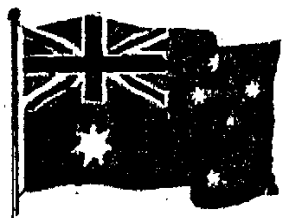
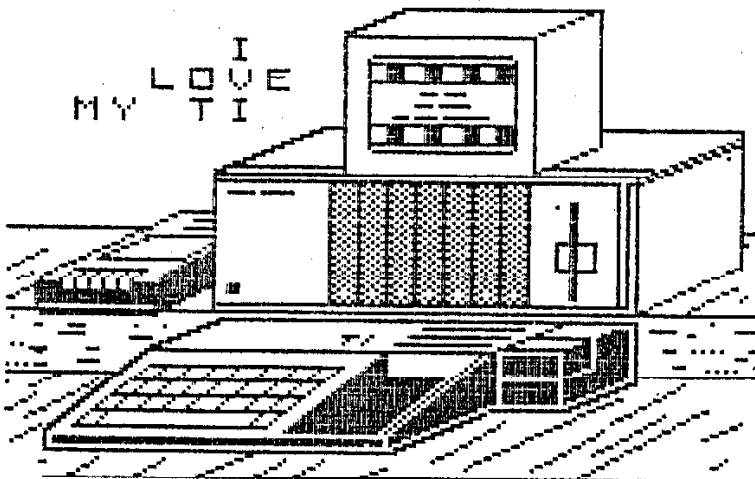
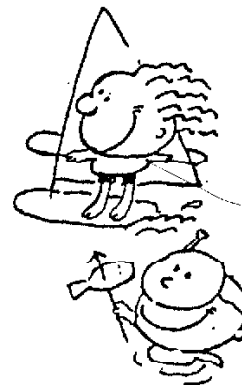
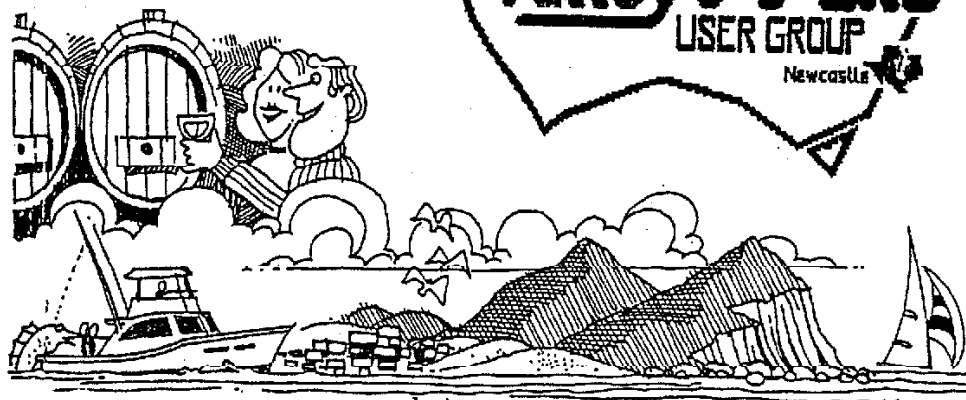


HUNTER VALLEY 99ERS USERS GROUP HOME COMPUTER NEWSLETTER



**APRIL
1988**



REGISTERED BY AUSTRALIA POST PUBLICATION NUMBER N868023
THE SECRETARY HUSBERS, 8 ARCOOT CLOSE TARRO NSW 2382

YOUR COMMITTEE

STO AREA CODE 049

PRESIDENT

Paul Mulvaney
26 Marmong St.,
MARMONG POINT 2284
Ph. 583623

VICE PRESIDENT

Alan Lawrence
35 Bayview St.,
WARNERS BAY 2282
Ph. 486589

SECRETARY

Albert Anderson
6 Arcot Close,
TARRO 2322
Ph. 662682
Viatel 496626828

TREASURER

Peter Smith
8 Glebe St.,
EAST MAITLAND 2322
Ph. 336164
Viatel 493361648

SOFTWARE LIBRARIAN

Alan Franks
822 Pacific Hwy.,
MARKS POINT 2288
Ph. 459178

PUBLICATIONS LIBRARIAN

Allen (Joe) Wright
77 Andrew Rd.,
VALENTINE 2288
Ph. 468128

EDITOR

Brian Woods
9 Thirlmere Pde.,
TARRO 2322
Ph. 662387
Viatel 496623878

PURCHASING CO-ORDINATOR

Bob MacClure
75 Deborah St.,
KOTARA SOUTH 2288
Ph. 437431

TECHNICAL CO-ORDINATOR

Gary Jones
53 Janet St.,
JESMOND 2299
Ph. 573744

SIGs CO-ORDINATOR

Brian Rutherford
9 Bombala St.,
DUDLEY 2298
Ph. 498184

CONTRIBUTIONS

Members and non members are invited to contribute articles for publication in HV99 NEWS.

Any copy intended for publication may be typed, hand written, or submitted on tape/disc media as files suitable for use with TI Writer (ie. DIS/FIX 88 or DIS/VAR 88). 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. File Name etc. The preferred format is 35 columns and page length 66 lines, right justified.

All articles printed in HV99 NEWS (unless notified otherwise) are considered to be Public Domain. Other user groups wishing to reproduce material from HV99 NEWS may feel free to do so as long as the source and author are recognised.

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

DISCLAIMER

The HV99 NEWS is the official newsletter of the HUNTER VALLEY NINETY NINE USER GROUP.

Whilst every effort is made to ensure the correctness and accuracy of the information contained therein, be it of general, technical, or programming nature, no responsibility can be accepted 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.

TEXAS INSTRUMENTS trademarks, names and logos are all copyright to TEXAS INSTRUMENTS.

HV99 is a non profit group of TI99/4A computer users, not affiliated in any way with TEXAS INSTRUMENTS.

Wi
it
co
Fu
co
ta
Jo
wi
to
re
a
Jo
was
int
gro
or

The
suc
muc
Tue
wan
and
War

The
pool
lost
Basi
soon

The
micr
Hunt
(for
Educ
22 a
it
hopi
see
on a
will
brin
spen
days
mys

If
your
June
at th
see
confi
outin
super

PRESIDENT'S



With the onset of the cooler weather it is time to get serious about computing again. I have been giving Funnelweb a hiding lately with community and work commitments taking precedence over programming. Joe Wright has been busy programming with his genealogy program coming together nicely, the time consuming refinements are making it look like a top program. I had a preview with Joe and Jim Grimmond last night and was very impressed. Jim is interested in forming a genealogy group so anyone interested see Joe or myself for more details.

The TI Writer night proved a great success thanks to Brian Woods, so much so that a followup night is on Tuesday the 26th of April. If you want to know about transliteration and printer control then come to Warners Bay High at 7pm.

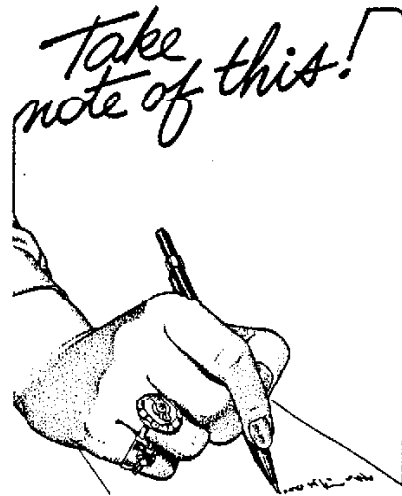
The basic classes have ceased due to poor attendances, but all is not lost, anybody interested in Extended Basic should contact Gary Jones as soon as possible.

The group is manning a table at the microcomputer exhibition at the Hunter Institute of Higher Education (formerly College of Advanced Education) at Waratah on April 21, 22 and 23. We have decided to mix it with the heavyweights and Joe is hoping for a contest with an AT to see who can power up and get typing on a word processor the quickest. I will put money on Joe as long as he brings his RAMdisk. If you can spend an hour or two on any of these days please contact Gary Jones or myself.

If you can drag yourself away from your computer on Friday the 10th of June come and have a seafood dinner at the Belmont Yacht Club. Please see a committee man as we must confirm bookings. If the previous outings are any indication then a superb night is assured.

If anyone has a program there is still a bit of room reserved for you on the distribution disk. The disk will be passed on at the TI Faire in Brisbane on the 21st of May.

I will not be standing for re-election in June as I will be resuming studies, if you feel you have something to contribute to the running of the group and would like to join the committee then please make your intentions known. You can help promote our resilient orphan both locally and internationally.



The Mid Year HV99ers Social will be held at 'Macquarie Pier Restaurant' Seafoods on the Water located at the Belmont Wharf (Belmont Yacht Club) on Friday 10th June, commencing at 7.30pm.

The menu planned is:
Garlic Bread
Hot & Cold Seafood Platter
Seafood Toast
Tea/Coffee

The cost is \$19 per head. Dessert is available from the sweets trolley for an additional \$3.00. Steak etc is available if required.

If you and your wife/friend are interested in attending, please contact Al Lawrence to make your booking as soon as possible as seating is strictly limited.

ed
pr
on
pr
es
e.
rd
ed
ur
to
he
he
nd
ht
EWS
are
in.
to
EWS
as
are
be
her
uld
cial
LEY
to
racy
rin,
or
no
d by
ying
cles
s of
rily
itor
ames
TEXAS
of
not
TEXAS

SECRETARYS REPORT



FROM ALBERT ANDERSON

Well here we are in April^x already and in the midst of April showers.. some 8 days of them so far with no relief in sight. Can't do much outside so what better time to hang off the keyboard and get into some of those computer jobs that have been simmering on the back burner for a while. Jobs like going through previous newsletters, up-dating databases, cataloging disks and actually seeing what some of them do...some input for the editor etc etc.

Firstly, I would like to welcome 2 new members. Welcome to John Fulham from Waratah and also we welcome our first member from England in Stephen Shaw and family. With a bit of luck Stephen may be able to keep us right up to date with happenings in the UK and Europe as in the past Stephen has been known to put pen to paper... how's that Ed, do reckon he'll get the hint???

Right in our back yard the Hunter Institute of Higher Education are preparing for the 1988 Newcastle Microcomputing Exhibition which is to be held April 21,22 & 23 on the College campus in Waratah West. After making enquiries about this event the HV99'ers have been invited to participate and as such we will need volunteers to man the site over the 3 day period. Gary Jones has been given the task of co-ordinating this event for HV99 and as such he would be delighted to get some names

down to cover the hours from :-
Midday to 9.00pm on Thursday 21st,
9.00am to 5.00pm on Friday 22nd,
9.00am to 5.00pm on Saturday 23rd.

