TIUP TIt BITS
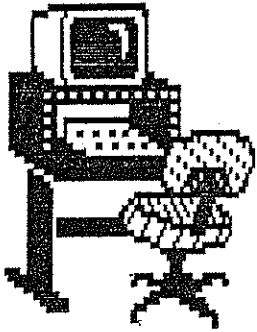## Volume 13 No. 2
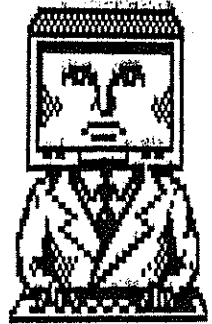## AUGUST 1994

Cover dedicated to
TIsHUG'S Alf RUGGERI for
his assistance and his
encouragement !

WE ARE 12 YEARS OLD !

FROM THE EDITOR
FROM THE EDITOR
FROM THE EDITOR

I am glad to say that I am almost running on time with this edition of TIUP TIt BITS. By that I mean that although the rush to put the newsletter together in time for this coming Saturday's meeting has not diminished, the issue should be out on time

I have been fairly busy of late, but have made a few 'quality of life' decisions that I should have made some time ago. This means that I actually leave my desk at lunch times and take a walk around the park, leave the office at a reasonable hour and actually take some of the time off that I accrue by working all manner of long and odd hours

This has allowed me to get up to date with some of my long - neglected tasks and also do some TI'ing

Somewhere in this issue is an article outlining the problems I had getting to talk with Alf Ruggeri from TIsHUG in Sydney. One of the results of Alf making contact (apart from me making a new friend) was that he sent me a disk of utilities that has made my grappling with graphics a less onerous task. The cover of this issue is the result of my work - a first effort that I am reasonably happy with, despite the fact that it does not match some of the work Alf puts out

I should also be able to reproduce some more graphics that have been scanned in to an IBM PC - compatible and 'ported' across to the TI. The results are quite good, but require some mega$ equipment that is beyond my reach ... but at least Iphave access to it at times

News from the TI front is a little short this issue, but I can only suggest that all members check out the newsletter library - you will find out all manner of interesting goodies

Geoff WARNER

THE SAGA OF A

RAM DISK MEMORY POWER SUPPLY

BATTERY.

Just before last Christmas, when using my TI System and F/Web
to write up some urgently needed reports, I began to have
problems with the Ram Disk. The symptoms being:
An increasing number of lock ups.
Loss of Menu.
Failure to complete a command.

In the past I usually attributed these problems to:
Power surges.
Poor connection of the P.E. Box plug/socket arrangement.
Last but not least `Murphy's Law'.

Eventually, I investigated the fault more fully and noticed
that the Ram Disk Memory power supply battery voltages were
slightly down from the nominated 1.2/1.25V per cell and was
not consistent across all three,especially, if the system had
not been used for several days.

Having no spare NiCad's, available at the time, I decided as
a temporary measure, to substitute some new spare leak proof
DURACELL AA Alkaline batteries.   This immediately improved
the performance of the Ram Disk, as all the fault symptoms
had vanished, allowing me to complete my reports and giving
me the impression that this time I had beaten `Murphy'.

Christmas came and went, with the computer getting no further
attention until the end of January, but when I switched it on
the `old troubles' were back again. After removing the Ram
Card from the P.E. Box, I was appalled to find that the leak
proof batteries had disgorged their contents over the memory
chips, sockets, associated components and P.C.Board. Believe
me, it was quite a mess!

I removed and discarded the batteries, the chips were
unsoldered and removed, together with corroded components.
The P.C.Board and chips were carefully washed, first in a
weak solution of vinegar, followed with a wash in a weak
solution of Bi-carbonate of soda, (the only home stored
chemicals available to me at the time) with a final rinse in
fresh running water.

An old tooth brush was used, to dislodge the corrosive coating and scrub the items, throughout the washing process.

Fortunately, the P.C.Board was protected by its Conformal Coating and was undamaged, the greatest corrosion had occurred to the chips sockets and capacitors. After fitting new sockets and components in the Ram Card, I installed the memory chips and the correct type of batteries and was able to get my much abused Ram Disk operational again.

