WACCI

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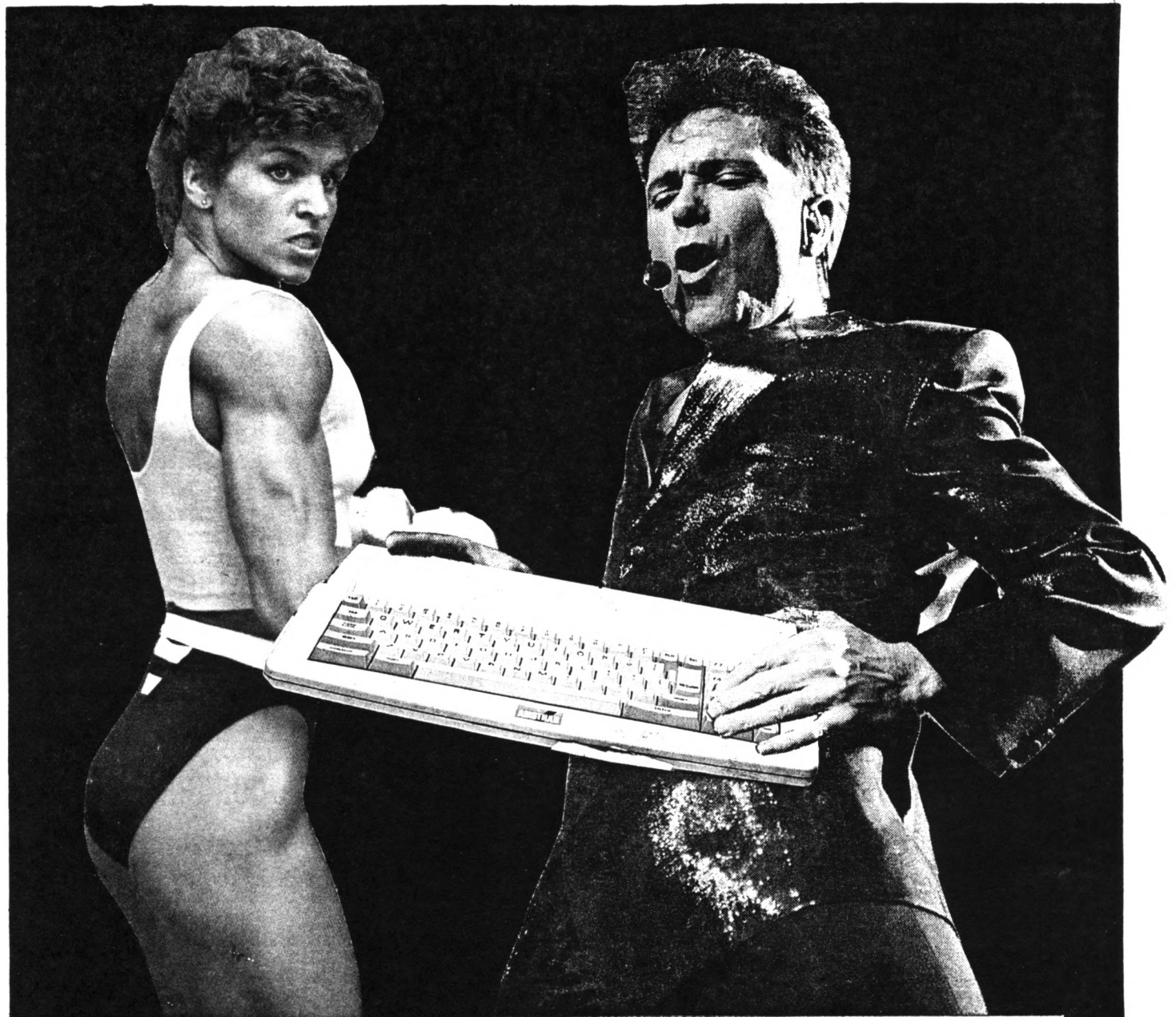
Editor Shocked!

Joolz fills his Xmas stocking

THE "PICK-A-DISC" PAGE

THE WACCI CP/M PD DISCS

CP/M DISC 1
Z80 AND 8080 assemblers, Z80 to 8080 to Z80 code translator, debugging monitor and assembler, reverse assembler, binary file comparer, plus NewSweeP and more.

CP/M DISC 2
Small-C (floating-point), Small-C interpreter, Prolog, Lisp, EBasic plus NewSweeP.

CP/M DISC 3
Library utilities, disc quality checker, Unix grep command, PCW disc reader, disc sector editor, text file sorter, word counter, MFT, plus NewSweeP and more.

CP/M DISC 4
Cave adventure, chess, othello, golf, word search, biorhythms, maze generator, On-screen Calculator, Prolog, Comms utility, plus NewSweeP and more.

CP/M DISC 5
Scrivener (spreadsheet, inventory database with macros, VDE text editor, spell checker with dictionary, sorter, word counter, comms utlity, plus NewSweeP and more.

CP/M DISCS 6 and 7
JRT Pascal, Sci, Cobol, EBasic, VDE text editor, plus NewSweeP.

CP/M DISC 8
Expert86, Forth (16K version), Stoic, Cobol, VDE text editor, plus NewSweeP

CP/M Disc 9
Hex, Kermit, Kermode, Easymex, D, Hmodem7, NewSweeP, XMCPC2, KDSHex, CircitHex, MXO-SM14.

CP/M Disc 10
Andybase, VDE266, Sideways, Print, Edit, Filer, New CCP and NewSweeP.

THE WACCI HOMEGROWN CPC DISCS

WACCI DISC 1
Masters of Midworld, Minimon, Chardes, Header reader, Fruitworm, Othello, Four in a row, The World, Chat, Jigsaw-1, Eddy, XOX, Pontoon, Progdoc, Helping hand, Bomber, Life, Lock'n'key, Tunnel dive, Head, Memdata+, Keydef, Darts, Grid warrior, Jigsaw-2, Star chase, UFO escape.

WACCI DISC 2
Amsig, Beetlemania, Disc, SDump, Englebert, Globe, Multiprog, Pixel plotter, Story, Functdr, Functsol, Formulae, Regiload, CGen, Excat, Exprint, Proforma, Neatlist, Romread, Symphony, Dripzone.

WACCI DISC 3
Bouncer, Basic plus, Label printer, Missile, S&P, Synth, Hotrods, Breakout, Depro, Dis, Pairs, XRef, Wacmon, Music composer, Logopolis, Maths magic, Breaker, Disc menagerie, Nosey, Sprites, Squeezer, Caverns of Skeletor, Zener cards, Sum-vaders, Astrosuite, T&P, Wordy.

WACCI DISC 4
Trivia quiz, Proto, Chess clock, Deffont, Calendar, Snooker scoreboard, Patience, Autoline, Amsig help, Crunch, Calculator, Font, Firmware explorer, Gomoku, Menu, Othello, UDgrab, Style, Discmap, Tape RSXs, Viewfax, Go, Di-symm, AGE, Snakes, Oz, Fractal, Tee-off, Primes, SoundFX, Pharaoh, Shifty, Diamond miner, Crazy maze, Pathfinder, Spellbound.

WACCI DISC 5
Graphic magic, Jigsaw-3, SDM, Write it right, Banner, DYS-SYMM2, Sheepdog, Nomopoly, Backgammon, Music, Orrery, Dominoes, Globe II, Printer, Envelope, Poster, Contours, Complex, Diabolo, and ADAM.

WACCI DISC 6
Quiz, Stats, Colprint, Globe II, SDump3, Straight, Biomorph, Disc S-light, Spread, Numero, Synth, Dominoes 2.

WACCI DISC 7
WACCIWord, Romread, LNA SDump4, Convert, EZMusic, Keyboard, SPX, Grafplot, Hardcat, AGE128, Bank+, DCheat, PCheat, 3DXOX, Invoicer, Pacplant, Typing tutor,, Strobe, Magic squares, Wild, Decomp.

WACCI DISC 8
The Kirk editor, Football Pools predictor, Dwerrybase.

WACCI DISC 9
Chess, Mode, Display, Organise, Display, Read, Grapho, MFile, Tandy, Edbutt, Tidy, FSWform, Inlays, NPC, Invaders, WACCISpell

WACCI DISC 10
ASCII-to-Mini Office II, Fruitrun, XWORD, MCPgraph, Xdraw, X1, X2, X3, Keycard, Loot, Cassdisc.DR, Example1, Frame, General.DR, PCBdraft, Progdoc4.

WACCI DISC 11
Display2, 120D, Biglabel, Cauto, CGP115, Popt120D, Vacciword3, WAR.

WACCI DISC 12 (N/A)
HEX to BAS, Hextobin, HP, OHM, OSKD, RESID, Draughts, Example2

Aj's CONCEPT DISC
Green's strip pontoon (128K), Dripzone plus (128k), Englebert, Saucer attack, Three dimensional maze, Beetlemania, Globe, Juggle.

Aj's TWILIGHT ZONE
Escape from WACCI HQ, Starfire, 3DXOX, Chat, Space Invaders, Starchase and Pacplant (PLUS MORE)

PRICES AS SHOWN ON
CURRENT ORDER FORM

A TALE OF WOE

Hi Gang! Don't ask, you really don't want to know what's been going on.

OK then, since you insist, the reason that WACCI is late again is that over the last three months I seem to have been followed by my own personal cloud of Murphy's Law. Yes, if it could have gone wrong then it has... It has been one great round of problem after problem. I wouldn't mind but sometimes they weren't even my problems.

For example, if you read this month's Propergander, you'll see that the former editor of WACCI, ACU and Amiga Computing, Jeff Walker, has started up a new fanzine for the Amiga called JAM (Just Amiga Monthly.)

As was the case with WACCI, Jeff started the venture off with the help of Alex Aird. In fact they decided to start things off on a proper footing this time and decided to go into partnership together.

Everything went according to plan for the first few weeks. Jeff rented a three bedroomed house in Birmingham, moved all his belongings, turned two of the bedrooms into office space and work began on the first issue of JAM.

Then one day Alex disappeared (and has yet to reappear.) Rumours that he owed the dreaded VATman a large sum of money seemed to be confirmed when a few days later the bailiffs turned up at Alex's 'Computer Store' and carted away every thing that wasn't nailed to the floor (including the photocopier.)

This left little Jiffy in a slight predicament. He was one hundred and ten miles from home, unable to sign a company cheque because they needed two signatures, a magazine to finish to a strict deadline, a cover disc for Amiga Computing to put together, cold, hungry and a little bit depressed to say the least.

So who did he turn to in his hour of need? No, no, it was me! Anyway, his favourite Uncle Steven took some time out and drove up to Birmingham to lend a hand. We hired a Luton van and spent a few days getting the young lad moved back to the safety of Uxbridge.

Once there we spent some more time clearing out his front room and setting it up as an office. It took quite a chunk out of my monthly routine but helping a friend out of a spot of bother always comes first. The good news is that every thing went OK and that JAM is flourishing.

Well that wasn't too much of a disruption to my system but I returned to WACCI HQ to find that my trusty 3.5" disc-drive had died. "No great problems there, why didn't you just buy a new one" I hear you say. And that's exactly what I did but there

was a slight problem... (Murphy's Law strikes again.) My former disc-drive's read-write heads were slightly out of alignment with those of standard ones. This hadn't really a problem to me before now, it could read and write to discs that it had formatted itself and that's all I needed it for, I didn't want to read other peoples discs. I was very sensible and regularly made backups of all my 3.5" discs onto other 3.5" discs.

The problem was that the new drive couldn't read the discs that had been formatted by the old drive. Unfortunately although I kept back-ups on 3.5" discs I had gotten out of the habit of backing them up on 3" discs. Consequently I had 'lost' most of the FSW software that had been sent in for inclusion in The FSW Library over the last eight or nine months.

It took me the best part of a week, scrambling through my collection of 3" discs, trying to find copies of the programs I had lost. I've managed to get most of them back but if you've sent a program in to WACCI within the last nine months could you find it in your heart to send it in again, just in case it's one of those that I can't find. Similarly, if there's anyone out there who is a dab-hand at fixing duff disc-drives could you have a look at mine some time. It needs to be fixed but the head needs to be left alone.

