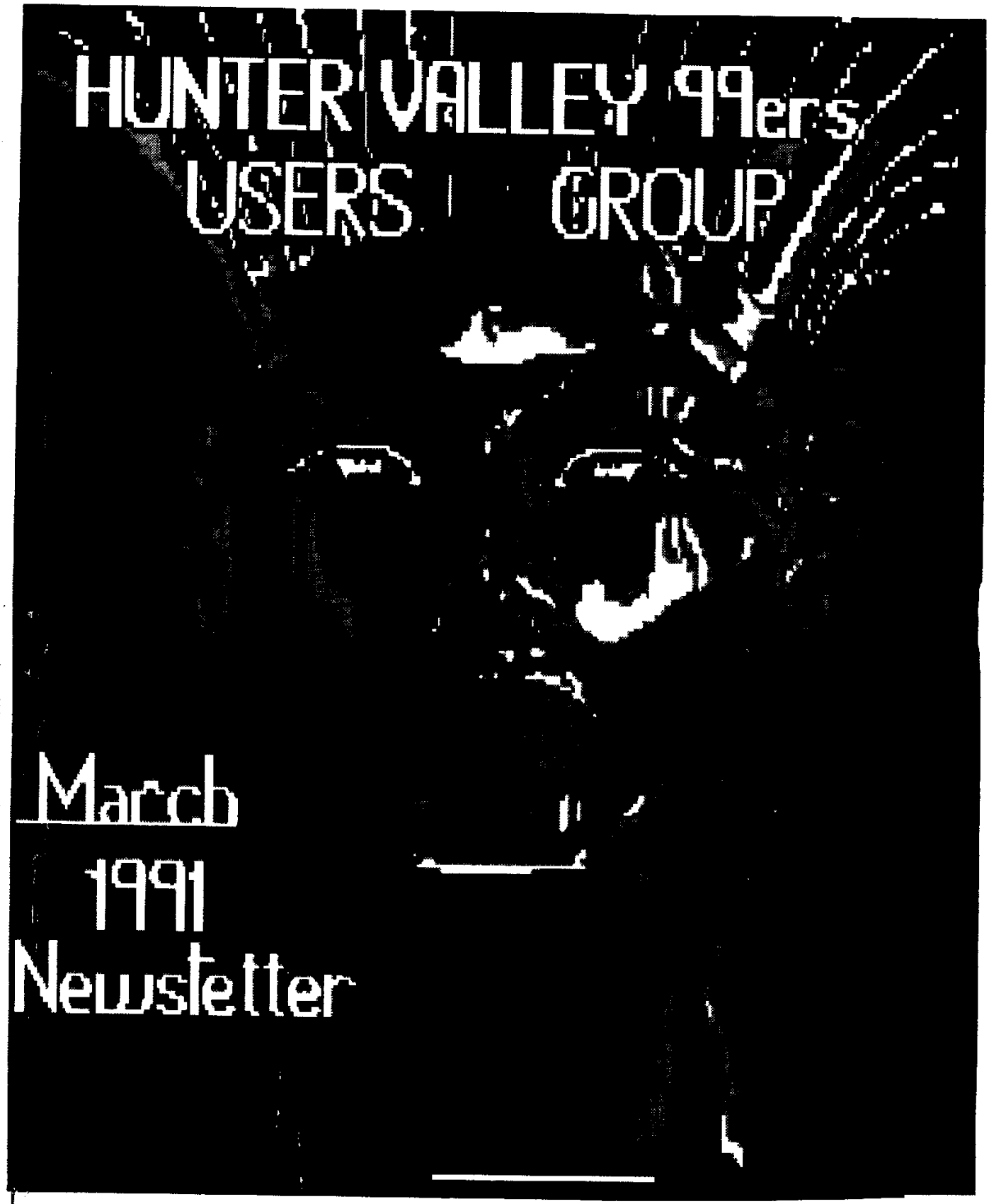
HUNTER VALLEY 99ers USERS GROUP



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1991
Newsletter

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Members and non members are invited to contribute articles for publication in the Hunter Valley 99'ers Newsletter.

Any copy intended for publication maybe typed, hand written, or submitted on disc media as files suitable for use with TI WRITER. A suitable public domain word processor program will be supplied, if required by the club librarian.

Please include along with your article sufficient information to enable the file to be read by the editor eg. filename etc. The preferred format is 75 columns and page length 66 lines, right justified.

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Articles for publication can be submitted to the Editor, all other club related correspondence should be addressed to the Secretary.

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Whilst every effort is made to ensure the the correctness and accuracy of the information contained therein, be it of general, technical. or programming nature no responsibility can be acepted by HV99 news as a result of applying such information.

The views expressed in the articles in this publication are the views of the author/s and are not necessarily the views of the committee, Editor or members.

President's Report.

Once again the privilege to address you all comes my way. Our club isn't looking as strong as it has, however a breath of fresh reviving air has been observed at recent committee meetings. Much discussion has been taking place and the general feelingappears that we should not bury our heads in the sand and pretend that most of our members don't have other computers, rather we should provide all members with support which they desire. At recent meetings we have polled members and discussed their interests.We intend to cater to these desires and publish any articles of a wide interest or even specific computer oriented bias in order to do so. Our basic focus should encompass the TI which was the original reason for our existance, however no longer will it be devoted exclusively to that great little machine.

It would be unfortunate if those who object to this idea become very forceful in their arguments, as most of those people who are working for the club would simply drift away and so no one would be left to do the work... not much of a club.

Our club has an existing infra-structure which should be used to our advantage. I hope that we can inject some renewed enthusiasm into our club life, already some light-hearted banter and rivalry exists between our AMIGA and IBM clone owners and some interesting "off the record" demos and discussions have taken place. I look forward to the first contributions to this magazine concerning these computers.

The last few issues of this magazine have been published using the TI994a and an AMIGA together with a HEWLETT PACKARD paint-jet printer along with two modems. Files on TI 5.25" disks were sent to the AMIGA as text files and then reformatted and imported into a DESK-TOP-PUBLISHING program before printing.

Art programs on the AMIGA were used for Titles on the cover.

Joe Wright also published a few sheets using his IBM compatible and we included them in the magazine. So you see the computers have been co-existing for some time.

I regret the delay in publishing this magazine however illness and lack of time have prevented me from making the effort before.

I hope our consciences are feeling very pricky now. I know I feel very humble.

Look at the majority of articles in this and the last magazine. who are they from. Without Bob we wouldn't have much of a mag. Thanks Bob.... Come on the rest of you.. We don't expect too much .. Just a little. Please.(Note this is the first winge I have had about this.. I'm desparate.)

Ron has been labouring at the Black Hole and doing great work with gremlins in ram-disks. A really great effort Ron. We're all proud of your effort.

I look forward to your support of the ideas I have expressed this issue. Please consider them and let us know your intentions for the coming club year. Will you renew? What ideas have you which could help us?

Regards .... Peter

Cosmetics and Skin Cancer

(I have included two articles in the HV99'ers Newsletter which have been retyped from the January 1991 edition of the Sydney Melanoma Foundation Newsletter. Both were written by Professor W.H. McCarthy the Director of the Sydney Melanoma Council and reproduced with his kind permission in the Newcastle Melanoma Foundation newsletter which I now edit. I have taken the liberty to include them in this newsletter as part of a public awareness campaign about skin cancer.)

Joe W.

Many of our members will have read in the newspapers about possible deleterious effects of some cosmetics on the skin. These experiments were done in laboratory mice subjected to ultraviolet radiation. It is important to remember the human skin is much more complex than that of the mouse and the human is so immensely larger that our system's response to injury is far more complex than that of the mouse. The best ways of determining whether some substance is deleterious to the skin is to look at the people who use the substance and compare their skin to those of a similar group of people who do not use it. Those cosmetic agents which have been certified as having urocanic acid have been in use by a large number of women for a relatively long time. There has been no evidence whatsoever of any deleterious effect on the skin of humans. In fact women who use cosmetics have a lower instance of skin cancer on the face than men who do not generally use facial cosmetics. It could, therefore, be said that cosmetics are protective of the skin of the face rather then dangerous. The National Health and Medical Research Council has suggested that products containing urocanic acid be removed from the market and that other substances be used to replace these cosmetics. However, this is simply a matter of prudence rather than a statement that the cosmetics can do harm. When a situation arises where a possible deleterious finding is made in experimental animals it is best simply to remove the substance from contact with the human skin and therefore do away with any potential risk even if no actual risk has ever been determined.

It is therefore not necessary for anyone who has used any of these cosmetics to worry at all about use of these cosmetics in the past. As I stated earlier the overall effect of cosmetics on the skin of the face of women has been, at the very least, not harmful and perhaps even helpful because they keep the skin moisturised and do, in fact, filter some sunlight.

Tribute to

JOHN BIRDWELL

This letter was written by Beery Miller, and appeared in the December issue of MICROpendium.

It is always sad to hear when someone we are close to has passed away, be it family, friend or someone in the TI community. Many times, they aren't recognized for their achievements until it is too late.

In our midst, we have a programmer suffering from liver cancer. The prospects do not look good for his recovery. He has devoted almost all of his time to his family now. Many people have wondered why this individual has disappeared from the TI/Geneve scene, and it wasn't until a week after seeing him at the Chicago Faire that I realized he had problems. He was keeping the illness to himself, but via a friend I learned. A year ago, he was a happy, healthy man; today he is a man 50 pounds thinner and several operations older.

Liver transplant is not possible. His time is running short. I doubt we will ever see updates in software from him again. He is well known for his work, and has a major piece of fairware in existence. Many people have never paid their fairware portion, though they routinely use his program.

The program is Disk Utilities, the author is John Birdwell. For those who now want to ante up their fairware contribution, John's new address is 1310 Kent Court, Wheaton, IL 60187 USA.

Our local user group routinely takes in donations for fairware authors. This month, we have selected John Birdwell as our recipient. We regret it is under these circumstances, but it is about time John is recognized for his contributions.

John's other major contribution has been the work with the Myarc Disk Manager V for the Myarc HFDC (quite a bit of MDM5 was by Mike Dodd). John was planning on doing the streamer support for the Myarc HFDC, but that won't come to be by him. John was also working on Disk- One. Its status is uncertain, but it is doubtful it will be completed.

