAY tomorrow!

MAIL FROM THE BBS

MAIL TO : ALL

MAIL FROM : BITBITE2

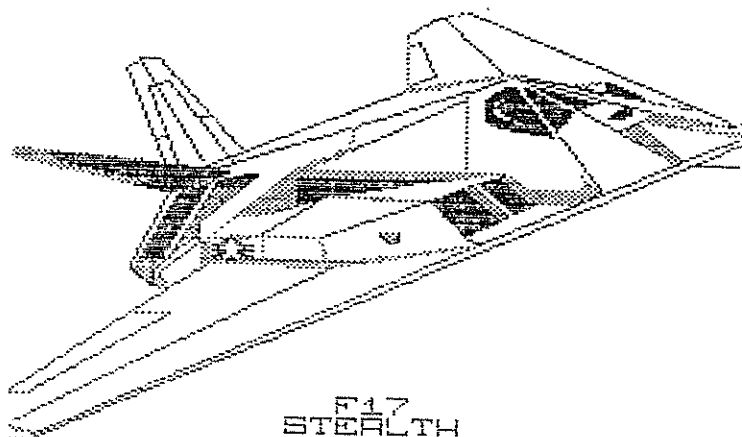
SENT ON Tuesday 06/06/95 at 19:42:00

Updated LIVERPOOL file

Updated BitsBites2 with JULY Software File.

I should have the new version of FunnelWeb Farn ready for the August meeting.

15:32:58 12/06/95; End by 16:29:06



ON ERROR

ON ERROR from SUB ROUTINE or SUB PROGRAM

by Ross Mudie

Derived from a member's question.

How do you make ON ERROR work from a SUB-ROUTINE when an error is detected?

Answer...

You should set up error handling within the subroutine or subprogram so that your program always returns via the RETURN or SUBEND statement.

If you exit from SUBROUTINES without using the RETURN you build up return addresses on the return stack until the VDP RAM runs out of free space crash for that reason.

With SUB PROGRAMS, the next time you call the subprogram from which you exited with ON ERROR the program will terminate in a RECURSIVE SUBPROGRAM CALL error.

Basically you need to handle errors fully in the subroutine or subprogram by setting the appropriate ON ERROR as entry is made to the routine and reset the error handling as you leave the routine with ON ERROR STOP.

If you are having problems with BASIC, Extended Basic or assembly, including especially, linking from either basic to assembly then pose your problem in mail to SYSOP. I will do my best to provide answers to the problems or post it on the BBS for others to have a go at. Answers to problems will be placed on the BBS and possibly published in the TND magazine.

TIPS

Here are some interesting tips from THE PHOENIX TIBBS
(713) 537-0741

Want to see how accurate your TI is? Try this routine:

```
100 N=1.0000001
110 FOR C=1 TO 27
120 W=N 2
130 N=M
140 NEXT C
150 PRINT "ANSWER= ";N
160 PRINT ((674530.470741-N)/N)0;
    "% ERROR"
170 END
```

Tired of that cyan color screen while programing? Try this Extended Basic routine.

```
FOR I=0 TO 9 :: CALL COLOR(I,16,1)
:: NEXT I :: CALL SCREEN(14) ::
ACCEPT AT(1,1):A
```

Press ENTER. Press FCTN 4 (CLEAR).

VOILA!

The foreground color can be changed by changing the CALL COLOR number and the number in CALL SCREEN.

Tired of using the same old CALL CLEAR command to clear the screen? Try this command instead.

```
10 CALL HCHAR(1,1,32,768)
It will clear the screen by sweeping from top to botton.
```

Now try this:

```
10 CALL VCHAR(1,1,32,768)
This one clears the screen by sweeping from left to right.
```

Want a sharper display with your black white TV? Add this line at the start of your program:

```
CALL SCREEN(15)
```

This will disable the color generating circuit in the computer and remove the vertical lines often seen on BW

TV's. It also increases the sharpness of the characters.