I wish to pass on, therefore, this timely warning that if you are experiencing Ram Disk problems and suspect that the memory backup supply battery is the cause of it, and you do not have the correct type available, be very cautious about substituting it with `leak proof' alkaline batteries as `Murphy' is never far away!

EDITOR'S NOTE :

To the anonymous contributor of this article, and any others who wish to try the substitution of alkaline dry cells for the NiCads, there is a small modification you must carry out on the RAMdisk to disable the battery charging circuitry

I believe that the details have been published in the TISHUG News Digest

EARL'S XB MISCELLANY

By Earl Raguse, USER GROUP of ORANGE COUNTY

PEEKING & POKING AROUND

A month or so ago I mentioned a small
program I had written to satisfy my
curiosity about CALL KEY. I don't know
whether my curiostity ever got
satisfied, but I didn't. There is a lot
about this computer that I don't know.
They say what you don't know, won't hurt
you, well, maybe not, but it can sure
bug you.

Anyway, I have listed the program below,
that allows you look into (PEEK) or poke
(LOAD) the computers memory at any
place. It is short enough that it won't
take you long to enter, and it could be
educational. You can't hurt anything by
PEEKING, and/or POKING the wrong number
at the wrong address, it may cause your
computer to lock up so that you have to
turn it off and reboot, but you can't
damage anthing. There are certain
addresses that are in GROM, so you won't
change them with LOAD, but you can PEEK
all you want. The TI XB manual says you
might lock up the computer by PEEKing in
the wrong place, but I never have, but I
have poked the wrong (right) thing in
the wrong (right) place many times.

One thing should be made clear though,
PEEK is byte oriented, (1 digit), but
LOAD (poke) can load a word (2 bytes).
I do a double PEEK so I can see what
happens to the word. The XB manual is
rather skimpy in this area, even if you
are an optomist (even an optometrist).
It is as if they never figured anybody
but programmers would use it anyway. I
don't know how thet thought programmers
were supposed to learn about it though,
maybe some other book TI planned to (or
did) write.

For instance, I don't know where they tell you that the computer looks for and runs a program named LOAD in drive #1 on boot up. I don't even remember were I learned that. Some newsletter, no doubt. You really ought to spend more time reading the newsletters in our library. There is a wealth of information in those newsletters, especially the older ones.

You must merge in the subprograms that I have given you in the previous articles, as listed below the program listing. I have called that group PROGSET, and if you have gotten the disk from me you can merge them all with one MERGE "DSK1.PROG SET", and type in the new one called DEC to convert HEXadecimal numbers to Decimal. I have one for the inverse process and I will talk about both at a later date.

```
100 ! SAVE DSK1.PEEK/POKER
110 ! By Earl Raguse 3/90
120 ON ERROR 310 :: CALL SET
(5,16)
130 CALL CLPUT("MEMORY PEEKE
R/POKER",2):: CALL PUT("Sele
ct ",8):: CALL PUT("Load/Pee
k  Peek(only)  Quit",10)
:: PK=0
140 CALL GD("LPQ",K):: ON K
GOTO 150,160,170
150 GOTO 180
160 PK=1 :: GOTO 180
170 RUN "DSK1.DIR"
180 CALL CLPUT("Enter a Memo
ry Location",8):: CALL PUT("
-32766 to 32765",10):: CALL
PUT(" or >0 to >7FFF",11) ::
DISPLAY AT(13,13):ML$
190 CALL PUT("Preceed HEX Nu
mbers with >",20):: CALL PUT
("I will be convert to decim
al",21)
200 ACCEPT AT(13,13)SIZE(-6)
:ML$ :: IF SEG$(ML$,1,1)=">"
  THEN CALL DEC(ML$,ML)ELSE M
L=VAL(ML$)
```

```
205 ML1$=STR$(ML-1)
210 IF ML<-32766 OR ML>32765
 THEN 180 ELSE IF PK=1 THEN
260
220 CALL CLPUT("Enter a Numb
er to Poke in",10):: DISPLAY
 AT(12,13):VALU$ :: ACCEPT
AT(12,13)SIZE(-6):VALU$
230 CALL PUT("Preceed HEX Nu
mbers with >",20):: CALL PUT
("I will be convert to decim
al",21)
240 IF SEG$(VALU$,1,1)=">" T
HEN CALL DEC(VALU$,VALU)ELSE
 IF SEG$(VALU$,1,1)="-" THEN
VALU=-VAL(VALU$)ELSE VALU=VA
L(VALU$)
250 CALL LOAD(ML,VALU):: CAL
L CLPUT("Ok I have poked "&S
TR$(VALU),12):: CALL PUT
("Into Location "&ML$,14)::
CALL PAK
260 CALL PEEK(ML,RSLT,RSLU)
270 CALL CLPUT("I PEEKed int
o locations",10):: CALL PUT(
ML$&" & "&ML1$,12):: CAL
L PUT(" And Found "&STR$(RSL
T)&" & "&STR$(RSLU),14)
280 IF RSLT=VALU THEN CALL P
UT("Isn't that Nice?",16)::
GOTO 300
290 CALL PUT("How About That
?",16)
300 CALL PAK :: GOTO 1010
310 ON ERROR 310 :: CALL CLP
UT("Careful, remember the li
mits",12):: CALL PAK :: GOTO
130
1010 DISPLAY AT(12,1)ERASE A
LL:"Want to read some commen
ts?      Just press SPAC
E        Else press any othe
r key."
1020 CALL GKEY(Q,24):: IF Q=
32 THEN 1040
1030 GOTO 110
```