Anyway, Murphy's law hadn't finished with me yet. Around about this time I started to notice that I was always feeling tired, lethargic and generally unwell (OK, more than I usually do.) Guess what, it was a recurrence of glandular fever. I suffered with a long bout of this back in 1981, not very nice at all and I was pretty sure that if you'd had it once you couldn't catch it again. Wrong! Evidently once you've got glandular fever it never really goes away, it just goes into remission. Now they tell me.

Like the long suffering Job, I resigned myself to getting on with the task in hand regardless.

Now I don't think I told you this in issue 45's Thanx and Stuff but around about this time I thought it would be a good idea to try my hand at a part time degree course in computing and business studies at my local Uni.

I know, I know but it really did seem logical at the time. After all it only involved attending lectures on Tuesday and Thursday mornings and they were prepared to give me exemptions on the first two computing modules because I had already covered them. Surely I could spare the time for that. Wrong again! I hadn't calculated that they expect you to do assignments

as well, and I can tell you that they are not the easiest things to do. I now know why they don't give degrees away with packets of Rice Krispies.

In retrospect it was bad move to make. However, I've soldiered on with it and as there are only a few weeks left I intend to complete the first part of the course, take the exams and then knock it on the head. Because the course is modular it means that I can always go back to it in a couple of years if I suddenly find myself with a lot of spare time.

And there's more... Remember I told you that when the Bailiffs cleared out the photocopier as well? Guess where Alex Aird used to store the originals of the WACCI back-issues? Yup, Murphy's in there again. So there is now absolutely no hope of getting copies of back issues that predate the time that WACCI went into print with RPM Reprographics (November 1989.)

Consequently I'm going to sort through the outstanding orders and increment subscriptions by the number of issues that I cannot now supply.

The same goes for the months that you have missed. In fact it would be better all round if more emphasis was put on the issue number as opposed to the month of issue. That way you will know instantly whether or not you have missed an issue.

I'm going to change the format of the reminder notice that is printed on the address label. Instead of reading "Your Subscription expires with the Sep 1991 issue" or summat like that, it will read "Your Subscription expires with issue number 52" which is a bit less likely to cause confusion.

So that's how I've been spending the last few months, I told you that you really didn't want to know, didn't I?

A BIT BIGGER

As reparation for you missing out on your regular fix of WACCI for so long, I've made this issue slightly larger than the usual ones. Hang the expense, it's Xmas after all. It'll give you something to digest over the festive season. Argghh. Do you realise what I've just done? Murphy's Law is about to strike again. Ah well, that means you probably won't be reading this till well after Xmas is over.

I'll say it anyway... have a merry Xmas. There that's sealed it. The earliest that you are going to get this copy by will be at least Easter.

IN THIS ISSUE

Saffron Trevaskis has returned from America, so she's started writing her column again 'Simply Saffron.' Those of you who have been WACCI members for some time will remember that she wrote a small series of articles a few years back before trotting off to America to get married. Having returned to the motherland once again in the 'single' state she naturally contacted WACCI and offered to write for us again.

Richard Burton's back again. This time he's started up a new column that has a look at the early issues of WACCI, check out 'The WACCI archives' it makes fascinating reading.

Apart from being slightly larger, WACCI now has a slightly different look. Write and tell me if you think it's an improvement (Hmmm... don't write otherwise.)

NEW NUMBER

Just a little mention to draw your attention to the fact that Tony Walker's number on the Helpline has been changed, so don't use the old one as all you'll get is the 'out of service' tone. While I'm talking about the Helpline, apologies to those of you who have volunteered your services but have yet to see your names put up on the list. I'll get round to updating it by next month... Damn, Murphy's going to love that one!

FOR SALE

Two quick topics before I run out of room. I've got a few copies of the original Art Studio for sale at £7 each. Drop me a line if you are interested.

WANTED

Does anybody have a copy of "Gothic" by Firebird, either on tape or disc. It's not for me, it's for a friend (honest guv!)

NEARLY DONE

That's it, I've nearly run out of room for yet another issue. WACCI will be back again early in the new year... Damn, damn, I've done it again. I think I'll go and have a lie down for a while. Take care and make sure next year's better.

STEVE WILLIAMS TAKES A LOOK AT THE NEWS AND GOSSIP

POP CHOPPED

After months of trade speculation, Maxwell Consumer Magazine's veteran title, *Popular Computing Weekly*, which was formerly owned by *Focus Investments*, has been closed down.

The title was bought from *Focus* along with four other computer titles - *Amstrad Computer User, Amstrad Professional Computer User, Amstrad PCW and QL World* - when the firm was sent crashing earlier this year after it's bank refused to inject any more cash into the business.

The closure decision has come from local management level, ratified by *Maxwell Consumer Magazine's* boss Peter Barber.

The downfall of the title is blamed on reducing margins in advertising combined with rapidly declining circulation figures.

The last ABC figure recorded for the magazine was 14,500 although this is believed to have dropped considerably since then, with a figure as low as 6,000 being suggested by some pundits. The mag had been around for some eight years with the last issue (number 429) published on September 20th.

Staff on the magazine have been found positions elsewhere in the firm, including *Pop's* editor Paul Marks, although three people were made redundant prior to the closure of *Pop Comp Weekly*.

Publishing director said: *"We publish for profit not for emotion or ego. The decision was made in the light of anticipation of moves in the weekly market, we simply couldn't see the market surviving, let alone expanding. All the other*

computer titles that we own are completely safe though.

We looked at a number of scenarios and considered a number of options and decided that this was best. We have no plans to sell the title at the moment, if someone comes along then that's fair enough but we're not actively seeking a buyer."

Two video titles, *Video For You* and *Video Buyer*, were also acquired in the Focus purchase but Lewis dismissed rumours that MCM was more preoccupied with these titles than PCW saying: *"The Maxwell organisation only acquired the titles that it wanted from Focus, if it didn't want Pop it wouldn't have been bought, it's as simple as that. One aspect of the specialist magazine market is that titles move in and out so quickly.*

We never felt that we were in a head to head battle with any publication so there's no question of us losing one. We had a very devoted team working on the magazine, obviously one can never be totally satisfied with the quality of a magazine but it was a very well presented publication."

The closure of *Pop Comp Weekly* means that the weekly computer magazine market is, at present, left completely clear to Future Publishing's *New Computer Express* which recently turned in an ABC figure of 21,251.

AMSTRAD AD *VENTURE*

Amstrad will be spending £5.5 million pushing its range of leisure hardware this Christmas.

The impressive splurge includes a national TV campaign for the new

GX4000 console and Plus machines. Prime time slots for the three new products are being lined up from October through to December.

A press campaign is also being run throughout the same period and, in all, £3.5 million is being spent promoting the revamped Amstrad 464 and 6128 Plus range.

The veteran Spectrum +2 is also considered worthy of a TV slot with adverts supporting the James Bond Action Pack scheduled for the same period as the new GX4000 and Plus range. Amstrad claims that £2 million is being spent on the Spectrum altogether.

With a plethora of new machines available, particularly in the console market, Amstrad knows that the fight for the market share this Christmas will be more competitive than ever. It believes however that its total leisure computing adspend of £5.5 million will *"overshadow anything our competitors can do and will do much to ensure that Amstrad and Sinclair are once again the top selling home games machines this Christmas."*

In announcing the promotional plans, Amstrad UK's managing director, Barry Young offered: *"The September through December period is Amstrad's traditional high selling season for leisure products. Much of this year has been engaged in developing and launching a range of new products for this season and we now have in place a compelling set of products addressing each one of our key market segments.*

It is now time to promote those products to the end user and to that end we have set aside £11.9 million

more than we have ever spent before."

The £11.9 million figure to which he referred includes the promotional budget for satellite and video products.

AMS *TRADE-IN*

Amstrad is all set to blitz the fax market this autumn with not only a TV ad campaign but also a £100 trade-in offer on its two top models.

In a promotion which was due to start in the first week of October, end users are able to trade in any old telephone and receive £100 off either the price of FX9600AT (which normally retails at £699) or the FX9600 (normally sold at £599.)

At the time of going to press Amstrad is not yet ready to officially announce the scheme so it is not clear just how long it is scheduled to last.

The firm's bottom end fax, the £399 FX5000, is not included in the promotion and will retain its original price.

It is known that the Brentwood firm is hoping for an *"Amstrad effect"* in the fax market and believes that the FX9600AT will lead the way.

DOUBLE TROUBLE?

Amstrad's latest product is a double-deck video system - two VCRs and a TV encased in the familiar Amstrad black casing. It allows you to record an episode of M*A*S*H while watching the latest video release and if you go on holiday, you can record up to 16 hours of TV, say one tape for your daily dose of Neighbours and the other for the latest ITV blockbuster.

But what's attracted most attention is the video-to-video copying option. Video rental shops and the film industry in general are unsurprisingly angry, saying it encourages video piracy.

Reg Dixon, of the Federation Against Copyright Theft is already pressing for the withdrawal of the machines: *"A lot of people's*

livelihood depends on home rental. Why should that be threatened just because somebody obviously wants to make a fast buck?"

In 1987 Amstrad brought out an audio dubbing cassette deck. Record companies attempted to ban it from shops claiming that for every record sold there were at least two illegal copies made, losing them millions every year. After lengthy court battles the House of Lords ruled that the equipment was not inciting consumers to infringe copyright and so Amstrad were allowed to continuing marketing them.

Now it seems that history may be about to repeat itself.

REJOYCE

There's some good news for PCW owners. Last month Amstrad launched an impressive software promotion in what appeared to be something of a clear out.

The firm has bundled and dramatically cut the prices of various packages. Leading the way is a PCW bundle containing Supercalc 2 and Dbase 2 which normally retail for well over £100 but are now available together for £49.00

There is also a PC bundle containing Info Master, Accounts Master and Pay Master which together would cost £147 with a trade price of around £100.

In the new offer the trio are available to the trade at £20 and carry a notional recommended retail price of £39 although it seems dealers will be able to split the packs if they wish.

Already speculation has started that the offers are designed to clear stock to make room for new lines but Amstrad itself offered no comment.

PERSUSIVE SPIV?

You've seen the pictures, you've bought the magazines, you've even got the computer - now read the book! "Alan Sugar: *The Amstrad Story"* has hit the book shop shelves with a loud hard-back thump and a

hearty £14.99 price tag.

According to the book Amstrad would not be around today if it wasn't for High Street giant Comet. The ex-chairman is quoted: *"Alan was a spiv. I wasn't interested in his products - they were a load of bloody rubbish. I was only interested in getting hold of Garrard record players which he could supply cheaper because he was a manufacturer."*

The Comet boss reluctantly agreed to allow customers to order Amstrad amplifiers through them provided he got the record players. What he didn't bargain for was the young Sugar's deviousness. Sugar got family and friends to order the amplifiers and when a clerk rang Amstrad to say seven orders had been placed the "spiv" raged: *"Don't be so bloody stupid, I'm not selling you ten of anything. You've got to buy at least a hundred!"*

Comet gave in and Alan Sugar finally found a nationwide outlet to sell his electrical goods through.

A JAM RAG?

Some of the longer, fine, upstanding male members of this club should be a little bit interested in another computer organ which has recently sprung up. It's called JAM and it's editor is a certain Jeff Walker.

The magazine is Amiga *(yeuk)* based and has a somewhat "WACCI" feel when read. Hardly surprising really since Jeff was the first editor of the magazine you are now reading.

The first JAM issue was originally published from a Birmingham address but due to increasing demand and expansion JAM has had to move back to London. The second issue is due out in the second week of October.

If you've got a friend with an Amiga then do him a favour and tell him that JAM has moved back to:-

75, Greatfields Drive
H i l l i n g d o n
U x b r i d g e
U B 8   3 Q N

Telephone:- 0895 52430

VERY basic basic

BY ALAN TILLING

GET YOUR SHOES AND SOCKS OFF, TWIDDLE YOUR TOES - THIS MONTH ALAN'S DOING SOME SERIOUS COUNTING

Hello everyone, 'tis I. We're on the fringes of Basic this time with numbering systems.

-{VBBVBB}-

All computers work using the BINary system (base 2) of counting. To make life easier for ourselves, we humans use counting systems which have a base greater than 2.

-{VBBVBB}-

The most common base is base 10 - "ordinary" counting. Base 10 means that each column of figures can hold any of ten digits (0 - 9.) If any column holds 9 and 1 is added to it then this column resets to 0 and 1 is overflowed into the next left hand column and so on.