Tired of accidentally hitting the FCTN QUIT when aiming for the SHIFT + keys. If you have 32k Extended Basic, disable the QUIT key by entering this routine upon entering Extended Basic:

```
CALL INIT :: CALL LOAD(-31806,16)
```

If you accidently enter OLD CSI when you mean to enter SAVE CSI, don't panic... All is not lost. Type SHIFT E and hit ENTER. You'll get an I/O error but don't worry. The program will still be in memory and you'll get a second chance at saving it.

END OF ARTICLE

MISC/DOCS

IN/VISIBLE is a program that will allow you to make certain files to be "invisible" (i.e., not listed when you do a disk directory) and then visible again when you want to work with them.

As written, the switchable files are those whose first "letter" has an ASCII code of more than 90. Thus you can "hide" such files as [SECRET], _BLACKBOOK, and newprogram (in lower case), whereas \$OPENBOOKS, ABOVEBOARD, and !BOLD! would remain unhidden.

Caution: do not do any file manipulation unless you have first made all files visible. There is no danger of over-writing hidden files (the bit map protects against that), but you can perhaps mess up your file directory.

For this and some other programs on this disk, you must first run XXB or the LOAD program on this side to load in the a/l routines required.

With minor modifications, LOAD could be used as an alternate XXB program. Likewise you may wish to make some changes in READ/4080.

MULTIPLAN

Multiplan Madness
By Tom Arnold

Note that READ/4080 is dependent upon a/l subroutines loaded in with the LOAD program. Using Todd Kaplan's improved ALSAVE utility, you can as an alternative add Peter Hoddie's ARRAY program to READ/4080, although it may be easier just to run the LOAD program first.

ALSAVE is a perfected version of the valuable XBALT published earlier by TRAVELER. We are greatly indebted to Todd Kaplan (author of Disk Master, distributed by DataBiotics) for this utility, which made it possible for for XXB to take up 22 sectors instead of 70 and to load in one-tenth the time.

PICKACARD is a magic trick that will impress neither those who know a lot about computers (who will know right away how it's done) nor those who know nothing about computers (who therefore believe that a computer can do anything), but it's good for the people in between.

BASECONV is an improved version of a number conversion program, with a feature added that I found necessary when working with disk data (e.g., the information on file headers): you can now set the length of the resultant string (something required if you will be joining such hexadecimal strings together, for instance). It is in MERGE format to make it easy to add to Extended BASIC programs.

Incidentally, thank you for your patience in awaiting this issue, which experienced many delays (the latest of which was partly due to my being on crutches for several weeks due to some badly torn ligaments). I hope that it was worth the wait!

Your friend,

Barry

END OF ARTICLE 

Yes I remember that I was going to talk to you about formulas in Multiplan, specially the IF-THEN statement. However time constraints and the fact that I'm not all too clear about them yet has lead me to delay this topic till later. I want to talk to you about using spread sheets in particular Multiplan as Text Editors. Why would I want to use Multiplan as a word processor? Simply because in certain applications it can be very useful. I actually use a spread sheet at work quite often and I never work with numbers! It is very useful in keeping lists of things, in particular lists that you might want to up date from time to time. I assume that you would want to sort these lists. How about a telephone list, an address list of your club members, a list of topics on the TI, an index to a book, any index for that matter. For these applications Multiplan is a very powerful tool. Let me explain.

At work I have to write job practices, generally I type them out. All these practices need indexes. I used to write every topic out by hand, then number each letter in alphabetical order. For example under "P", prince comes before punk and punk before pyke. Then I would write out all the topics in order for the typist to retype. This took a long time, especially if there were many items.

Along comes the computer and I innediately found an easier way. I type out two columns, the topic in column #1 and the page # in column #2. These are entered in the order that I come across them in the book. After I am done I "sort" the first column and I have an instant index. Very simple and the typist does not need to retype it either!