7
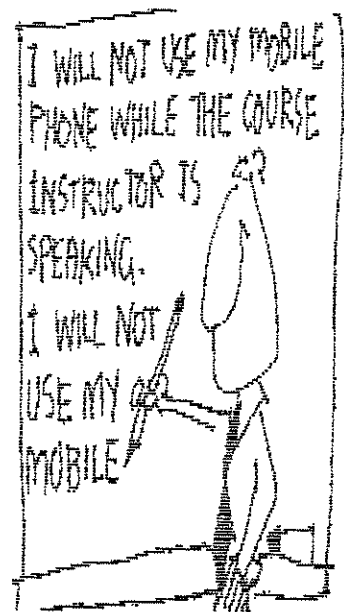
```
1040 DISPLAY AT(1,1)ERASE AL
L:"I hope you have now learn
ed that PEEK takes only one
    byte per PEEK per variabl
e, and that a byte is 255 ma
x."
1050 DISPLAY AT(6,1):"It app
ears, that LOAD will take t
wo bytes, or 2 to the 15 th
power minus 1, or 32767maxim
um, If you doubt that,"
1060 DISPLAY AT(10,1):"try i
t. Also try putting in large
r, you will get gentle remin
der to remember the     limit
s."
1070 DISPLAY AT(15,1):"Notic
e that if you enter     32767
, you will PEEK 255.     Is th
at suspicious or what? "
1080 DISPLAY AT(19,1):"Well
the truth of the matteris th
at you are PEEKing the LSB
byte of 32767, remember   num
bers are binary in store."
1090 CALL PAK
1100 DISPLAY AT(1,1)ERASE AL
L:"You will note that I have
    arranged to PEEK two plac
es,but depending on the addr
essign, the second may be "
1110 DISPLAY AT(5,1):"greate
r or lesser.   The evenaddres
s should be the MSB    (Most
Significant Byte).   Ifyou po
ke to odd addresses, U"
1120 DISPLAY AT(9,1):"may ge
t odd results, by put-ting t
he number in the LSB   (Least
 Significant Byte).    Try ch
anging the sign of the"
1130 DISPLAY AT(13,1):"addre
ss, yes it remembers    the o
ld one, note that the    secon
d byte is not the same,becau
se you are not looking"
1140 DISPLAY AT(17,1):"in th
e same place, relative to th
e address poked.   That is be
cause I do not account for a
ddress sign you may do it if
uou like."
```
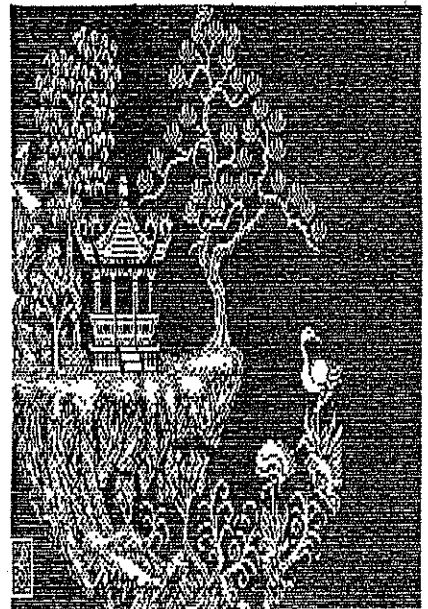
8

```
1990 CALL AGAIN :: GOTO 130
2000 !
2010 ! SUBPROGRAM AREA
2020 !
```