-{VBBVBB}-

There are many different bases but we are so accustomed to them that we don't think of them as bases. Give us some examples, Alan. OK take a look at *Fig 1.* then

4,2,12 and 20 come to that the £s were counted up in base 10 also, what a conglomeration but who called them, or even thought of them, as bases?

As I said earlier *binary* is used in computing for a very good reason. In binary, each column of figures can

Base	Use
14	lbs in a stone
20	stones in one cwt
16	ounces in a lb
28,29	
30 or 31	days in a month
12	months in a year
60	minutes in an hour, seconds in a minute, minutes in an angle

and in the old *real* money system there were:-

4x farthings =1d   2xha'pennies =1d
12x pennies =1s   20xshillings =£1.

Fig 1.

hold either of two digits (0/1.) Compare that sentence with the one stated earlier for base 10. The state of a bit (BINary Digit) can be represented by 0/1, in/out, absence/presence, on/off and here's another - no light in the window, meaning that the coast is clear; light on in window, meaning "not tonight, my husband is at home"

-{VBBVBB}-

This on/off action is the action the computer uses because the transistors that make up the chips can be on or off. If (inside a chip) there are eight transistors in a row, then they can be on or off in any combination, the least on is 00000000 and the most on is 11111111, so far, so good?

The reason I have chosen 8 transistors is that the CPC's are 8-bit computers. The least number of transistors on is none and for good reason this is called, wait for it, zero (wow, this higher mathematics is getting to me - must have a lie down) and the most on is called er.. er. It can be called quite a few things (please keep them all clean.) The simplest is 11111111_2 the little $_2$ to remind us that the number is in binary (base 2.)

-{VBBVBB}-

Hands up all those who counted how many ones there were, hmm quite a few. An easier way to remember binary numbers is to group them in bunches (or bytes) of four ie, the above number would be 1111 1111. Well that's slightly easier but only slightly. If we look at what each bit is worth then we will be on the way to a good system.

-{VBBVBB}-

You may have heard the terms LSB/MSB Least/Most Significant Bit. This is a way to say which is most important. Imagine you have just won the WACCI

sweepstake and you take your prize of one hundred thousand pounds and one penny to the bank. As we know this mind boggeling amount is written as £100,000.01.

Now if the cashier says that she couldn't tell if the last digit was a 0 or a 1 you would probably say, "Who cares, what's one penny in one hundred thousand pounds." However, if the cashier is in doubt about the first digit, then you are in trouble, in other words you have established which is most significant and which least.

-{VBBVBB}-

The LSB indicates the presence/absence of 1's. The second bit the presence/absence of 2's and the third bit the pres./abs. of 2x2=4's and the forth bit 8's and so on.

This means that the binary number 1111 1111 can be represented by 15 15. The more astute of you will have realised we are now in *HEXadecimal*

(hex = 6 deci = 10 therefore hexadecimal = 16) to stop 15 being read as 1 5 the letter <F> is used, like this:-

---

0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
0,1,2,3,4,5,6,7,8,9, A, B, C, D, E, F

Now you know what those intermidable data statements are about, they're just numbers.

And now back to Basic. To convert between bases you can do it by hand or use your computer - now there's a staggering thought. The Basic keywords BIN$, HEX$ and STR$ are used to do the conversions.

-{VBBVBB}-

BIN$ converts a denary (base$_{10}$) number into a binary (base$_2$) number. Type ? bin$(15,4) [RETURN] and you will get 15 as a binary number with 4 digits.

Now type ? bin$(15,8) and see the difference. (By the way, typing ? is a quick way of typing PRINT.)

-{VBBVBB}-

HEX$ converts a denary number to a hex number: type ? hex$(15,4) and you will get 000F ie 15 is F and it is 4 bits long.

-{VBBVBB}-

STR$ converts hex or binary back to denary: Type ? str$(&F) and the answer will be 15. (The & tells the computer that the number is in hex.) Type str$(&X1111) and you will find that this also gives 15. (The &X signifies binary)

-{VBBVBB}-

Well that's another month or rather another year gone so do have a happy Christmas and a prosperoouss err.. prozzper... err... good New Year.
Bye for now... Alan.

one on the left doesn't look quite as healthy as the others.

Thank you for putting my name straight on the address label. Regarding my problem with CP/M+ and Newsweep, it was a case of my not reading my manual - only it was the manual for the Dk'tronics RAM expansion that I hadn't read which wasn't the obvious one to look at. All problems solved now thanks to their patch. It was something to do with the keyboard scan of the 6128 - if anyone can explain the difference I'd be interested, as it is one incompatibility problem I have not come across before.

I can understand to some extent the problems arising in producing the magazine, as explained in Peter Casserole's article (way back in February - see how out of date all this is) as three times a year I had the interesting but hectic task of compiling our church newsletter. This was done on the same word processor I am using to send you this letter.

You asked what it was that had produced the peculiar file on the last disc. It was my own version of Text Editor - a type-in that appeared in Computing with the Amstrad in February 1985, although almost everything has been completely re-written by me, as it can now do italics and other wonderful things, as well as this nifty micro-justification you can see, not that you will see it in Fair Comment.

You might be interested (but I doubt it) that the assembler I use for all my machine code is none other than RAW - a type-in from CWTA July 1985 - all in BASIC. It encourages me to get my code right first time, as machine code of the length I am into can take over five minutes to assemble!

A friend of mine, a BBC B owner (I believe he actually uses the thing as well) occasionally reads bits of WACCI. The bits he likes best are the Life cartoon and Phil Morley's letters (and more importantly, the replies.)

He didn't like the idea of using a laser printer to do the magazine either, though I'm not sure how to value the opinion of someone whose

machine has only 32K RAM. Have you ever tried using the BBC's PLOT command? It is totally incomprehensible and as for the 6502 CPU with three 8-bit registers?... Anyway, enough of slagging off inferior machines - he gets his own back when he transfers his BBC programs to an Archimedes where they run incredibly fast - so fast that you have to put delay loops in BASIC games. Acorn's RISC chip is certainly no WIMP!

Thanks to Andy Frame I am now the possessor of a Ram Music Machine. Now I am saving up to buy a lead to connect it in parallel with the disc drive interface. Why didn't they put a through connector on? Amstrad itself doesn't set a very good example though - the disc drive interface isn't equipped with one either!

However it is probably Locomotive Software who have caused an interesting 'feature' of the 6128 ROM. If you are lucky enough to have a 6128 (complete with its disgusting keyboard) you might have noticed when switching on a slight flicker when it prints up the copyright message. If you also possess a Multiface II or similar device, you can try stopping it during the print up. As far as I can tell, it prints up the word "Copyright" and then writes over it with the copyright symbol followed by "Amstrad Confuser Electronics" etc. Why it does this I have no idea but it certainly looks silly.

Does anyone have a dozen of the new style Amstrad disc sleeves spare - you know the kind - the ones that aren't hinged and don't break when you drop them on the floor. Judging from the hype in the never-changing WACCI Adverts Section, I must be in the minority that prefers the new floppy plastic cases to the old hard ones. I have about five of the latter which I would gladly give to WACCI if I could get hold of some of the new kind. Well, you must admit they're better than the Maxell ones, surely? You can't even see the edge of the disc label and half of mine are coming apart through over-use.

Well, that just about rounds off a

three-month late letter (it wouldn't have been so long if the FSW had come back sooner.) Sorry, I'm not really complaining - you must have your work cut out reading rubbish like this, let alone putting together a high-quality magazine and doing all the orders. The next letter will be shorter to reduce the workload (I'll try, I promise.)

Matthew Phillips
1 Newcastle Avenue
Beeston
Nottinghamshire
NG9 1BT

<<I'm not so much interested that you're using Roland Waddilove's RAW assembler as amazed. To have then produced a proper wordpro from Text Editor smacks of serious over achievement.

Please don't go on- it makes us all look lazy and silly and the truth hurts too much. But don't knock the 6502- it's now seen as an early RISC chip. Big brother of the ARM which, as you say, fairly flies. But just think, with our slow cheap (£3 retail) Z80, how much useful CP/M software we've got out there and how little there is for the Archy. Then smile. As to the flickering copyright message, I suspect there was an early version and when they changed the copyright message they left the rest of the code in because it was too much sweat to alter. How about that? -Joolz.>>

NEVER A CROSS WORD

Dear Joolz and Steve, I answered your request last year for a Crossword Compiler program by sending in my homegrown XWORD suite, warts and all and never originally intended for sharing. Your interest activated my forgotten intention to tread through XWORD again and - well, to cut a long story short it now includes a 64K dictionary, all sorts of look-up features, actual error trapping and reduced user unfriendliness <<ah, that's what it's called.>> I have also updated the DOC file to include all the little extra bits left out last time.

The revised offering is included on

```
10 MODE 2:CAT:DIM text$(1000)
20 INPUT "File name ";f$
30 OPENIN f$:n=1:WHILE NOT EOF
40 LINE INPUT#9,text$(n):n=n+1
50 WEND:CLOSEIN:n=n-1
60 LINE INPUT "Word to find>"
   ;find$:find$=UPPER$(find$)
70 LINE INPUT "Word to replace it>"
   ; replace$:x=LEN(find$)
80 FOR y=1 to n
90 temp$=UPPER$(text$(y))
100 GOSUB 120
110 NEXT:END
120 findpos=INSTR(temp$,find$)
130 IF findpos=0 THEN RETURN
140 PRINT text$(y)
150 a$=LEFT$(text$(y),findpos-1)
160 b$=RIGHT$(text$(y),
    LEN(text$(y))-findpos-x+1)
170 text$(y)=a$+replace$+b$
    :PRINT text$(y)
180 temp$=UPPER$(text$(y))
190 GOTO 120
```

THE ERROR TRAP

You will see that the first line tells the CPC to jump to line 110 if an error occurs. The error, in this case, happens in line 40 when BASIC opens the file for us. A wrong file type error message would normally be printed to the screen and the program stops. In fact the file has been opened for us and line 110 sends the control back to line 50 as if nothing had happened.

You could test, in line 110, IF ERL=40 THEN RESUME 50 so that, with only the OPENIN command on line 40, this must be the error that we want to trap.

Oh, what about DISC.BAS? Well it's the WACCI copyright notice. As such, nothing to go bananas about but worth getting to grips with.

...strinGSANDThings...

That's all for the moment. I hope you enjoy using these simple programs and that you're attracted further into the jungle of programming; one last thing. *Did I mention runner the beans?*

The Chrimbo Compo Corner

The following questions all have real answers, but they may look looney, anyway have a go, the answers are to be found elsewhere in the magazine.

1, Name the language that deaf people speak? _____

2, You are driving a bus and when you leave the bus station there are six adults and two children on board. At the first stop one adult gets off and you pick up three more. At the next stop four children, an old age pensioner and one adult get on. When you get to the following stop six adults get off. This is an express bus so your next stop is the terminus where every body gets off.
What was the driver's name? _____

3, You are in a house, all four walls of which face south. Through the window you can see a bear. What colour is the bear? _____

4, The next question requires knowledge of the old fashioned *real* money. Can you fill in the amounts to give the correct total? A knowledge of the *slang* terms for the amounts is needed but note, not all the terms are obsolete. To give you a start the first answer is a bob.

	£	s.	d.
Hair style		1	0
Hide curer			
Singer			
One stone			
Bicycle			
Ruler			
North & South poles			
One legged woman			
Half the top of a man's head			
Pig			
	£26	15	1³₄

5, Can you identify some parts of the human body from these clues?

a, Two trees	e, Twenty wood fixings
b, Two fishes	f, One front of a clock
c, One wooden box	g, Two measures
d, Two churches	h, One king's hat

Alan Tilling

Designs Upon A Micro

By Peter Campbell

Microdesign for the 6128 and expanded 464/664's (and now we learn, even the new 'CPC Plus' range is marketed as *"The advanced design package for 128K Amstrad CPC computers."* Normally I regard this type of blurb with a certain degree of scepticism but how does it measure up to this description. *Read on McDuff...*

oooOOOooo

Microdesign *(MD from now on)* can be used to create letter headings, news-letters, hand-bills, flow-charts and posters etc - the list is as long (or as short) as your imagination.

The package lacks some of the features of other art packages, eg: no attractive flashing colours etc but, it's not aimed at the traditional "Art" market. MD is for the dedicated hard-copy enthusiast, who prizes the quality of the final printed output above all else.

oooOOOooo

The program is structured around five "pages" (or function areas) with each page dealing with a specific program function. Each page is accessed via a simple menu-driven system with all pages available from whichever page you are currently working on. The graphic representation shown in Fig 1. gives a simplified view of the overall program systemics.