How do you do this in Multiplan? First, do not type Titles or any other text you would want on the printed page, enter this later. Assuming we are entering an index. Type in the names (topics) in column #1. After each entry move the arrow keys right and then enter the number or other references you want. Repeat this until all entries are done. Now sort the spread sheet by selecting SORT. First you will be prompted the column you wish to sort by, in our case enter (1). Control A will move you to the second field where the ROW selection will be prompted. The default is between rows #1 and #255. This will be your normal selection. However you can use this to sort partial lists. This could be useful if you want to sort part, by one column and the other part by another column. Which brings us

**PHONE THE
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NOW**

TISHUG SOFTWARE FILE
JULY 1995

By Larry Saunders

Diskname U125
Used= 176 Free= 182

Picasso Enlager

FONT/ART_F	15*d 80	FONT/PE	5*d 80
GRFLD_I	11*d 80	LOAD	60*i254
PICTURE/PE	85*d 80		

Diskname U126
Used= 303 Free= 55

Picasso Utilities

BIGFONT	32 Prog	CAMRAREDY	39 Prog
CAT	6 d 80	CHARS/O	7 D 80
DISKPRINT	5 Prog	FBOLD/CH	6 i254
FGOTHIC/CH	13 i254	FNINETY/CH	27 i254
FONT-1	5 d 80	FONT-2	5 d 80
FONT-3	5 d 80	FONT-4	5 d 80
FONT-5	5 d 80	FONT-6	5 d 80
FONT-7	1 d 80	FONT-BIG-1	5 d 80
FONTIN	2 d163	FONTOUT	2 d163
FRODEO/CH	6 i254	GCLOCK/GR	2 i254
GCOMP/GR	2 i254	GFLOWER/GR	2 i254
GMUSIC/GR	2 i254	GOAK/GR	2 i254
GROSE2/GR	2 i254	GSWAN/GR	2 i254
IC-SHADE	2 d 80	LOAD	4 Prog
HACDMP/O	9 D 80	PICPAT/O	5 D 80
READ/O	3 D 80	SAMPLE	85 d 80

Diskname P127
Used= 350 Free= 8

Page Pro Boarders

Page Pro Boarders are Pictures. If you use for e.g. 01C, that is the bottom right hand corner, 01W is the top right hand corner, etc.

01C	18 I 13	01D	15 I 13
01E	10 I 13	01R	21 I 13
01S	15 I 13	01W	21 I 13
01X	10 I 13	01Z	18 I 13
02C	20 I 13	02D	11 I 13
02E	8 I 13	02R	20 I 13
02S	11 I 13	02W	20 I 13
02X	8 I 13	02Z	20 I 13
03C	20 I 13	03E	7 I 13
03R	20 I 13	03SD	10 I 13
03W	20 I 13	03X	7 I 13
03Z	20 I 13		

Diskname P128
Used= 305 Free= 53

More Page Pro Boarders

04C	20 I 13	04D	6 I 13
04E	4 I 13	04R	20 I 13
04S	6 I 13	04W	20 I 13
04X	4 I 13	04Z	20 I 13
05C	20 I 13	05E	7 I 13
05R	20 I 13	05SD	10 I 13
05W	20 I 13	05X	7 I 13
05Z	20 I 13	06C	20 I 13
06EX	9 I 13	06R	20 I 13
06SD	12 I 13	06W	20 I 13
06Z	20 I 13		

END OF ARTICLE

GRAPHICAL GIRDER

By Damon Pillinger

Here is a great demonstration program, uses randomly produced lines (conning from both the right and left) to produce an ever evolving design. So type it in and give it a try.

```

10 ! GRAPHIC GIRDER
20 ! *** BY DAMON ***
30 ! *** PILLINGER ***
40 CALL SCREEN(2)
50 CALL CLEAR
60 FOR T=2 TO 12
70 CALL CHAR(40+(T-2)*8,"")
80 CALL COLOR(T,T+2,T+2)
90 NEXT T
100 A=3+INT(RND*(28))
110 B=3+INT(RND*(18))
120 CALL VCHAR(1,A,40+INT(((RND)*8)),B)
130 CALL HCHAR(B,31-A,40+INT(((RND)*8)),A)
140 A=INT(RND)+3
150 B=INT(RND)+3
160 CALL VCHAR(22-B,A,40+INT(((RND)*8)),B)
170 CALL HCHAR(B,3,40+INT(((RND)*8)),A)
180 IF INT(RND)<>17 THEN
210
190 CALL CLEAR
200 CALL SCREEN(RND+1)
210 GOTO 100

```

to the last prompt (via Control A). You are given the choice of ascending order (<) or decending order (>).