You must merge PAK GKEY CLS
GO CLPUT PUT AGAIN and SET.
This is the group known as
PROGSET.

DEC is new and converts HEX
numbers to decimal.   I have
a subprogram for the reverse
which I will talk about in
near future, but not today.

```
8000 SUB DEC(H$,D):: H$=SEG$
(H$,2,LEN(H$)-1):: D=0
8010 FOR I=1 TO LEN(H$):: X$
=SEG$(H$,I,1):: X=POS("01234
56789ABCDEF",X$,1)::  D=D*16+
X-1 :: NEXT I
8020 IF D>32767 THEN D=D-655
36
8030 SUBEND
```
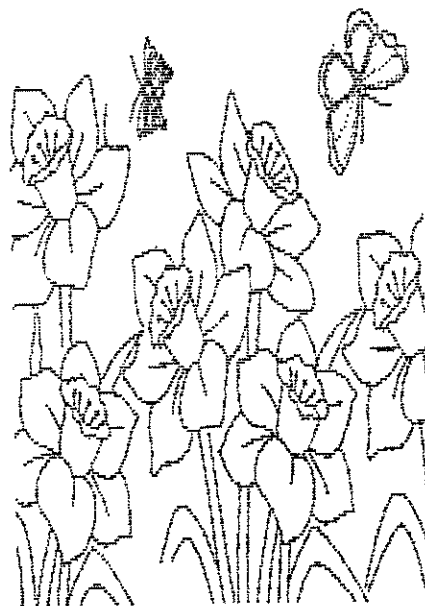
WHAT ABOUT THE WORKERS ?

Once upon a time a large Government Department and a Japanese company decided to have a competitive boat race on the Swan River. Both teams practised long and hard to reach their peak performance, and on the big day were as ready as they could be

The Japanese won the race by a mile

The Government team was very discouraged, and morale sagged. The Executive team decided that the reason for the crushing defeat had to be found and a committee was set up to investigate the problem and recommend a possible course of action

After many months and several intrastate, interstate and overseas junkets to study boat racing, the effect of atmospheric conditions on rowers at water level and the weather in Tahiti, their report was tabled

The report concluded that the problem was that the Japanese crew had eight people rowing and one person steering, while the Government crew had one person rowing and eight people steering

This led to swift action on the part of the Executive Team who immediately hired a consultant to do a study on the team's structure. Hundreds of thousands of dollars and several months later, they reported that too many people were steering at the same level

To improve their chances in the next year's race, the Executive Team decided to implement the following changes to the structure of the rowing team :

The new structure was to consist of

Four Steering Managers
Three Senior Steering Managers
One Executive Steering Manager
One Rower

The management brief was to give the rower empowerment, enrichment and some benchmarks to achieve - that should enable them to be more successful in next year's race

A performance and appraisal system was set up to give the person rowing the boat more incentive to work harder, and the opportunity to become a key performer. The rower would in future be required to demonstrate key competencies - evaluation of these competencies would be overseen by the Management Team as a whole

The following year the Japanese team won by two miles. The Government Department laid off the rower for poor performance and not meeting new benchmark requirements. They sold off all of the paddles, cancelled all capital investment in new equipment and halted the development of a new boat

They then distributed the money saved to Senior Management and presented High Performance awards to the consultants

from the notice board of a large Government Department that is in the process of undergoing yet another restructure that has resulted in massive staff reductions .... at the lower levels - author unknown