Not only will you help HV99 get public exposure at the biggest computer show held in this area, you will be able to see the latest in big boys (with big money) toys as well as meet computer users from the VZ200 User group and the Microbee User group. See Gary or one of the committee if you can assist.

Whilst on the subject of exhibitions, word from Gary Christensen the co-ordinator of the TI-Faire in Brisbane informs us that organisation is well under way and a letter from Gary is published later in this issue and this may answer some of your queries about the event. If you may be contemplating heading north for the Faire, see Pete Smith as he and a few other HV99'ers are planning to go by Greyhound as this seems to be quite cost effective. By the way, it's only 6 weeks away!!! Talking about the Brisbane group and Gary Christensen, I would like to offer them, on behalf of the HV99'ers a HUGE THANK YOU for sending us a real live GENEVE 9640 computer to have a go at. The demo on it was done by Tony McGovern and although there wasn't much software to run, what we did see looked rather impressive. Inter-group co-operation like this showed by the Brisbane group is really appreciated and I feel that this sort of thing helps make the TI. user group scene rather unique.

Heading south to Melbourne, Peter Gleed has informed us that he has come across, found, sniffed out, or whatever a quite substantial stock of TI-99/4A related equipment. Peter is in the process of a business transaction with which he aims at getting this "redundant" equipment into the hands of as many diehard 4A users as possible. Peter mentions complete Expansion Systems and consoles amongst the inventory and he no doubt will keep us informed as things progress with the dealings.

On the overseas front the exchange newsletters still keep coming up with heaps of new and interesting

th
mc
gc
TE
of
th
it
TI
st
dc
No
sc
TE
Ch
on
us
gu
Ea
to
ha
th
MI
th
we
Al
ar
Fa
bo
ve
so
ju
ne
the
My
ne
ex
ch
I
mor
pub
CHA
tha
it
of
Whi
new
spe
mig
bot
Use
reg
hav
of
of
rec
req
'88
or
Off
to
Fra
con

things for our machines. This months buzz seems to be a software goodie that goes by the name of TELCO and is written by Charles Earl of the Ottawa group in Canada. One of the many interesting points of this outstanding looking program is its method of distribution to the TI. fraternity. Charles Earl states in the first part of the documentation on the program that "No version of TELCO is public domain software, nor is it free software. TELCO IS USER-SUPPORTED SOFTWARE..." Charles then goes on to give detail on how the USER registers his/her use of TELCO under the strict guidelines of LICENSE that Charles Earl has set down. Congratulations to Charles on the USS approach he has taken with this program and by the splendid review in the MARCH '88 MICROpendium magazine it seems that the \$20.00 registration fee will be well worth it.

Also coming from Canada and the US. are reports of very successful TI Faires which have boosted the moral both TI. users and the various vendors that supply the hardware and software needs for these computer junkies. In the exchange newsletters there is also heaps on the Geneve computer, ramdisks, the Myarc Hard/Floppy disk controller, new software releases, tips on using existing software and user group chit chat and much much more.... As I think I say just about every month, its all there in the publications library FOR FREE, NO CHARGE, NOTHING!!! the only hitch is that YOU have to get it or ask for it (and then return it when finished of course).

While I am on the overseas newsletter bit could I make a special request of SOMEONE that might just happen to read this from both the LA 99'ers and the CHICAGO User Group to please contact ME with regard to exchange of newsletter. I have, at differing times, on behalf of HV99 made requests for exchange of newsletter but as yet have not received any word back. My last request was sent on the 20th FEB '88. I may have the wrong addresses or something silly like that...

Off to the other side of the planet to West Germany to say thanks to Frank Phillips and family for their continual contact from that part of

the world and also for a reminder that came with their last letter. It's coming up to membership renewal time again folks!!! Some have already sent in their renewals for '88/'89 and I thank them for the keen support. I will let you all off for this month but starting from MAY I will start 'banging the tin' and throwing out gentle reminders. Oh! By the way is Mike Heuser and the Workshop Rheinland out there anywhere. We haven't heard from you for a while have we???

Before I finish I must thank those people that assist me every month by going through the newsletter hand-out at the meetings and delivering some of our local members newsletters. Please keep this practice going as it makes one of my jobs just that little bit easier. Well that's about it from me for April '88.....Bye now

COMING EVENTS

A Family Bar-b-que is being planned (along the lines of last years very successful afternoon) for Saturday 14th May. There will be a sausage sizzle as well as all sorts of fun and games. Contact Paul Mulvaney for more details.

With the interest generated with the coming release of Joe Wright's Genealogy Record Keeper, Joe is contemplating conducting an 'Introduction to Family History' group. It is envisaged that the group would discuss how to start compiling your family history & demonstrations of how to use his program to maintain your records. If you would like to get involved in this fascinating hobby, contact Joe Wright.

Gary Innes will begin Extended Basic classes in the near future. If you want to learn more about programming in XB, contact Gary Jones at the phone number printed on the inside front cover of this newsletter.

RANDOM BYTES

with
Bob Carmany

I'm back again for another "go" at it. Spring is just bursting forth here in the U.S. and the winter computing season is drawing to a close. With the advent of warmer weather, the innovations seems to end as people start the annual rite of "roasting their bodies in the sun". I prefer the shade and a cold Coors (or Fosters).

Since I have been using FUNNELWEB for its TI-Writer facility, I realised that unless you are either really enthusiastic about it or just plain bonkers, the only way that you can learn how to use TI-Writer is to wade through the rather lengthy manual. The fact is, it is almost as boring as the E/A manual (sorry Tony, but it is BORING). Even the "quick reference" card isn't much help. There are a few items that aren't well documented in any case.

One of the most powerful of these is the (R)eplace(S)tring function. I first ran into it extensively when I was writing the "Forth Forum" column in our newsletter. Forth uses the "at" sign, @, quite frequently. This led to some interesting results when we ran my columns through the Formatter. The solution was to replace all of the single "@" signs with double "@@" signs.

Simply start at the beginning of the document and press <FCTN-9>. Then enter "SH" for search and "RS" for (R)eplace(s)tring. Then, using the slashes, enter:

```
/@/@@/
```

The cursor will go to the first occurrence of the "@" sign that it finds (hence the reason for starting at the beginning of the document). If you wish to replace all of the "@" signs, just enter "A" and the job is done. Or, you can pick and choose by entering "Y" or "N" for each of the individual signs.

While we are on the subject of the FUNNELWEB editor, there maybe times

when you would like to have all of the "CR's" and other control characters stripped out of a document as when using F'WEB to write XB programs. Although I mentioned it a while back, here is the procedure once again. Use "PF" and then C DSKx.filename and the file will be "printed" to disk with all of the control characters ("CR's") removed.

The transliterate command was another one that gave me a real fit when I first started out using TI-Writer (and its clones). I finally figured out that not only can you use it to switch single characters, but it makes a fine MACRO command as well. For example: .TL 126:27,15,27,77 sets my printer to condensed, elite (108 characters/line) whenever the tilde "~" is encountered. There is another use for transliterate commands that you might not be aware of with single characters. For example, not all printers are able to print the "slash zero". I am fortunate that I can send mine a software command to do so but not everyone can. There is an easy way out with transliterate commands, though. Let's use the tilde again and type in: .TL 126:48,8,47. Now, when the tilde is encountered, your printer will print "0" (char 48), backspace (char 8), and then print the slash (char 47) over the zero making an admirable "slash zero".

There is only one restriction when using the "dot" commands. They must be at the beginning of the line. If you use more than one, you can separate them with a semi-colon (ex. .FI;AD;LM 4). By using this format, you can combine the formatting commands in one line. Remember to use a carriage return ("CR") after the last one.

The fact that the Formatter uses the period to denote a formatting command can lead to some peculiar problems. For example, if a line of text begins with a period, the Formatter will ignore it because it thinks that it has encountered a formatting command. For that reason, be careful when you switch from the Editor to the Formatter to print out documents. Generally, this isn't a serious problem because "word-wrap" will take care of the problem for you unless you put a

sp
wo
Th
wo
ve
av
is
Al
in
Dr.
Ave
554

Wel
Ful
nex

l of
trol
a
to
h I
is
"pf"
the
with
ters

was
fit
sing
I
only
ngle
fine
ple:
nter
(168
ilde
is
erate
ware
For
able
I am
ne a
not
way
ands,
again
Now,
your
48),
print
zero

when
must
If
can
(ex.
rmat,
tting
er to
after

s the
tting
uliar
ne of
the
e it
red a
that
witch
r to
ally,
cause
f the
ut a

space between the last letter in a word and the period.

This was hardly a course in using a word processor but there are shorter versions of the TI-Writer manual available. One that comes to mind is the tutorial written by Dick Altman of San Francisco (mentioned in F'WEB docs) and the manual from Dr. Bill Browning, 7541 Jersey Avenue North, Brooklyn Park, MN 55428 for \$6.50 (US).

Well, I'm rapidly getting a "Buffer Full" message and I'll close until next month. . .



**Old
computer users
never die...
their hardware
just goes soft.**

IN THE NEWS



A POT POURRI OF LOCAL
AND INTERNATIONAL NEWS
COMPILED BY

joe wright

"The tendinous part of the mind, so to speak, is more developed in winter! the fleshy, in summer. I should say winter had given the bone and sinew to literature, summer the tissues and the blood."

John Burroughs - The Snow-Walkers.

There can be no doubt, a reminder that winter is approaching is not required by our readers. But why not make everybody feel miserable!

PRINTER PROBLEM SOLVED.

Here is a story which I can relate to. It is taken from the meeting notes in the March 1988 issues of CIN-DAY NEWS.

*Jim Burke (club member) also made known, his experience with successfully fixing his printer problems when it no longer printed the descenders for the print characters. With a spray can of TV tuner cleaner in position and ready to use, he successfully removed the printhead, dropped the screws into the printer, lifted same upside down, shook until rattles of screws were no longer heard and began an immediate frustrating search of the floor rug and recaptured the screws. He then proceeded to spray the

printhead with the tuner cleaner, freeing up the descender pins, re-installed the printhead, tested printing result and provided us all with a look at what appeared to be a printed page made by a new printer. Jim had this problem for several months and upon completion of this cleaning project, received the latest issue of Micropendium which included an article on how to remove and clean printheads on your printer. Congratulations Jim on a good job and for sharing your experience."