I suggest you try this little experiment. List 5 names in column 1, list the numbers 5 to 1 in column 2, list the letters c,f,d,s,f in column 3, and then the numbers 1,34,76,45 in column 4. Now sort using a different column each time. See how the rows follow each other and the order changes. You may also sort using different columns, for example you could sort a long list by column #1 and then the top 20 entries could be sorted by column #2 to achieve a different order.

As for uses, how about starting by making a combination of phone list and address list. Then sort by name, phone numbers, addresses, printing out a new list each time. These would then be handy references. For example, you could isolate all your friends who live in Australia whose names begin with "P" and whose phone numbers are in area code "2456". I would think that you would find 10 or 20 anyway! Just kidding!!!

One more point about using Multiplan to make columns of items. You won't accidentally format them into one jumbled mass! I forgot to mention that all titles etc. should be added after all your sorting is done. Hope this had been helpful.

Courtesy of TI Focus Hamilton Users Group (Ontario Canada) June 1988.

Retyped for TEXPAC BBS by John Ryan of TISHUG.

END OF ARTICLE

ODD ENDS

TI6310, The bit map and sector copy functions of DM1000 work like this: BIT MAP- Only the sectors mapped in the disk directory as being used are copied. This means that fractured files will be un-fractured (if possible) on the copy disk and only those sectors are copied. This is best as it doesn't copy unused (blank) sectors so it's a little quicker.

SECTOR- This allows you to "CLONE"

a disk (some software companies use re-numbered sectors as protection or purposely fracture files) or part of a disk (blown directory) and if the defaults are used, will make an exact duplicate of the disk. If you are not fairly familiar with how the disk is set up, USE THE DE-FAULTS!!!! If you don't, you could get only part of your programs copied as it doesn't use the sector map. (For double density an extended bit map is used, they're not all in sector 0-20 if you have a lot of files on the disk.

You should, if possible, perform what is called "optimizing" on file disks that you use frequently or delete programs/ add programs to as the files become fractured (part here, part there, ect..) and this can cause added loading times, worn drives and even (worst case) the dreaded data loss. You can tell this is happening if you hear the drive head "seesawing" back and forth when you load your program/file.

Hope this helps you out, and I hope you get this as I'm still new at this.

TI9813

Mad Mel

I forgot to add that "optimizing" is performed by using the file copy (option 1 of DM1000 onto a clean disk, use the Sweep Disk option on the original disk (NOT THE COPY DISK!!!!), and then copy the files from the copy disk onto the original disk and presto! No fractured files!

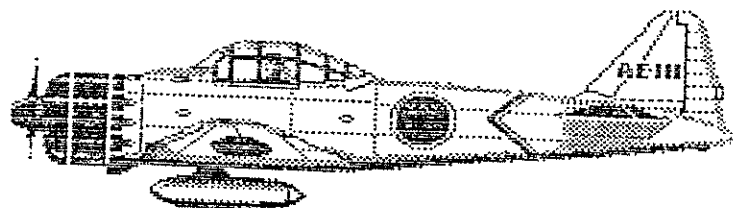
This sounds like a lot of work, but it's all part of file maintenance. The guys (or gals as the case may be) who work for the Source do this regularly as does anyone who has a hard disk or drum system.

Another small tip that I haven't seen suggested is that you make up a set of disks with your favorite programs on

them and PUT THEM AWAY! The only time they should be pulled out is to make another copy. This is called the MASTER ; disk system. If you do this and a disk goes bad or is damaged all is not lost. Just copy the the Master to get another "working" copy and you're back up and running.

Lots of luck!