I contacted Dave Clarke on the evening of my arrival in the city of Melbourne to set up a time and date when it would be convenient to demonstrate my latest 'TI TOY'. I had purchased it some time ago as a DIY kit at the 1992 TIsHUG TI FAIRE, but had only just got a 'round toit' and put it together

Dave picked me up from my Richmond address and we drove to Bob and Joyce Bishop's residence in the suburb of Northcote. Also waiting for us to arrive were Bill Murrell, Peter Raymond and Silvagno Di Battista, with apologies from Alf Scerri

Bob thanked me for having previously sent to him, from Perth, a set of working and document disks of Tony and Will McGovern's Funnel Writer V5.00 . Greg Buck, TIUP's new Treasurer, had made them available to me following his demonstration at the TIUP February General Meeting. Bob then asked me to give the group a demonstration of all of its capabilities, right then and there !

This sort of caught me off guard, for if I had known beforehand I would certainly have paid a lot more attention to what Greg was showing me, and would have been a lot better prepared to give a talk about it. None the less, with a lot of support from Bill Murrell, who had access to documentary support material, we managed to put on a demonstration which ignited a lot of interest in everyone at the meeting

Eventually, after Funnel Writer had been dispensed with, I was able to give a demonstration of my pride and joy, the AT Music Card from the TIsHUG group. All present were very impressed with the quality of the stereophonic output, which caused considerable debate as to just how it was programmed, and was the effect of the music due only to the stereo amplifying speakers it was played through. As usual, all good times must come to an end, and so did the evening's meeting, for it was almost midnight

I would like to take this opportunity to say thank you to the TI*MES Group for a very interesting evening, and a special thank you to Bob and Joyce Bishop for that excellent supper you provided .

Frank GRAHAM

DID YOU KNOW THAT .....

You can draw lines from within **Funnelweb V5.0 ?**

Ed April, Secretary of the **User's Group of Orange County**, in California, home of the **ROM** newsletter and the indominable Earl Raguse, reports that it can be done !

As I don't have V5.0, I haven't tried it out yet, but apparantly the method to get into DRAWING mode is :

PRESS 1 [for TEXT EDIT] then the SPACE BAR in rapid succession

Apparantly DRAWING mode is detailed in the 80 column docs, but works in 40 column mode as well

The things you learn from reading the newsletter library

Geoff WARNER

BE ONE OF THE VEGETABLES IN YOUR USER GROUP

You can maximise the effectiveness and success of your User Group by planting a garden of *seeds for success*. This garden has :

Four rows of "PEAS" - Can you be counted upon for your

√ **P**resence at meetings, working bees etc.

√ **P**reparedness to pitch in and help

√ **P**romptness when delivering promised articles or assistance to other members

√ **P**erseverance when the going is not ideal

Three rows of "SQUASH" - Do you

√ **Squash** damaging gossip

√ **Squash** indifference and apathy

√ **Squash** criticism within the group

Five rows of "LETTUCE" - Is it you who says

√ **Lettuce** adhere to the by - laws, rules and regulations

√ **Lettuce** fulfil our obligations to the group

√ **Lettuce** be faithful in our duty as Club and Committee members

√ **Lettuce** be loyal to the group and unselfish in our motives

√ **Lettuce** respect one another and the individual points of view

Four rows of "TURNIPS" - Are you one of those who will always

√ **Turnip** for meetings

√ **Turnip** with a smile

√ **Turnip** with new ideas

√ **Turnip** with a determination to make everything count for something good and worthwhile

So, as you can see, there are times when it is OK to be a vegetable ! In fact the ultimate survival of your User group may depend upon it

These 'life - rules' have been re - typed and 'TI - 99ed' by Geoff WARNER
FOR TIUP, THE TEXAS INSTRUMENTS TI - 99 USERS OF PERTH (Inc.)