John's future is not certain. What is certain is that the higher the morale of the individual, the healthier the individual is, and the longer the individual can be productive. Prayers are acceptable, the more the merrier. When I last spoke with John, he commented, "It won't be 30 days, I don't know if it will be two months or six months. The doctors said the weekly treatments were starting to hold the cancer. I have hope."

I have only met John two or three times, but conversed through mail/messages quite a bit. John has helped me out on quite a few problems over the past couple of years. He was always willing to give. Now it is time to repay John for what he has done for us. Many times we have wished we could have said something before it was too late. It is not too late now. Speak (and user groups act) to show your appreciation. You have the opportunity now.

John, I would like to personally say thank you for providing us Disk Utilities and those other utilities that have straightened out my problems, and I am sure those of others, from time to time. It was very much appreciated. I hope you will be blessed with the cancer going into recession and with a flow of gratitude demonstrated by the TI community. You deserve it!

HV99ers Secretary's Note I am sorry to report that subsequent to this appearing in the MICROpendium, John Birdwell passed away on the 27th December. To his family we at the HV99ers offer our sincere sympathy.

FAR OUT (In the bush)
By Dick Schaydel

The pig breeding experiment with the razorback is really going on quite well. There has been a second litter of suckers and they are all doing quite well. I didn't realise untill I saw them that they are spotted! It looks like someone painted them over with white paint. The wild pigs seem to do much better with less food than the domestic pigs. They also gain weight at a better rate. It might be an advantage to see about raising a lot of these beggars. It sure would cut down the amount of feed that I have to truck in from the Ridge!

There was this bloke from Sydney who came through about a fortnight ago. He was about as smart as a Blue Gum tree, mate! This bloke actually believed that the legendary Bun-Yip exists! He said that he had heard that they could be found in Sweetwater Billabong! Bully and one of the local Abo's named Teddy Bell decided to take our "Sunday Bushman" on a fair dinkum Bun-Yip hunt! Teddy reckoned that we might be able to catch a small one. I went along for the sport. I told this bloke I once saw a Bun-Yip swimming in Sweetwater Billabong one night and knew just where to find it! Teddy had been filling this bloke's mind with all of the Abo tales about Bun-Yips.---feet like an Emu, a round hairy body with a thin long neck, and a mouth full of sharp teeth. By the time we got to the Billabong (just into The Northern Territory) Mr. Joseph Samuels (the Galah bloke's name) was ready to capture the first speciman of Bun-Yip ever seen. We got to the Billabong after dark and Teddy reckoned that he heard the booming of a Bun-Yip across the way. Bully and I took this bloke to the other side of the Billabong and left him with a pair of Welly's and a wire cage. He was supposed to wade along the edge of the Billabong yelling and shouting trying to drive the Bun-Yip toward the wire cage that had been strategically placed in shallow water near the bank. What a bloody lark! This idiot kept it up for a couple of hours. He might have caught a Bun-Yip except for the fact that while he was wading along a flamin' carpet python tried to crawl up his trouser leg! He just wouldn't go into the Billabong after that!

While shifting a bit of computer gear some months ago, I came across a program that might be of some interest. The name of it is GENEALOGY RECORD KEEPER and it was written by Joe Wright of your own Hunter Valley lot. It is for those of you who have an interest in where your flamin' ancestors came from. I found that it works just as well for organizing a pig breeding experiment. I haven't figured out what to do with some of the data fields because I have never christened a pig but it works quite well with people. I keep a set of files for Zimmo who is quite keen on that sort of thing. Zimmo comes by every fortnight or so with a new batch of data to be entered and we print the lot out. He reckons that he is descended from the First Fleet -- I think his lot traveled in steerage, though. It is written in TI Forth but it loads quite nicely with the Editor/Assembler cartridge. It is quick, and makes individual entries easy to find.

I had been using an Extended Basic version of a similar program after my IBM went out but I have switched my data to this system. This bloke Wright has put a good deal of work into the program and I've found that the filed names can be altered with a disk sector editor. It is reasonable adaptable to other applications (like pigs) by doing that. Anyway, if you want to try to trace your ancestors back to the First Fleet (or Carnarvon Prison) get a copy of this program and have at it. It's a good piece of work!

Strewth! That flamin' idiot Specker came out here for a yarn and a tinny or two --- all the way from Lightning Ridge! He's a right enough bloke but sometimes I wonder if he wouldn't do with a Welly shoved down over his head! While I was out adjusting the irrigation heads, this flamin' idiot decided to give my pigs an inspection tour. The only problem was that the second pen he stopped at had the big razorback boar in it. Specker reckoned that he looked harmless enough and climbed over the fence for a better look. The boar took "exception" to Specker being there. The truth is, the flamin' boar went bonkers! When I got there (I could hear the row from near a mile away) Specker was perched halfway up the rainwater tank like a big gooey and the razorback was prancing about with a piece of his pants hanging from one of his tusks! No worries, no lasting damage done that a couple of beers wouldn't mend. It was the most excitement around here since Zimmo burned his dunny down!

The latest problem to face my little place is rabbits. The bloody things are everywhere. I reckon that I'll have to either start shooting the beggars or import some dingoes from somewhere. , I would have thought that the floods would have killed off the lot of them but they have made a remarkable return afterward.

Well, its time for a cuppa and then a look at the livestock. The litter of cross Razorbacks shows some promise. If I could integrate efficiency of Kg of food consumed to weight ratio, I might be able to produce a free-ranging pig of commercial promise. Oh well, off to the pens. Its time to feed the flamin' pigs again!

GETTING EVEN?

It looks like Ron K is too busy digging about like a flamin' Wombat to tell you the yarn about his adventure with the Emu. He was keen enough to tell everyone the yarn about the 'roo, though. Despite what that bloke thinks, it isn't covered by the Official Secrets Act!

This goes back to the time when Ron was new in the fields and we had claims right next to each other. It was probably the first or second year he ever dug a hole in Grawin. Anyway, his opals were more like peppercorns than gemstones. One day, he managed to find an opal of good size and colour. I reckon it was worth a couple hundred by most accounts.

During this time there was a rather inquisitive Emu around the fields as well. He had been given the name of "Walleyed Sam" because of his appearance. The bloody beast had the manners of a drunk at a picknic --ate anything, besides lettuce and other veggies from any unprotected garden and was absolutely fearless when it came to miners and dogs. In fact, he chased a pig-dog near a kilometre one day.

It was the end of the day and Ron was putting his gear away when Walleyed Sam strutted to his claim. Without hesitation, the flamin' bird swallowed the opal that Ron had left in an opened tin on a fencepost while he put his shovel away. What a bloody row! Ron had the bird by the throat trying to keep it from swallowing the stone and the Emu was thrashing about squawking trying to disembowel his attacker. There were great clouds of dust and Ron was yelling the most unkind things at the poor bird. All at once the bird broke free and made off across the bush with Ron in hot pursuit with a gouging pick in hand and murder in his eye. The chase lasted about 200 metres before Walleyed Sam disappeared into the bush.

Ron's adventure was the hottest yarn at the local club for the next couple of days! Old "Fleet foot" Kleinschafer was a hard bloke to find!

That would have ended everything except that a couple of days later Walleyed Sam came back to Ron's claim (maybe for the second course). It wasn't long before fleet foot spied him. That beggar set out like a blacksnake --crawling on his flamin' belly for near 100 metres untill he jumped up and grabbed the Emu again. This time, he managed to hang on!

The debate was whether to open up Walleyed Sam from stem to stern (Ron's idea) or just feed the flamin' thing a strong laxative. Despite strong protestations, the latter course of action was chosen.

Time (and several other things) passed but we never did find that stone. Ron did find three others that were too large to stay in the Emu's crop and probably worth several times more than the original opal the beast swallowed --his first big Opal strike in the Grawin field!

For more than a fortnight, that galoot from Grawin was extolling his prowess as a bushman --how he managed to stalk old Walleyed Sam. Nobody had the nerve to tell him that Walleyed Sam was blind in one eye and that's why he got caught!.

Naevi and Sunlight

The interstate co-operative research project outlined in our last newsletter has now been completed. Jason Rivers and his collaborators from Queensland Institute of medical Research and Dr John Kelly in Melbourne examined 400 children in Melbourne, Sydney and Townsville. These 400 children included around 100 children in each of the age groups 6, 9, 12, and 15. Children were selected to be comparable across the nation and their exposure to sunlight was correlated with the number of moles on the skin of these children. It was very interesting to note the extreme difference in the number of moles in the children in the 3 cities and how well this related to the overall sunlight exposure in that area. There are six times more moles on the bodies of children in Townsville than there are in Melbourne, suggesting strongly that early exposure to sunlight is one of the main causative agencies for the development of moles. As you know, the number of moles on the skin is correlated with the risk of melanoma. It becomes increasingly important to stress the necessity to protect very young children from excessive sunlight exposure.

January 1991

Pierre Garoche to Brian WOODS
Secretary of the
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Dear Brian

As new member I d'nt know exactly what are the interesting topics for the Newsletter.
Mainly I use Assembler in writing programs that refer to data computing.
My son is working in a governemental research laboratory and use TI consoles and Myarc 9640 for driving experiments and results analyses,some time he beg me for a bit of code when his laboratory is in an hurry
I was 69 years old and it is for me a good pratice to ascertain that my brain is not to much obsolete.
At present time I work about a program to print dots that are the images of data values in radix 100.The printer is a Thinkjet of Hewlett-Packrd that is set in mode alternate that emulate Epson MX
Dooing this I find that it is possible to shift left circular a register when the shif count is drive by the four least signifiants bits of R0.For this you only have to negate R0,in status the logical greater than,aritmetic greater than,equal bits are valid but the carry bit is not.Probably this is not a new information for HV 99ers but for me it was a discovery.
On the floppy is a memory image named SHIFT that may be run with a standard assembler loader(Fennelweb option 3 or E/A option 5)
Also on the floppy is a short note about a display utility usefull when you have to verify a program during its elaboration.The name is HEXADW and this file was writed with TI-WRITER.
I have also recorded the E/A source file of this utility and of the decimal signed version.Please read the file: "!READ-ME" at first directory position.
I will be glad to know if such utilities and informations are of interest for HV 99ers member.I d'nt know if in the file HEXADW the explanations are to much elementary or not for publication in HV99 News.

