cpcSOUTHWEST
Amstrad Users Group

ONLY 80P

INCLUDING A COVER DISC

AA IS DEAD BUT THE CPC LIVES.

LONG LIVE THE CPC

HAS DAVE GOT THE GUTS TO GIVE THE SURVEY RESULTS?

Inside: The Bit No-One Reads, PD Reviews, Peter Wants To Turn You Off, Reviews, Blow Your Own Roms, Parados Switch, Music Tutorial, Competitions, Programming And Lots, Lots More Besides...

EDITORIAL

Dave look's back over the last 12 months, on our 1st anniversary.

In August 1994,I wrote to Amstrad Action to enquire if there where any other cpceer's down in my neck of the woods,if so,would they like to help to start up a User Group for the Amstrad CPC.

To my surprise,I received 4 reply's.Now that may not seem a lot of reply's,but up to then,I thought I was alone down here. I had this vision of everyone having these P (poor) C (computers),and there was Dave all alone with his faithful CPC.

Soon others became interested , to date we have 80 members .There are others who have sampled magazine. Like WACCI,we can't cater for all cpceer's,and with the return of the SURVEY, everyone seems satisfied . I will try to implement recommendations as time goes by.

When I look at the first copies of the magazine,I cringe,(cut and paste job in those days). I am the first to agree that I am not very professional at this Desk Top Publishing Lark,and I thank those of you who have stuck with it,with out you,there is no group . It is a BIG thank you to J.R.for introducing me to clip art,and taking over the FRONT COVER,also to those who continue to send in articles each issue.

I just could not keep this magazine going with out your help,and I am sure lots of you have had benefit from the magazine.I can only hope the magazine and the group will be celebrate it's second anniversary.

Through the group,I have made NEW FRIENDS. It is pleasing to know someone out there will help out with a problem,not only to me but to other members. There is a nice friendly feeling about the group, and hopefully one day we can have a group get together. What's you thoughts on such a get together ? One or two members have suggested it and I am all for it.

It has been asked if the magazine could be produced monthly rather than every two months.I do have a problem with that,and I think it is unfare to ask people to send in articles each month I certainly couldnt manage a MONTHLY magazine,so for the time being,it will remain as it is.

This is where I sign off,thank goodness I hear you say.

NEXT
ISSUE
DUE
OUT
OCTOBER 20th.
THANKS TO EVERONE
DAVE)))....

DEAR DAVE'S PAGE.

Dear Dave.
How very sad I felt when reading of your terrible dissappointment over the lack of entrants for the APRIL issue competition, (I hadn't a clue anyway !!),NEVER AGAIN WILL YOU BE ALLOWED TO BE SO DEJECTED,HAVING WORKED SO HARD ON IT.
Frantically I grabbed my National Health Spectacles,raced to get the dictionary,crossword companion,encyclopedia,pen and attack "IT",the June compo:...Dead easy this one thinks I !...(I also thought the same when my dear wife kindly bought my son's 6128 and tonnes(metric)of bits some eighteen months ago for my new 'hobby',I'm still aduffer now !...).
Off we go,No 1,2,3..4?..5,6??,7,8,OK so far,or is it ?, Three days later son of (6128 fame) arrives for a few days break from Los Angeles Musicians Institute. AH ! good brain here to help..WRONG,no idea.....
New Brainstorm, invite DAVE (they are everywhere),from across the road,retired Teacher,now a writer and poet of International fame,for a bottle or two of Home Brew Wine,the wine vanished pronto,...ANSWERS=NORT COMETH FORTH (two good brews wasted !).
Unexpected Visitors,Stepgaughter and bloke,after considerable study she joined the club (I hope not) of the NO HELP brigade. He with gay abandon states " Grey Whale of course "....More visitors next day, from Tavistock,a 6128 buff,as expected another 'NOWT HERE'job.
I owe the final accolade to a rat, vermin not the human model, which arrived up the garden..grab..GUN..WHOOPEEEEE.
SEND OF TO DAVE,with instructions to forward the prize by return, (forever the optomist !).
Arrive home from shopping,phone rings, ITS HIM,oh joy...short lived though----said I had some nerve and was to confident to deserve such a valued prize...Then a little tongue in cheek told me ' I HAD WON AFTER ALL ',...More Home Brew....
Dave thanks for the call and chat,most kind (I THINK),also many thanks to whoever donated ' QUALITAS '.
Cheers for now Owen of BOWLING GREEN, village of no Shops,Pubs,Church,Postoffice,Hall,Bus or Train,Thank You 6128.

PS: WARNING TO FUTURE PRIZE WINNERS...There is a nasty STING in STITSONS TAIL...I waited with baited breath for the package to arrive,Tuesday to Friday NO SIGN,probably working extra hours,Even though I'm a forced early retirement bod,SATURDAY is a sleep on morning...NOT ACCORDING TO STITSON IT ANIT........
0715 hrs,a ringing in the lugholes,hangover ?,NO...the dear little door bell, race backwards downstairs,fight with the door locks....OPEN UP....Surprise,Surprise its the POSTIE complete with a wide awake grin,..A VERY NAST SIGHT AT 0715.

Dear DAVE'S continued.......

" DOES OWEN (BRAINBOX) SMITH RESIDE HERE " ?,course he
'**++##¦J-##( )? DOES ! mutters I,GOOD SAYS HE, CAUSE THERES
GOOD AND SOME BAD NEWS,....yours truly manages a grunt...YEH ?.I
HAVE A PARCEL IS THE GOOD NEWS, a mild Whoopee from I,THE BAD
NEWS IS YOU HAVE TO COUGH-UP 42 PENCE FOR UNPAID DEFICIENT
POSTAGE.."
Will you take a cheque and issue a receipt so I can make a claim
?...and get my OWN BACK ONE SATURDAY MORNING....still thanks again
mate,all good fun when awake !!!.
Signed , 00000000000000000000000000000

DEAR DAVE , ' HELP '   FRANK OWEN - NEWBURY

Thank you very much for your prompt reply to my enquiry about CPC
SOUTH WEST, I did enjoy my first read, but as I am in my
seventies,you will find that I am a bit THICK when it comes to
this Computer lark,but I am sure with your help and help from
other members, (perhaps you had better put a WARNING SIGNAL out
to the other members here),(I shall certainly contact them
)....... *That is the aim of the group FRANK- DAVE)))....*
The tips that you sent me will come in very handy,is there a Disc
or a Book with these tips so as I can get *to* know this 6128 better
to save you and the other members being pestered by me ?.
The Utilities disc from you PD library is a great help,and what a
surprise I got when I typed in RUN"DISC like you told me,there on
the screen was MY NAME, " FRANK OWEN UTILITIES DISC " I was so
proud to see my name up on the screen,I went straight up to my dear
wife and gave her a kiss for buying this machine for me.
Let me explain- what I did for FRANK was to put a menu on the DISC
and typed in his name as above DAVE) ...
I have made a back-up copy as you suggested and have been playing
around with the utilities on the disc,thanks again DAVE,please
print this letter to warn other help line members about me.

As I said earlyer FRANK,the aim of the group is to help each other
out with problems,and any of the other members will only be to happy
to help you, it is nice to have you with us DAVE)))....

DAVE ASK'S how about a get to gether later in the year
as we are now growing in numbers,it would be nice to meet up, one
or two members have suggested it,so come on let me have your
views,DATE , VENU , ETC.
I realise some members would not be able to make the jurney to say
PLYMOUTH,or some where central for the meet,due to the
distance,but throughout our counties we have enough members to
make it worth while,it would be nice if all members could make
it,but distance is a problem for those north of BRISTOL ETC.

DAVE))) ...

COMPO - WINNERS

In our last issue I set two competitions ,the prizes where for, QUALITAS PRINT ENHANCER and MICRODESIGN+.

Those of you who returned your entries,I thank you for having a go,but most of you got stuck on one or two of the answer's,that is because they all had two suitable answer's.

For the QUALITAS COMPO, we had one out-right winner,and it is congratulation's to Mr.K, as I will call him for a while,as I want to quote what he put in his letter.
QUOTE....
After many hours of serious study, skill and dexterity,patience and a keyword,I SUBMIT THE ONLY WINNING ENTRY FOR THE COMPETITION, HOW'S THAT FOR CONFIDENCE ???
PLEASE FORWARD THE PRIZE TO THE ABOVE ADDRESS.

He even has a lucky mascot on his address label,and he is no other than OWEN SMITH form way down south St.AUSTELL CORNWALL.

So OWEN,you will not have any excuse now for typing in some humorous letter or article for the next issue,your Dot Matrix will never be the same.

Well done and thanks once again to all of you who sent in your entries for the Qualitas Enhancer competition.