GRAPPLING WITH GRAPHICS

I have been having some very interesting
correspondance with Alf Ruggeri, TIsHUG's
'Graphics Guru' of late. Alf wrote to me just
after I mentioned that I have been doing some
experimenting with that terrific GIF Mania
programme

As Alf has written several articles in the TIsHUG
News Digest on that particular subject, it was
only natural that I use his articles as a
reference source

[As an aside : After our initial exchange of
letters, I mailed Alf a disk full of images that I
had scanned in via an OKI facsimile machine for
Alf to play with. I used one of the cardboard
envelope style disk mailers that are used in the
USA. Sadly Alf related to me that Australia Post
had neatly folded the mailer and the disk IN HALF
in order to insert it in his mail box - naturally
the disk was pretty useless after that sort of
treatment]

After Alf and I had exchanged letters, we then
played 'telephone tag' across the country for a
couple of days, each of us having lengthy
conversations with each other's telephone
answering machine - isn't technology wonderful ?

I am happy to relate that we eventually spoke and
had a long and very interesting conversation on
the subject of graphics on the TI and various
methods of processing them. I must say that Alf is
a fountain of information, and imparts his
knowledge readily to the new comers like myself.

I was pleasantly suprised when Alf sent me a preview
of his latest article on the subject, and
suggested that our correspondance spurred him to
complete it. I will reprint it after it makes its
debut in the TIsHUG News Digest

For those of you who are interested in graphics,
check out the club library and look for Alf's
articles on graphics - I am sure you will find
them very interesting

Geoff WARNER

TESTIMONIAL TO STEVE WILKINSON FOR HIS
SERVICES TO THE
"TI-99 USERS OF PERTH".

TITBITS NEWS LETTER ITEM.

Steve was there when I attended my first TIUP meeting, the Annual General Meeting on the 19th.May 1984, held at the Beaufort Street Recreation Centre, Mt.Lawley.

It was Steve's article on connecting a `Teletype' to a TI-99/4A on Page 16 of the TItBITS V2 #2, that interested me, "WOW! These guys are big time and are really into it", I thought, when all I had was a TI Console out on special at "Big W" for $187-00

At the 1986 TIUP AGM, I became involved with the TIUP Group after nominating myself as a Committee Member, and it was at Vice President Steve's house in Gosnells, that we often met for the Committee Meetings.

Steve seemed to always be around, quietly waiting to help, and available to answer the myriad of questions that were held in store until the next General Meeting. Sometimes if one was in a real crisis, which usually occurred at some obscene hour of the night, especially after having read and re-read the `operating instructions' and still get no response from the `Thing', you reached for the phone and Steve seemed to always be there with the right answer and suggestions. It was Steve who helped me get my Ram Disk going again, after it had disgraced itself and left me `up the creek'.

Suddenly he was gone, but when one really thinks about it, you realise that gradually his committment to his other interest had been evolving over quite a long period of time. In closing I would like to say "Thank you Steve, for your assistance to me and the benefits you have brought with your knowledge and long association, to the members of the TIUP Group".

F Graham.
Vice President.

9 WIRES vs 24 WIRES
By Earl Raguse

For those of us who have acquired 24 wire printers, we have had to learn to adjust, or live with distortion. 24 wire printers distort graphics intended for 9 wire printers. The solution is to modify the programs. That is easy to say, and it is not too hard to do, but you must understand the reasons why, and have a little programming experience. or at least small fears of getting into a progam, and be able to calculate what the change should be.

The reason is because 9 wire and 24 wire printers have a difference in to minimum increment of paper advance. If this were not so, much of the 24 wire advantage of smaller increments and finer resolution would be negated.

A 9 wire printer's least increment is 1/216th inch, and the 24 wire printer's least increment is 1/360th inch. 9 wire printers default line spacing is 12/72 inches (6 lines per inch) or 36/216 inch. The equivalent 24 wire spacing is 60/360 or 30/180 inch.

Below are the commands to be given the printer via TIW, or BASIC. I will go into how to do this in another article.

For 9 wire printers:

For 72nds of an inch, ESC A n where n is the number of 72nds, ie ESC A 12 is 6 lines per inch.

For 216ths of an inch, ESC 3 n, where n is the number of 216ths, ie ESC 3 36 is 6 lines per inch.

For 24 wire printers:

For 180ths of an inch, ESC 3 n, where n is the numbers of 180ths, ie ESC 3 30 is 6 lines per inch.