NEW TERMINAL EMULATOR from CANADA.
This is one for the midnight modem set. When a new piece for quality software becomes available for the TI it spreads like wild fire through the ranks. A example of this was LEGENDS. Well this new terminal emulator is moving even faster. It is written by Charles Earle from Ottawa. I have taken the following details from an advertisement in the Ottawa U/G Newsletter.

Features:-

MENU DRIVEN with context sensitive HELP SCREENS.

FULL-FEATURED AUTODIALER,
sets baud rate, parity, terminal etc. for each number dialed, and redials multiple numbers in sequence.

3 DIFFERENT TERMINAL EMULATIONS available;
ADM3A - ANSI - D410

OPTIONAL STATUS LINE with elapsed time clock.

LOGGING OR SCREEN DUMP to any device.

8K REVIEW BUFFER - not destroyed by file transfers.

USES GENEVE 80-COLUMN MODE, emulates 80 columns on TI with scrolling windows or window lock.

COMPATIBLE WITH HRD, MYARC 512 RAMDISK, and CORCOMP RAMDISK.

ASCII and XMODEM TRANSFERS, PRINT SPOOLER, and much more!

Telco is being marketed as USER-SUPPORTED software. Look for it on a BBS near you, or order

directly, send C\$20.00 to:

Charles Earle
34 McLeod Street
OTTAWA, ONTARIO
CANADA
K2P 0Z5

TELCO REVIEW.

This review of Telco written by Michael Dorman, is taken from the March 1988 Mid South Tidbits.

"When as the last time you received a programme that really grabbed you and made you say "WOW, this is neat?" For me, it was when I first ran TELCO. I downloaded TELCO from GENie when it first appeared there. "Just what I need - another terminal emulator." I then uncompressed and unpacked the files with Barry Boone's wonderful Archiver 2.4 As usual, I ran the programme (I never read the docs first) and ... "boy, is the neat!".

From the first moment the title screen appeared, I knew something different was about to happen. Drop down sliding bar menus - just like some of my favourite PC programmes. In fact, the menus looked just like Borland's Reflex which uses Lotus-style menu options that can be chosen by arrowing down to a highlighted option OR by pressing the first letter of each option. Choices!! in a TI 99/4A programme.

Even better, TELCO will let me take advantage of my GENEVE's 80 column capability. In fact, almost everything I imagined in a TI terminal emulator is an option in this programme. That's the real key to this programme - options! Chose your colours, your screen width, your terminal settings, your modem settings from within TELCO. Then save your settings to diskette and they become your permanent defaults. (Permanent that is until you change them).

TELCO is a big programme. Too big, in fact to fit into memory all at once. That's why TELCO was developed using overlays. What this means is that TELCO must call some functions from diskette. Up to 34A). overlays (more with minimem and for supercards) will reside in memory. does By using overlays, TELCO is able to provide several modules that are

us
te
TE
th
AN
ca
gr
lo
ch
lin
tex
Wel
dir
to
see
ter
eye
to
cha
or
a
num
cont
an
Ther
that
or r
dele
This
room
arch
Anot
is
the
the
havi
info
and
you
36-c
feati
abil
TELCO
print
will
disk
spool
the
CORCO
print
curre
Other
line,
selec
scrol
graph
Up to
and for
does
uploa
are

usually separate programmes in other terminal emulators for the 4A.

TELCO allows you to choose between three different emulations: ADM3A, ANSI and D410. YES, this means you can now call a PC BBS and view ANSI graphics. You no longer have to look at all those seemingly random characters. (of course, you are limited to two colors because of the text mode of the video chip.)

Well, what about the dialling directory? Okay, glad you asked! Up to 99 entries are available with separate baud rate, parity, and terminal emulation settings. What's even better is that you don't have to use a separate programme to add, change or delete your phone numbers or settings. The dialer is actually a redialer which redials which ever numbers you select - up to 15 in a continuous cycle until you receive an answer.

There is a catalog routine in TELCO that will not only catalog a disk (or ramdisk), but will also let you delete, protect and unprotect files. This comes in very handy for making room for downloads and protecting archived files for uploading.

Another really nice feature in TELCO is it's macro editor. Macros allow the passing of repeated strings to the remote computer. This saves on having to manually retype the same information (for example, user ID and LOGON information.) TELCO lets you write up to twenty six 36-character macros. Another nice feature of TELCO's macros is the ability to link macros together.

TELCO also has a review buffer and a print spooler. The review buffer will allow you to save the screen to disk or printer. The printer spooler will print your session to the printer if you have a TI or CORCOMP RS232 card and a parallel printer. The MYARC RS232 is not currently supported.

Other nice touches include a status line, beep/chimes option, selectable window width, and window scrolling (useful for viewing ANSI graphics with a 40 column screen for 4A). ASCII uploading is available for uploading DV80 files. TELCO does not permit manual line-by-line uploading but does allow the

replacement of blank lines to a line with a space by using an Expand toggles to send a CR/LF (SPACE) CR/LF sequence for blank lines. This is useful for uploading text to a system that assumes a blank line to be the end of the text.

Xmodem uploading/downloading counts blocks in decimal and shows the total size by using the TIFILES header designed by Paul Charlton. If you download files that do not have the TIFILES header (for example, GIF or RLE pictures), the file is saved as a DIS/FIX 128 FILE.

TELCO proves that PC-style programmes are indeed possible on the 4A and is extremely user-friendly and intuitive. In many ways, TELCO strongly resembles such PC terminal programs as Xmodem and Procomm.

Telco is a fairware offering written by Charles Earle of Ottawa. The registration cost is US\$20.00 and is well worth it.

4A-9640-PC CONNECTION.

This snippet is taken from the TICHAT section of the January issue of NET99ER Newsletter.

*Regarding the 4A-9640-PC combination, Miller Communications of Seattle has developed an IBM-AT style case that will hold the 9640 card plus others. The case has a 220w power supply, disk controller slot and seven other slots. It will hold 3 floppy drives and 2 hard drives. The case has been developed for QUEEN ANNE COMPUTER SHOPPE. In the seven cards you can have two RS232 cards and Miller Communications videoflex and frame grabber card that were mentioned in previous updates. The case is equipped with key lock and LED status lights. The box, configured for TI users wherein the cards are mounted vertical. A disk controller card for an IBM clone is available with a switch so the user can go between the IBM or the 9640 or 4A. The IBM type card will also fit in the PEB, but you would need a new keyboard with the TI, with the same drives. The 256K IBM type card has a floppy disk controller on board, and the user can add "layers" to make an extensive IBM system, if desired. The box was developed because of the need for a heavy

ten by
om the

received
ed you
his is
first
CO from
there.
terminal
ed and
Barry
2.4 AS
I never
"boy,

title
something
. Drop
t like
rammes.
t like
uses
can be
to a
pressing
option.
amme.

we take
column
almost
a TI
ion in
real key
Chose
width,
modem
. Then
te and
faults.
change

Too big,
all at
CO was
hat this
all some
p to 3
mem and
memory.
able to
hat are

BRISBANE TI- FAIRE NEWS

Dear Sir,

For those who do not know me, my name is Garry Christensen. I am the co-ordinator of the TI - Brisbane User Group and I have the responsibility of organizing the 1988 TI-Faire.

A lot of work has gone into the Faire and the time has come to let everyone know what is happening. Let me start by saying that one significant reason for hosting a Faire at this time was that Brisbane is the site for EXPO 88. This offered us a unique opportunity to bring together the TI users from throughout Australia and to allow them the opportunity to see the EXPO while they were here.

What is the Faire all about. The Faire provides a central venue for the display of hardware and software that are available for our beloved computer and it gives the users an opportunity to discuss all aspects of the TI-99/4A with fellow enthusiasts.

With this in mind, we have invited almost all the companies that support the TI computer in the United States to attend and we have invited all the User Groups in Australia.

Internationally first: Lou Phillips from Myarc will be at the Faire. The Geneve 9640 computers will be in Australia by then so there will be plenty of them on display. Lou will not doubt be bringing something new for us to see.

The other companies cannot afford to send a representative to Australia but some have been most co-operative. Rave 99 will be sending some demonstration units of their IBM keyboard interface and the memory enhancement card. They may also be sending a sample of the interface card to allow the speech synthesizer to be placed in the PEB.

Both Asgard and Texaments will be sending a selection of their software to be demonstrated. All of the demonstration products will be for sale to those who attend the Faire.

The User Groups are invited to set up a booth at the Faire and demonstrate any/all hardware and software advances that they have made. This part, in my opinion, is the most important part of the Faire. There is some exceptional talent in Australia. Everyone would like to see what has been developed in other States.

The User Groups are also invited to sell any of their wares at the Faire. While there is no charge to be levied to set up a booth, we would ask that the Groups selling equipment or software place an advertisement in the special edition newsletter to help us cover some of the costs. Could those members from your group involved in setting up such a booth, please contact with regard to the advertisement. The cost has been kept to a minimum.

While on the subject of the newsletter, I would like to take this opportunity to invite all TI users to contribute an article for inclusion in the newsletter. The subject can be of your own choosing. A review of each of the products demonstrated by your User Group would give those in attendance a permanent reminder of what is available. We want to make this a truly Australian Faire.

We understand that many Groups will not be able to bring their computers with them. I anticipate that TI-BUG will be able to provide a system for each

booth. Any visitors who can bring their own would certainly make it easier for us.

For those who have not yet made arrangements for accomodation, I suggest that you do not delay. As you can imagine, EXPO 88 is putting a strain on the hospitality services in Brisbane. There are members of the Brisbane User Group who have offered to supply accomodation in their own homes. This number is limited so if you would like to share the weekend with one of our members, please contact me directly. My phone number is 07-2841841.

A list of motels and caravan parks in the area of the venue for the Faire was published in the December 87, TI-BUG newsletter.

The venue for the Faire is the Brisbane College of Advanced Education in the suburb of Carseldine. It will begin at 10 am and end around 5 pm. A dinner at one of the local resteraunts will be held on the Saturday evening.

We feel it best not to organize anything official for the Sunday as many visitors may like to take in EXPO 88 however I am sure that something can be arranged for those who will be at a loose end. If you have any thoughts on the matter or would like to attend the dinner, please contact me.