OWEN'S WINNING ENTRY WAS.

1). PAD
2). ABOVE
3). EXTRA
4). GUN
5). EARTH
6). GREY
7). CREAM
8). NURSE

There was also a runner up,who's name came out of the hat behind OWEN'S,and that was PAUL BOWDEN from PLYMPTON,Paul you may remember, from the last issue,I reported that he wanted to buy IAN the EPROM BLOWER,as reported in Amstrad Action,well done PAUL,and your prize is 2 FREE selections of PD from the listings.

MICRODESIGN COMPO WINNER.

There is NO OUTRIGHT winner/s for this competition,it seem's to have foxed most of you,no one had less than 4 answers wrong,so what I have decided to do is to make another competition for the MICRODESIGN + ,in this issue .

THE CORRECT ANSWER'S WHERE.
1.Frenzy - PANIC
2.French Resturant-BISTRO
3.Costal Inlet-BAY
4.Facts - DATA
5.Give Out - EMIT
6.Carry - TOTE
7.Degrade - DEMEAN
8.End - TERMINATE
9.Bound - LOPE
10.Nautical-NAVAL

good luck next time......

The Big Picture

'Here's one I prepared earlier'. Remember those words, our very own J.R. gives us a head start when it comes to painting an overscan screen, without any sticky back tape or used toilet rolls.

For those who were wise and got this issues cover disc you will have a head start because there is a screen I put together which you can use, it's called TITLE.SCR.

Before we get carried away there are few things you should know before using the files on the CD (I like the sound of that).

1} As there is a copyright on the overscan loader it CAN NOT be use in commercial games etc.

2} As far as I know this aid to producing overscan only works through A.A.S. If you know different let us know.

Right, on the disc you will find 4 files, these you may want to transfer to another disc for future use. These files are:

        OVERSCAN.BAS
        OVERSCA1.BAS
        OVERSCA2.BAS
        OVERSCAL.BAS

OVERSCAN.BAS will give you 4 screens, each with a box in the centre. As you only need one, erase three of them. No point wasting disc space.

From within A.A.S. load up the screen + palette and set CO - ORDS in the MISC menu. What we are going to do is split the screen up into quarters, this can be a bit tricky so here's the CO-ORDS for a MODE 0 screen:

        WIN 1 = 320 * 200
        WIN 2 = 324 * 200
        WIN 3 = 320 * 198
        WIN 4 = 324 * 198
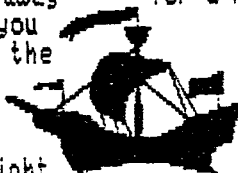
From those CO-ORDS define a WINDOW to the opposite edge, then save each segment in turn. I found it a good idea to re-load them back into place just to make sure that everything lined up properly, you'll see what I mean later on when you try it for yourself (that is if you don't read this properly).

The next step is to load up the frame OVERSCAN.BAS gave you, (hint..put a solid box over it and re-save it, you know what will happen if you don't) using this as a guide place the first window next to the bottom right hand corner WITHOUT overlapping the box. You will notice that there's quite a bit missing, this is were the fun comes in, all you need do to create a big

screen is to extend your pic' that much more, easy peassy. Remember to put each WINDOW in the right place, WIN 1 is the bottom right, WIN 2 goes bottom left, WIN 3 goes top right and finally WIN 4 goes top left. Believe me if you don't you'll mess things up good and proper.

When you are happy save your first screen with SC1 as the extension, the others will be SC2, SC3 & SC4.

All Down Hill

If you've got the CO - ORDS right and haven't overlapped the rectangle everything is plain sailing from now on, OVERSCA1.BAS asks for the name of the screen and takes your 17K screen and turns it into a massive 24K piccie.

As stated in OVERSCAN.BAS the loader needs changing so the program knows which MODE to be in and what INK's to use, try this for the Blue Peter Screen.
All you need do is alter the program slightly, edit line 20 so that it is MODE 0 and line 11 add A$="title" then the INKs needs to be set.

Additives

```
11  A$="TITLE":FOR COL=0 TO
    15:READ C:INK COL,C:NEXT
20  MODE 0:CALL &8000,@A$
100 DATA 26,0,6,2,1,25,20,8,
    10,12,15,16,18,17,11,3
```

As you have just made a few changes you might as-well save the loader. Now it is time to have a look at your first ever overscan screen, not bad eh? Well if you did not line things up correctly it wont be so hot, but with a bit of practice you will be knocking them out ten to the dozen.

Credit Were Credit Is Due

As I said earlier there is a copyright on this program so if you intend others to view your screens give credit to Lover Stan, the programmer.

A Bit Different

I like playing around with the OUT command to get weird effects, usually they crash but now and again something works, here is one that did.

```
10 MODE 1:FOR C=0 TO 3:
   INK C,0:NEXT:BORDER 0
20 LOAD"SCREEN.SCR",&C000
30 INK 0,0:INK 1,2:INK 2,1:
   INK 3,26
40 FOR A=60 TO 1 STEP-1
50 FOR TIM=1 TO 100:NEXT
60 OUT &BC00,2:OUT &BD00,A
70 OUT &BC00,7:OUT &BD00,30
80 NEXT
90 A$=INKEY$:IF A$="" THEN
   80 ELSE 100
100 OUT &BC00,2
110 OUT &BD00,46
```

See you later....John

I decided to get myself a ROMBOX,those of you who have seen my set up will know that I only had a ROM-BOARD,working very well without problems.Then I decided to go upmarket and get a ROMBOX,and that is when I started to get problems with PARADOS. Whichever slot I put the ROM in,it just clashed with the AMSDOS internal ROM.
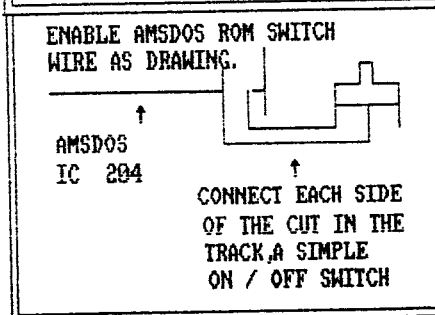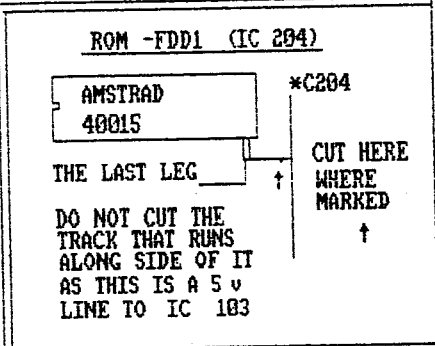
The daft thing about it was that I could use PARADOS in slot 6 on the ROMBOARD connected to the R O M B O X w i t h o u t a n y clashing.Leave alone then I hear you say,But I want to use only the ROMBOX,so a quick phone call to a WACCI member to try to sort it out,even he was puzzled. The phone lines where buzzing from one member to another. Then someone who had the same problem as me was able to tell me how he got over the problem, in case your interested,the ROMBOX is a MAPLINS make .

The only way that I can use PARADOS in any slot (Slot 7 is reported to be best), is to make a few adjustments to the inside and fit (YES ANOTHER SWITCH)to enable the AMSDOS rom when needed .Why you may ask do I need the Amsdos when fitting PARADOS,again, Those of you who are WACCI members will know that I am a P D.Librarian for WACCI,and a lot of the PD is CP/M,so I need the AMSDOS ROM for that.So now down to how I have managed it.

I will draw the diagram for you but this is how it is done.

First you have to open up to get inside onto the PCB (printed circuit board),make a cut in one of the tracks going to the AMSDOS CHIP.What in fact this does is to make my 6128 into a 464 with a 64K extention,so I dont lose any memory,and with the switch enabled,I have my full 6128 back again (IF I REMEMBER TO SWITCH OF THE PARADOS ROM USING THE ROMBOX SWITCH , other wise it clashes).

ROM -FDD1 (IC 204)

```
  AMSTRAD          *C204
  4801S
                         CUT HERE
THE LAST LEG_____ ↑     WHERE
                         MARKED
DO NOT CUT THE             ↑
TRACK THAT RUNS
ALONG SIDE OF IT
AS THIS IS A 5 v
LINE TO IC  103
```

ENABLE AMSDOS ROM SWITCH WIRE AS DRAWING.

```
          ↑
AMSDOS
IC  204            ↑
          CONNECT EACH SIDE
          OF THE CUT IN THE
          TRACK ,A SIMPLE
          ON / OFF SWITCH
```

DAVE)))....

BIT'S AND BOB'S

Reading an old Amstrad Computer User Magazine the other day,I came accross a handy tip for those of you like me have one of these Black Boxes.