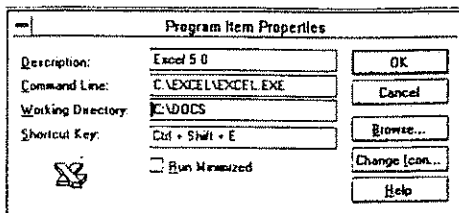
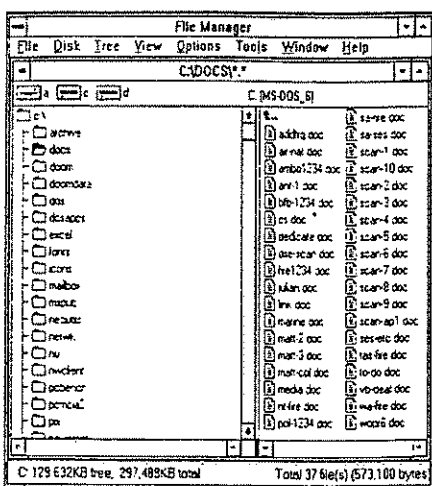
Mad Mel Sanouri Computer Tech.



BY DAVID FLYNN

Managing files and directories

There are thousands of reasons to get to know your hard disk.



One of the most important yet least understood parts of your PC is the hard drive. They're also known as a hard disk — the name comes from the early days when floppy disks were, well, floppy, and in-built fixed disks were not. The other crucial differences between internally mounted drives and pocket-sized floppy diskettes are differences of speed and capacity.

It can take close to a second to recall data from a floppy disk to your PC, compared with 14ms for the average hard drive. Hard drives also hold much more data than floppies. The average 3.5in floppy disk can store 1.4Mb — 1,400,000 bytes, the equivalent of perhaps three paperback novels' worth of text — but barely enough room for programs, which is where a

Strategies. You can also create and use directories to keep your own files well-ordered. I keep all my documents — wordprocessing, spreadsheets and database files — in a single c:\docs directory. It's easy to copy the whole lot onto a single floppy disk for a fast backup, and most programs let you choose a 'working directory' so they will always look to this one location for documents. You can also use the File, Properties dialog box in Windows' Program Manager to set this for each application.

Other users like to create an ordered hierarchy of directories based upon their work, just as they'd use drawers, dividers and folders within a filing cabinet — perhaps a master directory of c:\work, containing c:\work\reports, c:\work\letters and so on. You could also create 'nested' directories for each client or project, although this can quickly become cumbersome to navigate in either DOS or Windows, and you can easily misplace files into the wrong directory.

Many Windows users maintain special directories for sound files (c:\sound), icons (c:\icons) and even fonts (c:\fonts). Users of bulletin boards keep c:\upload and c:\download directories (I favour a single c:\mailbox) for files being transferred to and from online services. I keep all clipart and graphics files in a single c:\pix directory. You can temporarily place files due to be stored into a c:\archive directory, and use c:\utility for batch files and handy utility programs.

Paths. So that DOS (and Windows) can always find important files, there is a special entry in your autoexec.bat file entitled *path*. This points DOS towards selected directories where it can check to find the necessary executable files to run programs. A typical statement might be *path c;:\dos;c:\utility;c:\windows*. The path can't be more than 128 characters, and because DOS will work it's way through each directory in the path looking for files to run, you'd only slow down your system by placing too many extra directories on the path. Keep it limited to directories containing files you are always running from the DOS prompt, and learn to use batch files to do the rest.

This isn't as vital for Windows programs as it is for DOS, but if you place a directory in the path statement then you'll always be able to run any program in that directory from any other directory. For example, with c:\word in my path statement, I can run Microsoft Word 6.0 for DOS by typing *word* at the c: prompt, without first having to change to the c:\word directory.

Care and feeding. Once you've got your hard drive in order, and all the files where you want them, it's important things stay that way. Get to know the various MS-DOS 6.2 tools to keep your hard drive performing at its best — ScanDisk, Defrag and of course Backup. Regular, preventive maintenance is the key. □

A good directory structure makes sense. Use Program Manager's File Properties feature to keep all your work in one place

few hundred megabytes of hard drive comes in handy.