Well that about wraps it up. This Faire is aimed directly at the Australian users. We hope that this can be a chance for the TI enthusiasts to see what is being done with their computer in this country and internationally.

Regards,



Garry J Christensen.

**** FOR SALE ****

WANTED

TI-RS232 card
PE-Box only

CONTACT:-

ALBERT ANDERSON
6 Arcot Cl.
TARRO - NSW.
2322
Phone > 049-662602

) CORCOMP MICRO SYSTEM - POA

-) 2 * 256k RAMDISKS - \$250 each

CONTACT:-

JOHN PAINE
19 Janet St,
Mnt. DRUITT - NSW.
2770
Phone > 02-6256318

~~~~~

~~~~~

USING THE QED 32K MODULE

version 2.1
a loader program
by
RON KLEINSCHAFER

Question from the Secretary "Do you want. one of the Neil Guigg designed 32K Modules??. My response "Yeah. Say, what am I going to use it for??. Reply, "Dunno, But it will be handy for sumpin".

If you have one of these modules then here is one use it can be put to. The following is my own personal preference and may not reflect what other owners may wish, but it can be set up to their own requirements. I hope that the information here and on the demo disk may assist.

Not being blessed with a RAM Disk I began thinking that it would be handy for running the programs that I use most, something like a Mini Ram Disk?? After pondering over some particular programs the list was eventually drawn up as follows.

FUNNELWEB's Cart Ram Program for instant loading of the central menu screen. This gives quick loading from disk of many options.

DM1000, Instant access to a disk manager would be great as one would most likly be used nearly everytime the computer is switched on.

SUPERBUG's debugger residing in the address space of >6000 would make life so much easier when chasing problems in programs.

The third choice became VERY evident after deciding to do something with the QED Module. At this stage I would have to describe myself as an absolute "PROGRAMOKLUTZ" when it comes to Assembly Language, having written (mostly copied) short three to ten line programs that could be

accessed from XB with Call Links or maybe patched up a few simple programs, so I had to learn fast and the dog ears on the pages of my E/A manual can attest to the fact!!.

The Module was eventually set up as follows:-

| PAGE00 | PAGE10 | PAGE20 | PAGE30 |
|-----------------------------|-------------------|---------------|--------|
| Module Header | F/WEB CT8RAM File | DM1000 Part 2 | SBUG6 |
| Program Select | | | |
| Program Moves & Page Select | | | |
| GPLLNK Routine | | | |
| DM1000 Part 1 | | | |

In the article that I originally wrote for this issue on the QED Module I said that after I wrote my first Basic Program I looked at it later and thought, GOOD GRIEF!! Well, after looking at my first effort on using the QED Module (Version 1.0) I thought something different - and that was "WHAT IS THAT CRUD??" Very user unfriendly to say the least, so back to the keyboard and out came Version 2.0. What happened to THAT ONE, you ask? It went into the crud basket as well.

So getting something closer to being something useful (although still a little rough in places) emerged Version 2.1. Why different versions you again ask? Well, with a little tongue in cheek lets say it seems to be the flavour of the year!! Enough of the waffling down to details.

The first and major changes were to be able to branch straight from one program to another without having to go back to the title screen. In this version the changes now include in DM1000's file utilities two options, these being direct reentry to Funnelweb return to the title screen. QUI (FCTN =) also automatically return

to
has
is
S/E
add
dir
scr
Att
Fun
in
rip
eno
glo
of
pag
mak
recd
dire
with
Not
from
thro
By p
opti
code
modu
back
Funn
then
retu
from
insur
read
Funn
opti
it a
list
invok
(CART
of 1
progr
progr
The
way i
insta
Funne
emerge
direc
before
will
insta
IN F
the d
RESET
stage
fixing
Black
there
in the
file
Beaus
crextens
total

or
ple
and
E/A
as

to Page 0. In Superbug the Program has been modified so that when "Q" is selected you are returned to S/Bugs Header (with two more options added and these reenter Funnelweb direct or return to the title screen).

E30
66

After discussions with Tony about Funnelweb it seemed that to add code in that program would cause to many ripples. Besides there not being enough room it would not remain global & would require deleting some of the screen text to make room for page switching code and that would make it impossible for anyone to reconfigure or load the Module direct from their Funnelweb disk with their own preferred options. Not being able to get in through the front door I decided to enter through the back door, so to speak.

ally
GED
te my
it
EF!!
first
odule
thing
AT IS
ly to
the
2.0.
ask?
t as

By putting Funnelweb as the first option on the Header list then using code to load it to memory from the module then switching the module back to Page 0 before entering Funnelweb directly in memory, it then leaves Funnelweb unmolested. A return from the central menu screen from option 7 RESET the 7 QUIT insures that you return to Page 0 ready for the next selection. Funnelweb had to be put as the first option in the header code (although it appears last on the selection list on screen) because if you invoke option 7 from the user list (CART ROM) it has a very sneaky way of locating and executing the first program listed in the header, so the program remains true.

being
ll a
erges
sions
ittle
ms to
nough
eeded
ight
thout
title
anges
file
being
b or
QUIT
turns

The only casualty in doing it this way is that QD (directory) is not instantly available when you select Funnelweb. If you want the QD directory then select 7 RESET first before you try Function 7 and QD will be loaded from disk and is then instantly available WHILE YOU REMAIN IN FUNNELWEB. If you want to use the directory in DISK PATCH then RESET then QD must be used. At this stage I don't think it worthwhile fixing that bug, my spys from the Black Hole country tell me that there may be another version of FW in the pipeline, EHH!!!

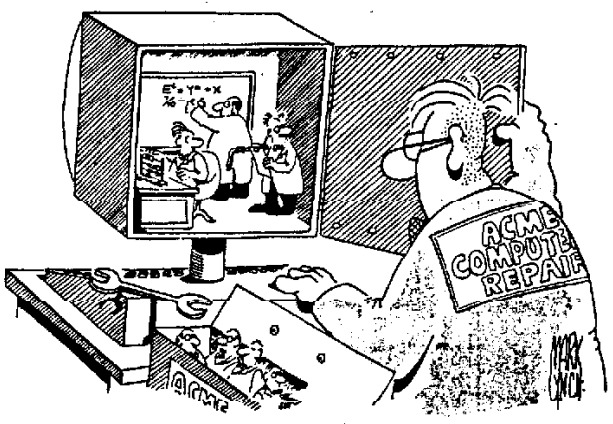
Because CPU scratch pad ram is used extensively and DM1000 is loaded at >A000 the mailbox will not remain totally unmolested but this is not a

big drawback with the added speed of accessing files.

Loading the module with your own Funnelweb preferred options and saving that Page back to the QED disk requires a little more care. I suggest you print out and follow the instructions carefully in the file READ/ME on the QED/32K/2 Disk. If you are interested ask the librarian for a copy. Although the Module is loaded with what I refer to as an E/A programmers module I would like to hear from other owners of the Module what they would like to be able to use in it, so how about some feedback??

A few tips in utilising the module. When you want to QUIT and remove the module select Option 3. EXIT MODULE from the main menu. This actually "parks" the module at page 1 which contains FUNNELWEB. It occasionally happens that the first byte in the header of the current page is corrupted on power down then the module would normally require reloading. It was convenient to do it this way because FUNNELWEB does not require that first byte when used in the module the way the program is entered and exited. After switching off the console wait a few seconds before removing the module & also when installing it wait again a few seconds for the power in the console to drop - it doesn't like always being plugged into a powered up console. The worst culprit for corrupting the module is using the common Reset button that pulls the reset line low - caution with that one.

R.K.



FUNNELWEB REPORT

from
TONY McGOVERN
funnelweb farm

The big news this month is of the first Myarc Geneve computer to find its way to Newcastle, even if only on a fleeting visit. Such a story deserves to be started at the start. One morning recently when I was trying to get my eyes open enough to drive to work, the phone rang. It was a long distance call from Brisbane, my home town up in the deep north, from Gary Christensen who had a real problem on his hands. He had two Geneves, one a regular issue NTSC model, and the other a PAL (European / Australian TV standard) experimental job for test and evaluation. This latter one had a primitive ROM which would boot only from a Myarc disk controller, a beastie not found in Queensland as yet. So there was this apologetic request for the loan of our Myarc. Now this is about on a par with asking someone to help with source material for a kidney transplant, but the cause was good enough so I ripped it out of the machine, bundled it up that day and sent it travelling north.

The idea occurred that if a disk card could go north, a Geneve card could come south for a week or so to cover the next HV99 club meeting, and courtesy of Gary the NTSC Geneve duly turned up last Friday in good time for the meeting last night (Tuesday). The NTSC model was the one wanted as we had a RGB monitor, William's Amiga 1084 box which would handle 60 Hz field rates, and it was the hi-res color performance that was of real interest. So stopped by Tandy at Jesmond for connectors on the way home, and spent Friday evening nutting out the necessary pin connections to make a little adaptor cable to go between the 8-pin DIN on the Geneve and the 23 pin connector on the Amiga end of the 1084 monitor's video cable. May never use it again but it was money spent in a good cause. I just hate buying anything at Tandy but the

alternative was to drive across town on Saturday morning. Direct hookup to the monitor would have required a European SCART connector.

With patience and care and much strain on aging eyes, it all worked out correctly the first time. I didn't bother with the sound as the Geneve is nominally the same as the 99/4a. Inspection of the Geneve showed a neatly laid out card with only one jumper wire on the back. In fact there is really an impressive amount of computer on that card, and a fine job has been done on the whole. A less than satisfactory detail is that the on-card voltage regulators have no heat sinking other than that provided by the circuit board (the PE box crude supply rails run high in Australia and the cards hot because the box is wired for 220V AC and the supply here is usually 240V or higher). The keyboard was an AT style made by Fujitsu, and I would say much superior to the Taiwan job I'm using on an AT clone at work. The only preference would be for a larger Enter key. I still like the key feel on the old 99/4a better it beats just about any other keyboard I've ever come across for long term use - if only it had enough keys. There was also a ring-bound manual mostly devoted to Advanced Basic, a language which was not supplied but is supposed to be coming. The US quarto 3 ring binders are just not satisfactory and the pages soon tear around the binding rings with the cheap grade of paper is used. Addendum page were dated Dec 29 / 87 and covered My-Word, GPL, and some updated information. The rest was mainly devoted to MDOS, which came in 1.01 and on the information supplied seemed akin to MS-DOS 2.x on IBM clones. It seemed familiar enough on this basis, with some minor differences, such as being case sensitive for filenames. The machine also has a strange habit of altering the caps lock when you least expect it. Technician information was very sparse indeed a couple of vague memory maps in graphics mode generalities, and external connector details.