MULTIFACE
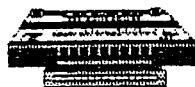
Some times trying to load a Game (so as I can grab the screen),the computer crashes,that is because the program has noticed there is a multiface present,well I found away around this,you might know of this little tip,but I am putting it in anyhow.

CUT WIRE in the ribbon cable to the Multiface,WIRE No. 31.the IORQ LINE,place a single switch in the cable as per drawing,(fig 1).
Before loading the program,switch off,and once loaded,you can switch on again and use the Multiface as normal, (works for me).

Fig 1.

wire 31

ribbon cable
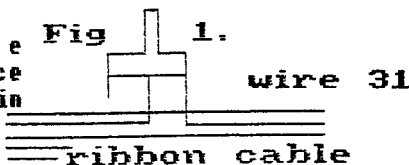
DAVE)))...

LETTERS, PRAY ?

Whether it's our reviews,the games that are no longer released these days,the price of Disc's or whatever,no doubt,something in this issue,or may be something that has happened to you these last few months that is going to get,
a)Your goat,b)Tickle your fancy,c)rub you up the wrong way,d)Or even all of the above.

Dont just keep it under your hat,let off steam ! We care and listen,every single letter received is read,(and there isnt many of them),we will publish and you will receive **FREE PD FROM DAVE'S LISTINGS OF YOUR CHOICE (3 DISC'S FULL).**

So get your writing paper out-or your fingers typing. send into DAVE)))...

FOR ---- SALE

John has been sorting out his Disc's. And he has quite a few 3.5 " Disc's for sale. Price £ 2.50 for 10 Disc's + £1.00 to cover post and jiffy bag. cash or cheques to JOHN REILLY (address on the HELP PAGE). A good bargain there.

COMPETITION TIME

This month we have a donation to offer for a competition prize, MICROSTYLE'S.... MAXIDOS AND PROCOPY on Disc.

A very good utility to have,so it's down to the competition.

EYE'S DOWN and good luck.

1).PASS AWAY   - (6).
2).CONVEXITY   - (6).
3).WOODY PLANT   - (4).
4).ARCHIVIST   - (11).
5).BY WAY OF   - (3).
6).FATHER   - (4).
7).BORING TOOL   - (3).
8).ERA   - (3).

I WOULD JUST LIKE TO SAY THANK YOU TO THOSE WHO HAVE DONATED PRIZES FOR THE COMPETITION,IF YOU HAVE SOME DISC UTILITY/GAME,OR A PIECE OF HARDWARE,OR EVEN TAPE SOFTWARE THAT YOU NO LONGER REQUIRE,THEN PLEASE SEND IT IN FOR THE COMPETITIONS,AS IT PROVED TO BE VERY POPULAR.

DAVE)))...

SHORT COMPO.

Here is a quicky,and the first correct entry received,will have a choice of PD SOFTWARE from DAVE'S LIBRARY,2 X 3" DISC'S with your choice from my listings.
1).RECOGNISABLE (11).
2).NICHES   (8).
3).FITTING   (3).
(TWO FREE 3" DISC'S).

An yet another competition,the prize on offer is ARNOR'S MAXAM on disc with instructions,and if you dont know what MAXAM is,it's a Assembler/Monitor/Editor, for developing Z80 machine code,so if you want to create machine code programs,get your thinking caps on.
Each clue consists of three words which have a forth word in common,the forth word is the answer.
BEST OF LUCK.
1).Radio-Ship-Video.
2).Meadow-Sky-Spur.
3).Captain-Squad-Versa.
4).Nut-Split-Sweet.
5).Dirty-Officer-Up.
6).Book-Cabin-Yule.
7).Illicit-Life-Stand.
8).Butter-Dragon-Paper.

In the event of there being more than one winner of each competition,the winning enteries will be drawn by ER - IN - DOORS,the first name drawn will be the outright winner,the second name drawn will be the runner - up,who will have the choice of 2 selections of PD from my listings,copied onto his/her's supplied disc's.

DAVE)))...

Music Tutorial

Part 2...Music Sequencing Programs.

If you remember (and if not why not!) last issue we went over the basic options that C.P.C's P.S.G. gives us. But what if we want to write a tune or composition

No doubt you have seen little Basic programs in listings, which will play a short tune. And if you remember the 'giant' listing in A.A. .... 'Rocking C.P.C' , I think you could see it takes a listing like this to produce anything decent in the way of a tune!. I would hazard a guess in saying that, programming a tune in this way would be fairly awkward if not a little frustrating. That is, entering numbers into Basic Data statements. Although this type of program does have its own uses

You may have already twigged, that this is where Music Sequencing Programs come in. So firstly we must look at the different ways that you can Input and put together a tune. There are, basically 2 different formats for inputing notes into your tune and how its put together:

'Sequencing' .... the display for this method is normally set up so you see 3 vertical columns. 1 position horizontaly (across all 3 columns) being one 'pattern' position. Left to right horizontally the 3 sound channels IA I B I CI. Now short pieces or 'patterns' of the tune are strung together in what is known as the 'Song List' or playing order. But more on this later. But how are individual pattern positions connected? This is where the timing of a tune comes in, or how fast the next pattern position is taken notice of .

Because all patterns are of a -preset- length of positions (set by you) the program knows when the end of a Playing pattern is reached. And will then move onto 'play', the next pattern in the 'song list'. Wether its just moving on to the next pattern, or that the last pattern to be played is reached. At this point we could 'loop-to' the start of the 'song list'(start tune again) therefore playing the tune again. And so... the song list cycle continues

But how do we get notes into the pattern in the first place! I hear you cry, Well suprisingly easily is the qwik answer... O.K. you lot want to know it all don't ya? Well first you select which (pre designed by you) instrument. Also what octave the note will be in. Now you move to the required pattern position, of the pattern (piece of the tune) your working on. And use the keyboard as a Piano. And pressing the key for the note you want, hey presto! that pattern position now contains ... The selected Instrument will be played with a note of the required octave in that pattern postion. And moving on further still, once you've edtited all the patterns you need to make up the tune you want. You string them together in the right order to play the tune, as you think it sounds best ... wait for it .... in the Song List. Now that wasn't as complicated as as you thought eh? (I don't know about you, but I'm off for a cuppa tea ....

next page

continued ………

'Musicial Notation' ....
Yep, this is sheet
sheet music. That is
using notation on a Stave. The
stave is divided into bars. Bars
(no not the Public type!) are what
you could liken to a short 'section'
(like 8 positions of a pattern) of
a pattern. There being a set
number of beats per bar (possible
positions in a bar). Now, some of
you may 'groan' at the idea of 'Oh
no, I'm not using this method,
cause I'll have to learn to read
music … moan …'. Not a bit of it!
There are thousands of sheet music
pieces. So if you don't read music,
all you have to do is enter in
some 'classics'. You see you could
have a bit of fun, entering in
some classics, and seeing how well
your C.P.C performs for you! And
if you learn something about
musical notation at the same time,
thats a bonus … isn't it? As
with sequencing, you have designed
some instruments, but instead of
entering numerically for exam."F"
as a note, there are symbols for
different notes. And where they
are placed on the stave
(vertically) also effects what note
is played. There are also patterns
and a song list as in sequencing.
So this is really another option
for how you represent the tune
data, this way uses musical
notation …. It really doesn't make
a difference to Arnold its all the
same old bits'n'bytes to him

Well thats your basic ways of
inputing 'making writing a tune
easier'. But there is 1 other
format thats worth a mention. That
being Guitar Tabliture. Just so all
the guitarists among you arn't
offended. This is similar to
musical notation. But, having 6
horizontal lines each representing

……… string on the
guitar. And instead of
notes … numbers are
placed along it which
correspond to the frets on
yer guitar. But saying all this … I
don't know of any C.P.C. (could I
be mistaken?) programs that
support this form of input. Which
is a shame really, as there are
also many pieces of guitar tab
around .

The PACKAGES :-

BooTracker (Sequencing,Firmware
  instruments).

This music program uses the
firmwares ENV/ENT commands. I can
say it's the best of in its type.
It is easy to use. But … although
you can change ENV-ENT's after
the tune has been compiled … it
would have been nice to be able to
use the reprating funtions of
ENV/ENT's, also to use hardware
envelopes. Cause there ain't any
provision in BOOT'S instrument
editor itself. But reasonable
effects and instruments are still
possible, dispite this slight
drawback … To sum-up, this
package is easy to use, well set
out, and the 'look no hands'
interupt driven tune means anyone
can use there tunes with ease .

SoundTracker(Sequencing,Hardware
  instruments).