Speed and size, that's why hard drives are the basis of the modern PC's storage system; they're the reason that we use them to hold operating systems and environments (such as DOS and Windows), programs and data. These add to thousands of files, and each one is a good reason for learning a little more about managing your hard drive.

The directory tree. To keep your hard drive from becoming cluttered with all these files. DOS sets up a simple structure called a tree, which helps keeps your PC organised, much as a good filing system keeps your office tidy. The starting point of this is called the root directory, represented at the DOS prompt or in the Windows File Manager as c:\. This is home to DOS start-up files such as autoexec.bat, config.sys and command.com, and it's a matter of good house-keeping that the root directory should always be kept as free from non-essential files as possible.

Stemming from this one root are dozens of other directories, which are branches in the directory tree. Each directory contains files with a common purpose — the c:\dos directory, for instance, contains all the files needed for your current version of MS-DOS. Directories can also have sub-directories, so there's both c:\windows and c:\windows\system, both of which are created when you install Windows, and both holding Windows files of a particular type. Like DOS and Windows, all programs let you install their files into a designated directory.



The IBM SHOP

with Cyril Bohlsen

This is the first shop article devoted solely to IBM material sales. I will try and list some of the articles that we can purchase.

The first item for any body looking for a cheap computer is a

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- 1MB VESA VGA card,
- ENH. IDE/IO card,
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NOTE : All prices listed are at time of printing, and may change at any time.

For current pricing please contact Cyril Bohlsen at the general meetings or Phone (02) 639 5847

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	KTX-VGAMM	KTX-CAD248	KTX CAD451 - FULL SCREEN	KTX-VGAM15
C.R.T	14" DIAGONAL	14" DIAGONAL	14" DIAGONAL	15" DIAGONAL
BANDWIDTH	45 MHz	50MHz	50MHz	65MHz
SCAN FREQUENCY	HORI:30-38 Mhz VERT:50-90 Mhz (CONTINUOUS)	HORI:30-48 Mhz VERT:50-90 Mhz (CONTINUOUS)	HORI:30-48 Mhz VERT:50-90 Mhz (CONTINUOUS)	HORI:30-64 Mhz VERT:50-120 Mhz (CONTINUOUS)
DISPLAY AREA	244mm * 183mm	244mm * 183mm	244mm * 183mm	260mm * 196mm
RESOLUTION	1024 * 768 INT	1024 * 768 NON-INT	1024 * 768 NON-INT	1280 * 1024 NON-INT
DOT PITCH	0.31mm	0.28mm	0.28mm	0.28mm
MPR-II LOW RADIATION	NO	NO	NO	NO
FEATURES/ CONTROLS	POWER ON/OFF VERT/HORI SHIFT VERT SIZE BRIGHTNESS CONTRAST	POWER ON/OFF VERT/HORI SHIFT VERT SIZE BRIGHTNESS CONTRAST PIN CUSHION CONTROL EPA POWER SAVING	POWER ON/OFF VERT/HORI SHIFT VERT/HORI SIZE BRIGHTNESS CONTRAST PIN CUSHION CONTROL EPA POWER SAVING	POWER ON/OFF VERT/HORI SHIFT VERT/HORI SIZE BRIGHTNESS CONTRAST ROTATION/TILT EPA POWER SAVING
POWER SOURCE	UNIVERSAL SWITCHING REGULATOR AC 90-265V, 50-60 Hz	AUTO-SWITCHING REGULATOR AC 100-265V, 50-60 Hz	AUTO-SWITCHING REGULATOR AC 100-265V, 50-60 Hz	AUTO-SWITCHING REGULATOR AC 90-265V, 50/60Hz
POWER	MAX.80W	MAX.90W	MAX.90W	MAX.120W
WEIGHT	11.6kg	11.5kg	11.5kg	14kg