For 360ths of an inch, ESC + n, where n is the number of 360ths of an inch, ie ESC + 60 is 6 lines per inch.

Through all of the above you must have noticed that the expected line spacing is n/72, n/216, n/180, or n/360. In all the examples above, performing the arthmetic gives one the distance in inches between lines, (Not in lines per inch, Lines per inch is the recipocal.).

Now comes the big problem, you had a nice 9 wire printer, that did great graphics, but your new 24 wire printer does not. What to do? First you must find out how the program specified line spacing to the printer. Did it use ESC A or ESC 3. Telling you how to find this in a program is beyond what I can do in this article, if you can't recognize the above commands in a program, you will have to have one on one help. I will do that if you ask.

Having found what line spacing is specified for a 9 wire printer, how do you know what to use for 24 wire printer? Lets learn a little arithmetic, well maybe its algebra, depends on when and where you went to school. We will be dealing with ratios.

A common form of ratios is as follows:

$$\frac{x}{3} = \frac{4}{8}$$

This says that x is to 3 as 4 is to 8.

We can write this like this.

$$\frac{x}{3} = \frac{4}{8} \quad \text{or} \quad x = \frac{4*3}{8} = 1.5$$

I will not go into the justification, I will teach that at the same time as the one on one stuff.

How does this help? Well, if you had a line spacing specification of 27 216ths (or 27/216), then to find out how many 360ths you need, let that quantity be x.

$$\text{Then } \frac{x}{360} = \frac{27}{216} \quad \text{or} \quad x = \frac{27*360}{216} = 45$$

Now 45/360 is 8 lines per inch. You do don't believe all this, then get out you calculator, or use PRINT on the 99/4A.

Next time I will get into how to talk to a printer in TIW or XB. We will also learn a little HEX. TIW expects printer commands in HEX. That is Control U.

<u>BENEFITS AVAILABLE TO ALL MEMBERS OF</u>
<u>THE "TI-99 USERS OF PERTH" GROUP.</u>

<u>TITBITS NEWS LETTER ITEM</u>.

(1) TIUP was first convened as a TI/99 User Group on Saturday 20th.March, 1982, at the Beaufort Street, Mt.Lawley Neighbourhood Centre. It is now considered to be one of the longest serving continuously operating computer enthusiast groups in the Austral/Asian Region of the world.

(2) The original committee members were: President- Kim Schlunke, Treasurer- Ken Hopkins and Secretary- Bernie Elsner. It was decided, at this inaugural meeting, that the Annual Membership Fee would be $10-00 per family, which would used to set up and distribute a bi-monthly newsletter.

(3) The 1994 committee members are: President- Merve Trowbridge, Vice President- Frank Graham, Treasurer- Greg Buck and Secretary- Geof Warner. Meetings are held on the third Saturday of every month at the Hillcrest Primary School Arts Room, Coode Street Bayswater.

(4) A $20-00 Annual Membership Fee is used to set up and distribute a bi-monthly newsletter to members and exchange with similar TI-99/4A Groups world wide. The Group also arranges to purchase the latest available Books, Software and Modules, whenever they become available, as a service to our members.


F Graham.
Vice President.

TIUP PRESENTATION TO PAST TREASURER STEVE WILKINSON

A happy band of 'TIUPeteers' gathered together at the Hillcrest Primary School in Bayswater for the monthly General Meeting. Part of the meeting was a presentation of a Certificate of Appreciation to past Treasurer and TIUP stalwart Steve Wilkinson