Sincerly your
Pierre Garoche

The following lists the files on Pierre's disk.. Anyone interested contact me.....
name:
!READ-ME On this floppy you find the following files:
BREF/PF brief for printing with TI-WRITER option
PF EDITOR brief for printing by F'WEB Formatter on TI-WRITER menu
EDITOR/PF the same text with no escape sequence for printing with TI-WRITER option PF
HEXADW source of an assembler subroutine to display a CPURAM word HEXADW HEXADW HEXADW
LABLAD source of an assembler subroutine to display the address of a label LABLAD LABLAD LABLAD
DECIDW source of an assembler subroutine for decimal CPURAM word displaying and 3 files about circular left shifting of bits in a register: DECIDW DECIDW DECIDW
SHIFT memory image for "Left Shift Circ."
SHIFT/O Assem. compressed code from SHIFT/S
SHIFT/S source Ass.prg.showing "Shift L.C"
SHIFT may be run by F'WEB loader option 3 or E/A loader option 5
SHIFT/O may be run by LOAD and RUN loaders When loaded you will have to enter an hexa numer (the last 4 hexa digits keyed) then on a line you see the hexa value,the 16 bits and the decimal signed value at this moment you are asked to enter an hexa digt to load R0 and proceed shift of the hexa display numer. the result of shift is display under the first with same positions devoted for hexa,bits and decimal The status bits also are displayed (they are under marked by "L" "A" "EQ" "C" "OV" "OP" and "X" At the lower part of screen is display the same informations for a right shift Keying "A" or "B" you may have a other display or go out.

Assembler Executing . . .

By Bob Carmany

I'm not sure whether it was out of friendship or revenge but Ron K sent along a great heap of A/L source code for me to examine. Not just a few files but an entire disk full of the stuff!

Commented source code --this ought to be easy enough to understand ---WRONG!!!

After a couple of hours (with my trusty elementary text in hand) a few rays of light penetrated the darkness! This was great stuff and I was even starting to understand a bit of what he did! It did make my head ache, though!

Anyway, I learned a couple of things from readingall of that code --- It takes a heap of code to construct a meaningful program and there are several ways to get the same job done. As an example, let's take a look at something simple --a loop. That isan easy and painless start!

For the purposes of this illustration, we will assume that the guts of the loop are coded identically and only a few selected lines will change. You will see what I mean when we get into the program segment.

Let's start with the first one:

```
        LI    R6,4        Load the loop limit (4) into register 6
        |     |
LOOP    |                 loop contents
                          and instructions
        |     |
        |     |
        AI    R6,-1       Add -1 to the loop counter in R6 after each pass
        JNE   LOOP        Compare the result of the arithmetic function to
                          zero and jump back to rerun LOOP if not equal to
                          zero
```

Easy enough so far! But, being a sneaky and devious language, there is another simple way to do the very same thing.

```
        LI    R6,4        Load loop limit (4) into register 6
        |     |
LOOP    |     |           loop contents
                          and instructions
        |     |
        |     |
        DEC   R6          Decrement R6 by one
        JNE   LOOP        Same as the first example
```

These are just two examples of how to code the very same idea in different ways. In the examples we used A(dd)I(mmediate) and DEC(rement) to effectively reduce the value in R6 by one in each iteration of the loop until a value of zero was reached at which time control was passed to another program segment.

Of course, the converse is true as well. By using a positive value after AI, we can create an incrementing loop. The AI instruction can be replaced just as easily by INC(rement). So we have created two instructions that perform the same function.

```
        AI    R6,1
```

and

```
        INC   A5A4 R6
```

An incrementing loop takes a bit more "engineering" to switch control when the loop limit has been reached but that is a minor inconvenience. In fact, even with my feeble experience in A/L programming I can think of four or five other ways to construct a basic loop --either decrementing or incrementing it as the case may be.

I guess that we are just about done with the preliminaries. We have covered addressing modes, number conversions, and figured out that there is no"right way" to write an A/L program --just different ways.

Now we can start abit of poking about!

Before we get started, there are a few definitions that we have to become familiar with so we know what we are doing (?).

- **Bit** - a single binary digit

Niblet - two bits

Nibble - Four bits

Byte - eight bits

Word - two bytes (16 bits)

Ok, since I've hacked about a bit in A/L I have discovered that there are some instructions that are used a lot more than others. The whole lot of them fits into a series of categories. It's time to look at one of them. These are the instructions that move data about in a program

Name	OpCode	Comments
Move Word	MOV	This instruction can use any of the 5 general addressing modes
Move Byte	MOVB	Same as above

Swap Bytes	SWPB	Same as above
Load Immediate	LI	Register direct mode using immediate addressing
Load Wkspace poi	LWPI	Immediate addressing
Load Int Mask Im	LIMI	Immediate addressing
Store Wkspace P	STWP	Register direct mode
Store Status	STST	Register direct mode
Shift Rt Logical	SRL	Register direct mode with a count value
Shift Rt Arith	SRA	Same as above
Shift Rt Circ.	SRC	Same as above
Shift Left Arith	SLA	Same as above

The most commonly used instructions are the first five and the last four in the list. Even amongst that group, there are a couple that do most of the work and we will take a look at them now.

MOV Source operand, Destination Operand

example:

MOV R1,R6 moves (or copies) the contents of R1 into R6

MOVB does the same thing except that it moves just 8 bits instead of 16 like MOV does.

LI Register, Operand

example:

LI R1,10 loads 10 into R1

LWPI functions the same except that the operand is loaded into aworkspace.

SWPB Register

example:

SWPB R7 Swaps or switches the right and left bytes of the word in R7.

All of this has made me a bit thirsty. It's time to satisfy the innerman. I hope that you will see where all of this is headed as I try to cope with the rest of this A/L stuff that Tony and Ron got me started on.

Oh well, jot down some notes and I'll continue this next month and hopefully it will lead somewhere besides insanity!

OK.... Bob has sent a couple of episodes of this fascinating saga so here is the next instalment... [It certainly is making a little more sense the more you read it..]

Assembler Executing . . .

By Bob Carmany

Off we go for another foray into the realm of A/L programming. We are going to take a look at some of the instructions that allow you to switch program control from one segment to another or check and see if specific conditions exist (like our LOOP example in the last column). Anyway, the first lot of material that we are going to look at are those instructions thatcompare one item to another.

Name	Code	Comment
Compare Words	C	This compares two values and the comparison affects the Logical Greater Than, Arithmetic Greater Than, and Equal Status bits.
Compare Bytes	CB	Same as above except with bytes instead of words
Compare Immediate	CI	Same as above except that while the two previous instructions used any of the general addressing modes, this one compares a register to an immediate addressing operand (it compares words)
Compare Ones Corr	COC	Analyzes specific bits to determine if all are ones. If they are, it sets the Equal Status Bit to one, otherwise it sets it to zero
Compare Zeros Corr	CZC	Sets the Equal Status bit to one if the specific bits are zero. Both require two operands and the first one must be the address of the bit mask

Remember that all of these instruction affect one of the status bits of a word. You will hopefully see how this comes together in this next bit. I found that it wasn't as difficult as the whole thing was made out to be. I reckoned when I read this stuff that when all of these comparisons were being made, there must be a reason for it and there must be a way to test the various status bits.

Remember the first article in this series? Well, we are finally going to try and pull all of this together right now. The way that we are going to do it is by looking and the Jump instructions.

Jump instructions are just like the IF . . THEN stuff in Extended BASIC.They transfer control from one program segment to another if certain conditions are met (ie. the LOOP example in the last column). By

comparing words and bytes and setting and testing various status bits, we can re-run sections of the program or "call" in other pieces of code to be executed.

Yep, you guessedit --another of those bloody tables! This one should be a lot clearer than the others. You might want to have the status bit table from the first article nearby just in case, though!

Name	Code	Jump Conditions
Jump if Equal	JEQ	EQ=1
Jump if Not Equal	JNE	EQ=0
Jump On Carry	JOC	CY=1
Jump if No Carry	JNC	CY=0
Jump if No Overflow	JNO	OV=0
Jump if Odd Parity	JOP	OP=1
Jump if High	JH	L>=1
Jump if High or Eq	JHE	L>=1 or EQ=1
Jump if Low or Eq	JLE	L>=0 or EQ=1
Jump if Low	JL	L>=0 and EQ=0
Jump Greater Than	JGT	A>=1
Jump if Less Than	JLT	A>=0 and EQ=0
Jump Uncond	JMP	Always regardless of status bits

The only limitation on the Jump instructions is that the target address can be no farther than 254 bytes behind the instruction or no more than 256 bytes ahead of the instruction in the program.

You can jump to a name

```
JMP  GIZMO
```

or to an address

```
JMP  45623
```

or to an address relative to the instruction by using the dollar sign ($) to designate the Jump instructions address

```
JMP  $+16
```

where (in this case) +16 is the displacement in bytes relative to the address of the Jump instruction itself.

Clear? I sure hope so!

Getting this far in A/L took me a long time. I have been at it for several months now and my output to date consists of a series of Limericks that present themselves on the screen. Ah, but now I'm getting the hang of this stuff and the grandiose ideas for programs are starting to come forth (usually after a couple of cold ones, though). Next time, we will cover "COPY" and the arithmetic instructions. Then, it will be off to the "wonderland" of A/L programming -- that should give Ron and Tony a few good laughs. Like those two said to me — Trust me, mate, A/L is easy!

RANDOM BYTES

By Bob Carmany

I still can't get used to the newsletter publication schedule! In fact, I haven't a clue at this point how many (if any) of my columns are on hand in Oz. With that in mind, I had a severe panic attack and decided that I had better get something together and on the way to Joe Wright!

I'm going to step a bit out of my interests this month and deal with one of my least-favorite subjects –graphics.

It is one of my least-favorite because I have trouble drawing a straight line with a ruler. If I were a draftsman (or should that be draughtsman) I would probably starve to death.

Luckily, I'm not!

With all of the problems that I have with graphics programs, I use them nevertheless! The fact is, there is a wealth of pre-drawn graphics available for our computer and a number of programs to convert them from one format to another. For example, there are probably almost 10.000 TIPS pictures and even more TI-ARTIST pictures and instances floating around. All one needs is a program to bring everything together.

For putting together a graphics presentation, one of the best around is PAGEPRO. Now in version 1.5, it does an admirable job of combining graphics and text into page-sized chunks of material. With that in mind, let's take a look at organizing a graphics system wih the final product being channeled through PAGEPRO.