Where the heck do I start..Why do
I ask this ? because basically
S.T.is the best ! combining several
other ideas from past music
packages,that to be honest
although good,it needed
'stream-lining' (although it looks
like S.T. is in for its own [see
CHaRley TraCKer].one of the many
features of S.T. is compiling the
tune,the bit when a tune is written
and you want to make it stand
alone….

continued....

from the editor program so you can use it in your own program/s). You can compile a tune to RAW or INTERUPT driven format (RAW meaning,it is up to you to call ST every 50th of a second). But ST's compiler also compacts or squeezes your tune data. Making a considerable reduction in how much RAM space it takes up.

S.T.'s instruments are made up by writing to the P.S.G. directly, allowing much more flexible sounds, than the firmware can provide. This boils down to the fact that volume-tone and (big and) noise values can be changed to whatever you like, at any point in within the instrument. The advantage being that with ENV/ENT's (firmware instruments), really only produce, slopeing attack/decays. For example; volume 15-0 decreasing in steps of 1 over a period of 1 second. But with Hardware programmed instruments, you can have a more rounded decay. Having these options open to you, its possible to improve the quality of the the way the (pretty basic p.s.g) sounds are produced. Also allowing good drum sounds too

There really are so many other very usefull options in S.T. infact to many to cover in this short review! ... But some of the other options will be looked at, in later tutorials. To sum up, a VERY powerfull music package and also a very 'User-Freindly' one .

Another CUP OF TEA HERE.

but this one is for DAVE

Ta Very Much

....

ChaRley TraCKer
(Sequencing,Hardware Instruments)........

This package will soon ... be available at a rediculous price, and promises to be (if thats possible) even better that SoundTrakker! and even more user freindly. C.R.T.C has all the funtions of S.T. but also some usefull new ones. I will endevour to explain some of the additional features of C.R.T.C to you (of which there are quite a few)

Like ... Being able to compile several songs under one driver program, saving that valuable RAM space. Can you see the advantage of this? (apart from saving memory). No? ... Well if you've written a game with a nice title tune, which is a nice finishing touch to have i'nt it? The tune play along nicely through the game, great ... But what about that Bonus level or the End of Game sequence, or when the player completes the level? If it were me I'd like a little jingle to play through these sections of the game. See the advantage now? There will also be the ability to overlay sound effects over a currently playing tune (which means you can use C.R.T.C for SFX as well). Great game, shame about the prehistoric sound fx though! Well, now you could (if you by this package) have all the flexibility of decent title tune, some nice jingles for in game sequences and also decent SFX as well... I'll let you readers know when C.R.T.C comes out, and give you a review, that is if you want one .

I need another cupa ,these hot days make me more thirsty.

Me to DAVE))).... next page...

last page....

Music Maker (Notation,
I n d e p e n d a n c e   o f
Firmware Instructions).

You can get a Demo of this package
from Reveal Software or from
G.D.P.D yep, daves got it. The
first thing that hits you when you
see M.M (and it isn't to painfull!
either) is the Huge support for the
user. Once the tune/s (yes there
is multiple tune support) been
compiled, there are 12 or so RSX's
for you to use. Well done Reveal
Software. Someones actually realised
that we want to do more than
just start and stop a tune! The
RSX's relate to starting and
stopping play of a tune, overlaying
sound effects over a tune and much
, much more! (have a look at the
demo). From reading the A.A. review
(I don't have a copy of M.M. yet).
The editing process is fairly
simple, and easy too. Yep, R.S.
have certianly made Notation an
atractive option for the C.P.C.
user .

Well I hope you've enjoyed this 2nd
music tutorial, and maybe learnt a
little as well. Next month we'll
have a look at Arpegios and a
listen as well. So you'll need the
sound tracer. Bye for now .... Oh,
and the cover disc is great, so
do send Dave a S.A.E for it .

Simon...............

*Thanks once again Simon for
Part 2 of your tutorial.*

*It was not quite so many pages
as you thought,thank goodness
say's I,1K blocks at a time is
fine by me,it makes life
easier.*

DAVE)))......

REVIEW BY PAUL

Hello to all CPCSW readers.
In this issue I want to tell you
about a nice little program that
is PD, (PRINTMASTER).

Printmaster is used for making
Headed Notepaper, Signs,
calendars, it has about 200
pieces of clip art for you to
chose from.

It is best if you use two
drives, to save you changing the
disc over,or flipping over I
should have said, some versions
will work from one drive only.

Scoring:-
Printing : 90 %
Speed   : 75 %
Graphics : 90 %
Over all : 88 %
available from DISK PD or GD.PD.
DISK PD
Lower Dexbeer
Dexbeer
Holsworthy
EX22 7LA

PETERS PAGE

For this issue,we are going to show you how you can,with this project,have 3 DISC DRIVES,IE: 2 " B " DISC DRIVES,3.5 ",you could add a 5.25 " as the 3rd drive or a second 3.5 " drive,(Peter says you could get a second hand 3.5 " for about £20.00,(tell me where Pete DAVE)))...,

Did you know your CPC has the capacity to handle 4 DRIVES,but in Amstrads wisdom,only 2 Drives have been connected.

The cost of this project is less than £2-50 ,You will need 1 X SPDT Switch (single pole double throw switch), 1 X 34 Header Socket,and 1X 34 Header Pins.

Refer to fig 1, find cable no.23 in your 2nd drive ribbon cable,CUT strand 23,then find and CUT strand 21 and join as fig 2.

FIG 1.   TO DISC DRIVE

2nd Disc Drive Ribbon Cable.

PIN 23

PIN 21

COMPUTER

| 9 | 8 | = | £ |

FIG 2   SPDT SWITCH

strand 21 to 2nd drive

strand 23 to 2nd drive

strand 23 from computer

Now connect the 34 way connector onto your 2nd drive cable   so you can connect the 3rd drive cable (AFTER THE SPDT SWITCH) . Befor you try it out there is one more adjustment to make,and that is on the 3rd drive.You will need to open the drive casing and locate the pin or links,IE:it will no doubt be linked to marker 2,you will need to link it to marker 3 .These are know as the drive selection pins,0,1,2,3, or DS1,DS2,DS3,DS4, whatever it is named,make sure you link the 3rd marker.

With all that done,just a flick of the switch you can use either the 2nd or 3rd drive,BUT NOT TOGETHER sorry !.In an old A A, a third drive switch would have cost you 4 times as much. I am still awaiting details of how to fit a hide switch in the 'modern' Multiface,so I will see you in the next issue with that one. Please let me or Dave know if you have tried out these switch projects as I would like some sort of feed back from you.

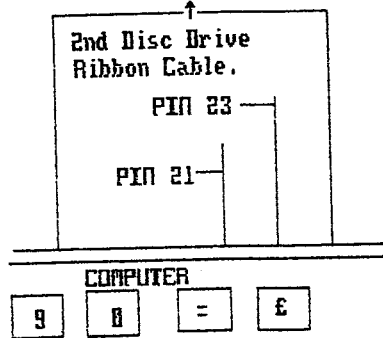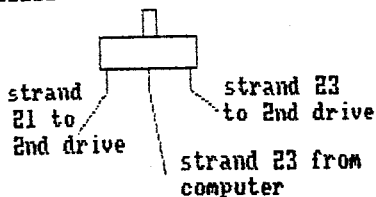*Thanks once again Pete your keyboard   must be full of switches. DAVE)))....*

```
; ; TIME Reset Command
; ; Written for CPC SOUTH WEST
; ; By WHISPERING DEATH
; ; JUNE 1995

  LD HL, WORK_SPACE
  LD BC, COMMAND_TABLE

  JP &BDC1
.COMMAND_TABLE
  DEFW NAME_TABLE
  JP CODE
.WORK_SPACE
  DEFB 0,0,0,0
.NAME_TABLE
  DEFM " TRE "
  DEFB " S "+&80
  DEFB 0
.CODE
  LD DE,0
  LD HL,0
  CALL &BD18
  RET
  ; ; This ones easy, this
  ; ; After calling,type | TRES to reset the TIME to zero
  ; ; Uses KL_TIME_SET
  ; ; If you don't wish to use the Firmware,
  ; ; then the TIME value
  ; ; is held in &b8b4/&b187 (6128 - 464)
  ; ; In a 4-byte block. LB first
  ; ; By For Now - Whispering Death   ALIAS " JAMIE ".
```

ART WORK BY OUR OWN J.RIELLY

TYPE IT IN AND RUN IT !

BOXING

This is a FUN little Game that let's you take out all of your frustration on some willing set of pixels.

Use the Joy stick or Keys to guide your man on his quest to beat the living daylights out of his opponant.

GAME REVIEWS

TUT'S PYRAMID

This little game has been around since 1986,it keeps me amused when ever I need a break from Utilities etc,you have to control Mohamid on his flying carpet.
The instructions are presented on the title page.

available from CD.PD.

see Back Page For Details

Pocket Money Software

£5.00 MAX

After reading the review of Annihilation Kevin rightly pointed out that I didn't mention the gun turrets the player will come up against, my sincere apologies to Kevin and you the reader.