Fired it up, and there was the swan. Still don't know whether is a swan or a duck or even a goose. Should have known right then the

something was wrong because it was clearly the wrong color. Every time I see the swans on Grahamstown reservoir on the way up to Hawks Nest they are black, and the one on the screen was white. Strangely enough the one on the cover of the manual was the right color. The first problem was no fault of the Geneve's, a very substantial horizontal weave due to 50 Hz magnetic leakage field from the PE box transformer interacting with the 60 Hz display on the Amiga monitor which was initially sitting on top of the PE box. This monitor is obviously extremely susceptible to external fields and the immediate solution was to move it as far off to the side and reorient as far as the cable allowed. I shall have to see about strapping the PE box transformer or some other solution if we have this problem again. Disks on top of the PEB anyone? On our normal TI-99 display the large TV set sits above, behind, and half to the left of the PE box and there is usually a slowly drifting patch of faint discoloration in the lower right corner. It drifts because the nominal 50 Hz frame rate of the display is not synchronised with the 50 Hz mains power. An RGB monitor in a metal rather than plastic case would presumably help too.

The Amiga 1084 monitor doesn't really have good enough resolution for the Geneve, just as it isn't good enough for the Amiga either. In that size of screen the 0.41 mm dot pitch is inadequate for 80 column work, and 0.31 mm or better is needed. The EGA monitor on the AT clone at work which has 0.31 mm pitch is only just adequate for the purpose. Curiously the large TV I'm looking at now, at 0.63 mm dot pitch, has the same total number of resolution elements across the screen as the smaller 1084 monitor. The sharpness of 40 col display from the Geneve has just about convinced me to build up a RGB interface for this TV. The focus is pretty good too for a TV tube, so it is video bandwidth through the modulator/RF/IF that is the limiting factor.

The 40 column display is excellent on the monitor, and the NTSC version fills more of the screen vertically than does the same number of lines on a 625 line PAL

system. I think I would recommend the NTSC version to anyone in 50 Hz countries who intends to use it only with an RGB monitor, most of which can accommodate the 50/60 Hz frame rate change. If you wish to use the interlace hi-res mode you would definitely be better off this way because of screen flicker. The problem is like that on the Amiga I am sorry to report. I'm not immediately clear on why this should be so in the 9938. Perhaps it is just the sheer amount of traffic on the VRAM bus doesn't allow enough input and output. The 9938 specs don't really show a 512x414 mode as such, and it has to be obtained by getting the interlaced fields from 2 pages in VRAM. If you look closely at the 80 column non-interlaced mode you will see that only every second line is written to the screen. The 40 column mode fills both fields but has only to get half as much information per line. When 80 column interlace mode is selected (easy in My-Word) the scan fills out but there is flicker. The oscilloscope I have at home here isn't good enough to see what is really going on (the delaying sweep job I have at work is currently out of action), but I surmise that the interlaced fields are only being written up one per frame, instead of two per frame. Turning the brightness way down removes the flicker as would be expected. This is another reason why I recommend the NTSC model as the flicker would be worse at the same brightness with the lower PAL rate. The threshold brightness for flicker perception is lower for lower repetition rates and the change between 60 and 50 Hz or as here between 30 and 25 Hz is quite noticeable (TVs in the USA can be run brighter than Australian TVs). The difference between 60 and 30 Hz is of course enormous and is why TV systems are interlaced in the first place. High res displays which don't have to be compatible with TV receivers are not interlaced and run at 60 or 70 Hz or higher frame rates. The Amiga A500 here is a PAL model and the corresponding hi-res flicker is worse.

With a certain amount of searching through the manual we managed to get a Horizon formatted and loaded and the GPL and E/A load path going. This particular Horizon has a nasty habit of losing its ROS

on power down which rendered it a prime nuisance when the Geneve had to be rebooted. A modified version of Funnelweb (no CRU bit sensing for keys in SD and QD - it was however only ever that specifically allowed by the E/A manual) had been done a while back for a Canadian friend and this loaded and ran fine as had earlier been reported. Fine that is until I attempted to save a file and the whole thing locked up (see Stop Press). The TI-Writer disk routines are usually pretty robust so we started looking around. My-Word also crashed when a file was saved. In each case it got far enough to put a nonsense file header on disk, and the only way to recover was to file copy off the other files to a fresh disk. As far as I can see the problem lies in the Geneve, and not in the disk system. We tried it again with a new (quad) ROM in the Myarc and with a TI controller and the result was always disaster. Was it the disk drive then? Well, the Myarc DM that came with the Geneve didn't find any problems in writing to the disk, but this (I presume) talks directly to the Myarc card's disk controller chip and bypasses the Geneve. We also tried an earlier version of MDOS that had come with the Canadian correspondence and this didn't fly either. In both cases the Copy function of MDOS bombed out. So there isn't any cheap excuse for Myarc to escape responsibility.

This episode did bring out a major omission from the Geneve hardware --- there is NO RESET BUTTON - if the thing locks up you have to turn the whole PE box off and back on again. This is inexcusable and user hostile in the extreme, and belongs back in the dark ages of the TI-99 console. The TI-99 cartridges I use the most all have a reset button added for the immense convenience it provides. Furthermore main power cycling is the time of greatest stress on the computer. Any EEs who can read component spec sheets either know that already or can figure it out unless they have their heads way up there in the digital clouds. At the very least there should have been provision made to allow wires to one to be plugged on to the board without soldering.

Went and CSAVEd Multiplan as per instruction, collected the various files on a disk named TIMP and loaded it under GPL. Lo and behold it came up in 80 columns, but an attempt to bring up the Help on screen immediately locked up the machine (see Stop Press). When XBII was loaded I couldn't get it to load any of the XB programs we had here. As the kindest cut of all it wouldn't even load the demo program that came with XBII for the Myarc 128K OS on the 99/4a. And every load failure resulted in a lockup!! This quickly became very tiresome. Strangely it did load one Basic program, but wouldn't RUN it as was even though this particular program runs in XB. The penny didn't drop until later. During a lull in the action at the HV99 meeting after the demo I had time for a quick glance through a recent Micropendium issue and in there was a comment that XBII on the Geneve couldn't handle programs over 10k long. Who would have guessed anything so ridiculously incompetent! Very careful re-reading of the Myarc documentation failed to locate any mention of this. At the time XBII wouldn't save anything to disk without locking up so there was little incentive to write programs either. I also tried to run LOGO II and it did work, at least enough to move the turtle. Unfortunately it wouldn't get anything from disk. Once started the disk just ran until the whole thing had to be turned off. A full bore LOGO for the Geneve would be very interesting (even just a speeded up LOGO II with proper I/O)

MDOS appears to work after the fashion of MS-DOS, that bloated and sometimes less capable offspring of ugly old CP/M. Maybe it has some hidden strength and beauty underneath, but it sure wasn't apparent here. A notable omission is that there is no DEBUG. That should be built into the system ROM. Given that the MS-DOS path has been followed, the decision to support sub-directories only on hard disks is not unreasonable. My experience with MS-DOS 3.30 on an AT clone, and the TI-99 is that, with a good archiver for those special occasions, subdirectories are hardly needed on 360K disks, but definitely so on 1.2Mb disks. That leaves 720K

dis
sit
tra
the
Mya
int
tic
see
are
dis
mak

the
Onc
of
tha
who
pro
mem
the
but
with
con
ever
way

deca
HV99
grap
sing
whol
The
My-A
Migh
had
comp
sale
any
We
manu
in
Clin
whic
last
able
but
wort
how
been
what
real
upsta
assen
work
the t

rathe
a pa
lack
detai
learn
deba
sympa
invol

an as
the
TIMP
to and
s, but
elp on
p the
n XBII
o load
here.
ll it
rogram
Myarc
every
ckup!!
esome.
Basic
as was
rogram
t drop
n the
er the
glance
issue
t XBII
handle
would
so
Very
Myarc
te any
me XBII
disk
re was
rograms
LOGO II
ugh to
tely it
disk.
n until
turned
or the
resting
II with
er the
bloated
spring
has some
beauty
wasn't
omission
G. That
tem ROM.
has been
support
rd disks
perience
one, and
a good
special
e hardly
initely
ves 720K

disks somewhere in the middle, and since Myarc are selling 720K (80 track) controllers and upgrades, they (is "they" the word to use of Myarc ?) may have painted themselves into another corner, but not as tight as the one they did with 16 sectors/track in DD, something they are still persisting with. Amiga disks are about this capacity and make good use of sub-directories.

So what is left to discuss on the Geneve. Mostly My-Word I guess. Once you get past the sheer delight of having 80 columns it doesn't seem that all that much has been achieved when you consider the faster processor, new video chip, and large memory available. Now I don't know the detailed difficulties involved, but given what Funnelweb has done with TI-Writer in the cramped confines of the 99/4a, fighting for every byte, My-Word has a long long way left to go.

We wanted very much to get a decent demonstration going for the HV99 meeting of the Geneve's graphics powers. There wasn't a single graphics demonstration in the whole package beyond the boot-goose. The write-ups elsewhere mention a My-Art and mouse package, but the Mighty Myarc Mouse Marketing Machine had not bothered to ensure that a computer sent to this country for sales / demo purposes was capable of any graphics demonstrations at all. We had just got hold of a 9938 manual here as we have some interest in that chip for the 99/4a, and Clint Pulley's Quick Dirty Loader which came in some information late last year from Canada. Will was able to get the 9938 to respond, but in the time available nothing worth showing to anyone, no matter how interested. This would have been impossible on the strength of what came with the Geneve and was a real pain with having to run upstairs to the TI to edit and assemble because the Geneve didn't work properly for disk operations at the time.

The worst failing (systematic rather than just bad experience with a particular sample) is the total lack of information on technical details. Myarc seem not to have learned a single thing from the TI debacle. I think most 99 users are sympathetic to the difficulties involved, and a few DSDD disks worth

of documentation, source code for the system ROM and MDOS, and utility programs in the package would have gone a long way to easing the pain of incompleteness for very little extra cost. TI maintained a policy of allowing only a few contracted developers any information on the TI-99 and that only took off with good programs after TI bowed out and details filtered out or were ferreted out by individual programmers, aided by the few but high class tools that TI had provided in the E/A and TI-Writer packages. If Myarc don't wake up to themselves, and make it a truly open system the goose may never flap its wings at all.