The starting point is the vast collection of TIPS pictures. The first order of business is to use TIPSHOW to print out all of the pictures that you have. The reason for this will become evident later on. I reckon that I probably have several thousand printed out that I keep in a notebook for reference. TIPS comes with a utility program for converting all of the pictures to TI-ARTIST instances. If you want to use them with TI-ARTIST, just follow the instructions and it will do an entire TIPS file at a time. It will give you time for a quick "cold one". At this point, you can use one of the PAGEPRO options to convert your newly created instances into PAGEPRO pictures --again a diskful at a time. Believe me, there is plenty of time for a schooner of Toohey's best! You can do better, though!

There is a program from Asgard Software called TIPS2PP.

This is simply an acronym for TIPS-to-PAGEPRO and that is exactly what the program does! It cuts out the intermediate step and converts the pictures directly. It takes about 8 seconds per picture and the program will handle a single picture or a range of them. The only catch is that you convert the pictures by number and not name. That's why you should have printed the lot of them out in the beginning --so you could count them!

PAGEPRO will also let you convert any of the hundreds of TI-ARTIST character fonts to be used with the program as well. Both small and large TI-ARTIST fonts are supported.

When you have the pictures that you want, you arrange the text and pictures to create the presentation you want (like Jack Sughrue) and dump the lot to the printer. The only drawback is, that since everything is dot-image graphics, the process is a bit slow. The results can be spectacular, though!

In fact, for examples of what you can do by mixing text and graphics take a look at Sughrue's adverts in the August-September and October issues of the HV99 newsletter. Those aren't even the best examples that I have seen.

If you are interested in customizing either TIPSHOW or TIPS2PP, write to the address below and I'll be glad to share some suggestions with you.

One last note! After 3+ years of writing this column, the "well" is starting to go a bit dry. Anyone (including the Editor) who has suggestions for future topics to be explored in this column are encouraged to sent their suggestions to me at: 1504 Larson St., Greensboro, N.C. 27407, USA. I'll wait for a letter or two while I ponder what to write about next month.

RANDOM BYTES (Here is the next instalment already)

By Bob Carmany

This is going to be a departure from my usual "nuts and bolts" column. Take a few minutes to reflect on the comments that follow.

You know you are a TI "Founding Father" when

- your first TI console cost $300 or more
- your first word processor loaded from cassette tape
- the first Disk Controller for your system plugged into the side of the console
- you regularly used ANY version of Funlwriter
- you remember Al Lawrence with a beard or Brian Woods without one
- you had a subscription to 99'er Magazine
- you were ever more adept at programming than either of the McGoverns
- you thought CARWARS was top-flight entertainment
- you remember the color of the cover on the first HV99 newsletter (or have a copy)
- you can remember when the newsletter editor complained about too much material being submitted for each issue
- you remember who started the HV99 Users Group
- you used the TE II cartridge for telecommunications with an acoustic modem!
- you remember when a funnelweb was REALLY only a spider
- you bought disks for $25 a box of 10
- you were there and know who the "unknown" UG member was that danced with every old boiler in the place (see the October '90 issue of the newsletter)

While you are pondering and reflecting over those "goodies", her is something else to think about. Here in the other "former Crown colony",the bottom has literally fallen out of the microchip market. I thought that I found an exceptionally cheap source for 32K chips a couple of monthsback but I almost fell over when I read the latest catalog from JDRMICROdevices --would you believe $4.95 each! Even with internationalshipping rates (small packet airmail) it work out to about $5.25 (US) perchip. Al Lawrence has the address and they are very reliable.

I wrote a column for the Guilford 99'ers about "scrounging" for TI gear awhile back. There is still TI stuff available if you take the time to look for it. Two of the best sources are flea markets, yard sales and similar affairs. Often times, someone will drag one of those $49 consoles out of the closet and sell it off at a flea market. There are other peripherals there from time to time as well.

Lutz Winkler, in California, tells the story of finding six TI consoles for $36 --that's $6 apiece. With a TMS9918A (video processor chip) going for about $20, they were worth the investment just for parts alone. Strangely enough, three of them were in excellent condition are are still working at last report. Ask Larry Reid about the "treasures" to be found in flea markets — he is a weekend regular at the ones in Queensland.

Just to make Ron K envious, I have to mention that I found a large "pocket" of Black Opal the other day. Alas, not the gemstone but this lot comes in a bottle from Richmond Wineries in Sandy Hollow, NSW. I think Woodsy and Al remember going there last year. Anyway, I've laid in a supply. To paraphrase an Aussie postcard -- "If you were here we'd drink Opal not beer, but since you're not I'll drink the lot!"

Well, a 'buffer full' message looms on the horizon and I have correspondence to answer and another Guilford 99'er newsletter to put together. Besides that, there are a couple of columns to write for this newsletter. I think I suffer withdrawal symptoms if I don't have at least one article in a half-finished state and several letters scattered about on my desk.

Oh well, 'til next month . . .

Multiplan...

Peter Smith.

A great use for your computer.....

Lots of people have problems deciding what to do with their computer, or even have ideas but don't know how to go about it. Multiplan can certainly provide manyy possiblities from a traditional spread-sheet to a data base rto a word processor...

I'm just going to show one use I made of it many moons ago when I was treasurer of this club.

I have no accounting background, but I wanted to have a list of money coming into the club and money going out and be able to present to our committee a r3eport each month and at the end of the year.

I had multiplan for a number of years but hadn't done a great deal with it.. I was comfortable but no expert... (still not) but I learnt a few things when I set up the following sheets.

Due to the lack of memory, I decided to have 4 separate sheets involved. One to show credits, one to show debits, one to do monthly balances and on to do end-of-year summaries. Each monthly balance sheet would be required to obtain information from the credit and debit sheets for that particular month, and the yearly balance sheet would be required to obtain information from each month's balance sheet.

To do this Multiplan uses the EXTERNAL COPY command and you simply have to detail the range (a list of cells on the sheet) and the file name to copy from and the range to copy to.

Four blank sheets are used as templates and data is entered into them individually and then saved with a name appropriate to the mont eg.. The credits for March 1991 could be saved as MARC91 the debits as MARD91 and the balance sheet MARB91.

I have enclosed a printout for the some templates showing the formulas and row and column numbers in the hope that you will study them and get some ideas which might help you.

Note some of the formulas have the IF satement in them . Its very handy.

Also examine some of the functions available.. they certainly are powerful.

ABS(N) .. Returns the absolute value of an argument (N)

COUNT(List) ..Returns the count of values represented by the list. Cells are counted only if they contain number values

DOLLAR(N).. ..Converts the argument to text showing dollar amount

EXP(N) ..Calculates e(2.7182818..., the base of the natural logarith) to the power of the argument.

FALSE() ..Returns the logical value false.

AND(list) ..Returns logical value true if all the specified arguments are true otherwise it returns false.

ATAN(N) ..Calculates the arctangent function of an argument yielding an angle in radians in the range(-pi/2 to +pi/2).

AVERAGE(List) Calculates the average of the specified argument values.

COLUMN() ..Returns the number of the column in which thew formula containing the fuction appears.

FIXED(N,Digits) Converts the specified value to text showing a fixed-decimal number).

IF(Logical,Then Value,Else Value) If the logical is true, it returns the Then value. Otherwise it returns the Else value).

INDEX(Area, Subscripts) Returns the value of a cell selected by Subscripts from the rectangular area.

INT(N) ..Returns the largest integer less than or equal to N.

ISERROR(Value) ..Returns the logical value true if the argument is any of the error values (#N/A, #VALUE!, #REF!, #DIV/0!, #NUM!, #NAME?, #NULL!) Otherwise, it returns false.

ISNA(Value) ...Returns the logical value true if the argument is #N/A(not available). Otherwis, it returns false.

LEN(T) ..Returns the number of characters in the text value.

LN(N) ..Calculates the natural logarith of the argument.

LOG10(N) ..Calculates the base 10 log of the argument

LOOKUP(N,Table) ..Searches for N in the first row or column of table. Returns the contents of a cell from the last row or column of Table.

MAX(List) ..Returns the largest number value from List.

MID(T,Start,Count) .. Returns specified characters from T

MIN(List) .. Returns the smallest number value from List.

MOD(Dividend,Divisor) ..Returns the remainder of Dividend divided by Divisor.

NA() ..Returns the #N?A(not available) special value.

NOT(Logical) ..Returns the opposite of the logical value argument(false if arg is true; true if arg is false)

Monthly balance Sheet.

	1	2	3	4	5	6	7	8
1	""	"HUNTER"	"VALLEY"	"99'ers."				
2	""	" BALAN"	"CE SHE"	"ET."	""	"**********"	"**********"	
3	""	"********"	"********"	"********"	"**********"	"**********"	"**********"	
4	"							
5			" C/F- "	"FROM..."	_____	_____		
6					"(Month)"			
7			"Credits "	"for....."				
8				"classes"	R[+23]C[-2]			
9				"meetings'	R[+22]C[-1]			
10				"l/memb"	R[+21]C			
11				"OS/emb"	R[+20]C[+1]			
12				"hrd/ware'	R[+19]C[+2]			
13				"sft/ware'	R[+18]C[+3]			
14				"Misc.."	R[+17]C[+4]			
15				"TOTAL..."		R[+16]C[+4]		
16								
17			" Debits"	"for....."	R[-10]C			
18				"exec/exp"	R[+15]C[-2]			
19				"bnk/fees'	R[+14]C[-1]			
20				'hrd/ware'	R[+13]C			
21				"sft/ware"	R[+12]C[+1]			
22				'mag/post'	R[+11]C[+2]			
23				"Misc..."	R[+10]C[+3]			
24				"TOTAL..."		R[+9]C[+3]		
25								
26			"Balance"	"as of"	_____	R[-21]C+R[-11]C-R[-2]C		
27								"
28			"********"		"**********"	"**********"	"********"	""
29			"END OF"	"SHEET. T"	"HE FOLLO"	"WING VALUE'	"S ARE"	"FOR TRAN"
30			"XC.."	"R42C5:13"	" OF CURR"	"ENT MONTH "	"CREDIT "	" SHEET."
31								
32			"XC....."	"R42C5:11"	"" OF CURR"	"ENT MONTH '	"DEBIT"	"SHEET."
33								

insert month

insert balance from previous month.