The certificate, a joint venture by President Merv ('do you want to see my borders ? ') Trowbridge and Colin Bingham (the graphics nut) was neatly framed and presented to Steve in a moving ceremony
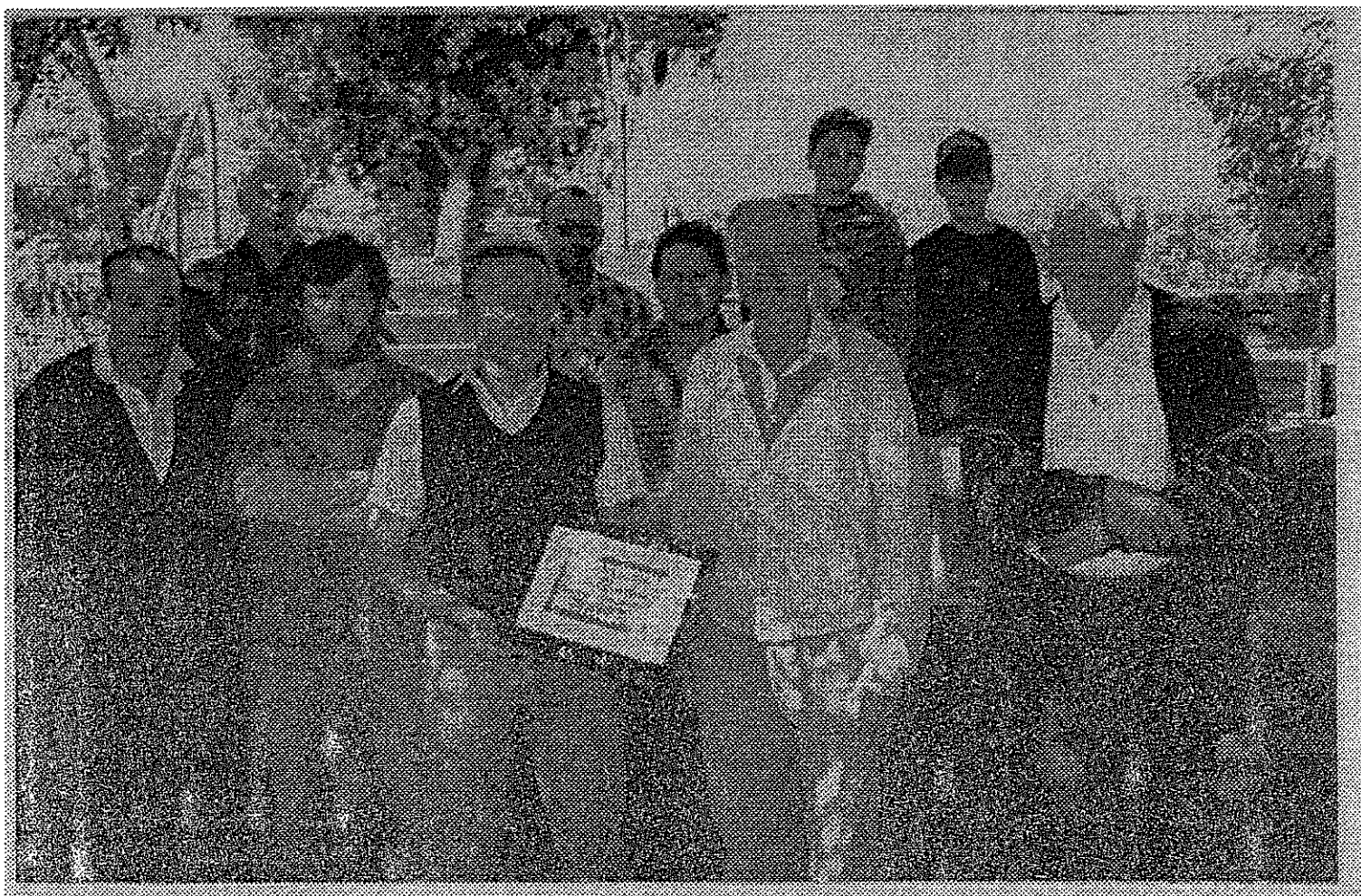
THE ROGUES GALLERY

BACK ROW (L - R) Greg BUCK, Bill La FRENTZ (in sun glasses), Paul KUSMIEREK (in cap), Joel WARNER (in cap)
MIDDLE ROW (L - R) Colin BINGHAM, Geoff WARNER (bearded, with arms folded), John KUSMIEREK
FRONT ROW (L - R) Steve WILKINSON (holding certificate), Merv TROWBRIDGE, Matt BRUEKERS

NOTE : We actually got a photograph of our elusive, camera - shy Vice President Frank Graham, but as it was his camera, he tabled the photograph **without him** for publication

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