So what do we think of it after all that. The bottom line is - would I buy one? The answer is a qualified yes, but not in any hurry. Myarc clearly haven't got their act together yet, and their policies seem self defeating. Who needs to scale a wall of secrecy worse than TI's for a machine that will never sell more than a few thousand units - at least it won't the way it is going. The best solution may be to ignore the 9640 and keep plugging on with the 99/4a until something clearly superior comes along at an affordable price, with prospects of there being a sizable population of machines to write for. If you want MS-DOS and a machine that can address only 64K at any one time without flipping segments, you might as well buy an AT clone. If it is graphics you want to do, then Myarc are going to have to convince you that the 9640 is better value than an Amiga A500. If like me you just like the sheer engineering elegance of the TMS-9900 assembly language and the thoroughly done device independent I/O of the 99/4a then the Geneve is a mixed bag. The instruction set is still there, but the information on how to use it is not, and the I/O system seems to have lost some of its virtue.

So what else is new? A revised version arrived of the RAG Macro Assembler which now works well enough to assemble the FWB main files, which the earlier version couldn't handle without generating a whole pile of errors. It seems to run just about the same speed as the TI assembler. I don't use it because it doesn't have the creature

comforts of FWB (I hate typing filenames), doesn't interface readily with FWB, and doesn't support the DORG directive, which would be sorely missed. RAGASM is nevertheless a very fine effort. I've been thinking about rewriting the TI Assembler myself but whenever that urge strikes I go program something easy until the urge goes away.

The Vn 4.0 of c99 also appeared on the doorstep. The existing central menu path via CO no longer works, but we'll see what we can do for Vn 4.1 of FWB. It was however spectacularly incompatible with the Miami Menu/ROS 7.1 for the Horizon, even to the extent of locking up with FWB if that had been loaded from Menu. Loading c99 direct from Menu caused total disaster, needing complete removal, power-down, and rebuild of the Horizons. Worst lock-up I've encountered yet, and none of the standard tricks sufficed. Bob Carmany sent over an update (7.3) of ROS/Menu which is supposed to be free of the problem, but I haven't been game to retry c99 with it yet. Installation of 7.3 with CFG did seem to be a little quirky at first this time but all worked out eventually. The Vn 2.4 of Barry Boone's Archiver shows many improvements and now sports an interface to FWB that works.

Bill Harms sent from California a copy of his CLASS package for the Triton Super XB cartridge. Looks very well documented, but we haven't been able to try it out as no-one out here has that cartridge. Also available as "share-ware" is a new all-singing all-dancing program from Canada, TELCO, for modem users, which again rules us out.

On the hardware front, Neil Quigg's 32K+E/A cartridge has made its appearance. The first batch had a little problem with the tongue of the circuit board being cut too narrow which caused major lockup if not inserted dead center. I gather that when it is built out a bit it works fine. Allowance for resetting of this cartridge will be built into the next FWB version, and the modifications issued locally earlier. When I've got mine sorted out and a reset button added, it may warrant some serious work. Still pondering on the best way to use it.

I don't see that 32k is enough to be any serious substitute for a RAMdisk - the Horizon is the way to go there - but it does allow a lot of room for enhancing existing code or building in new utilities. It will bear some more thinking about. I am waiting with great interest on Neil's Horizon replacement with 32K RAMs and PALs for decoding.

Yes Virginia, there will most likely be a Vn 4.1 of Funnelweb some time before next Xmas. There are already some more little touches that make it even easier to use, and I've bitten the bullet and started on a new CONFIG. I'm trying a different style (for me that is) of programming to relieve the tedium of writing this particular code. Tedium probably isn't the right word - it is more the pain of keeping track with multiple indirection and the odd search, of where items have to go with no spectacular result at the end of it all - just an installation program. Curiously though CONFIG has gone down well in North America, the Brits don't seem too fond of it. I know it was a bit of a last minute lash-up, but it does a complex job pretty well. I am aware of only one actual bug - if LOAD or UTIL1 are saved back to disk without you having gone through the editing procedure, then the Central Menu filenames may not be correct. Since the problem is avoidable and an entirely new version is underway, I'm not going to try to fix it. There isn't really all that much more that can be done to Funnelweb without making special versions for particular hardware enhancements. So far great pains have been taken to have any or all of its features available on a minimal system.

The saddest news of the month didn't even rate a mention in any Australian newspaper, only on steampunk radio in the ABC Science Show. This Barb was the death of Richard Feynman, details of which are available in the world's most interesting place. His way of looking at things has always been an inspiration ever since my days as a physics grad student. No computer hobbyist should miss the account of early computing obsessions at Los Alamos in the recent book "Surely you're joking, Mr Feynman".

Frida
this
some

** STOP PRESS ** STOP PRESS **

The problem with Geneve and the disk system has been resolved. I am leaving the previous discussion largely intact because it represents what was seen at the HU99 meeting. The machine isn't any more faulty than any other Geneve, just an undocumented peculiarity which about rates as a system bug. The Jan/88 Micropendium had arrived in Newcastle the day before, and I had only had a very brief glance at it at the meeting. A more leisurely read some days later turned up a little note from Walt Howe to the effect that if the clock is not set, then it interferes with the disk system, why only or mostly on writes. Only Myarc Knows (perhaps). I am of the opinion that clock chips, unless in an alarm (interrupt timer) mode, should be like well brought up children of a bygone era and speak only when spoken to. Multiplan now runs fine. A great pity we hadn't seen this bug report before the club demo. Myarc must have known about it long ago, and didn't bother to mention it in their documentation.

4A TO THE RESCUE

or
how my wife learned
to appreciate my "toy"
by
Albert Anderson

Its Thursday night and the local netball club secretary has just been landed a little job on top of her hundreds of other little jobs to be done yesterday.

Barb, you know that list of players details you got from the registration last week??? well the Netball Association needs them in alphabetical order with all of the details on these special forms. There's no hurry Barb, Sunday night or Monday morning will be fine!! OK says Barb there's only 200 hundred or so, can't be much to that!!!

Friday evening Barb realises that this little job is going to require some assistance and my dear wife has

been Barbs assistant in times of need for quite a while now, so Barb rings Karen, Karen says yourrreee kidding... how can you do that before Monday??? Hang on a minute Barb. Karen sees Albert... dear, you know your computer? Yes dear I know my computer rather well... Will it go through a list of names and put the names in alphabetical order along with the rest of the information with the name??? It might WHYYY ?? Well you see we've (notice WE) got this 'little' job to do for the netball club.....

Ok then I get the picture. What has Barb got up to and what is needed? Well she's been going for 2 1/2 hours and so far she has done the A's, B's and just started the C's... good I say, she should be done by about a week Wednesday at that rate... it isn't funny says Karen, can that stupid (note stupid) computer do something or not??? Settle down dear, I think it can.

Well, you see I've been waiting for this moment for so longg... I have this beaut little program that I bought from SPC Software in the USA. a couple of years ago called Data-Base 1, I think that it will do the job BUT.... but what??? Well you see dear my 'stupid' (just digging it in) computer is one of the old fashioned ones that needs to be fed with data in order for it to operate on it. Well, so what does that mean?? That means someone is going to have to do the feeding and that someone is YOU!!! What, I have to type all that stuff in anyway?? That's right.. Well what use is that, I might as well type it straight on the sheets?? Fine by me but I thought you said it had to be in alphabetical order??? Ohh xxxxx xxxxx, that's right, well what now??? Captive audience, perfect...ha, ha!!!

Now dear, make us a nice little cup of coffee then I'll begin to justify my spending all that time and money on this 'stupid' computer.

Now I will load it up and show you what is going on, then I will type in the required data at the prompts (see all the big computer terms I'm chucking in there, got her head spinning already) for the first couple of files and then its up to YOU to get the other 195 or so in, monkey see, monkey do type fashion

to be
disk
here
room
or
will
I am
on
32K

most
some
are
uches
, and
rted
ng a
) of
um of
code.
word
eping
n and
have
lt at
an
ously
ll in
t seem
a bit
out it
I.

I
g - if
e disk
gh the
entral
rect.
e and
erway,
x it.
t much
nelweb
ns for
ments.
taken
atures

month
in any
n steam
. This
ynman.
a much
way of
been an
ys as a
obbyist
f early
Alamos
you're



and this 'stupid' computer will do the rest. OK, OK I get it...

1:15am Saturday morning and I can't stand the tap, tap, tap, dsshdt, dsshdt, dsshdt any more. You see my computer shares our bedroom with us and this sudden role reversal has me tossed. The boot is now on the other foot and I think she has become oblivious to time... dear, how is it going?? do you know the time?? yes dear, its going OK, just another 42 to go now!!! How about finishing it off in the morning... you don't have to do it all in one go.. well you didn't tell me that, did you??? She's right I didn't tell her that and I said monkey see, monkey do!!! OK then, when you finish the next file type END, wait for it to be saved to disk then shut the thing down... pleeeasse!!!

Saturday morning she's up and straight into again... tap,tap, tap, dsshdt,dsshdt,dsshdt. I get up, do the normal motherly things one does on a Saturday morning and then.... that's the last one dear, what now??? This better be worth it!!! Well dear, you know how long it took Barb to sort out the A,B and a bit of the C's, well hang on and watch this. Ready... see where it says SORT, well you hit that key and I'll hit the stop watch..OK...go... 1min35sec data from disk into memory - all 198 files. 2min50sec, data sorted, 4min10sec data resaved to disk ALL SORTED. In typical non-computer style Karen says... well what did all that mean??? didn't seem to do much!!! That's it dear, all done, finished, sorted.... that's what you wanted!!! Well now I need it on these forms don't I??? OK, OK I think you can have a rest, I'll get the thing on paper for you.

A little bit of 'fiddling and learning about printer codes and the lend of Pete Smith and his Brother 1109 printer (thanks again Pete) to handle the pre-printed forms and bingo.... the finished product, just as to specification.