These formulae simply copy data from the line at the bottom of the sheet where the credits were copied to.

These formulae simply copy data from the line (33) at bottom of sheet where debits were copied to.

This formula calculates the balance

insert date.

Use external copy to copy in Totals from monthly credit sheet across this line.

Use external copy to copy in totals from monthly debit sheet so that they are copied across this line.

INT(Value,List) ..Interpret Value calculates the amount of money required now to produce a specified cash flow in the future, given some interest rate..

OR(List) ..Returns the logical value true if any value in List is true.
PI() ..Returns the value 3.14159265358, an approximation of the mathematical constant pi
REPT(T,Count) ..Returns the text value consisting og Count repetitions T.
ROUND(N,Digits) .. Returns a value, rounded to the number of dec places specified by digits.
ROW() ..Returns the number of the row in which the formula containing this function appears
SIGN(N) ..Returns the number representing the algebraic sign of the argument.
SIN(theta) ..Calculates the sine of the argument, an angle in radians.
SQRT(N) ..Returns the square root of the argument.
STDEV(List) ..Calculates the sample standard deviation of the number values represented by List according to the formula.
SUM(List) ..Returns the sum of number of values represented by List.
TAN(theta) ..Calculates the tangent of the argument, an angle in radians.
TRUE() ..Returns the logical value true.
VALUE(T) ..Returns number represented as text in the argument.

Monthly Credit Sheet.

	1	2	3	4	5	6	7
1	""						
2	""	"	HUNTER"		"VALLEY "		"99'ers"
3			"Club Acc"	"ounts..."	"....."	"CREDITS"	""
4	""	"**********"	"*********"	"*********"	"**********"	"**********"	"**********"
5			" RECEI "	"PT No."			
6		"Date"	"From"	"To"	"DETAILS"	"Classes"	"Meetings"
7		"----------"	"----------"	"----------"	"----------"	"----------"	"----------"

This is the headings.

↓ up to row 41

	8	9	10	11	12	13
1						
2						
3						
4	"**********"	"*********"	"*********"	"**********"	"*********"	"*********"
5						
6	" L/Memb"	"Os/Memb"	"H/ware"	"S/ware"	"Misc."	"TOTAL"
7	"----------"	"----------"	"----------"	"----------"	"----------"	"----------"
8						IF(SUM(RC[-7]:RC[-1])=0," ",SUM(RC[-7]:RC[-1]))
9						IF(SUM(RC[-7]:RC[-1])=0," ",SUM(RC[-7]:RC[-1]))

These formula total the rows. If there is nothing in the row nothing is printed else it would print "0". They appear at ends of every row.

col 13

	6	7	41	8	9	10	11	12	
	SUM(R[-34]C:R[-1]C)	SUM(R[-34]C:R[-1]C)	42	SUM(R[-34]C:R[-1]C)	SUM(R[-34]C:R[-1]C)	SUM(R[-34]C:R[-1]C)	SUM(R[-34]C:R[-1]C)	SUM(R[-34]C:R[-1]C)	IF(SUM(RC[-7]:RC[-1])=0," ",SUM(RC[-7]:RC[-1]))
			43					""	SUM(R8:41C13)

These formula total the amounts in each column. Note the range expressions.

This totals all col 13.

HUNTER VALLEY 99'ers

Club Accounts.....CREDITS

Date	RECEIPT No. From	To	DETAILS	Classes	Meetings	L/Memb	Os/Memb	H/ware	S/ware	Misc.	TOTAL
						$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

This is a print-out of above. of course if there were amounts they would be shown.

These totals are needed in Monthly Balance sheet and are imported.

NEW/AGE SPECIAL

* by JACK SUGHRUE, Box 459, East Douglas, MA 01516 *

GOOD, BETTER, BEST!

There is only one program in the TI disk community that is (as my 5th-grade pupils would say) "totally wicked awesome rad to a gnarly degree." I agree with the sentiment, if not the mode of expression.

Nothing else in our world computer community has equalled the impact of the FUNNELWEB environment created for us by Tony McGovern and his son, Will. These two Australian geniuses (and I do not use the word lightly) put together what all of us deemed impossible for the TI.

FUNNELWEB just grew and grew. The original American release was a TI WRITER and EDITOR ASSEMBLER combo, more or less (actually more). Next version a few months later contained a bit more with lots of enhancements of what went on before. TIW, for example, does not contain a ruler or address recall or macro-key CAPS or LC. Tony put all these things in fairly early versions, all of which we take for granted in our word processing activities. The environment always loaded by either E/A or XB, thus making it ideal for supercarts (again from earlier versions) or RAMs or whatever device hardwarers could devise. Then things like Disk Manager 1000 and Diskpatch were added and modified. As were loaders for c99, FORTH, etc. Each time Tony (primarily) would unravel the complexities caused by these needs and create new and better solutions than dreamed possible.

When he came up with the windowing effects for the CONFIG program, for example, which established a profound systems configuration (still able to be ported *en masse* to any newer version, I felt he had reached his peak. Boy, was I ever wrong.

FUNNELWEB is not a program. It is an environment which gives you, the user, some great computing tools in such a complete package that it becomes almost impossible to do without them after using them.

Probably 80% or more of normal (non-programmer) use of computers - expecially the TI - is word processing. People need to communicate. FUNNELWEB turned TIW into a great word processor, adding so many features that should have been in the original cart/disk combo that when you go back to that combo you are apalled at its limitations. As I say, we have become spoiled by Tony and take for granted what is surely a remarkable achievement.

Much as I ♥ my TI, I know that if FUNNELWEB did not exist I would no longer be TIing. I couldn't. FWB's a structure equal to the best that any home computer has to offer its users at any price.

Let's face it. It serves as a Master DOS. What does a Disk Operating System do? Well, it lets you load up other programs, primarily, or lets you handle some disk management tasks. FWB does all that as a sideline.

With the new 4.31 FUNNELWEB the console 99 disk user has just leaped quantumly into an exciting era. The 40-column (standard) TI computer fan now has available to him or her a package heretofore only available to non-standard 80-col upgraders.

Before I go on, I'd like to say:

STOP!

The bad news is this: Will went over to the Amiga a long while ago, and his father will be following shortly. This will mean that the greatest single piece of software for the TI will no longer grow; nor will we be seeing any other pieces come from Funnelweb Farm; nor will there be any more great tutorials (particularly those on exploring XB). This is not only BAD news, it is HORRIBLE news. Not that I can blame Tony. Although close to 100% of all TI disk users use FWB and its

upgrades, an extremely small number has ever paid the author a penny - and a tinier number, still, has ever given a second contribution (though the original to present upgrade is similar to the difference between my salary and Donald Trump's). And a tinier number, still, have ever written to Tony to tell him how much they use and appreciate FUNNELWEB and all the other great things he has done for us.

Remember, this is not commercialware. Fairware authors need and deserve our support. Fairware authors of the stature of Tony McGovern have earned massive support financially and socially. They just don't get it.

I urge every user group to "charge" a minimum $10 copying fee to each member for this upgrade and send the entire collected sum to Tony. Send a group letter. Write him up in your newsletter. Let's let '91 be the Year of the McGovern. Even more, I urge every single reader to sit down at your first opportunity and write (probably using FUNNELWEB) a supporting letter, enclosing the largest cash (certified check, international coupon, money order) contribution you can really afford. It'll still be cheaper than anything you'd have to pay for that would be in the same league as FUNNELWEB (if such a thing exists). People couldn't wait, for example, to shell out $60 for PRESS (sight unseen) or $25 to $60 for data bases. Many of our game cartridges cost at least five times what some consider a "fair" price to pay for the finest piece of software ever for the TI.

How about this for a rule of thumb? Take the most expensive piece of software you ever bought (and probably don't even use anymore) and double it. Send that as a donation. Remember what you paid in those pre-inflationary days for LOGO and MULTIPLAN and TI WRITER and DISK MANAGER II and E/A and whatever?

Well, the new FUNNELWEB has so many new features that most of those expensive cartridges and upgrade disks can be chucked in the basket.

What's your TI worth to you? What'll it be worth to you down the road with Tony McGovern gone? Decide soon about your commitment and make the investment today in your future.

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So what are a few of these outstanding features? Well, for one, there is no more Disk Manager 1000 nor Disk Patch, because the new Disk Review performs all the functions of both (and then some) from within the FWB environment, including COPYING FILE BY FILE (to eliminate fractures) WHOLE DISKS TO MULTIPLE DRIVES! So stick a disk in Drive 1 and copy to Drives 2, 3, AND 4, while you go comb your wallaby. Disks can be FORMATted to Quad density, if you have the right controller. Any program can be RUN right out of DR, including the huge IV254s. The Quick Directory now lets you mark a file from WITHIN the FORMATter or ASSEMBLER. And the disk editing functions are plentiful and profound.

The whole FUNNELWEB 4.31 environment is profound. You'll realize this immediately when you see BOTH central menus displayed on the screen simultaneously and you just have to move the cursor around to either RUN the program (or VIEW and/or PRINT the text file).

This is a must for eveyone!

Get it from your user group today, being aware that everything worthwhile in life costs.

(If you use MDW-ASM/99 please put me on your exchange list.)
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W-AGE/99 * NEW-AGE/
99 * NEW-AGE/99 * N
EW-AGE/99 * NEW-AGE
/99 * NEW-AGE/99 *

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* by JACK SUGHRUE, Box 459, East Douglas, MA 01516 *

#12

MICKEY REVISITED

Last time in NEWAGE I spent lots of time talking about Mickey Schmitt's two books (THE ADVENTURE REFERENCE GUIDE, $9.95 + $2 S+H, from Asgard, Box 10306, Rockville, MD, 20848, and GETTING THE MOST FROM YOUR CASSETTE SYSTEM, $9.95 + $2.50 S+H, from the author - Mickey Schmitt, 196 Broadway Avenue, Lower Burrell, PA, 15068). In the interim, I've also written a lengthier article about the new and wonderful ways to use cassettes based upon Mickey's cassette book which appeared in REFLECTIONS. There are a couple of disks available for user groups (or individuals) who have cassettes still active. These two different chock-full disks include all the items referred to by Mickey and many others not yet mentioned by her and can be gotten for a $3 shipping/handling fee each by asking for "Cassette Master Disk" from M.U.N.C.H., 560 Lincoln Street, P.O. Box 7193, Worcester, MA, 01605-7193: and "TI PD 1205.1 Cassette Utilities" from Tigercub, 156 Collingwood Avenue, Columbus, OH, 43213. Add an extra $1 to Tigercub's disk request and ask for Jim Peterson's PD Catalog, the largest collection of the best of the least expensive treasures in the TI World.