LAYOUT PAGE

On loading MD you are firstly dumped into the Layout page. This consists of a scaled down version of the entire design area and two menus located on the right-hand side/bottom of the screen. The first choice to make, using the "New" menu option, is to select the appropriate paper format: A4 upright, A4 horizontal or the 1/4 size A4 strip format.

Having decided on the format, your options are now to go to the Filing page and load a previously executed design or to move to the Design page to begin a new drawing.

oooOOOooo

The Layout page can also be used in the last stage of the design process to perform "Block" functions on part or all of your finished designs.

"Blocks" are user-defined-areas
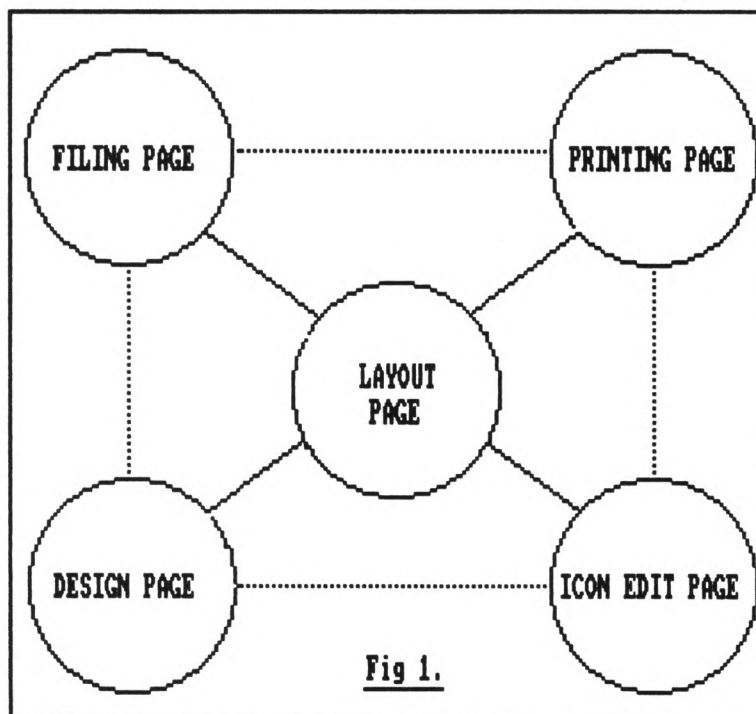
Fig 1.

LAYOUT PAGE:

THIS ALLOWS YOU TO PERFORM GLOBAL ACTIONS ON THE WHOLE DESIGN AREA BY USE OF THE "NEW" & "BLOCK" FUNCTIONS.

DESIGN PAGE:

AS YOU MIGHT EXPECT, THIS IS THE WHERE ALL THE DRAWING/DESIGN ACTION TAKES PLACE.

ICON EDIT PAGE:

ENABLES YOU TO ALTER THE 3 SETS OF ICONS AVAILABLE ON BOOT-UP, OR CREATE YOUR OWN ICON SET.

FILING PAGE:

GIVING FULL ACCESS TO THE AMSDOS FILE COMMANDS, AND MORE.

PRINTING PAGE:

COMPATIBLE WITH EPSON & IBM STANDARDS

which can be erased, moved anywhere on screen or copied, space permitting, any number of times. Creating a Block is simplicity itself. Merely by typing the letter "B" gives access to this option. Control is then exercised by manipulating a cross-hair cursor which is moved on screen by the cursor keys and the space bar.

THE DESIGN PAGE

This is the "meat" of the program. The design area itself covers one quarter of an A4 page and can be scrolled to any part of the page by use of the shift and cursor keys. All options on the right hand side menu (see Fig 2.) are made available by a single key-press: (C)-CIRCLE, (T)-TRIANGLE Etc.

The shape taken is then manipulated by positioning a cross-hair cursor on screen which is controlled by the space-bar and cursor keys. This lets you to increase/decrease the size of the shape and also allows it to be moved to any point on the design area.

Further modification is possible by using the function keys to choose if the shape is to be in outline only, solid (Black) or filled with a repeated Icon pattern.

The use of a single key-press to perform many of the design options compares very favourably with the Wimp environment used in Advanced Art Studio. This is especially true when using multiple shapes and combinations of different shapes - I personally find using the "one key" system of option control to be much easier than having to locate a menu and then selecting an option.

Just in case I have given the impression that MD is solely for the construction of Geometric shapes - fear not - free-hand drawing is possible using either a mouse or the Line/Angle keys.

oooOOOooo

Text can be entered on screen in any one of four different sizes and in any direction. One of the minor defects of the program is the lack of full auto-justification. However, this has to be considered against the fact that each
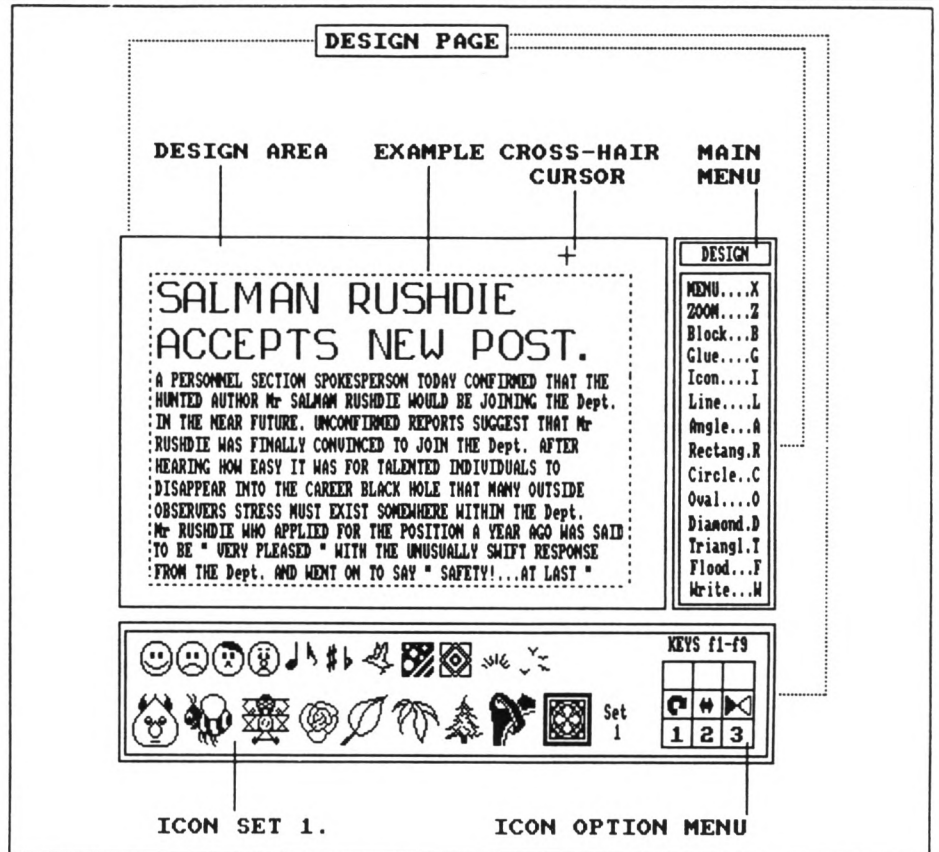
Fig 2.

character typed in can be positioned, by use of the cursor keys, anywhere within the design area.

MD comes with twenty-four specialised Fonts varying from "Oldeng" (a Gothic style Font) to a "Hi-Tech" Font and there is even a Font which consists of symbols for the creation of circuit diagrams. A selection of interesting and varied clip-art is included on disc and this provides an accessible starting point for newcomers to the program to commence work on.

A further disc of clip-art, headline Fonts and musical Fonts - Micro Design Extra - is also available.

The "Block" menu option is identical to that on the Layout page with one added feature; the defined block can be stored in memory for later "Gluing" onto a section of the A4 page that the user is not currently working on.

oooOOOooo

The "Icon" option gives you access to any one of the 66 Icons which are loaded into memory when MD is booted up. Icons are user defined symbols (miniature designs) which can be used

to create borders, brighten up dull text or used to enhance your design in any number of ways.

Before transferring an Icon to the design area it is possible to modify it by using the function keys (again!) to produce interesting effects. eg: Colour inversion or rotation through 0 to 360 degrees.

Control of Icons on the design area is given by the cursor keys and like text they can be finally pasted down on any part of the design area that you require. Any bounded area can be filled in black or white using the "Flood" option, and you can also fill a bounded area with a repeated Icon to create some quite eye catching results.

Confirmation of any changes to the design is by use of the f0 key and should you make a mistake it's easily removed by the f. key which operates as an undo key.

oooOOOooo

Other keys with specialised functions are as follows:-
CTRL/ESC which removes the bottom

Icon set giving an increased design area to work with.

Space bar for plotting points and the CTRL key for speeding up most of the design operations.

A final Goodie is the CTRL/SHIFT combination, which repeats the last design option chosen and does indeed, as the manual states, *"help to reduce operator eye strain and fatigue during drawing operations."*

<center>oooOOOooo</center>

Once you've finished the main detail of your design it's always a good idea to tidy it up. This can be achieved by using the "Zoom" function for detailed editing at pixel and half-pixel level.
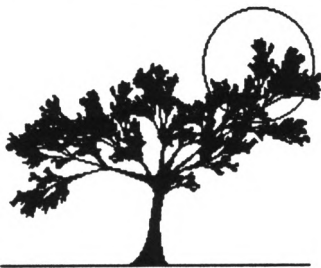
<center>AFRICAN DAWN</center>

In effect ZOOM acts as a magnifying glass, allowing you to move a "window" over the particular design area that requires the touching up.

Once selected, pixel editing is directed by using the space-bar/cursor keys combination.

ICON EDITING PAGE
This page is composed of pixel grid located in the centre of the screen, a main menu on the right hand side, a display of the current Icon set at the bottom of the screen and a function key menu on the bottom right of the screen. Main menu options:-

EDIT - *Un-surprisingly this option is for the alteration of existing Icons or creation of new Icons. The Icon is loaded into the grid and then altered at pixel level by the now, very very familiar, cursor keys/space-bar combination.*

SIZE - *Changes the grid size to either 16 x 16 pixels or 24 x 24 pixels.*

KEEP - *This stores the new Icons - but remember that this only stores the alterations in RAM memory. To save permanently make sure to use the "save .IC" option from the main filing menu.*

CLEAR- *Fills the grid in white.*

Finally once again it is possible to rotate, mirror or invert an Icon by utilising the function keys.

FILING PAGE
Having created your masterpiece you might think that it would be a good idea to print it- but it's not really.

I once spent over three hours on a poster and decided to print and then save it. Bad move; a power cut left me with nothing but a barely started hard-copy, a bad attitude and room full of unusual one-syllable words. Beware the easy option!
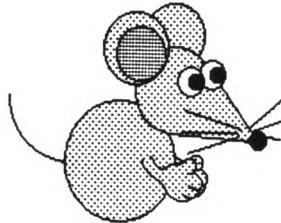
Almost a mini-program in itself, the filing page is well implemented and easy to use. It's similar to the layout page in that the user is once again presented with an option menu on the right side of the screen and a scaled down version of the entire drawing area in the centre.

The filing options available are comprehensive and as well as the standard options (CAT, DELETE, LOAD and RENAME) other more sophisticated operations are possible.

Selecting the "Load .DR or Load .IC" option enables the user to selectively catalogue and then load either Drawing files (.DR) or Icon sets (.IC) thus saving valuable time spent wading through a complete disc CAT.

The "Load .DR." command is even more flexible as it requests you to specify the area of the A4 page that the design is to be loaded onto. Using the cross-hair cursor to define the area to be saved allows you to save all or

part of your design.

Another command enables you to save your own icon set. It is even possible to save the icons in a boot-up file ready to use the next time you load MD. Having saved your file you may wish to start afresh on another design. This too is made easier by the "New" option which operates exactly as in the Layout page.

PRINTING PAGE
EPSON or IBM Printers? It doesn't matter - MD comes with a Basic printer configuration program that will allow you to customise MD to your own requirements.