We took the completed forms back to Barb on Sunday afternoon and I don't think she quite believed that it was done. I asked Barb, havn't the Netball Association got a computer to do all this??? Yes I think they have but I don't think anyone knows how to use it... yeah.. that would

be right I said to myself. A little bit of chit-chat and Barb now thinks that Texas Instruments computers are the best in the world, Karen no longer considers that 'my baby' is STUPID and I think we have converted a couple of computer "not" users.

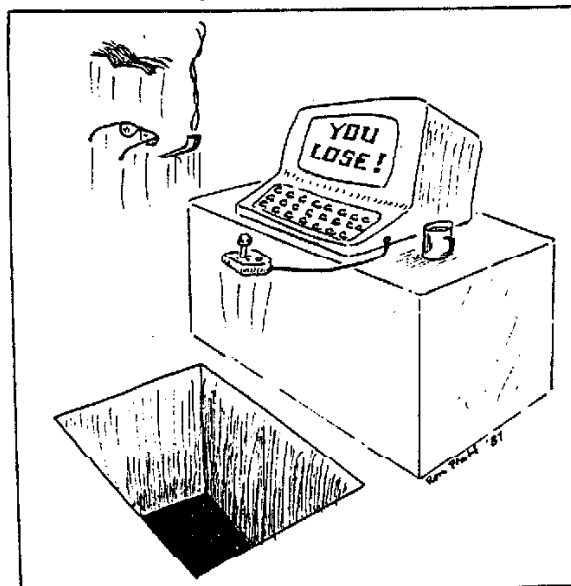
Late Monday morning Karen receives a nice bunch of flowers in appreciation of her efforts from the netball club....now wasn't that nice!!!!

NOISES

From the April 1985 issue of the Guilford 99er Newsletter comes this short program.

Have you ever wondered what kind of noises that your computer will make? We all know that it will play music, but what about that sounds that are built in? Well, this little program will let you run through them.

```
100 FOR Z=-1 TO -8 STEP -1
110 CALL CLEAR
120 CALL SOUND(1000,Z,0)
130 CALL SCREEN(-Z+2)
140 PRINT "NOISE NUMBER ";Z
150 CALL SOUND(1,Z,30)
160 NEXT Z
170 GOTO 100
180 END
```



may
mys
six
pro
pri
sor
but
tha
dir
jus
hav
nea
wri
jus
it
mid
to

DISK LABEL PRINTER

a program
by
Brian Rutherford

Here is a little programme you may find handy. I wrote it for myself when I could not find a simple disk label printout programme. I had fancy label printers that would printout all sorts of fancy letters and borders, but I had to type them in. Others that would print out the whole disk directory, but nothing that would just print the disk name. Could have done it with FUNNELWEB but that meant I would have had to do the writing. So with this programme you just put the disk in the drive and it will then read the name and print it in double sized print in the middle of an address label, a boon to all the lazy people like me.

```
100 DATA "0000001F1F181818",
"000000FFFF", "000000F8F8181818",
"1818181818181818", "1818181818181818",
"1818181818181818", "1818181818181818"
110 DISPLAY ERASE ALL :: CALL SCREEN(16):: GOTO 130 :: CALL CHAR :: CALL HCHAR :: CALL VCHAR :: CALL ERR :: CALL KEY
120 FN,K,S,X,Y,DEV$,A$ :: !@P-
130 FOR K=0 TO 13 :: CALL COLOR(K,16,1):: NEXT K :: FOR K=130 TO 135 :: READ A$ :: CALL CHAR(K,A$):: NEXT K
140 CALL HCHAR(2,2,130):: CALL HCHAR(2,3,131,28):: CALL HCHAR(2,31,132):: CALL VCHAR(3,2,133,20):: CALL VCHAR(3,31,133,20)
150 CALL HCHAR(23,2,134):: CALL HCHAR(23,3,131,28):: CALL HCHAR(23,31,135):: CALL HCHAR(5,8,131,18):: CALL SCREEN(5)
160 DISPLAY AT(4,6):"Disk name printout" :: DISPLAY AT(10,2):"Printer name PIO" :: DISPLAY AT(12,2):"Drive number 1"
```

```
170 ON ERROR 290
180 IF FN>1 THEN 200
190 FN=1 :: ACCEPT AT(10,15)
BEEP SIZE(-13):DEV$ :: OPEN #1:DEV$
200 FN=2 :: ACCEPT AT(12,15)
BEEP VALIDATE(*123")SIZE(-1):DEV$
210 OPEN #2:"DSK"&DEV$&".",INPUT,RELATIVE,INTERNAL
220 DISPLAY AT(14,4)BEEP:"Place disk in drive ";DEV$: And press enter"
230 CALL KEY(3,K,S):: IF K<>13 THEN 230
240 INPUT #2:A$ :: DISPLAY AT(17,2):"Disk name ";A$ :: PRINT #1:CHR$(14);TAB(INT((20-LEN(A$))/2));A$
250 CLOSE #2
260 DISPLAY AT(22,2)BEEP:"Another disk Y/N"
270 CALL KEY(3,K,S):: IF K=9 THEN DISPLAY AT(22,2):" : DISPLAY AT(14,2):" : " :: GOTO 210 :: ELSE IF K<>78 THEN 270
280 DISPLAY AT(12,8)ERASE ALL BEEP:"Thank you" :: CLOSE #1 :: FOR K=1 TO 10 :: GOSUB 350 :: NEXT K :: DISPLAY ERASE ALL :: END
290 CALL ERR(X,Y):: CALL SCREEN(14):: DISPLAY AT(14,2):" : " : " : " : "
300 FOR K=1 TO 10 :: DISPLAY AT(14,3)BEEP:"<<<<-I/O ERROR->>>>" :: GOSUB 350 :: DISPLAY AT(14,3):" : " :: GOSUB 350 :: NEXT K :: RETURN 310
310 ON ERROR 330
320 CLOSE #FN :: GOTO 340
330 CALL ERR(X,Y)
340 CALL SCREEN(5):: RETURN 170
350 FOR Y=1 TO 10 :: NEXT Y :: RETURN
```

A point to note with the programme is the RETURN 310 at the end of line 300. The programme works with or without that statement, as there is a RETURN 170 at line 340. Yet the XB manual says quote "if a line number is specified by an ON ERROR the line number must be the beginning of a subroutine similar to that called by a GOSUB. It should end with a RETURN statement." & that is the reason I put the two RETURN statements in the programme. One error routine picks up a bad input, such as printer name etc. and the other to trap the file closing routine if the computer cannot close a file that it did not

open properly, but nor can it open a file of the same number if the file it could not close was not closed. Does not make sense does it? but that is the system I have been led to believe from everything I have read on it. Also the CALL ERR statement does some funny things with TRACE. Add a TRACE to start of line 170 and then put in a bad printer name when prompted. You will find the trace print out on the screen never shows it getting to line 290 which has the first CALL ERR in it though as the screen changes colour it must do. As well it doesn't show it getting to line 330 but when I add a CALL SOUND to that line that works, so it must get there also. Hopefully somebody out there will read this and enlighten us all as to what is happening.

CALL FILES

the 1st of 3 articles

by

Bob Carmany

This is another one of those "projects" that Paul Mulvaney suggests from time to time (and I may have decided take a "whack" at a bit prematurely). At any rate, we are going to take a look at files and the TI.

Before we go into this rather knotty subject, I would like to digress a bit about about what direction we are going to go with this series of columns. The first and second columns will be concerned with the basics of file management. We will be discussing OPEN statements in some depth and then a discussion of the other statements that can be used with file management. Most of that will come in the second installment in the series. The last column will deal directly with file management and, more specifically, how I accessed the files in my FILE/READ program that appeared some time ago in this newsletter.

Basically, a file is used to create a link between the computer and a bunch of data. The TI is a very

unusual "beast" --- it considers just about everything to be a file! To establish a link, you must first OPEN the file and give it a specific file number. The format of the OPEN statement looks like this:

```
OPEN #filename :device-filename
[,file-organization][,file-type]
[,mode][,rec-type]
```

The items within the brackets are optional and, if not specified, a default will be supplied.

Let's examine the OPEN statement segment by segment. The file number can be any number between 0-255. The only restriction is that 0 is used by the computer to designate the screen and keyboard so it really can't be used as a valid file number. It remains in an OPEN state all the time.

Following the colon (:) is the device-name. It must be a valid string and either enclosed in quotes or be a string variable ending with a dollar sign (\$). Examples are:

```
OPEN #1:"PIO"
OPEN #1:A$ (where A$="DSK1.LOAD")
```

If CS1 or CS2 are designated as a device-filename, no filename needs to be specified. Others, like "PIO", do not need to have a filename specified either. Disk references do, however (see the example above).

The rest of the OPEN statement contains information that may or may not be included. If the individual items are not specified, the defaults will be supplied by the computer. In our discussion, the default values will be marked with an asterisk (*).

1. The file-organization can be one of two types:

*SEQUENTIAL files are those that are processed in the same order that they are saved (ie. record #1, #2, #3, etc.). SEQUENTIAL files maybe either FIXED or VARIABLE in length but the default is VARIABLE (see below).

RELATIVE files may be processed in any order (ie. randomly). RELATIVE files maybe processed sequentially as well. All RELATIVE files must

h
I
o

C
A
P
t
s
I
d
T
g
s
i
I
m
I
o
c
O
o
A
o
a
e
*U
b
I
t
r
*V
u
F
a
l
T
i
d
c
R
3
T
e
s
t
t
b
O
P
[,
I

have a FIXED length (see below).

II. The file-type may also be one of two different types:

*DISPLAY files are in a form that can be read by us 'poor humans' (ie. ASCII). If the files are to be printed or displayed on the screen, this is probably the best choice for saving or retrieving files.

INTERNAL files are in a form that is decipherable only by the computer. They are written in binary and generally take up less space to store the same amount of information.

III. There are several different modes in which to OPEN a file:

INPUT specifies that the file can only be read from. No other action can be taken.

OUTPUT specifies that a file can only be written to.

APPEND specifies that the file can only be added to (ie. new records added to the end of the presently existing file).

*UPDATE specifies that the file can be both read and written to.