The turrets are fairly easy to overcome when you know how, but when you do blow them up you are awarded with a neat little animation sequence complete with sound effects. I also made a mistake in saying that Kevin used Sprites Alive to create his games, he didn't. But it's the end result what matters not if he used a creator or not. I still feel that it would have been better if Annihilation had a set number of levels rather than going on and on, and on.

Space Froggy - 25p FUN PD
By Gary Scott

In this futuristic arcade game you control a squashed green robot with sunglasses, your aim is to hop around a massive building in the hope of finding nine lost ROMS. Also scattered around the place are loads of crystals which boost your score but they are usually positioned in such a way that chances are you'll lose a life trying to reach them. You will also need to collect a number of keys which open closed doors. It aint easy as there are quite a few moving objects between you and your goal, each time you touch one you lose a life.

The biggest problem is jumping up the stairs, if you are not stood in the exact spot (we're talking pixels here) when you press the fire button you'll get no-where fast, this can be frustrating and deadly because there's normally a baddie snapping at your heels, ooch.

Graphics are excellent, as they should be. Space Froggy was entered into the PD yonks ago to promote the Sprites Alive game creator. The BIG downers for Space Froggy is the speed (a tad to slow for my liking) and the lack of music, a shuffling noise as you hop around the screen and a horrible screeching noise when you die, which you will hear quite often. I wish Froggy was fitted with a lasergun, this game would be hell of a lot easier. If you keep at it though and don't wipe the disc clean through frustration you may start to enjoy it. I'm going to complete this game if it's the last thing I do. I've already considered cheating, with any luck Peter will find a cheat for me (us).

GRAPHICS- Excellent.
MUSIC- Horrible noises.
GRABABILITY- I'll beat it.

Overall 82%

LAST OF THE SMILEYS - GDPD
BY JOE MOULDING

"No, go up and then left".
"If we do that the diamond will change into a door and we wont be able to get back, wait a sec' let me think about this".
"Look what you've gone and done John, the times run out".

The above conversation took place between me and my missus just before we completed Last Of The Smileys (LOTS from now on, save my one and only typing finger). Notice the fact that this brain teaser can be completed, I've often wondered with this type of game whether the programmer is pulling my leg by including a level which can't be completed. It's probably just me but you never know, there's some nasty people about these days. (You can say that again..ED)

So it can be completed, two points may cross your mind, firstly the puzzles are dead easy and secondly John and his missus are good at puzzle games. The simple answer is neither, the game is so addictive that you just have to keep going until you've completed it. This is because Joe Moulding (the programmer) is really wicked, he's binned the idea of having a set number of lives. This means that you don't have to start all over again every five minutes, instead you just have to have one more go. There aint a password system either but I'm still working on whether this is a draw back or not, just because you completed a level once doesn't mean you'll be able to overcome it so easily the second time round.

Like all good brain teaser LOTS starts off easy and gets harder until you end up pulling your hair out trying to find the solution to the last one, Joe has been a bit sneakier here as-well, bang in the middle he's put a dead easy one just to throw you off balance, the time is very tight though. The last one is very tough, where the (snip, don't give the game away...ED)

GRAPHICS- The sprites are passable, not brilliant but good enough. The whole game is in overscan but the actual playing areas varies, this is a plus as the game is nice and smooth, if it was any bigger it would slow things down a tad. This is just right.

MUSIC- Two nice tunes, the one while you're playing doesn't put you off at all. The one thing you don't need while trying to think is loud music.

GRABABILITY- Here LOTS gets 10 out of 10, nice one. I hope to see lots more where LOTS came from.

Overall 92 %

This game was going to appear on the cover of A.A. but alas it never happened, instead you'll find it on this issue's CD.... ED
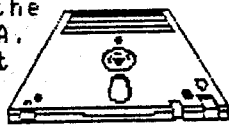
PMS Continued...

Here's a nice little SHAREWARE program which you will have fun with for a while (SHAREWARE means that you have to send the programmer some money if you use the software), it's aimed at people who swap software. Instead of writing a letter on paper you can create a fancy demo like one on disc, complete with logo and moving sprites in the background.

The disc (2 sides) is packed with all the bits and pieces you will need, special effects like starfields or a bouncing ball in the background, there's even a screen full of little piccies to help you put the logo together. The good news is it's dead easy to use, first attempt only took me ten minutes (then a couple hours playing around with the special effects). Ghoul Writer works in modes 1 and 2, in MODE 1 you can redesign the text so the

words are multicoloured, again very easy to achieve and can look impressive.

GRABABILITY - As it stands Ghoul Writer should keep the swappers amoung us happy for a while.

MUSIC - Comes complete with a selection of tunes, will also let you use other Soundtrakker tunes.

GRAPHICS - Loads of special effects in MODE 1, but after a while you'll get fed up with the selection supplied. If and when this happens drop Tom and Jerry a line, they've got more for you. With shareware you don't get everything, the programmer usually keeps something back for those honest enough to pay the shareware price tag.

Overall 83%

PROPRINT - Protext text enhancement program, multiple fonts etc. Allows users to design their own fonts with inbuilt font editor. For all Amstrad CPC disc machines. DISC 14.39 ROM 22.49

MICRODESIGN PLUS - Page processing package, consisting of two discs and two manuals. Menu driven D.T.P system, high quality print output. All CPC disc machines with 128k. DISC 26.99

MICRODESIGN EXTRA - Disc of clip-art for use with Microdesign Plus. Consists of large headline fonts, musical notation symbols, flowchart symbols etc. DISC 12.59   ROMDOS D20 13.49

THE MAPS LIBRARIES FOR MICRODESIGN PLUS:

a) Maps of The British Isles - Sisteen Hi-Res (256k strip format) maps of coastline, motorways, counties and towns of the UK. 2 * 3" 11.69 ROMDOS D20 13.49

b) World Maps - Fifteen Hi-Res maps of AMERICA, Europe, Asia, etc 2 * 3" 11.69 ROMDOS D20 13.49

THE DESKTOP ENVIROMENT SYSTEM - CPC graphical user interface, based on an Apple MacIntosh style WIMP. For all CPC disc machines.   DISC 13.49 ROM 22.49

2IN1 - PC to CPC transfer program, runs under CPM. Allows user to swap between a PC and the CPC using interchangeable disc format. For all CPC disc machines with 128k running under CPM3. DISC 17.99

PARADOS - Superb Disc Operating System for use with large format 3.5" B drives. Compatible with and superior to ROMDOS. This is the only DOS ROM which can be inserted in ROM slot 7 there by freeing an extra slot for more software. 13.49

THE BASIC IDEA - Quality BASIC Tutorial aimed at the competent Basic programmer. Consists of a 42 page manual and disc of example programs. 13.49
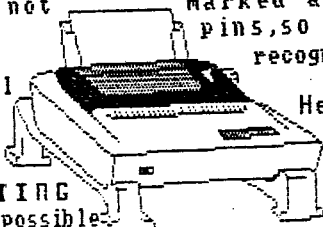
XEXOR - Sophisticated file management / disc backup utility, capable of backing up almost all protected CPC discs. 13.49

SOFTLOK V2.3 - Comprehensive tape to disc utility, specifically designed to transfer speedlock protected games to disc. 13.49
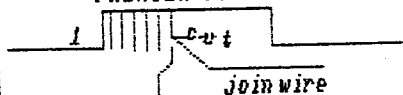
8-BIT PRINTING
BY DAVE

Here is a simple project that will turn your Dot-Matrix into a Ink-Jet,(well not quite).

As you all know,Amstrad in their wisdom,only made the CPC a 7 BIT PRINTING PORT. In fact it is possible for the 8th Bit to be printed enabling all character's above 127,there is a very old AMSTRAD ACTION project that will do just that,I know because I have done it on my 6128 and it works well with my spare DMP. (Dot Matrix Printer).
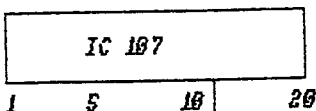
Basically,all you have to do is to solder a piece of wire from PIN 12 of the (PPI) chip, to PIN 9 of the (PRINTER PORT), on the 6128 the (PPI) is next to where the keyboard ribbons are connected.

The PPI chip is marked (DP 8255) and the circuit board is marked at intervals of 5 pins,so pin 12 is easy to recognise.

Here comes what some might think is tricky,the printer port pin 9,the one you solder a piece of wire onto,has to be cut behind the solder joint towards the computer inners.

Of course,Do Not Hold the soldering iron too long against the pin 12 of the PPI chip.