If your user group hasn't yet purchased Mickey's cassette book and used it as a fund-raiser, then your group is missing a great opportunity to make some green.

Some other things have happened since I wrote that original article. Mickey has formed a new - NEW! - company of all TI stuff.

Doesn't that have a nice ring to it? A new TI company. The MS stands for the two partners: Mickey Schmitt and Mike Sealy. They can be reached at MS EXPRESS SOFTWARE, P.O. Box 498, Richmond, OH 43944. This dynamic duo made their professional debut at the Chicago Fair in November and released a pile of stuff:

ADVENTURE HINTS (Series I) by Lynn Gardner, which is unique in help concepts for adventurers. Each hint loads into the console in the same way the Adventure Module disks load. In addition to loading as standalone help, these hints can also be loaded into the specific programs and called up from a running program! These disks include built-in maps AND hardcopy maps. Nice feature. This first series includes some of the adventures written by Mickey and Lynn: OLIVER'S TWIST, RATTLESNAKE BEND, ZOOM FLUME. The same kind of two word (noun/verb) commands are used to ask for help, so there's no need to use all kinds of colored cellophane papers, special invisible ink pens, plastic decoding devices, whatever. Requires Adventure Module or interpreter.

GALACTIC EMPERORS by Eric Kepes, an Extended BASIC, multi-player, strategic simulation program. You and one, two, or three others are each trying to thwart opponents by accessing control to all the planets in the galaxy. Shades of the Darth Vader! There are decisions you and your opponents make beforehand (such as the number of planets) before the computer generates (new each time) the playing grid. Although many random events occur during the game play, the game is a mentally

challenging activity that can be saved to continue play at a future date.

(Both of the above are $9.95 + $1 S+H and require the standard minimum configuration of one SSSD drive and 32K.)

Finally from MS EXPRESS, there are SLIDING BLOCK PUZZLES (Series I) and SLIDING BLOCK SOLUTIONS (Series I) each $7.95 + $1 S+H and both by Norman Rokke, the same person who brought you the extraordiary Fairware graphic/text program "1000 WORDS," one of the very best of its kind ever.

In this case, Norman has transcended the "normal" sliding block puzzles with which we are so familiar. In the late 1800's Sam Loyd, America's most ingenious puzzle maker at the turn of the century, created the 14-15 sliding block puzzle. There are lots of these out for the TI. The best I've seen is Chris Bobbitt's Public Domain version of many years ago and in all group libraries.

These puzzles, however, are considerably more challenging than the originals. There are three on this disk and all can be saved in mid-game, so one doesn't have to begin all over again.

The first consists of nine different-colored tiles and supposedly can be solved in 59 moves. Puzzle #2 is made up of 10 blocks and could be completed in 81 moves. The hardest (#3, of course) has 11 tiles to shift and can be solved in 90 moves. A colored monitor or TV to go with your XB, 32K, and minimum disk drive system are required.

You need the these puzzles before you get the solutions' disk, which provides the help you need for each puzzle in little pieces so as not to ruin the game for you. Very user-friendly, like all things Norman does. And, of course, ingenuity by him is taken for granted.

Now that we have a new company supporting TIers, let's hope the TI Community supports the new company. Your support will encourage even more authors to stay with and write for the 99.

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I continue to get letters from cribbage buffs all over the TI World asking about a program I reviewed last year. The program is written by Gene Hitz. He even rewrote it after I gleefully stated how I found a way to cheat on the "Go". He chastised me for cheating our little 99 computer. Now, the computer catches me each time when I try. This program is called "Cutthroat Cribbage" and gives you a muggins if you count incorrectly. It's fun to play and is fast and friendly. The game can be purchased for $7 from ARCADE ACTION, Program Innovators, 412 Glenway, Wawatosa, WI 53222. Actually, for $10 you get a diskful of games, including a nice version of TETRIS and piles of others. If you are a cribbage player, I'd recommend this game highly. If you'd like to learn the game, ask for the longer version (though I think he sends both versions, anyway), because this will give you the option to have the computer count up any combinations to see how things are scored. Then get yourself a HOYLE's from the library and play your TI until you got the game down pat. Excellent midnight companion.

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Besides TIGERCUB's $1 catalog of Public Domain disks (truly the BEST BUY in the TI World), everyone should send off for Asgard's newest catalog. Asgard's latest, particularly for Page Pro owners, is a mouth-watering collection of delectable delights. For game players, William Reiss's TOURNAMENT SOLITAIRE (which includes - along with KLONDIKE - PYRAMID, GOLF, COMERS, PILE-UP, CANFIELD, and CALCULATION) is teriffic. But call or write for the free catalog and notice the high level of your droolability.

[If you use MEW-ASM/99 please put a on your exchange list.]

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W-AGE/99 * NEW-AGE/
99 * NEW-AGE/99 * N
EW-AGE/99 * NEW-AGE
/99 * NEW-AGE/99 *
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* by JACK SUGHRUE, Box 459, East Douglas, MA 01516 *

#13
the VCR CONNECTION

I think one of the most exciting things to happen in our 99 world is the advent of tutorial and conference videos.

Almost everyone has a VCR, the ownership of which can now open new worlds to 99 and Geneve users. Now that VCRs are coming down in price, more and more groups and individuals are using this tool to enhance their computer activities and share their computer knowledge.

The unquestioned master of this new genre is Dr. Charles Good of the Lima, Ohio, group. Videos have been around for some time and made their first TI existence about five or six years ago at the Chicago Fair. Some of the big-wiggies were interviewed and some screens were shown of different pieces of software. This amateur tape circulated for a year or so around lots of user groups. We (then still in the millions, it seemed) watched transfixed as new and exciting things were explained and shown to us.

Then drought.

Well, even though there were some other videos around here andthere, the drought really ended when Charlie took up the cause with a vengeance. Not only does the Lima group make a monthly tape of the demos of their meetings, but they have amassed a vast TI tape library. I have on my desk (all from Lima) the following: NEVER RELEASED OFFICIAL TI MODULES, TI MULTI-USER GROUP CONFERENCE 1988, CONFERENCE 1989 (2 tapes), CONFERENCE 1990 (3 tapes), MBX REQUIRED GAMES, FUNNELWEB v4.2 DEMO, and DON ALEXANDER'S GENEVE SOFTWARE DEMO. These 10 tapes run about 50 hours! They are filled with all sorts of people demonstrating (or discussing or teaching) all sorts of TI things. I'll list a few.

Karl Romstedt - friendly general loader and label printing software in XB with assembly routines; Harold Hoyt - useful applications of Steve Karesek's SUPER BASIC; Irwin Hott - using ALSAVE to imbed assembly code with an XB program; Bill Hudson - an assembly language prescan for XB; Multiplan Tutorial - presented by Great Lakes Computer Group; PLUS! - demonstrated by Jack Sughrue; Geneve - demonstrated by Edu Comp; Horizon Ramdisk - discussed by Bud Mills; Home Control 99 - demonstrated by Paul Wheeler; The Future of User Groups - discussion led by Charles Good and Dave Szippl of the Lima Group; A Blind Person Using the TI - demonstrated by Irwin Hott; NUTS & BOLTS - demonstrated by Jim Peterson; GENE III - demonstrated by Dick Berry; Output to a VCR - shown by John Perkins; 1000 WORDS - author Norman Rokke demonstrates this Artist/text conversion file; Barry Traver - contents of Genial Traveler and linking XB to assembly via CALL LINK; Chris Bobbitt - recent and future releases from Asgard; Andy Frueh - music programming on the 4a; Ron Markus - the DIJIT AVPC 80-column card; Jim Horn - services on COMPUSERVE; Martin Smoley - TI BASE tutorial; Paul Scheidemantle - converting from one Artist format to another and tips and tricks; Steve Karasek - SUPERBASIC 2.0; Karl Romstedt - Panorama, a new artist program; Milo Tsukroff - MX-DOS v3.0 an icon/joystick based program loader with disk management features; Beery Miller - future software for the Geneve; Jim Peterson - using Don Shorock's Kana Filer that speaks and writes (with TEII)

Japanese and drills vocabulary; Bruce Harrison - secrets of assembly language programming to make TI music; Gary Bowser - Rambo review module library box; Gary Taylor - demonstration of TI's Compact Computer 40, TI's Hex Bux peripherals, and Mechatronics Hex Bus Drive; and lots more.

This should give you a good idea of the kinds of things available each May just from the annual Lima Fair (called "T.I. Multi User Group Conference," for some unknown reason). Each of these six-hour tapes use cameras on the tutor while cutting into the screen electronically when something is being shown. These tapes get better and better each year, and the editing techniques are superb. Although I haven't been able to attend the last two years, I felt I got a big part of the fair sent to me. I know a lot of other homebound TI acquaintances feel the same. It's no real substitute for being at the fair, of course, but it's a great second best. The TI experts are at your beck and call in your home any time you want them.

In addition to all these fair tapes, there are numerous "single theme" jobs also available. Don Alexander of Macon, Georgia, for example, does a fine job with the Geneve. I think this one is better for someone who has used the Geneve for awhile, though. I hope someone eventually does a truly step-by-step basic tutorial of the Geneve, maybe even a full six hours. It is sorely needed.

Charlie has also done theme tapes, such as MBX (where he steps through all the MBX modules) and UNRELEASED (where he plays and discusses all the delightful unreleased TI modules). I found both these tapes fascinating, particularly the UNRELEASED, as I could load them onto my SUPERCART or my GENEVE. Charlie's FUNNELWEB 4.2 DEMO is a classic. The viewer is taken through every step of the FWB configuration process that (for some strange reason) frightened so many people. Though the tape is similar to Charlie's tutorials in the BITS, BYTES & PIXELS newsletter he edits for Lima, it is far more extensive and much clearer, as you can see and hear everything being done live. I can't imagine anyone not being able to perform FWB magic after viewing this tape.