<center>oooOOOooo</center>

Once again the printer page is very similar in design to the Layout and Filing pages - a scaled down version of the entire drawing area and various menu options. Having used Art Studio, Vidi and most of the other commercial art/graphic programs, I can honestly say that the MD printer options give the one of best screen-dumps available on the Amstrad range of computers.

<center>TROPICAL SUNSET</center>

Taking the "SCALE" menu option allows the user to hard-copy in either full A4 size, half A4 size, quarter A4 size or high quality strip format. If using less than full A4 size, selecting "MARGIN" enables you to print your design anywhere between the right and left paper margins.

"STYLE" gives you the choice of "Normal," a fast dump of medium quality, or "One-pin" printing, which is slower than a snail on valium! But produces a dump of exceptionally high quality. I always go for the latter, for as my own MD poster slogan states:
ALWAYS REMEMBER:-
PERFECTION IS BARELY ACCEPTABLE AS
A BASIC MINIMUM STANDARD OF WORK

For the *thrifty*, it's possible to extend the life of the printer ribbon by use of the dark "SHADE" menu option. I have found that a ribbon that produces light grey text in NLQ Protext printing, gives a perfectly acceptable dump from MD when using this option.

GRUMBLES

1. *Although it is possible to convert standard 17k screen files to MD format I can't say that it I'm really happy with the end product. The lack of any control over the conversion program/process means that the MD file is always a standard size and, even more irritating is the fact that Vidi files undergo colour inversion. This means that they often finish up looking like photographic negatives. Uuugh!*
2. *MD is not ROM friendly - it is always wise to physically remove or*

do a *!Romon,7 as external ROM's can make the program crash.*
3. *There's no "STRETCH" function.*
4. *MD cannot import ASCII files from a word-processor.*

CONCLUSIONS

Grumbles aside, having used MD for almost two years I can say that in terms of ease of use and hard-copy quality MD is hard to beat.

The manual is well laid out and easy to understand, the program itself is professional in appearance, and in use it feels like a precision instrument.

Personally... I find using it to be sheer pleasure. I myself use MD for creating humorous posters, letter headings and (more seriously) providing a documentation come graphic service to the Local Government Dept in which I work.

As I said at the beginning of this review, this program for the 6128 and expanded 464/664's is marketed as *"The*

advanced design package for 128K Amstrad CPC computers" and I'm happy to report that, with a few reservations, this program lives up to that billing.

HELP

If any little WACCI member is thinking of buying MicroDesign who would like some more information about the program, they can contact me on 041-554-4735 after 6pm but *before* 10pm. Any day, Monday to Friday.

The Bellaby File

STARTUP

They've given up - *"probably the last"* indeed. They've been announcing the end of the series for ages now but I've kept the Cobol flag flying.

Well, this really is a kind of end, the last of the full articles but there will be more treasures coming-see the end of this article.

In this month's piece (which has I am reliably informed been entered for the Blue Peter short story award for under fives) we are covering how to start writing a Cobol program and a date entry program. So stop yawning, load up Cobol and we'll get started.

STEP ONE

You have decided you are ready to write your first Cobol masterpiece and reality hits you full in the face; you don't know where to start. Okay, read on and I will point you in the right direction.

Many home computer programmers have not been trained in correct program writing techniques, they just sit down at their machine and get programming. This usually leads to a lot of wasted effort and programs which are hard to follow. Anyway, it's far from being straightforward even at step one.

Most commercial programs are a compromise between speed of operation, program size, user friendliness and the number of options available.

The fives and threes domino program that I wrote many months ago was a compromise between, play quality, size and graphics. I could not achieve all three, so I chose not to include super graphics. As we say in the trade *"it's my program, so it's my choice"*

So; get out paper and Biro and write a short outline of what you want the program to do. This should clear your mind (if no one else's.) You will end up with something like,

> *"This program holds members' names and addresses in alphabetical order in a data file. I need to be able to add, update and delete records and I need to be able to print out the details held on file..."*

And so on into the sunset...

This is a *very* important first step in any programming exercise. Knowing what you want the program to achieve gives you a solid base to build on.

I refer to this as my 'point of reference' it tells me where I am and where I want to go. It is all too easy to lose your way when you are writing a complex program and end up with a program that goes round the houses and doesn't do what you wanted it to.

FILE STRUCTURE

Having decided exactly what you want your program to achieve you move on to the next stage of deciding which type of data file to use and to specify the file names, record names, record sizes and the number of records that you are going to hold in the file.

Cobol is a file handling language so choosing the right type of file is important. Having decided on the file details write down your detailed file specification, something along the lines of:-

```
NAME-FILE : RANDOM ACCESS
            RECORD KEY is REC-NUM

01 MEMBERS-RECORD.
   03 NAME              PIC X(30).
   03 ADDRESS-LINE-1    PIC X(30).
   03 ADDRESS-LINE-2    PIC X(30).
   03 ADDRESS-LINE-3    PIC X(30).
   03 POST-CODE         PIC X(10).
   03 INTERESTS         PIC X(40).
   03 COMPUTER-TYPE     PIC X(20)
   03 SPARE             PIC X(20).


Record size          210 bytes
Number of records    300
File size            63000 bytes (62k)
```

I always select meaningful identifier names because this makes writing and debugging the program easier. It also allows others to more easily follow your work, so if they wish to expand the program they are not left scratching their heads wondering what the variable XXY-1 does.

If you have sufficient space on your disc build in an additional identifier which you can call SPARE. This makes room in the disc file for later expansion of the program and is good programming practice.

THE MENU

Now you've decided on the file type and the file structure, you are ready to move onto the next stage; writing down the menu options.

I do this early on when developing a program as it helps me in two ways. It makes me clarify exactly what the

program will do and gives me all the subroutines that go to make up the program.

THE FIRST CODE

Having got to this stage I now write and compile the menu and file section. None of the options will have been written at this stage; however they will contain dummy commands to ensure that I get to them when they are selected and that I return to menu when I have finished.

Let me demonstrate this with a bit of code. Let's imagine that we have written our menu and that one of the options is add a new record. I would write:-

```
ADD-RECORD.
  DISPLAY 'ADD RECORD SELECTED'.
  DISPLAY 'press any key'.
  ACCEPT KEYPRESS.
  GO MENU.
```

OK, I know this doesn't do anything except confirm that you have got to the right paragraph and then return you to your menu routine, but it does allow you to fully test out the first part of your code and to correct any errors found.

It's worth bearing in mind that debugging a short piece of code is considerably easier than debugging a long piece of code, so it's better to do it this way, in bite-sized chunks. *(My refusal to write "byte-sized" shows how truly cool I am.)*

Using this method also allows you to test the options as they are added to your program, knowing that any errors must be in that particular code, which makes error trapping and debugging a much simpler task.

THE QUIT OPTION

I always fully code the 'quit' option at this stage; after all pressing CTRL-SHIFT-ESC is no way to treat a computer program.

When you allow the user to enter data or select an option you must do their thinking for them and do all you can to stop them making errors. Do you

want to allow them to press 'q' to quit, or do you want them to type in 'quit' to quit? Pressing 'q' is quicker but typing in 'quit' means they have to make a positive decision to quit the program.

I do not like to use single keypress options because the wrong key is so easy to find. I like to force the user to make a positive commitment by entering several characters, or a word such as 'quit'.

Let us have a look at a typical quit option:-

```
QUIT-PROGRAM.

DISPLAY 'QUIT PROGRAM'.
DISPLAY ' '.
DISPLAY 'Enter "quit" to confirm'.
DISPLAY 'that you wish to quit,'.
DISPLAY 'then press RET.'.
DISPLAY ' '.
DISPLAY 'Press RET only to abort'.
DISPLAY 'this option and return to'.
DISPLAY 'the Menu.'.

ACCEPT REPLY.

* Convert quit to uppercase

IF REPLY EQUAL 'quit  '
        MOVE 'QUIT  ' TO REPLY
   END-IF.

IF REPLY NOT EQUAL 'QUIT  '
        GO MENU
   END-IF.

STOP RUN.
```

Well this may not be the neatest bit of coding that you have seen but it works. The only way to quit the program is to type in either 'QUIT' or 'quit', this means that the user has to make a positive decision to quit the program.

REPLY will need to be declared in the WORKING-STORAGE SECTION as:-

```
01 REPLY  PIC X(6).
{C}{O}{B}{O}{L}
```

PSEUDO CODE

Many moons ago when the world was young I used decision tables and flow charts to write program outlines and to define program logic. Those days are long gone and we are now into the new method of 'pseudo code' which is easier to use and bears more resemblance to the final program.

Contrary to popular opinion I do possess a dictionary, so I looked up the meaning of "pseudo" which is given as both false or insincere.

"Pseudo code" is a posh name for writing down an outline of what you want the program to do in a way that allows you to check the logic that the program follows. AJ has included several examples in his column and, not to be outdone, I am including one.

For this example let us imagine that we wish to alter a record held on a disc, all we need to do is outline the steps the program follows,

```
-select amend option
-confirm correct option selected
-user enters record number
-get record from disc
-confirm this is correct record
-user selects data to alter
-enter new data
-confirm entry
-prompt for more alterations to this
 record
 - if yes, jump back to select data
           to alter
 - if no,  confirm alterations
           save record to disc
           go back to menu
```

Here endeth your first piece of pseudo code, please noteth that the standard of english needeth not be perfect.

A more serious point; the code does allow you to outline exactly what the program does. The code also shows that you have made a decision about the way the program flows. If you summarize the code you see that the program goes; display menu, alter one record, display menu.

We could have allowed the user to alter more than one record before returning to the menu; the decision is

yours. You are writing the program and you must decide at this stage which is the better method. As a general rule if you are only going to make single alterations this method is faster. If you are going to make multiple alterations then including a 'alter another record' option will be quicker to use but takes more code.

VISIT THE LIBRARY

This is important. Build up a library of tried and tested program routines. These can be held on disc and merged into a new program as required, saving a great deal of time, effort and frustration. Remember, the classic definition of a software engineer is someone who *avoids* unnecessary work.

The library routines need to be saved in a useable format in pure ASCII code. A routine to check numeric keyboard entry will look something like:-

```
* Working Storage

01 NUMBER-ENTERED  PIC 9.
01 NUMBER-FLAG     PIC X.

* Procedure Division

PARAGRAPH-1.

  DISPLAY 'Please enter a number '.
  ACCEPT NUMBER-ENTERED.
  IF NUMBER-ENTERED NOT NUMERIC
    MOVE 'X' TO FLAG
  END-IF.
```

And so on. It's well worth building a library of your common routines.

When you have merged the routine all you need to do is move the code to the appropriate section of your program.

Here's an example; last month's menu program was copied from my library disc directly into the article. The whole exercise only took five minutes which included the time needed to format the program to match WACCI's page layout. Think about the time and effort saved and the peace of mind that comes from knowing that the program works.

KISS

For those of you who are unaware of this acronym, it stands for *"Keep It Simple, Stupid."*

Yeah, the oldies are still the goodies. What it really means is; keep program lines to short simple routines, because you are far less likely to make a mistake and you will have a program that you can pick up and follow in two or three years time.

We have all seen programs that are too complex to follow ('specially those 10 liners in ACU.) Programming is not a test of how much can you squeeze into a small space or about impressing the world by writing a program that only von Neuman himself could follow.

Look at this example of what *not* to do from ACU's September 1990 issue.

```
8 z2=2:t2=t:z=z+zd:t=t+td:
  IF ( z>600 OR z<30 ) then zd=-zd
```

You cannot claim that this program line is a good example of programming skills. <<*And that's quite enough ACU type-ins -Ed.*>>

Some of the commercial software is no better. Buy a copy of Yes! Chancellor from OMG at WACCI and then try to follow the program; not a single REM statement and line upon line of multi-statement coding that leaves you floundering.

Now I like this program and I know that I'm not supposed to alter the code to make it more interesting under the new laws but even if I wanted to and it was legal it would be a nightmare of a task. Mind you, maybe that's the idea but still, gaze upon it and shudder.

IDIOT PROOFING

This is another of those very good old fashioned ideas that seems to have been lost but in real life it's very important.

Try out your program with duff data; assume that the user is an idiot and will press the wrong key, because it's a Cray to a bent abacus that they are, and they will.

Try to ensure that the user cannot crash the program, that it won't accept invalid input and tell them nicely that they are wrong and allow them to correct any errors.