I believe,this project will work on all CPC models,but I do not take responsability if it doesn't work,as I said earlier,it works on my Dot Matrix,now to enable the 8-bit patch,you need to type in this little program and run it each time you wish to use the 8-bit.

PRINTER PORT.

join wire where cut on PIN 9. to PIN 12 on PPI CHIP. IC 107.

```
10 ' 8-bit port patch
20 n=&70
30 READ A:IF A=&FF THEN 110
40 POKE N,A:N=N+1:GOTO 30
50 DATA &E5,&C5,&F5,&01,&00,&F6
60 DATA &ED,&49,&F1,&07,&30,&05
70 DATA &01,&20,&F6,ED,&49,&0F
80 DATA &C1,&E1,&FE,&0A,&20,&01
90 DATA &AF,&CF,&F2,&87,&C9
100 DATA 9999
110 POKE &BD2B,&C3:POKE
&BD2C,&70
120 POKE &BD2D,0
```

Dave)))....

r
i
b
b
o
n

c
a
b
l
e

IC 107

1   5   10   20

pin 12 to pin 9 on the printer port.

★ ★ ★ Star Quest ★ ★ ★

PD librarians are complete nutters in my book, think about it. There they are sat in front of their CPC tapping away at a new game and they get a letter from someone they've never heard off asking for the latest games and a bit of advice on programming. Who in their right mind would stop what they're doing and help, do you think they do it for the money? You must be kidding, after spending a small fortune on discs, stamps and jiffy bags etc writing to the four corners of the world to get a PD collection and spend weeks writing their own stuff, these nutters drop everything to return your order for just 25p. That wouldn't even pay for the eletric, as I say they're complete nutters.

To prove it I wrote to Simon Green a twenty-four year old (Dot, he's single) who's been playing around with the CPC since he was fifteen. He started Penguin Software when a close friend died, David Carter closed the library in 1992 and moved from Woking to Seaford and David was planning on re-opening the library once everything was settled, but on the 4th January 1994 he passed away in his sleep. So with the permission of his family, Simon saw it as a fitting tribute to re-open the library in his memory.

As Simon writes his own software I had to ask him what his greatest disaster was, here is what he had to say. "Many years ago I started to write a game, I had the title, a rough idea what it would look like, but

unfortunatly I hadn't a clue about gameplay".

His greatest hit so far is his Television Demo, tell us about it Simon. "The TV Demo was a Conspiracy production which consisted of me (DOC) and David Carter (PIXEL). David drew the GRX and I worked on the code, which is 100% machine code and is technically very impressive, BTL gave it a stonking review and rated it higher than Prodation's mega demo, I think".

At the moment Simon is working on a CPC Plus demo and is planning on squeezing as much as possible out of the ASCII chip as he can.

His computers consists of a 464, two 6128's and two 6128 Pluses. But he also owns an Amiga 500 which is currently on loan. He's also got a Cheetah 125 joystick which he doesn't like (how he describes it isn't printable). A quick list of his other hardware- A better joystick, a DMP2160, Multiface, Ram's Music Machine, Light Pen, 3" & 3.5" disc drives and Romdos Rombox.

Simon is a bit mixed up when it comes to his favourite software, he's torn between: PROTEXT, MAXAM 1.5, PARADOS AND

XEXOR. He did'nt mention any games, probably because he's too busy programming to play any.

A couple things you should take into account if you're going to use a PD library on a regular basis are if the librarian writes his/her own software and if he/she will pass on their knowledge. I asked Simon about this and here is what he has to say "If I do get people asking for help I go out of my way to give them the best advice, and as yet I've had no complaints, just very happy people". I feel another picture of a Smiley appearing in my head so I better dash on to the next question, if anyone out there is thinking of setting up a PD library here is what Simon has to say. "Don't do it. There are now several well established libraries out there, and there are some five minute wonders as well, not only does a library take up a lot of your time, but also you have to make your stock list very different from all the other libraries, I think I succeeded with Penguin Software and I'm always looking for new ways to improve the quality of service and the library contents". You've been warned.

Apart from running the PD library Simon finds time for other hobbies, he enjoys driving and playing Paintball when ever he can afford it, but most of all he enjoys playing LaserQuest, which he describes as 'The ultimate Laser Combat Game on the face of the Earth', he also challenges anyone attending the WACCI convention in September to a game. He thinks he's up to giving you a quick thrashing, he wouldn't last five seconds with me

so if there's anyone who wants to play, drop Simon a line.

To finish off with, I asked Simon to name a single piece of software that everyone with a CPC should have, Simon being a nice chap sent me a long list (I only asked for one program), here's a cut down version. 'Better Than Life, I highly recommend. Digitrakker is very impressive. If you've got a Plus machine then maybe CPC+1 Slideshow, and Amiga Graphics Plus which has Mode 0 screens in grey scale which gives you a black and white photo effect. And there are loads of top quality games, too many to list here (dead right...JR) all I can say is send me a disc + SSAE for a copy of the latest Catalogue'.

For a list of Simon's wares write to this address, BUT (big but) don't print out the catalogue unless you own a timber forest, his stock list is 27 pages thick and growing by the day.

Write to: SIMON GREEN
PENGUIN SOFTWARE
62 NURSERY ROAD
KNAPHILL
WOKING
SURRY
GU21 2NW

TO PENGUIN SOFTWARE

Well what do you think, are PD librarians complete nutters or what ?

PART 1.

What is KARAUGH MAP, anyway ?.

Karnaugh Maps (K-maps) excist,so that you can simply binary logic problems.
If you need high speed or you are limited by memory,this just may come in useful,if you don't actually know what a binary logic problem is, take a look at the BINARY BOX-OUT which Dave should have put on this page.

BINARY AND BOOLEAN

The following symbols are used to represent gates in boolean algebra

. AND ▷

+ OR ▷

$\overline{A}$ NOT A ⊸

K-maps were designed to stop peoples brains hurting trying to think about boolen algebra. Boolean Algebra was invented some two hundred years before anyone even thought about using it by a man named JOHN BOOLEN (who in my opinion,should have been hung).
K-maps take a boolean expression and turn it into a simpler boolean expression by reducing gates and variables.

FOR EXAMPLE :

$$A.\overline{B}.C+B.\overline{C}+A.\overline{C}+A.B.\overline{D} = Y$$

Using K-maps,this can be simplified to :

$$B.\overline{C}+A.\overline{B}+A.\overline{D} = Y \quad \textit{clear as mud to me Jamie Dave)))}$$

We have reduced the entire expression into a 3 OR gate instead of a 4 OR gate, and the AND gates are now all two input gates,whereas in the previous expression there are two 3 input AND gates, it's really quite simple, the lower expression is the simplest possible to have the same outcome.

Fig 1.is the original expression as it would be if you had the

A B C D

Fig 1

Y
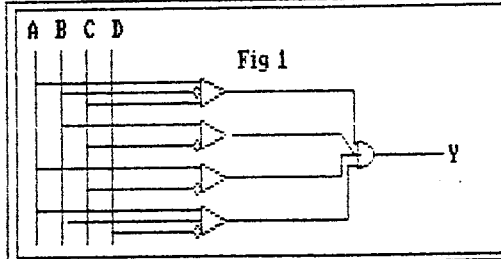
Take a look at the logical looking diagrams on this and other pages.

HARDWARE CHIPS to do it,(you don't but a program would be less clear).

Fig 2

This is a simplified expression, if you wish to follow them through logically, you will find the output for any given input is the same for both, you can do this in a truth table,but I am not going to mainly because it would be a huge table of figures, and this article would take up the whole magazine.

Back to the subject in hand,(K-maps).Examine the two expressions,can you see how the simpler expression would be arrived at mathmatically ?.I cant say's Jamie,(what chance then for me,Dave)))...
And Jamie did Boolean Algebra at college for two years, it takes a certain knack at spotting identities,and most people (including Dave) don't have this knack, with Boolean,you could not be sure of having the simplest expression, with K-maps,if you are not sure,just put it through again,this is only going to happen with greater than 4 variable maps,with 4 or lower, you will get the simplest.

LET US LOOK AT A K-MAP.

Fig 3
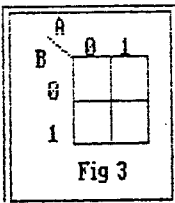
This a 2 variable K-map,the "A" & "B" represent the variable names.
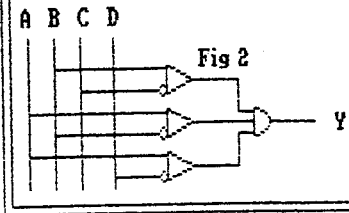
Being BINARY variables,they can be either 0 or 1, each of the squares represents a different combination of the 2 variables,and since there can only be 4 boxes,the TOP left box represents both "A" & "B" being 0, BOTTOM left represents "A" being 0 and "B" being 1,I will leave you to figure what the rest are.