To get more information about these tapes (and/or join the Lima Group by mail which I would HIGHLY recommend), contact Charles Good, PO Box 647, Venedocia, OH 45894.

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ANOTHER GOLDEN GOODIE

There is another great video now available to TI owners: the full-length LOGO video done by Eunice Spooner (RFD 1, Box 3720, Webb Road, Waterville, ME 04901). It is wonderful! It also comes with a disk full of lots of the items she demos and a hardcopy listing of the items and footage for easy tape locations.

Eunice is a certified elementary teacher and it is obvious on this tape. She's teriffic: kind, patient, step-by-step logical, no panic; and she makes everything seem easy and fun. Which it is, if you do the things she suggests.

I always liked LOGO. Then I put it away for a long time. After viewing this tape and trying her programs, I discovered I ♥ LOGO.

If you own LOGO, get this package instantly. At $10 it is a total steal. And it is used as a fundraiser to support the only ALL KIDS TI USER GROUP IN THE WORLD! If you don't own LOGO, buy it instantly. (It's on sale everywhere CHEAP! I paid $119 for my first and recently bought an unboxed one for $15.) But, new or used, pick one up for this video/disk set alone. You'll rediscover the joys of computing and the real fun (and learning, which is why it is fun) of your remarkable 4a. Don't delay.

(If you use MBX-AUG/99 please put me on your exchange list.)
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COMPUTER KNOWLEDGE TEST

This test came to use in the LA 99ers Newsletter, February 1990.

This is a standard of competency for personal computing. For the first time, the rank novice and seasoned veteran alike can evaluate his or her proficiency against an impartial, objective norm. Now can be separated the chaff from the grain, the know-nothings from those in the know, the men from the boys and the girls from the Ipanema.

Now down to it, and remember -
NO CHEATING!!!

1. Which of the following is a bald-faced lie?
   a) *The problem is in the software*
   b) *The problem is in the hardware*
   c) *The problem is with the user*
   d) *The problem is with the dealer*

2. A disk Operating System is:
   a) *A new chiropractic technique*
   b) *A place selling pirated software*
   c) *A Hi fi component*
   d) *A Frisbee user manual*

3. Lost data is caused most often by:
   a) *Poltergeists*
   b) *Ignes faulti*
   c) *Banshees*
   d) *Haints*

4. True or False?
   Electronic spreadsheets are robots that change the linen in motels.

5. The difference between a word processor & a food processor is mainly
   a) *The time it takes to clean up*
   b) *A matter of taste*
   c) *W Vs. f and r Vs. o.*
   d) *There is no difference*

6. In which of the following sentences is the term default used properly?
   a) *Default is in de software*
   b) *Default is in de hardware*
   c) *Default is in de user*
   d) *Default is in de dealer*

7. The name Hard Disk comes from the fact that:
   a) *They are harder to pay for than floppies*
   b) *They are harder to use for a coaster for a coffee cup than a floppy is*
   c) *They are harder to get into those little sleeves than a floppy*
   d) *They dent hardwood floors when you drop them*

8. RAM is measured in:
   a) *Horsepower*
   b) *First downs*
   c) *Distance of the curl of the horn*
   d) *Proof*

9. True or False?
   When in ROM do as the ROMANS do

10. Computers are thought of as being "changeable" machines because:
   a) *You don't know what they'll do next*
   b) *If you get mad enough, you can always change it into a pile of wreckage*
   c) *They give you two tens for a twenty*
   d) *They change people into lunatics*

11. "Compatibility" refers to:
   a) *Your ability to get along with your spouse after using the computer*
   b) *Your spouse's ability to get along with you after you've been using your computer*
   c) *While using your computer at work, your ability to refrain from using language best employed in private*
   d) *Your computer's ability to understand commands like "Drop Dead"*

12. Telecommunication software gives you the ability to:
   a) *Double your phone bill*
   b) *Triple your phone bill*
   c) *Quadruple your phone bill*
   d) *Amass a fantastic collection of free, public domain software that you do not need and is full of viruses*

13. If it takes two minutes to address an envelope with a typewriter, a novice computer user should be able to do it successfully by computer in:

a) *Three hours*
b) *Six days*
c) *Two months*
d) *It can't be done*

14. When a file has been deleted, it actually exists; it has merely been changed slightly by:

a) *Putting Groucho glass on it so DOS no longer recognizes it.*
b) *Sending it to the cleaners where all the buttons are removed*
c) *Recombinant genetic engineering*
d) *Forcing it into a pasta machine*

15. A Byte is:

a) Worse than a bark
b) Not as bad as a bark
c) Two bits, four bits, six bits, a dollar
d) A shave and a haircut

16. True or False?

The term "Menu Driven" refers to someone who is addicted to restaurants

17. The one thing you like about owning a computer is:

a) *The sound it makes*
b) *The way it warms your coffee*
c) *Your reflection on the screen*
d) *The software start-up graphics*

AND THAT'S IT!!!

HOW TO SCORE To calculate your score, assign each "a" answer 97 points; each "b" answer 98 points; each "c" answer 99 points and each "d" answer the number of points equal to your age.

Each "True" answer gets one point and each "False" answer 0 points (naturally!).

Add up the points and divide by the number of bytes in your hard disk (or if your system does not have a hard disk, by the number of bytes in RAM).

If your score comes to 31.00769, you have witnessed a miracle and should not be using a computer.

NEW PRODUCTS

Randy Packham of RR2 Nanticoke, Ontario Canada N0A 1L0 is offering an Aircraft Graphics Disk with more than 30 famous aircraft contained on the disk in TI-Artist format. Disks come in SSSD format and DSDD format. Cost is $US10 plus postage.

From the January issue of the newsletter of the Brea 99ers (USA) comes the following info...

T.I.M. (TI Image Maker) is an 80 column device that consists of a chip changer inside the console. This will allow you to use 80 column programs. You will have to change monitors to get the best results and screen images. This is produced by OPA 432 Jarvis St, Suite 502, Toronto Canada M47 2H3, at a cost of approx $US150.

Hard & Floppy Disk Controller

- this is a new concept for the TI in that it uses existing and proven principles and electronics which have been converted to be used in the TI 99/4A. It is basically an IBM controller modified and interfaced to be fully compatible with your TI. This is from ESD at a predicted price of $US225. Write to: Electronic Systems Development Corporation PO Box 23805 Washington DC 20026-3805 USA.

Screen Preview will format your TI document and display it to the screen in a Greeked format (the text is displayed as dots on the screen). You can justify the centring, margins before you start the printing operation. This program is available from Asgard Software for $US12.95.

From the Brisbane UG Newsletter comes this info...

Rave 99 have released 2 new expansion boxes. Both have a 200 watt power supply. One is designed to have the Geneve 9640 installed and the other will accommodate both the 9640 and the TI 99/4A board. The TI can be removed from the console and installed in the expansion box. Both the TI and the 9640 can be running at the same

time, although you need 2 monitors and they cannot access the same peripheral simultaneously.

A 32 bit bus is also included and is intended for development later. It has the potential to link the TI with a co-processor (perhaps IBM, Apple, Atari or even Ninetendo) or can be used to access "multi-megabytes" of memory.

Prices are between $US300 & $US370 plus shipping, which to Australia would be horrendous!

From Asgard Software,
the following releases...

Artist Font Maker - Design your own fonts using your favourite drawing program, then clip them out and they will be added to the new font file - $US9.95.

Sideways Picture Printer prints Page Pro pictures sideways on an Epson compatible printer (up to 3 pages long). $US12.95.

Waterworks is a fast action arcade game where you install plumbing into a 99 story building. Problems include a tight budget, some faulty building, pests and wind in the upper floors! $US12.95.

McCANN SOFTWARE

There is a new address for McCann Software. It is 4411 North 93rd Street, Omaha NE 68134.

Mike McCann says that although it is no longer developing new software for the TI or the Geneve, it continues to sell and support its products - Business Graphs 99, The Printers Apprentice, TPA Toolbox, TI Forth for MDOS, The Geometers Apprentice and TPA for MDOS.

DIJIT DROPS OUT

DIJIT Systems, which marketed a RGB conversion kit and 80 column card for the TI is no longer going to produce its 80 column card. Called the Advanced Video Processor Card, the card provides an 80 column display using the 99/4A. Reason for dropping the card is the shrinking size of the market.

But that doesn't mean others aren't producing 80 column cards. Asgard has plans to market the Mechatronics 80 column device - it does not plug into the PEB - and word is that Gary Bowser of OPA will be selling an 80 column board using a 9958 chip that is installed in the console - this product may be available soon.

AN OLDIE BUT A GOODIE

From the LA Users Group comes this article that has appeared in many magazines over the years, but is still quite topical...

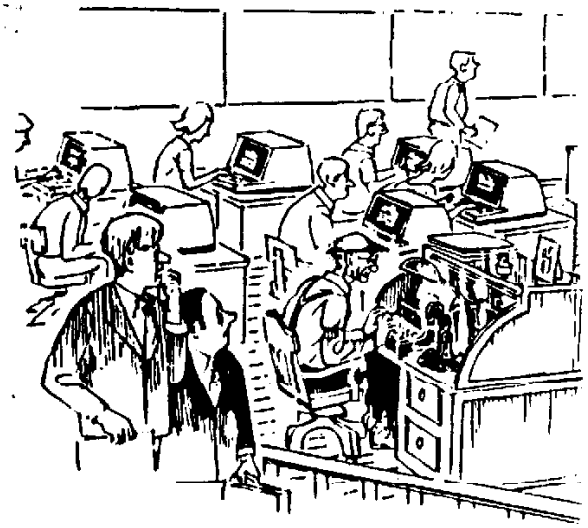
One of the problems with our country is that we don't have the ability to distinguish between risk and anxiety, entirely different things.

David Padwell, Chairman of Hydrogentics, stated it very well. he said, for instance, we know the Surgeon General tells us that 150,000 people die every year from smoking cigarettes, but we're not afraid of cigarettes; 50,000 people die in automobiles, but we're not afraid of automobiles. What we are afraid of is sharks. And in reality, he went on to say, the Medical Statistical Board doesn't even keep a record! They can tell you how many people die of bee stings every year, but not how many die of shark bites.

The Navy guesses somewhere around two a year - but the fact is that if you went out on a beach and shouted **Shark! Shark!** everybody would rush out of the water and get in his car and light a cigarette!