If I had a pound for every program which prompts me to "Press any key to continue" and then just sits there after I've pressed the ESC key, then would be able to afford a 6128 Plus.

Domino2 is a good example of what not to do; just keep playing double-six and you cannot lose.

ASK FOR HELP

The very famous *Paul Dwerryhouse*, who knows less about Cobol than *Joolz'* cats, was very helpful in developing one of my Cobol programs. I sent it to Paul, he tried it out and sent me a list of improvements which I included and sent back, he sent more improvements, I included them and so on until we ended up with a program that demonstrates what Cobol can do.

If you get MAG.CBL the demo program from The Library and look at it, the changes in colour, mode and general feel of the program are down to Paul who insisted on very high standards and suggested many of the useful routines.

Programming at home in your tower of splendid isolation is all very well until you realise that you've missed the simple concepts that can turn a routine program into something special that stands out from the crowd.

FINALLY *(on this subject)*

Some of the more useful advice I have ever been given includes:-

* *decide what you are going to do before you start doing it*
* *never offer to buy a round of drinks*
* *write down what you want to do*
* *ask others for advice*
* *never re-invent the wheel*
* *never offer to buy a round of drinks*
* *if you are stuck, cheat*
* *don't get married*
* *look at what similar programs do and how they do it*
* *try out ideas*
* *KISS (Keep It Simple, Stupid)*
* *never offer to buy a round of drinks*

A BOX OF DATES

Only one shortish program for you to type in this month (*Fig 1.*). Yup, it's that good old standby the enter date routine. The program allows the user to enter a date and then stores it in a data file on disc. The date entered is tested, ie: the day must be between 1 and 31, the month between 1 and 12 and the year between 0 to 99.

You need to add more IF .. END-IF tests to check that the maximum number of days in a month is not exceeded. I would have added them to this example but space is limited. The program when fully tested should be saved as part of your program library ready for merging with your next masterpiece.

'SNIFF

Almost the end of the line. This is the last in the series of *"Programming in Cobol."* Don't cry yet, because we're back next time with a brand new mega-series about *FORTH*.

By any standards this should be a monster; here at the Forth factory we've been putting together a treat for all our fans. Oh yes indeed.

But Cobol is neither forgotten nor abandoned. There will be several short follow-up articles with more Cobol routines and a simple explanation about linking programs and more answers to your questions.

TATTY BYE

That's it for now, write or phone if you get stuck, *T.T.F.N.*

Clive Bellaby

12, Trafalgar Terrace,
Long Eaton
Nottingham
NG10 1GP

0602-725108

I.T.M.A.

Fig.1 One for the Library
The Enter Date program

```
IDENTIFICATION DIVISION.
PROGRAM-ID. Enter Date.

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.
SOURCE-COMPUTER. Amstrad 6128.
OBJECT-COMPUTER. Amstrad 6128.

INPUT-OUTPUT SECTION.
FILE-CONTROL.
SELECT DATE-FILE ASSIGN DATE.DAT.

DATA DIVISION.

FILE SECTION.
FD DATE-FILE.
01 DDMMYY.
03 DD PIC XX.
03 SLASH-1 PIC X.
03 MM PIC XX.
03 SLASH-2 PIC X.
03 YY PIC XX.

WORKING-STORAGE SECTION.

01 TODAY'S-DATE.
03 DAY PIC XX.
03 MONTH PIC XX.
03 YEAR PIC XX.

01 FLAG PIC X.

PROCEDURE DIVISION.

GET-DATE.

MOVE '0' TO FLAG.
DISPLAY 'Please enter todays date'.
DISPLAY 'Format DDMMYY'.
DISPLAY ' '.
ACCEPT TODAYS-DATE.

TEST-DATE.
```

```
IF
DAY GREATER '31' MOVE '1' TO FLAG
END-IF.

IF
DAY LESS '01' MOVE '1' TO FLAG
END-IF.

IF
MONTH GREATER '12' MOVE '1' TO FLAG
END-IF.

IF
MONTH LESS '01' MOVE '1' TO FLAG
END-IF.

IF
YEAR GREATER '99' MOVE '1' TO FLAG
END-IF.

IF
YEAR LESS '00' MOVE '1' TO FLAG
END-IF.

IF FLAG EQUAL '1'
DISPLAY 'Invalid date entered'
DISPLAY 'Please re-enter date'
DISPLAY ' '
GO GET-DATE
END-IF.

SAVE-DATE.

OPEN OUTPUT DATE-FILE.
MOVE '/' TO SLASH-1.
MOVE '/' TO SLASH-2.
MOVE DAY TO DD.
MOVE MONTH TO MM.
MOVE YEAR TO YY.
WRITE DDMMYY.
CLOSE DATE-FILE.

DISPLAY-DATE.

DISPLAY 'Date entered: ' DDMMYY.

END-PROGRAM. STOP RUN.
```

The Bellaby File

The WACCI Archives

IN THE BEGINNING

In the latter half of August 1986 a letter was published in Popular Computing Weekly. It was from someone called Jeff Walker, and asked if anybody was interested in helping to set up an Amstrad newsletter.

Jeff was always straight to the point, and his reply to my enquiry was no exception. It read:- *"If you've ever joined a computer club that produces a regular newsletter before, then you'll have seen the sort of thing that I don't want to emulate. What I want to produce is an INTERESTING newsletter."* He went on to explain that what he wanted to do was produce a newsletter full of readers letters without any censorship, *"I intend to publish EVERYTHING that's sent to me, not just picking views that are fit."*

Just a week had gone by when Jeff realised members were more eager to help than that. As more people subscribed to the club the more self-appointed column writers there were. In Jeff's words, *"If you've got a column idea then PLEASE 'phone me, or write back QUICK before somebody else grabs it."* And so it was on this basis that WACCI began - a newsletter about CPCs written by CPC owners.

ISSUE ONE

Just one month after the letter in PCW the first WACCI appeared. The first three WACCIs were distributed on tape or disc, complete with print out option and loading screen (shown on these pages along with the original WACCI mascot and the front page of the very first issue of the magazine.

Original WACCI readers will remember that it prompted some acidic criticism from someone

calling himself S D Glover, but you'll have to wait until next month to find out more.

The first issue was twenty one pages long, had no illustrations (apart from the loading screen) and no full page adverts. It was written by Jeff Walker, Stephen "Scoop" Grainger, "Auntie" John Kennedy, Alex Aird and Richard Burton. Only Jeff and John remain subscribers to this date.

PSYCHIC

Out of the ten columns that appeared in the first WACCI only two have survived to this day with the same name. They were the letters column, Fair Comment and Jeff's (now Steve's) editorial, Thanx & Stuff.

Lines from of the first Thanx & Stuff (and indeed first ever paragraph of WACCI) had an almost uncanny insight into the future...

"Your response has been marvellous. You wouldn't believe the contributions and offers of help I've had. If you're all still as eager in a few months time we'll have a raging success on our hands."

GOSSIP

Stephen "Scoop" Grainger wrote the Hot Gossip news column (later to be re-named "Properganander") promising:- *"Sparkling wit, radical opinions and an occasional verse of Nellie The Elephant."* The bulk of the column consisted of a "Spectrum +2 challenges 464" article, which compared the two computers.

He also reported on the launch of three new joysticks, the advent of software selling for less than a pound and the departure from Mastertronic of David and Richard Darling, who left to set up their own 'budget' software house. Scoop also wrote Blast From The Past, a column that took a look back at the world of Amstrad computing one year ago on that month. News items from October'85 included the release of the CPC6128, PCW 8256 and the DMP2000 printer, with the arrival of a new *"mould breaking"* magazine, Amstrad Action.

MAIL

The first Fair Comment had just eight letters in it and five were written by contributors. The first letter in Fair Comment was written by Richard Burton and was titled *"Never Mind The Quality, Feel The Width."* It began:- *"The quality of games has been improving ever since they started, and most are generally very good indeed. But a few games are really pathetic and are total rip-offs...."*

On a more positive note a letter from George

WACCI Newsletter No.1 for OCTOBER 1986

IN YOUR WACCI NEWSLETTER THIS MONTH

THANX & STUFF

Well, here it is, the very first one! What d'you think of it so far? Seriously, though, your response has been marvellous. You wouldn't believe the contributions and offers of help I've had. If you're all still as eager in a few months time, we'll have a raging success on our hands! I think some thanks are in order.

Firstly, the job of WACCI club secretary has very kindly been taken on by David Halligan from Birkenhead (that's Merseyside for us non-geographers). He is the person to contact in future for anything at all to do with membership subscription. To David goes a personal thankyou from me, you've lightened my load considerably.

Thanks also to ALL of you who have taken on regular columns. Your excellent articles have already made this one of the best club newsletters available. Keep firing them at me chaps!

I must also, quickly, thank Chris Bryant of A.C.N., who is travelling the same road as myself (but a little further down it). Chris, your advice is invaluable - keep in touch, and keep taking the tablets!

As you'll see later, the WACCI software libary is already off to a wacci good start. I must apologise for the copying charge (as small as it is). This is due to the price I myself have to pay to get the Public Domain (PD) software which, in some cases, is ten times as much as I am charging. Still, 20p per program is not, as they say, to be sniffed at. Any profits (doubtful!) from this will go towards obtaining more PD software. By the way, if you find this copying charge offensive, please do write, and if there's a general mutiny I'll scrap the PD software along with the copying charge.

Many thanks to all who have donated to the library so far. Keep your program donor cards on you at all times, and if a bus runs you over we can claim your programs for science (just imagine - yours could be the very first program transplant).

Right, enough from me, and here, as they say, we jolly well go!

1

Fontanini in London offered his services as translator for a Spanish version of WACCI.

John Kennedy also appeared in Fair Comment with a letter that read:- "I would love to see a newsletter for the Amstrads that was full of hints, tips, silly bits, listings, silly bits, news and silly bits. I own an Amstrad 464 and 6128, neither of which I can afford... I would like to take an active(ish) role in the newsletter, given half the chance." John went on to write Auntie John's Problem Page which turned into Auntie John's Diary for WACCI before being snapped up by the magazine industry. Having made his fortune, he has now retired to the country.

MACHINE CODE

Programming has always had a firm place in WACCI and the first issue introduced us to two people with a thing about machine code, Alex Aird and Steve Anderson. The Alex Aird Says column attempted to "remove some of the mystique surrounding machine code programming" while Steve told readers that before they started to learn they'd need "...an assembler, some blank tapes/discs and PLENTY of patience"

FIRST AND LAST

Jeff's silliness came to a head with a silly column entitled Mission Improbable. It revolved around a story written by Jeff and was basically an exercise in lateral thinking. You had to use double entendres, word puns and all that malarky to get yourself out of a seemingly impossible situation. It was an interesting idea but nobody wrote in offering a solution to it. As far as I know it was the first and last column of it's kind.

Another one issue wonder was Bargepole of the Month. The unlucky candidate and only one to receive a bargepole was Arnor for their "pig-headed" upgrade prices.

CHEAT

Foul Play was a hints and tips column for games and the like. Richard Burton wrote it and it contained useful nudges in the right direction for stuck games players. Pacific, Get Dexter and Movie were just some of the games featured in this instalment. But, like the games reviews, Foul Play was to die out in the years to come as WACCI found it's own niche in the magazine world, away from games playing and towards serious programming.

GAMES REVIEW(S)

George Fontanini was responsible for games reviews. Even at that early stage the deadline for contributions was biting and he only managed to write one. That was on Mikro-Gen's Equinox, of which he said had the edge on all other Micro-Gen efforts.

BIRTH OF MEGA-STAR

Auntie John. When attempting to describe him words almost fail me. A few biscuits short of
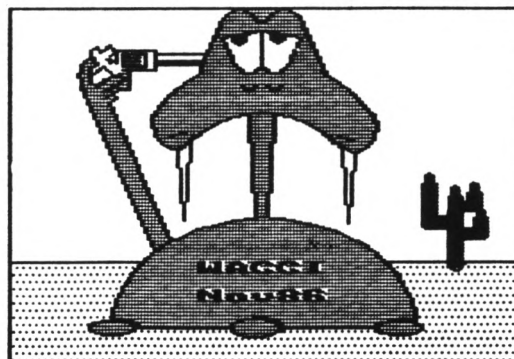
a packet? Well if you read his first ever Problem Page your might well think he's a lost the whole barrel....