\$ 300

\$ 350

\$ 350

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	KTX-VGAM15G	KTX-VGAM17G	KTX-VGAM17GH
C.R.T	15" DIAGONAL DIGITAL	17" DIAGONAL DIGITAL	17" DIAGONAL DIGITAL
BANDWIDTH	80MHz	100MHz	80MHz
SCAN FREQUENCY	HORI:30-64 Mhz VERT:50-90 Mhz (CONTINUOUS)	HORI:30-64 Mhz VERT:50-90 Mhz (CONTINUOUS)	HORI:30-64 Mhz VERT:50-120 Mhz (CONTINUOUS)
DISPLAY AREA	260mm * 196mm	320mm * 250mm	320mm * 250mm
RESOLUTION	1280 * 1024 NON-INT	1280 * 1024 NON-INT	1600 * 1280 NON-INT
DOT PITCH	0.28mm	0.28mm	0.26mm
MPR-II LOW RADIATION	YES	YES	YES
FEATURES/ CONTROLS	POWER ON/OFF VERT/HORI SHIFT VERT/HORI SIZE BRIGHTNESS CONTRAST PINCUSHION CONTROL RECALL PRESET MODES DIGITAL CONTROLS EPA POWER SAVING	POWER ON/OFF VERT/HORI SHIFT VERT/HORI SIZE BRIGHTNESS CONTRAST PINCUSHION CONTROL TRAPEZOID & PARALLELOGRAM ROTATION FULL RGB ADJUSTMENT MANUAL DEGAUSE RECALL PRESET MODES ON SCREEN DISPLAY EPA POWER SAVING	POWER ON/OFF VERT/HORI SHIFT VERT/HORI SIZE MANUAL DEGAUSS BRIGHTNESS CONTRAST PINCUSHION CONTROL RECALL PRESET MODES DIGITAL CONTROLS EPA POWER SAVING
POWER SOURCE	AUTO-SWITCHING REGULATOR AC 110-240V, 50/60Hz	AUTO-SWITCHING REGULATOR AC 90-256V, 50/60Hz	AUTO-SWITCHING REGULATOR AC 90-256V, 50/60Hz
POWER	MAX:70W STANDBY:20W OFF:3W	MAX:70W STANDBY:20W OFF:3W	MAX:70W STANDBY:20W OFF:3W
WEIGHT	14kg	16kg	16kg

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\$990

\$1150

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NO MORE VIRUSES

by Percy Harrison.

During the past month I have been involved in cleaning viruses out of two PC Systems and know of a third system that has suffered the same fate. All three systems were completely saturated with a virus that attacked EXE, COM and OVL programs and had worked its way through nearly every program on each system. Where did these viruses come from? All three were transferred from disks brought home from the school attended by the children of each owner. Whilst all three systems were able to be restored, the two that I worked on took some considerable time and when the work on the systems was completed I then set about to eradicate the virus from about 50 disks which had been infected because the owner had transferred information to the disks from the infected system.

Having spent so much time in restoring both systems and disks, I decided to have a look at the various programs that are available to detect and destroy viruses before they can cause any infection in a system. My first observation revealed that a large percentage of people who use a virus program have 'pirated' the program from one or other of their friends and installed it on their own system. Besides being illegal, this method of obtaining virus protection poses another serious problem and that is that most anti-virus programs will only detect the viruses that are known at the time of producing the program and, to be 100 percent effective, must be upgraded at frequent intervals to be able to detect the new viruses being developed by PC vandals.

My second observation revealed that most users of pirated anti-virus programs hardly ever bothered to update their program thus leaving their system open to the access of the newer types of viruses being developed. This prompted me to look for a program that would not require updating in order to be able to handle those viruses which would be developed after the anti-virus program was purchased.

My search ended with the discovery of a program called InVircible which was developed by the Israeli Armed Forces and is now available from your club. The program is completely user-friendly and non-intrusive on day-to-day operations. Unlike many other anti-viral offerings, InVircible is not memory-resident so you will not experience any interference with the critical functioning of your computer. The manufacturers of this product have a standing invitation to any other anti-viral program in the world to go toe-to-toe in a

viral shootout and will guarantee complete protection against any currently known virus and any future viruses without the need to update the program.