Now have a look at fig4.

Fig 4
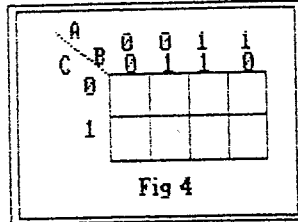
This is a 3 variable map it is the same idea,except that,since we only work in two dimensions,the third variable is included in the TOP row,NOTE the order of the numbers across the top,a line in the map is known as a boundary,the map is wraparound,and ONLY ONE VARIABLE MAY CHANGE ACROSS A VARIABLE, this is vitally important,get that wrong and you have NO chance,as the map is wraparound,you can start the numbers at any point and move along,making

next page please

making sure that only one variable changes,for instance,Fig 5 is also a 3 variable map,but the numbers are in a different box.


Fig 5
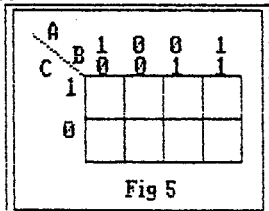
but you will still get the same expression out,each box must represent a diiferent combination than the rest,and all combination's must be included, a 4 variable map has 2 variables along the top and 2 along the side,I will print one for the next issue,see if you can figure it out for your self.

To put an expression into a map,you must split the expression into groups of AND expressions. IE:

$$A . B + A . C$$

This must be split into 2 groups, A.B and A.c. then examine the map,the above expression can be put into 3-variable K-map. to do this,simply match up the combinations,put a 1 in all boxes where the expression is true,if variables are missing from the group,this will be more than one box,entering the above expression into a map will result in fig 6.

Fig 6
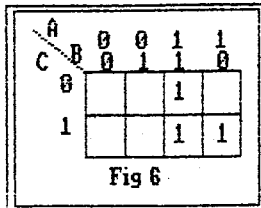
Just as an exercise,(for homework), see if you can put the following expression into a 3-variable map, Remember, a line over the TOP means NOT,so put it in the zero column for that variable.

$$A . \overline{B} + A . C + A . B . \overline{C} + A . B = Y$$

Now, I know that I am not a very good teacher, but if you do have any problems, give me a ring or drop me a line and I'll try not to shout too loudly.

JAMIE COOPER
01752-351101
23 COLDRENICK STREET
ST. BUDEAUX
PLYMOUTH
PL5 1HA

YOU HAVE LOST ME Dave))

For those of you out there with Brains,support Jamie on this article,as not all members of the group are dunces like me (Dave)))...

The only high school that I went to was on top of a hill,so all this is double dutch to me,I passed all my exams when I turned 30 and that was a few moon's ago now.

Well done JAMIE although I don't understand it.

COMPETITION SPOT

Your second chance to have a go at winning MICRODESIGN +.

        1.Salad Vegetable (6)....
        2.German Seaport (7)....
        3.Prosperous (10)....
        4.Slanting (5)....
        5.Infrequently (6)....
        6.Accident (6).... .
        7.Gossip (4 & 4)....
        8.Metallic Wrapper (6 & 5)....
 7 & 8 are two (2) word answers,Good luck with this one.

If there are NO winners,those with the least wrong answers will be
entered into a draw,the first entry drawn will be the winner,and
your enrty for either competition , MUST BE IN BY THE 20th Sept.95

As these competitions bring a lot of response from you,HOW ABOUT
SENDING IN A COMPETITION and donate a prize for the winner, I
shall need the answer's with the competition,and I promise that I
will NOT ENTER the competition under an ALIAS NAME Dave)))...

FOR SALE .WANTED .EXCHANGE .PAGE.

BRAINBOX OWEN WANTS, a 3.5 " Disc Drive.reasonably priced please.
contact OWEN on 01726 - 850616.
BUT NOT BEFORE 0715 HOURS ON A SATURDAY PLEASE.

PETER WANTS, AMSTRAD ACTION'S issue's 1 & 2. - UAUG issue 1.
CPC USER issue 1 and WACCI early issues PRE - issue 40,Peter will
be happy with photo-copies of UAUG-CPC USER OR WACCI.

DAVE WANTS, to win the NATIONAL LOTTERY, or can some kind sole lend
me £500-00 to cover me for the first two weeks of AUGUST,as I have
my two Grandchildren staying with us for a whole month,or better
still, does any one want to offer me FREE board and logings for
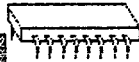the month,PLEASE,PLEASE someone help me out.

May I thank all of you who returned the SURVEY,and for requesting
the COVER DISC,there will be a COVER Disc for each issue.

                    DAVE)))....
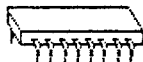
EPROMS BY IAN NEILL

HOW TO PUT A BASIC PROGRAM IN AN EPROM

I'm back ! Not content with boring you with technical mumbo-jumbo for the past few issues, I'm back with yet more.
In this issue I will describe how to put a BASIC PROGRAM,with machine code,into an EPROM, I did this for Dick Hornsby in LONDON,whilest doing this,I thought why not 'make notes',there is an article in this,so here it is.

WHAT TO PUT IN THE EPROM:

I had a disc with the following programs on it :

a. C.BAS   - A BASIC number base conversion program
b. D3.BAS   - The BASIC part of a disc directory editor
c. DISCODE.BIN   - The BINARY part of the Disc directory editor

Using UTOPIA I got the following information about the files

	Load Addr	Start Addr	Length
a. C.BAS	&0170	&0170	&0c5d
b. D3.BAS	&0170	&0170	&0d82
c. Discode.BIN	&1000	&1000	&1400

Multi-Loading problem
Program (b) (D3.BAS) wants to load program (c), (DISCODE.BIN) from Disc !
Program (b) (D3.BAS) contains a line like this :
20 OPENOUT "H": MEMORY &FFF: CLOSEOUT: LOAD "DISCODE.BIN", &1000

This is a common trick to get AMSDOS to load a file when HIMEM has been lowered,so far,all you will get is "OUT OF MEMORY" error, Obviously this will not do ! We want all the programs to be in the EPROM, and anyway the EPROM loader will put them into the right place anyway.

The line must be modified to this :

20 MEMORY &FFF
This also has the effect of changing the length of the program :

	Load Addr	Start Addr	Length
b. D3.BAS	&0170	&0170	&d61

This is a problem you will not encounter if you are putting stand alone programs into EPROMS, however it must be "fixed" in any BASIC or machine code programs that have to go into the EPROM.

EPROMS CONTINUED..........

Watch out for BASIC loaders that load in a BINARY file that contains
RSX's, the RSX's must still be "logged-on" by calling the machine code, in
a case like that, only the bit of program that loads the RSX's from
Disc,should be removed.

The EPROM loader copies all the programs in a multi-program program to
RAM,but only runs the main program.
## HOW TO RUN A BASIC PROGRAM FROM MACHINE CODE

This is a fairly fundamental requirement,and isn't nearly as simple as
RUNning a machine code program, Essentially what we have to do,is to copy
the program to RAM,set up some BASIC variables, and then convince BASIC
that "RUN" was typed.

And this is how we do it :

```
;
;I did not write all of this code-Iput it together from other programs
;I found most of the details and explanations in the print-out Firmware
guide
;
ld hl,bassart       ;Basic program start address in the EPROM
ld de,&0170         ;All BASIC programs start here
ld bc,baslength     ;Length of BASIC program
ldir                ;Copy it from EPROM to RAM
;DE will contain the address of the 1st location after the end of the
BASIC program
ld (&ae66),de       ;Addr of end of BASIC program*
ld (&ae68),de       ;Addr of start of variables and DEF FN's area*
ld (&ae6a),de       ;Addr of start of arrays area*
ld (&ae6c),de       ;Addr of start of free space*
ld hl,basrunner     ;Routine to RUN the BASIC program must be copied to
RAM***
ld de,&0060         ;safe place to put code
ldir                ;copy it to RAM
;Any machine code files needed by the BASIC program would be copied to
RAM here
jp &0060            ;jump to BASIC program RUNner
;
basrunner ld c,&00  ;point to ROM position 0
call &b90f          ;Enable the ROM at position 0 (BASIC)
ld hl,&00b0         ;Put &00b0 in register HL - why ?
ld (hl),&00         ;Store &00 in the address pointed to by HL - why ?
jp &ea78            ;Where BASIC's RUN command is stored in the BASIC ROM**
```

These addresses are for the 664 and the 6128, - of course the 464 is
different,these will be shown on the following page.
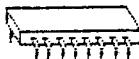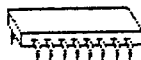
These are the ADDRESSES for the
464 :

```
ld (&ae83),de      ; Addr of end of BASIC program
ld (&ae85),de      ;Addr of start of variables and DEF FN's area
ld (&ae87),de      ; Addr of start of arrays area
ld (&ae87),de      ; Addr of start of free space
```

I have no idea what addresses to use on the plus machines
** This address is for the 6128 ONLY
For the 464 use the following
```
jp &e9bd        ;where BASIC's RUN command is stored in the BASIC ROM
```
For the 664 use the following
```
jp &ea7d        ;where BASIC's RUN command is stored in the BASIC ROM
```

***This routine must be copied to RAM this is because it enables another
ROM and jumps to a location in it, if stayed in ROM it would disable
itself in mid-flight.