Q. *Floppy 3" discs are so dear. Is there any way around this problem?*
A. *Yes.*
Q. *Well?*
A. *Have you ever tried formatting a chocolate digestive?"*

And so the craziness began. On a serious note AJ solved problems like dealing with 464 peripherals on 6128s and linking two Amstrads together.

He also attempted to explain the meaning of the very last episode of The Prisoner but alas there wasn't enough room left.

PD CLINIC
Everybody knows how good WACCI's Public Domain software is and in issue one it had got off to bright start, including programs such as Pontoon and Eddy (Version 1) AJ's very own text editor. There were seventeen programs in all and as you know it's certainly grown since then.

ADVERTS
Originally Jeff wanted to keep advertisements out of WACCI but by popular demand a classified section called Market Stall was set up, with the following condition: *"Members who submit boring adverts risk having them spruced up a little because typing them in is very, very, very ho hum!"*

Among the 'spruced up' Ads was this little gem...

OUTRO
And that was WACCI's first ever issue. Next month in issue two: WACCI grows to thirty-five pages, Jeff starts Thanx and Stuff with *"Hello again!"* There's the arrival of the venomous S D Glover, Bryan Parry's Soap Box, a certain Dr Loco, Billy the Bookworm's Bookshelf, the ill-fated WACCI Compo and more from Auntie John's Problem Page Plus *little Green bits.*

The Taming Of Romdos

Jess Harpur kicks the timorous beastie into shape

Remember "DOSWARS" in May - the not definitive account of the available operating systems? In it we said "'Art Studio' refuses under any circumstances to believe in funny discs. Pity... " and later "How about Stop Press with ROMDOS?... Anybody with anything to add, write in and tell us, please." Well, cast your bread upon the waters and you get Jess Harpur...

This arrived as a letter but it has the kind of universal relevance that makes it into a feature; read on:-

ooooOOoooo

Having been a club member for a year now, it's not only time I renewed my subscription but also well past the time I made some sort of active contribution.

So to make amends I have included a patched version of the Stop Press loader (DISC.BAS) which allows the use of a big format second drive running under ROMDOS. I have no idea if it will work with RODOS. Perhaps someone can give it a try. Anyhow, it's listed below.

Before it will work, there are two things which must be done:-

Firstly, the number "1" in line 140 refers to the position of the ROMDOS Rom in my romboard. If your ROMDOS Rom is in a different position then this line must be edited accordingly.

Secondly, the OVERLAYS files on side one of the Stop Press system disc must be copied into User Area 0 of any big format disc you intend to use with Stop Press. These are system files so they don't show up on an ordinary CAT

but NSWP or PIP, as in "A>PIP b:= a:overlays.*" will do the job nicely. These files will take up 86k on the big disc but this still leaves you with 706k (D20 format) to play with, or enough space for 8 pages, and a bit to spare.

COMPLICATIONS

Of course things are never quite that simple. Before saving a page, Stop Press checks the disc directory to see how many pages have already been saved. If it finds two it will ask which of them you want to save the new page over. That's fine for three inch discs which only have room for two pages per side but not much good if you have got a big disc with lots of room to spare. The way round this is to select the COMMAND function from the (oddly named?) Goodies icon and select another User Area via the external AMSDOS "USER" command. In this way you can save two pages per User Area of your big format disc.

BUG-A-WUG

In general, I find Stop Press to be an excellent program but (why does there always have to be a "but"?) there seems to be a small but irritating bug. If I define a text window then load text into it from disc, some of the pixels in column one disappear (before my weary eyes?). My "M"'s look like:-

```
      *   **
       *  *  *
    *   *   *
                *
    *        *
    *        *
```

Has anyone else come across this "feature?"

In the mean time, here's the loader:-

```
10  'ROMDOS with Stop Press.
20  'Use this loader in place
30  'of DISC.BAS
40  'Jess Harpur 1990
50  MODE 2
60  MEMORY &3FFF
70  LOAD "control",&4000
80  FOR adr=&2000 TO &2019
90  READ a$
100 POKE adr,VAL("&"+a$):NEXT
110 CALL &2000
120 DATA 21,08,20,0E,00,CD,16
130 DATA BD,0E,07,CD,CE,BC,0E
140 DATA 1
150 '    ^ ROMDOS Select Number
160 DATA CD,CE,BC,3E,30,32,BD
170 DATA 72,C3,0D,40
```

AND NOW...

Next is a similar loader for the Advanced Art Studio, for ROMDOS owners everywhere.

As usual there are limitations. The Art Studio catalogues big format discs OK except that the amount of free space shown bears no relation to the actual amount on the disc. More importantly, too many files on the disc and the buffer space used by The Art Studio will not be sufficient to hold the catalogue and some of the program code may be overwritten, causing a nasty crash just as you are about to save your Masterpiece.

One way of reducing the number of files in the disc directory is to

split them into different User Areas. But there's a snag here; unfortunately Art Studio doesn't support the User function, and always looks at files in User 0 (that's a common feature of programs that weren't originally intended to be "serious") so that bit of information may not be of much use. I have got around the problem by using Multiface to poke a different user number into &A701; but that involves having Multiface and if you don't have one then I don't know the answer - perhaps someone could suggest a solution?

GOT YOUR NUMBER?

As with the Stop Press loader, the figure "1" in line 84 corresponds to the position of ROMDOS in my romboard. The "1" must be changed to suit the position of ROMDOS in your romboard, if it does not occupy slot 1.

NAMING THE FILE

If you have UTOPIA then save the edited version as DISC.BAS to take advantage of the <CONTROL>/<ENTER> key expansion token to *RUN"DISC*. And here it is:-

```
1   'Loader for
2   'Art Studio with ROMDOS
3   'Jess Harpur
10  CLS: GOSUB 90
20  MEMORY 5000
30  LOAD"studio.bin",&1400
40  FOR a=&600 TO &625
50  READ b$:POKE a,VAL("&"+b$)
60  NEXT a
70  CALL &600
80  DATA 21,00,14,11,00,08,01,00
81  DATA 84,ED,B0,0E,FF,21,13,06
82  DATA CD,16,BD,11,40,00,21,FF
83  DATA AB,0E,07,CD,CE,BC,0E
84  DATA 1
85  '   ^ ROMDOS select number
86  DATA CD,CE,BC,C3,86,09
90  PRINT:PRINT:PRINT TAB(7);
    "THE ADVANCED OCP ART STUDIO"
100 PRINT:PRINT:PRINT TAB(15);
    "published by"
110 PRINT:PRINT TAB(12);
    "RAINBIRD SOFTWARE"
120 PRINT:PRINT:PRINT TAB(16);
    "written by"
130 PRINT:PRINT TAB(14);
    "JAMES HUTCHBY"
140 RETURN
```

A PC WRITES:=

Great! We've tried the Art Studio loader and it works a treat. Despite what you say about the directory buffer, I've got 31 files on one disc and it loads and saves fine. I tried loading a file, altering it and undoing the changes to stir up the memeory and it saved back perfectly. No crashes.

With 41 files (a full disc) Art Studio won't list all the files unless they've been copied straight across with Newsweep. A note; this was all tried with Art Studio, rather than Advanced Art Studio.

If it works that well, then presumably so does Stop Press.

I couldn't make it work with RODOS v2.19 but I'd feel happier if somebody else checked this; presumably the code redirects the drive B disc traffic, away from Rom 7, to whatever Rom number you've entered in the loader and there seems no good reason for it not running.

Anyway, thanks. With members like you, WACCI just has to go from strength to strength.

FAIR COMMENT

Some of the letters in this month's Fair Comment have been waiting a long time to appear on these pages. This is because they were sent in on paper and had to wait for our volunteers to type them up. So if you see remarks like "just received my February issue" don't take them too literally -Joolz.

TREADING THE BAUDS

Dear Joolz, 12 months has slipped by, total addiction. Please find enclosed a cheque for another 12 months 'fix'.

Steve, I'll buy the special fat double edition option and have yourself a break God knows you've earned it in my book. Yes Joolz, the old sod <<eh?>> needs a bit of praise occasionally.

Although I've been a member for 12 months now I've never had recourse to the help lines, until this week that is. I really must mention, at the risk of embarrassing him, the incredibly helpful attitude of young Tony Walker over the Pennines yonder. Not only did he put me on the right track he sent some helpful PD software too. Tony, once again thanks very much. The message to the rest of you WACCIites out there, don't get stuck get on the phone.

There is a down side to all this networking.....Please send me some more discs, order enclosed.

Rob Lawton
Sunny Scunny

<<Yes... And how's your phone bill? But Tony Walker is indeed becoming a legend in his own runtime. The Peters (Campbell and Ceresole) have both been singing his praises here. Personally, I think he ought to be sponsored by Telecom. I've been looking over OMG's shoulder while he's been logged on. Why are they all talking about computers? It's like the man who has to have a car so he can drive to the garage. Men. Luv -Joolz.>>

DON'S BACK

Dear Joolz, I am once more 'legit', as after two years languishing in the loft, the old 4128 is up and running again. Unfortunately that doesn't mean that all is well in my CPC world, as I have forgotten how to use the blessed thing after two years of trying to cope with the PC. I have a mass of 3" discs containing some 1,000 files, none of which mean very much to me after so long. Fortunately I had a program which listed and printed the contents of the whole library and so I can examine most of the contents in the hope that I may eventually recall their purpose.

One reason for resurrecting the machine was to be able to write to you to apologise for the furore caused by my last attempt on a 3 1/2" disc under MSDOS from my PC.

I had something of a shock when I read the article "A passing thought" in the March issue but when I turned the page to find Pete Creosote's essay about deciphering the unreadable, I really began to feel rather hot under the collar. Being a total computer illiterate, I never realised that you would need more than a 3 1/2" drive to read a 3 1/2" disk/c (the PC talks of "disks") Incidentally, I haven't yet remembered how to type a half on this thing; I have a faint recollection of having reconfigured the keyboard and programmed the printer drivers but I still have a lot of head banging to do if I'm to obtain any useful memory recall.

I do remember that a pound sign on a Qume compatible Courier 12 daisywheel is ASCII 28, so I know that I can use setprint to get the £ to print but I have lost the chart I made of all my daisywheels and any keyboard reconfiguration that I used, so it seems I have it all to do again when I find the time. (I think on one of the wheels, a half was ASCII 31.)

I made a number of setprint files years ago, covering both dot matrix and daisywheel printers but I can't recollect which did what, so I also have that to sort out. Unfortunately the versions of Protext for the PC are far more extensive and sophisticated than the old one for the CPC and are therefore of no help at all with this problem.

Another reason for setting up the rig was that my grandchildren and other youngsters were always asking me to put a game onto the PC for them but I am unable to do so, having no experience of playing games on it, added to which it doesn't have a joystick.

I don't know whether my experience with the PC would be applicable to the CPC but I managed to corrupt a disc while producing my magazine some time ago. I tried to save to the wrong disc, which was R/O and therefore I received the usual invitation to "retry," etc. I replaced with the correct disc and answered "retry." When I tried to reload the magazine from the disc, I obtained a garbled mix of files, throwing me into a considerable panic, as it was only two days to publication.

Recovery was a long story that I won't go into now but the explanation would seem to be that the command to save causes the disc FAT (File Allocation Table) to be read into memory to enable it to find a suitable area in which to save the new file. This FAT is then written back to the disc and the new file added. Should the disc be changed due to the situation I described above, the FAT from the first disc is written over the FAT of the second disc, hence the garbled result.

I don't know whether something

similar happens on the CPC but if it does, it might explain some complaints of corruption. Since this incident I normally cancel at the invitation to 'retry'.

Another experience may also be of interest. I decided to obtain the (then) cheapest laserjet printer available, thinking that all my printing problems with DTP would be over. It contained half a meg of memory and would print at four pages a minute, which is slow compared to other such printers but as I only wanted one copy of each page, this hardly mattered. What I had not seen reported in any magazine article was the time it takes to load the printer memory before it begins to print and the large memory required to print sideways (landscape.)

I required landscape as my magazine was printed on A4 folded to A5, so that it had to be printed sideways. Initially I thought that I had a lockup, as it took over twelve minutes to load and then it only printed three quarters of the page; it seems that I required a memory expansion if I was to print a full page of A4 in landscape. After buying a memory board for many hundreds of pounds (cheapest printer?) I found that a full page in landscape took nearly twenty minutes to load. This created considerable problems when making editorial changes as it took twenty minutes to see the results and as you know, every issue requires many such changes. I must point out that this is using Desktop Publishing (Timeworks.)