IV. The record-type maybe one of two types but there are some restrictions:

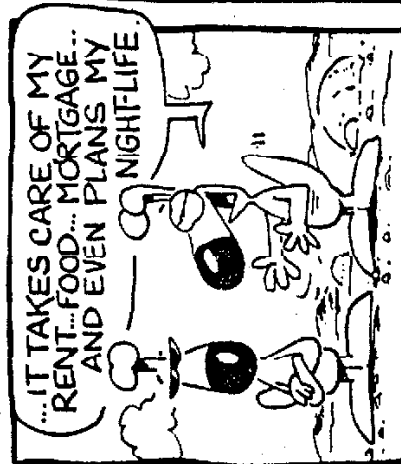
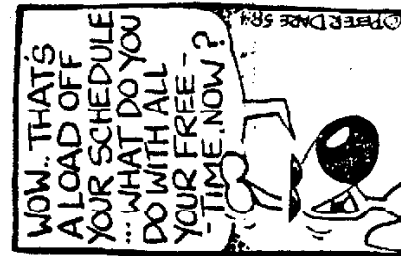
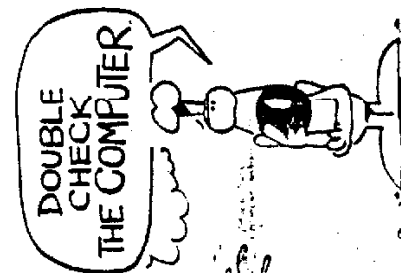
*VARIABLE files may have any length up to the maximum number specified.

FIXED files have a specific length and are padded to the specified length with zeros.

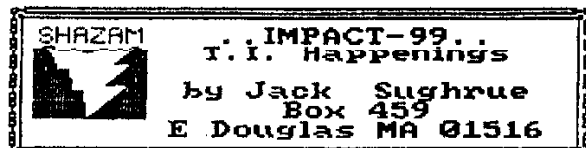
The default length for each record is specified for some peripheral devices. The default is 64 for cassettes, 80 for disks, 80 for RS232 devices (including PIO), and 32 for the TI Thermal printer.

That takes us through the OPEN statement. Let's see what that simple OPEN statement looks like to the computer with the defaults in brackets supplied by the computer.

```
OPEN          #1:"PIO"[,SEQUENTIAL]
[,DISPLAY][,UPDATE][,VARIABLE 80]
```



KOOL ROO



BLUE RIBBON II

Last time in our IMPACT column we presented Asgard Software with the 1988 Blue Ribbon Award for outstanding commercial support of our 99 and for the upgraded Geneva 9640 from Myarc. We wrote about some of the games (LEGENDS, HIGH GRAVITY, BALLOON WARS, etc.) that would satisfy most game enthusiasts (like myself) and promised to complete an overview of the company's excellent products produced by some of the most prominent programmers and artists in the TI community.

However, most grownups prefer the utility software to games these days. In a way, that's too bad: we don't want to take the FUN out of computing because people might mistake us for IBM owners.

There is a way out of this dilemma. Asgard. Some of the utilities are so much fun you feel you are playing games or solving puzzles instead of working at tasks.

Let's peek at a few.

TOTAL FILER, for example, is my favorite data base. It's free form and written entirely in extremely fast c99 (though it can load and run through XB, TIV, or E/A). I also like and use CREATIVE FILING SYSTEM and PR BASE, two extraordinary Fairware data bases. But I use TOTAL FILER more often for more reasons. It is quick. Nothing difficult to load and be forced to figure out peculiar keyboard patterns for a pile of menus. TF is designed for the user. It is simple, easy, quick, clean. Though it has been promoted as a way of putting all your TI Writer files into easily-accessed electronic index cards (the kind of program writers dream of and is done better by TF than by ANY data base for ANY computer, believe me), I still prefer it for those normal kinds of files one uses about the home or work. I use it for all the filing I need to do with my 5th-grade class. I use it for my collection of P.G. Wodehouse books and all my audio and video tapes. I have used it for collections of these IMPACT articles, as well as for poems and essays I wrote when I needed to pull them together for books. This makes my FUNNELWEB (or whatever TIV you use) a lot more potent, too. There is no limit to the number of files serviced by TF. You don't have to worry about sorts. In seconds, TF'll find anything you've key-worded when creating your file. Let's say I created a Wodehouse file and listed JEEVES AND THE TIE THAT BINDS. I keyworded the following: Jeeves, Bertie, Madeline, Dahlia, Runkle, politics. I also had a small write-up on the book with publication dates, etc. I can call it all up with the title. Or I can (if I forgot the title) remember that Madeline was in it or it was about politics or that Bertie was staying at his Aunt Dahlia's. If I type any of those words above, the DISK would be IMMEDIATELY read for all instances of, say, Dahlia. I could then key through all the Dahlia books until the right one popped up. Runkle, however, is only in this book. If I keyed that in, the stuff would be standing before me on the screen. There are so many things you can do with TF (including printing out the individual entries or a master listing) that I don't wish to take up this somewhat generic overview review with all the ways one could use it.

There are little specialty programs put out by Asgard, too: STAMP MANAGER (for stamp collectors); RECIPE WRITER (now updated for serious cooks) with volumes of recipes in the ELECTRONIC GOURMET package; PRE-SCAN IT! (to speed up and reduce XB programs even if you aren't a programmer); MUSIC SYNTHESIZER (for the novice to create music on the TI); TUNNEL OF DOOM EDITOR (which lets you create your own TOD games, including weapons, monsters, graphics, text); SCREEN SCROLL PACKAGE (for adding all kinds of assembly items to XB even without knowing assembly); and so on.

Two outstandingly versatile and useful programs are the old (but updated with all kinds of new features and speed) SCHEDULE MANAGER and the new EZ-KEYS.

The former, an integrated appointment book, is filled with so many easy, instant features that you'll wonder how you ever existed without it before. This is a lot like using a typewriter and discovering wordprocessing. You can have up to a full screen of appointments or comments on each day of a 4-month calendar (which updates). The famous Asgard pull-down menus let you access any part of the program. SM also features a 30-page notebook for names, addresses, phones, and so much more.

Probably the utility blockbuster for XB programmers and novices this year will be EZ-KEYS. It's simply an astounding piece of software. When I first heard the name I thought it was another program to make command macrokeys. And that was it. Lots of hype, little value. Was I wrong! Although this program makes macrokeys of EVERYTHING, it is just one of the unusual things it does. It does, however, bring macro-ing to the State of the Art by being able to define 55 keys to contain the commands you use that kind of program for, but you, the user, can put up to 671 characters of utilities, keystroke combos, program code, WHATEVER, on every single one of these keys and - get this

- chain them together for further combinations! EZ gives you full cursor control. The secret word is FULL! You can also change screen colors while programming and more and more and more. EZ will sit behind most programs (I've found none that it doesn't, including hybrids with assembly.) so you can pull into that program any of the EZ features for direct use or permanent customizing. Imagine what this can do for your most-often used programs! Excellent documentation, the hallmark of Asgard, is hardly necessary because of the ease of use and clarity of intent. Remarkable!

Asgard has become the unquestioned leader in graphics and electronic publishing in the TI world. If you combine the Public Domain MAX-RLE and the latest Fairware FUNNELWEB with the stuff from Asgard, you can practically create a complete standard of all the TI industry's graphic design out there. Desktop publishing has come of age for us all. The big program from Asgard in this area is FONTWRITER II. With it you can do flyers and signs and reports and letterheads and anything your imagination will let you do. You can combine text with pictures (even on the same line) right out of a TI Writer file. There are almost 200 typefaces available in TI-Artist and CSED format (some with this disk) and FONTWRITER can use them all! The image-creation flexibility is enormous. Asgard also puts out volumes of ARTIST FONTS (for TI-Artist or FONTWRITER); ARTIST INSTANCES (by subject matter - Hooray!) featuring animals, holidays, home, people, computer, etc.; ARTIST ENLARGER which lets you enlarge or reduce or stretch or squeeze in any direction any font or instance to use with FONTWRITER or TI-Artist. Asgard also has four packages of GRAPHX COMPANIONS. Hundreds of fonts, cliparts, borders, pictures, animation sequences, and so on for people with GRAPHX (or to a more limited degree MAX-RLE, but preferably both for easy conversions) to become part of this electronic publishing. GRAPHX SLIDESHOW by Paul Charlton will display a full disk of KLE or GRAPHX pictures in manual or automatic settings.

Whew!

What has happened is that Asgard produces and distributes software faster than it can be reviewed in a column like this. This is not a complaint. The programs continue to get A ratings from *MICROpendia* and many newsletters. It's a company worth investigating. Mr. Bobbitt promises some really exciting new software "that'll knock your socks off" coming up soon. I, for one, can't wait.

For free catalog and price list, write to Asgard Software, PO Box 10306, Rockville, MD 20850.

Tell 'em Impact sent you.

Enjoy!

TI
ing
OS,
an
TI
to
mes
99
two
ult
It
to
nta
rk.
ks
and
lot
in
and
ks.
can
his
ay,
his
du
hat
TER
up
ll);
EEN
nd)
how
tan
ous
es,
an
ys.
is
to
671
his

THE INFORMATION PAGE

IN YOUR NEWSLETTER THIS MONTH

| | |
|---|-----------------|
| Random Bytes | B. Carmany |
| In the News - a round-up of TI happenings | A. Wright |
| Brisbane TI Faire | G. Christensen |
| Using The QED Module | R. Kleinschafer |
| Funnelweb Report | T. McGovern |
| 4A To The Rescue | A. Anderson |
| Disk Label Printer Program | B. Rutherford |
| Call Files (1) -part 1 of a discussion on files | B. Carmany |
| Impact 99 | J. Suhrue |

PLUS MUCH MUCH MORE!!!!

COMING EVENTS

Next Committee Meeting: Tuesday 3rd May, 1988
Next General Meeting: Tuesday 10th May, 1988
Brisbane TI Fair: Saturday, 21st May, 1988

AGENDA FOR MAY MEETING

Demo of Richard Terry's Chequebook/Credit Card Manager
Demo of Ron Kleinschafer's QED Module Loader

CLASSES AVAILABLE FOR MEMBERS

Extended BASIC classes to be arranged
TI WRITER Discussion Group 26 April at Warners Bay High

ANNUAL SUBSCRIPTIONS

Subscriptions to the Group cover the period 1 July to 30 June following year. Membership enquiries are welcome; please address all enquiries to the Secretary.

The annual subscription is:

Australian Residents...\$20

Overseas Residents.....\$40 (airmail)

\$30 (surface)

Back issues of our Newsletter are available for \$1 plus postage

C#97 Current

Mr R. CARMANY
1504 Larson St.
GREENSBORO NC.27407
U.S.A.