THE ROM LOADER
Figure 8 is the ROM loader for programs a, b, c, this is similar in
appearance (except for the BASIC RUNning bits) to the DOSCOPY ROM
loader of the last article.
Towards the end you will see the references ("LABELS") to where the
BASIC and machine code programs are stored,and to the final length of
the EPROM image, take a note of the assembled values of these labels,
(this code is written using MAXAM,so the DUMP command at the end will
cause all the labels etc,to be displayed).

CREATING THE ROM IMAGE
We have quite a few things to be put in the EPROM - the ROM loader
code,and the three programs.
So far the info we have gathered for our program is :

	Load Addr	Start Adrr	Length	Store Adr EPROM
a, C.BAS	&0170	&0170	&0c5d	&c15e
b, D3.BAS	&0170	&0170	&0d61	&cdbb
c,Discode.BIN	&1000	&1000	&1400	&db1c

The overall EPROM IMAGE LENGTH IS   &2f1c

I need another cup of tea here folks

CONTINUED FROM PREVIOUS PAGE

Now that we have all the information from the bottom of the last page,We can now write a small BASIC program to build the image in RAM and then save the whole lot to DISC, the final image on DISC,is the one sent to an EPROM PROGRAMMER and BLOWN into an EPROM.

The following listing is the BASIC EPROM builder that I used.

```
10 'Hornsby Eprom builder
20 MEMORY &3fff : ' The image will be built from addr &4000
30 LOAD "honsby.bin",&4000 : ' The ROM loader code(what figure 8 assembled
into ).
40 ILOAD"c,bas",&415e ; nOTE, "| LOAD" is a UTOPIA command
50 ILOAD"d3,bas", &4dbb
60 ILOAD"discide .bin, &5b1c
70 SAVE"hornsby.rom",b,&4000,&2f1c,&c006
80 END
```

NOTES :
1. " | LOAD is a UTOPIA command which will load any file,even BASIC to any location.
2. The file addressesare &8000 less than what they will be in EPROM,this is because we are building the image at &4000,which is &8000 less than &c000 (where the EPROM will eventually live).

FINALLY :
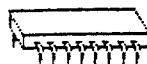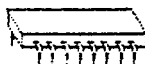
If you have any problems, do contact me :

IAN NEILL

11 MILLWAY DRIVE

BISHOPS TACHBROOK

LEAMINGTON SPA

WARWICKSHIRE

CV33 9SE Tel: 01926 - 33 7708

Ian,once again thank's for this article,I doubt if I will ever be able to master it, I will no doubt leave all my EPROM blowing to you.

Are any of you members into BREWING YOUR OWN BEER ?. I know that IAN is thinking of starting a Temperature Measurement Project using the CPC. Sounds good to me,although I have never had any success in brewing my own beer,anyone know a simple way to make whiskey,like popping a tablet into a gallon jar and topping up with water,leaving to ferment for two days,then I could drink away.

Something the other members may not know is that any day,there will be a IAN JUNIOR pounding away on the CPC . another CPCSW member. ?

```
;ROM for H.R.Hornsby
;Utilities
;
        write "hornby.bin"
;
txtout  equ &bb5a
;
org &C000,&4000
;
start   defb 1                  ;background Rom
        defb 1,0,0              ;Rom version refs
        defw nmetab
        jp init                 ;initialise Rom
        jp convrt               ;number convert routine
        jp convrt
        jp diredt               ;directory edit routine
        jp diredt
;
nmetab  defm "UTILS v1.0","0"+&80
        defm "C","V"+&80
        defm "CONVER","T"+&80
        defm "D","3"+&80
        defm "DIREDI","T"+&80
        defb 0
;
init    push de
        push hl
        ld hl,logmes
        call strout
        pop hl
        pop de
        scf
        ret
;
convrt  ld hl,cvbegn           ;convert prog start
        ld de,cvdst            ;BASIC start location
        ld bc,cvlgth           ;convert prog length
        ldir
        ld (&ae66),de
        ld (&ae68),de
        ld (&ae6a),de
        ld (&ae6c),de
;
        jp basrun              ;run BASIC prog
;
diredt  ld hl,debegn           ;directry edit prog start
        ld de,dedst
        ld bc,delgth           ;directry edit prog length
        ldir
        ld (&ae66),de
        ld (&ae68),de
        ld (&ae6a),de
        ld (&ae6c),de
;
        ld hl,binbeg           ;binary start
        ld de,bindst           ;binary destination
        ld bc,binlen           ;binary length
        ldir
;
basrun  ld hl,runner
        ld de,&0060
        ld bc,&000d
        ldir
```

```
        jp &0060
;
runner  ld c,&00
        call &b90f
        ld hl,&00b0
        ld (hl),&00
        jp &ea78
;
strout  ld a,(hl)
        or a
        ret z
        call txtout
        inc hl
        jr strout
;
logmes  defm " HORNBY UTILITIES v1.00"
        defb &0a,&0d,&0a,0
;
hacker  defm "ALL ROM LOADER CODE COPYRIGHT IAN NEILL 1995 "
        defm "FOR LISTINGS AND OTHER INFO CONTACT : "
        defm "IAN NEILL, "
        defm "11 MILLWAY DRIVE, "
        defm "BISHOPS TACHBROOK, "
        defm "LEAMINGTON SPA. "
        defm "CV33 9SE."
;
cvbegn  equ $
cvlgth  equ &0C5D
cvdst   equ &0170
;
debegn  equ cvbegn+cvlgth
delgth  equ &0D61
dedst   equ &0170
;
binbeg  equ debegn+delgth
binlen  equ &1400
bindst  equ &1000
;
finish  equ $
length  equ finish-start
romlen  equ length+cvlgth+delgth+binlen
;
        dump
;
        end
```

H E L P

HELP LINES ARE PROVIDED ON
A VOLUNTARY BASIS.

Please phone after 6 pm or as
stated. if sending a letter or a
Disc / Tape, dont forget an
SAE for the return. TA!.

TAPE TO DISC or DISC TO DISC.
PETER CURGENVEN
0841-520875.

ART WORK AND GRAPHICS
JOHN REILLY
15 NORTH GREEN FORCHES EST. BARNSTAPLE EX 32 8EA

MUSIC FOR YOUR PROGRAMS
SIMON CRUMP
0844-32761
AFTER 7PM PLEASE.

EPROM BLOWING HARDWARE AND ELECTRONICS (+).
IAN NEILL
01926-337708.

BASIC PROGRAM'S
JAMIE COOPER
01752-351101.

DISCOUNTS-HELP PD SOFTWARE. GENERAL NATTER AND I DO LIKE TO TALK.
USER GROUP INFO
DAVE STITSON
01752-254404.

MAGAZINE INFO

Ian, has very kindly or foolishly
offered to proof read the
magazine each month prior going
in to publication. Now, what does
that do for the magazine and DAVE
I hear you ask ?. For the
magazine, it means you should get
a more professional page lay out,
and without spelling mistooks ! I
hope. For DAVE it is a big help,
as I mention in the bit no one
reads, (that is why I am
mentioning it here). I am the
first to agree that I am no
Professional at putting this
magazine together. To IAN on
behalf of myself and the members,
I SAY THANK YOU.

I am so pleased to have members
who offer their services to the
group and for helping out with
the magazine. Without you I
couldn't do it.

If any other member feels he/she
could carry out a task, then
please let me know and I will see
what we can arrange.

DAVE)))...

I have the latest issue of the
O.J.SOFTWARE CPC Price List, if
you would like a copy,please let
me Know, and I will forward it on
to you.

DAVE)))...

I ♡ Bonzo

I ♡ Blitz

FEED THE KITTY

BONZO SUPER MEDDLER, BONZO BLITZ AND HACKPACK — TAPE TO DISC + DISC TO DISC BACKUPS

The Scrapyard needs <u>YOUR</u> input

I need any information that you think may be of use or interest to readers concerning tape to disc or disc to disc transfers — if the news doesn't come in then the news doesn't go out, so share what you know and make the cats happy