Following is a list of the advantages of InVircible:

- * It utilises totally generic detection and restoration techniques that will, by design, restore all files accurately and completely.
- * InVircible doesn't require costly updates.
- * It is not memory resident and therefore does not interfere with any system.
- * It is extremely fast, professional and easy to operate.
- * It has proven 100% effective in the field for the last four years.
- * It does not give false alarms and the resulting loss in production time.
- * It is financially accessible.

I have tried this program and found it to do everything that the manufacturers claim. It is extremely easy to install and can be set up to run daily or weekly.


The program comes with a comprehensive instruction manual and, as indicated earlier, is now available through your club shop at a very special price.

InVircible Anti-virus Program.....\$110.00

(26% off normal price)

Come on all you PC users, protect your system against all viruses by purchasing InVircible, the only anti-virus program that needs no updating, and help support your club.

Please note: This program is not suitable for running on the TI 99/4A computer.

 **END OF ARTICLE**

REGIONAL GROUP REPORTS

Meeting Summary For JULY

Central Coast	08/07/95	Saratoga
Glebe	06/07/95	Glebe
Hunter Valley	09/07	16/07/95
Illawarra	04/07/95	Keiraville
Liverpool	07/07/95	Yagoona West
Sutherland	21/07/95	Jannali

CENTRAL COAST Regional Group

Regular meetings are normally held on the second Saturday of each month, 6.30pm at the home of John Goulton, 34 Mimosa Ave., Saratoga, (043) 69 3990. Contact Russell Welham (043)92 4000.

GLEBE Regional Group

Regular meetings are normally on the Thursday evening following the first Saturday of the month, at 8pm at 43 Boyce Street, Glebe. Contact Mike Slattery, (02) 692 8162.

HUNTER VALLEY Regional Group

The Meetings are usually held on the second or third Sunday of each month at members homes starting at 3pm. Check the location with Geoff Phillips by leaving a message on (049) 428 617. Please note that the previous phone number (049) 428 176 is now used exclusively by the ZAP BBS which also has TI support. Geoff.

ILLAWARRA Regional Group

Regular meetings are normally held on the first Tuesday of each month after the TISHUG Sydney meeting at 7.30pm, at the home of Geoff Trott, 20 Robsons Road, Keiraville. A variety of investigations take place at our meetings, including Word Processing, Spreadsheets and hardware repairs. Contact Geoff Trott on (042) 29 6629 for more information.

* LIVERPOOL Regional Group *

Regular meeting date is the Friday following the TISHUG Sydney meeting at 7.30 pm. Contact Larry Saunders (02) 644-7377 (hone). After 10.30 PM or at work (02)602 3312 Liquorland Liverpool West for more information.

*** ALL WELCOME ***

7th JULY 1995

My Place : 34 Colechin st. Yagoona West

12th AUGUST 1995 : MY PLACE

9th SEPTEMBER 1995 : MY PLACE

13th OCTOBER 1995 : MY PLACE

Bye for now Larry.

Liverpool Regional Co-Ordinator

SUTHERLAND Regional Group

Regular meetings are held on the third Friday of each month at the home of Peter Young, 51 Jannali Avenue, Jannali at 7.30pm. Peter Young.

TISHUG in Sydney

Monthly meetings start promptly at 2pm on the first Saturday of the month. They are held at the MEADOWBANK PRIMARY SCHOOL, on the corner of Thistle Street and Belmore Street, Meadowbank. Cars can enter from Gale Street and park in the school grounds. Regular items include news from the directors, the publications library, the shop, and demonstrations of monthly software.

JULY MEETING - 1st JULY

AUGUST MEETING - 5th AUGUST

The cut-off dates for submitting articles to the Editor for the TND via the BBS or otherwise are:

AUGUST - 15th JULY

These dates are all Saturdays and there is no guarantee that they will make the magazine unless they are uploaded by 6:00 pm, at the latest. Longer articles should be to hand well before the above dates to ensure there is time to edit them.