FINALLY From the LA 99ers Newsletter comes this witty (?) observation...

A man in New York gave his seat to a woman. She fainted! When she came to, she thanked him and he fainted! The story's point is that expressing gratitude is admirable, but rare...



"But we can't phase him out.
He's the only one who can spell."

WHATS NEW ??

by Joe Wright

The committee has been doing a lot of soul searching of late. Pete has mentioned this in the last newsletter. We have difficulty getting input and difficulty getting somebody to be Editor. I have recently taken over duties as Editor of a newsletter for the Newcastle Melanoma Foundation, time to put the HV 99'ers newsletter together is just not available. I mentioned during our soul searching exercise that I would like to see articles about general "things" that are about in the computer world. Especially things that we home users don't get to hear of. Pete informed me that if I wanted it I had better write it. So here goes. If you don't like the column tough!! write something yourself.

This column will not be specifically about TI "stuff". It will concentrate on news bits that I have picked up around the traps.

First bit of news is that the line filter in my P.E. Box almost vanished in a ball of fire last weekend. Where is the line filter??. It is an integral part of the supply input receptacle on the rear of the P.E. box. I have not yet replaced it. I am going to fit a normal receptacle ie. one without the filter and install a stand alone filter inside the box. That is this weekend's job, just got to fit it in between finishing off the mods to the front porch and attending OZski at Raymond Terrace, no rest for the wicked!

Anyway on with it lad!

Make Your Own Iron On Patterns

A computer supplies company (Micro Educational) have recently advertised a new type of printer ribbon. The ribbon, available for most popular printer makes, creates an image on normal printer paper. The image can then be ironed onto a Tee shirt or such. The advertisement puts the price of the ribbon at approx A$30.00. No mention of how long it lasts, that is the ribbon or the iron transfer. If you are interested you can ring them on 049 26 4122. They also have a order line 008 025 229 (free call)

CMOS Serial EEPROM

Micro Technology's 85c82 is a 2 kbit Electrically Erasable PROM organised as 256*8 bit memory with two wire serial interface. The EEPROM also has a page write capability of 2 bytes of data, and eight can be connected to the two wire bus. The EEPROM is available in standard eight pin DIP and surface mount SOIC packages.

Other features include 5V only operation. It has a self timed write cycle (including auto erase), page write buffer for up to 2 bytes, 1 ms write cycle time for single byte and 100,000 erase/write cycles. The EEPROM is available for extended temperature ranges: commercial 0 to 70 deg. centigrade and industrial, -40 to +85C. All inputs and outputs with respect to ground are between -0.3 and +7 volts.

Remote Data Logger

The Datataker 50 is a remote data logger being advertised by Data Electronics in Boronia Victoria. It is designed for long term local and unattended remote data logging applications. It can operate for 500 days from a single set of alkaline batteries and store 300,000 readings in a battery backed removable memory card. It has 5 differential or 16 single ended analogue input channels, which can be used in any combination. The analogue to digital converter has 15 bit resolution (1uV), is autocalibrating and autoranges over 3 decades.

The logger accepts analogue inputs of +2.5Vdc, current of 0 to 10A, 4 to 20 mA current

loop, resistance 0 to 8 kohm and frequency 40 Hz to 20kHz. It also fully supports thermocouples (J,K,T), RTD's, monolithic temperature sensors and strain gauges of quarter, half and full bridge.

It has five TTL/CMOS compatible bidirectional digital channels. These can be used as inputs for state monitoring (bit or byte), low speed counting(10 Hz, 16 bit, presentable), and to trigger scanning of any input channels on digital or counter events and condition digital status. There are also three high speed counter inputs (1kHz, 16 bit presentable).

Optical Worm Drive

Information Storage Incorporated's optical worm drives are available for a wide range of operating systems.

The 525 Gbyte optical disk drive has a data transfer rate of 6.5 Mbits/s, average access time of 90 ms, sustained read to host of 491 Kbyte/s, and sustained write from host of 190 Kbyte/s. With this drive the supplier provides WORM-TOS software, a transport operating system which enables the user to work under MS-DOS transparently to the optical disk drive.

The drive is a subsystem that contains two 525 Gbyte units operating on one controller, which gives the user online access to 1.2 Gbytes of information. SCSI controllers are also available.

Toshiba Colour Laptop

A thin film transistor colour technology laptop featuring 256 vibrant colour, the T3200SXC, is a 20 MHz 80386SX based computer with 120 Mbyte storage capacity and 3 expansion slots. It is supplied with 1 Mbyte RAM, expandable to 13 Mbytes and features a full 91 key QWERTY keyboard with separate, built-in numeric keypad.

The colour screen provides resolution quality equivalent to a CRT display. The absence of mis-convergence and magnetic interference inherent in CRT display, ensures high registration.

A/D Faults Locator

An English company Polar Instruments has released a digital and analogue faults locator for use on unpowered boards. This fault finding equipment is designed to use in PCB board replacement/rework and general service applications

It allows an operator to find faults to component level by comparing pictures of device characteristics on an inbuilt CRT screen. Devices can be individually probed or, for testing IC's 2*40 pin clips are provided for connection to the suspect devices.

The 40 pin scanner automatically displays and compares the signature of each pin.

The locator applies a voltage and current limited AC test signal to the device under test and displays the dynamic impedance signature for that component. It does not require programming or device libraries. A pulse generator allows the testing of three terminal devices such as transistors, triacs, and opto couplers.

Plain Paper Plan Printer

Oce 7100 is a medium volume plain paper printer capable of copying in widths to 91.4 cm wide and in lengths of 6 m. The printer can handle both opaque and translucent originals and produces high quality smudge free black and white text copies on either plain paper, transparent paper or polyester film, in formats from A0 to smaller than A4.

Face up front loading of originals and rear delivery of copies, with automatic cutting to size from the convenient roll feed print material and stacking of nine copies are features.

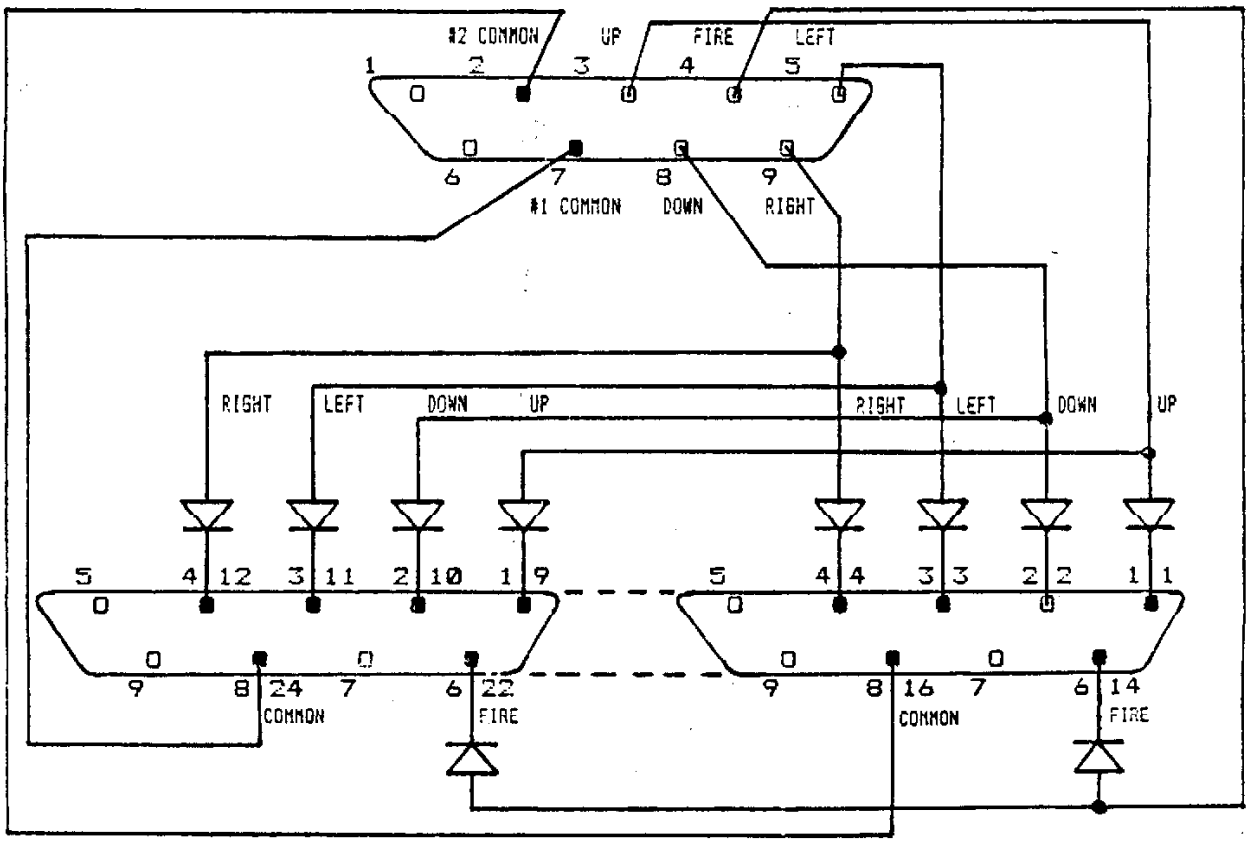
Rigid originals are rear fed. Copy material is fed from a continuous roll, saving operator time on manual insertion and the automatic cutter cuts copies to the original's size. CAD technical drawings, blue line drawings, diazo prints, graphic designs and artwork, and cut and paste composites can be copied.

JOYSTICK ADAPTOR

By Paul Mulvaney, Hunter Valley 99'ers.

Because of the popularity of the new Joystick I purchased another for my other son (Birthdays come in handy to justify upgrading of equipment) so I now needed an adaptor to allow the use of both joysticks at once. I made a dual adaptor and mounted it in a small box and Gary Jones suggested using a D25 connector and blanking off the centre pins, so two versions exist but both use the same wiring scheme. In my box I mounted the diodes on a piece of strip board, in the D25 the diodes can be mounted directly onto the plug and the wires attached as per the previous adaptor. The numbers on the right are for the D25 plug.

D9 SOCKET (Computer End)



D9 PLUG FOR JOYSTICK 1 (Or D25 PLUG)

D9 PLUG FOR JOYSTICK 2