With longer experience, I now print upright (portrait) at 1.4 times the required font size on A4, the page is then reduced by the printing firm to .7 the size, which is A5 and the pages placed side by side. I do it in A4 and have it reduced as it crispens up the print. The time to load the printer is reduced to about four minutes for one page, which I can just about cope with. I would like to speed it up but an accelerator board would cost about £300 and my plastic has entered self destruct mode.

Printing ordinary letters etc. from Protext loads the memory quite

quickly, so there's no problem but of course that doesn't have the flexibility and 'clip-art' of DTP. Maybe some of my experiences may help others before they leap into the unknown.

I hope that there are not too many typing mistakes with this new effort on the CPC but I miss the extra keys of the PC and the extra functions of Protext V4, (they're now up to V5) but I hope to re-learn to use this machine soon.

One last thing before I go; the last words from OMG were "See you at the end of July, (probably)" since when I haven't received a magazine. I hope that doesn't mean that something horrible has happened to you all at the Schloss but only that it has been lost somewhere by Royal Snail.

I shall try to print this on the daisywheel printer in two columns. It won't have proportional spacing; I remember there was a program called 'Taspro' but I can't yet remember how to use it. Yours sincerely,
'Don' Salter
Shipton under Wychwood

<<Oh Don, you were always 'legit' here. I appreciate the effort you've made to put your letter on a familiar format but thanks to MFU, IBM file transfers are now a trivial task at the Schloss. Still, the 4128 should be perfect for the children... Thanks for the cautionary tale about the laser printer. Yes, we'd heard that for graphics mode printing (which is what you get from DTP) you needed a lot of memory and a fast processor and the first page still takes a while. Did you know that when Apple brought out their first (Postscript) Laser printer, it had more computing power than any computer they made? Of course Protext sends text codes that use the built in fonts so it would be faster. Peter C's been looking over my shoulder and he's butting in. Brute. [[Hi Don. Apologise? Whatever for? Deciphering your letter was more fun than jumping into a barrel full of monkeys. I see you're using Protext v4. I've used Protext v4.2 on an Amiga and although it's very fast and it has

some extra features, in practice I reckon Protext/Promerge/Prospell ROM on the CPC delivers very nearly the same performance. More in some ways. Costs about the same, too. Still, I'd love to get my hooks on v5 for a play Pete.]]

Finished Peter dear? Anyway, Don, as OMG explained last month, the steady flow of WACCIs has resumed so you'll be getting the full complement. And keep writing in, even on the PC. We can cope (with a smirk) -Joolz.>>

BANKING AND POKING

Dear All, many thanks for the straws, Steve, I need never worry about our Glad throwing them away again - you can print this 'cos she'd love to get a mention, (there's no show without Punch,) even if it's only a small one.

By the time you will have received this you will probably have had a 'phone call from me offering my help with any thing you need during the summer holidays.

Although I will be busy with preparation for my new permanent post I will try to spare the time to help with anything you want me to do.

Could you please, as per my 'phone call yesterday, put me down on the help-line for anything to do with RODOS, RAMDOS / ROMDOS, PROTEXT / MERGE / SPELL / UTOPIA, ADVANCED MUSIC SYSTEM, Basic BASIC / PASCAL / FORTH / ASSEMBLER and BCPL, LARGE DISCS, DK'tronics 256K EXPANSION / SPEECH SYNTHESISER, AMX MOUSE, STOP PRESS, Life/the universe/everything. I like chatting and listening but I'm not a good correspondent, (ask Paul Graves.) CP/M is a bit of a mystery to me but I do use some progs like Hisoft PASCAL and SC2. <<Okay, Mike, we'll put you down for "42">>

As a matter of interest, I have stopped using RODOS altogether since I sent the RODOS 2.19 back after review, as my 2.17 is too limiting with PROMERGE+, (can't print) and I've also found a lot of my files getting mixed up - wrong info in the directory. Mind you, I'm not on my own, nor does it seem confined to RODOS. Paul Graves recently sent me a disc with some DW

software on it which had some files - supposedly PD - which turned out to be PASCAL source files??

With regard to the problem I rang about yesterday, (only getting 256K of banked memory instead of 320K with the DATEL extra memory) I tried the suggestion in this months WACCI, (arrived this morning, thank you) this still doesn't work. I can still only find 17 banks instead of the 20 I should have, (and I strongly suspect that one of these is the main 64K.)

Furthermore, what use is the software if you have to resort to OUT to access the flaming thing? With regard to this piece of hardware, you are supposed to be able to put a POKE into the BASIC loader to tell the RSX code to accept that there is more than the basic 256K.

This doesn't work and a look at the code shows that if there is anything other than a 0 at address &2716 then it should put this value in the correct place to recognise the built in extra RAM. It doesn't.

By POKEing the locations after the list of RSX Commands, once the program has re-located itself, (on my set up this is at &9846/4) you can get the machine to say that there is the correct amount of RAM there and even the correct number of banks but saying and doing are two different things. If you check the memory after putting some text in there or a screen or two, you soon realise that the software is only accessing the 256K expansion.

From your article it appears that the 6128's extra 64K and the first block of the expansion both have the same block number, so they cannot be used together - to quote, (pg.14 top):-

```
The 64K Memory and the second 64K
on a 6128 is block 0.
The 64K Silicon disc is block 0.
The 256K Memory is blocks 0 to 3.
The 256 silicon disc is blocks 4
to 7.
```

See what I mean? This might mean that the advertising is being naughty as it

does say that on a 6128 you should have 320K. I'm a bit peeved, (alright I'm as mad as a hatter) because I only spent £99.99 in order to have all of this extra memory.

Having said all this, after trying your attempt at a solution and after three 'phone calls to DATEL they are going to send me another RAM to try out (I think they are very kind - many thanks to Mark) so I'll see if it gets any better.

Does anyone else out there have any suggestions?

Interesting tip number 9999. If you have a strange desire to load a BASIC program into memory whilst you are in the middle of writing something, on PROTEXT, (a review perhaps) forget all that faffing about saving etc.

If you have PROMERGE+ you can SWAP documents, QUIT protext and then LOAD in your program. !P and then SWAP back with your text intact! Wow!. It also works with NEW, CLEAR and RUN. (Great if you want to fool your beloved into thinking you are working.)

Interesting tip number 9998 <<why?>> With ROMDOS installed along with MAXAM the normal cheat for extra user areas, (POKE &A701,u) no longer works. This is because ROMDOS needs the space for the large disc directory. The new place on my set up, (it does seem to be a movable feast) is &A4C6. With BCPL installed it moves again. You'll just have to play around with your own set up and see.

Finally, please find enclosed an offering of mine, (including a .DOC file.) I don't know whether it will be any good but you're welcome to have a look. It' a spell-testing program using the AMX Mouse and it's associated WIMP software.

The program draws a simple screen display with three windows. The top window is filled with letters of the alphabet.

In the middle window there is displayed a word, (for about nine seconds) and then you have to spell the word in the bottom window.

To do this, you pick up a letter icon from the top window (PING!) and carry it down to the bottom. Left button=Pick up, Middle button=drop in

window (PING!) Right button=cancel. The right button is also used to enter the word by clicking on an icon in the bottom left corner.

If you get it wrong you get a 'burp' and have to try again. If you get it right then you hear a rendition of 'Congratulations.' This version of the tune, by the way, owes it's existence mostly to a Mr P Heathershaw. However, I have changed parts of the listing for the music myself (and music is PD isn't it?) Loves and Kisses to Joolz.

Mike Lyons
Tyldesley

<<I'm not sure about music, Mike. I think if you were selling it 'Congratulations' would definitely still be in copyright. I'm sure there's not much of a problem in this case, though. Peter's tried "Speller" and says it's full of fun- and the latest version actually works. Thanks for the program- and for tips 9998 and 9. If you remember, Creosote used the swapping files trick in Playing with Protext to redefine screen characters in the middle of a session.

As for the bank switching using the extra RAM, back at Castle WACCI OMG and Peter use it only as part of a 444K Silidisc. So anyone got any ideas out there? -Joolz.>>

A VERY TECCY LETTER

Dear Joolz, thanks for the March issue of WACCI. Another good read, as always.

On side two of the enclosed disc, apart from this letter, there are two programs that run under CP/M+: PRINTER.COM and SUPERCAT.COM. PRINTER is yet another program to set up a printer. I use it with a DMP-2000. SUPERCAT.COM prints to a printer but not to the screen, a catalogue of all user numbers on a disc and includes the names of files that have been erased. Peter Ceresole, in his reply to Andy Frame of Barrow in Furness,

mentioned the need to keep track of what is where when using a 3.5" drive and this is the reason I wrote the program. It can print all 256 files from a D20 formatted 3.5" disc on a single page of 11" listing paper. For 3" discs, it prints each side in half a page of listing paper, so that both sides of the disc can go on one page. These are for inclusion in your software library if you want them.

While I remember to include it, a response to your enquiry about games reviews ⟨⟨Eh?⟩⟩ Please do not include any at all. I do have some games and I do play some of them now and again but if I want a magazine containing games reviews (and practically nothing else) there are some available. I used to buy them when they had something interesting in them but I no longer buy them and I would not like to see WACCI going down the tubes in the way they have. Can I offer for sale through WACCI some games that I no longer use?

Steve Williamson of Sheffield mentioned difficulties in getting the USERF function to work and wanted it to define a new character set. I have not tried fiddling about with character sets but I have got the USERF function to work, after a large number of abortive attempts, so I hope this will nudge him forward.

The program I've shown in Fig 1. makes use of firmware routines KM WAIT KEY (&BB18) and TXT OUTPUT (&BB5A) and a routine in the extended BIOS jumpblock TE RESET, which resets the screen for normal CP/M input. I know there are easier ways of doing this under CP/M+ but this is supposed to demonstrate the USERF function.

The routine at PRT is started with HL pointing to the text to be printed and with the text terminated by a zero. It invokes the USERF function by calling USERF, a label which has to be set up with three bytes of data before the printing routine is called.

It is the first few lines of START which set up the necessary data. Register A is loaded with the content of address 1, which is then transferred to register L. Then register A is loaded with the content

```
TERESET     EQU &00C2
TXTOUT      EQU &BB5A
WAITKEY     EQU &BB18
;
            ORG &100
;
            JP START
;
USERF       DS 3
TXT         DB "PRESS A KEY",0
;
PRT         LD A,(HL)
            INC HL
            OR A
            RET Z
            CALL USERF
            DW TXTOUT
            JR PRT
;
START       LD A,(1)
            LD L,A
            LD A,(2)
            LD H,A
            LD BC,87
            ADD HL,BC
            LD DE,USERF
            LD BC,3
            LDIR
            LD E,27
            LD C,2
            CALL 5
            LD E,"f"
            LD C,2
            CALL 5
            LD HL,TXT
            CALL PRT
            CALL USERF
            DW WAITKEY
            CALL USERF
            DW TERESET

            Fig 1.
```

of address 2, which is transferred to register H. This makes register pair HL point to an address in the BIOS jumpblock. To find the entry for the USERF function, you add 87 to this address. Please do not ask me why you do this, because I can see no logic behind it at all. Having now got register pair HL pointing the entry for the USERF function, you have to transfer the three bytes of data (which are a jump instruction and

another address) to the place you have labelled USERF. This involves setting up register pairs DE and BC and using LDIR. The data at USERF is now set up for use.

The next bit of code sends an escape sequence to turn off the text cursor. This is a necessary precaution when printing to the screen but would not be necessary otherwise.

To use the USERF function, having set it up, you CALL USERF with an "in-line address." This puzzled me for ages, as nobody explained what an in-line address is. What it means is that you put the address of the firmware routine on the next line after the CALL USERF.

I strongly advise having a go at setting up something simple to make sure that you have got the hang of it before embarking on setting up new character sets. That seems like a mammoth undertaking to me and I wish you success with it.

You will be pleased to know that I have finished my whittering. Keep up the splendid work. Best wishes.

John Shawyer
Woodham

⟨⟨Gee yes John, thanks a bundle. I honestly wish that I felt I could enjoy machine code but I never did. My loss, I guess but I always feel blinded by bytes. Still, anything you and AJ like so much must be good news...

In the mean time, OMG is putting your programs in the library- Peter is touched that his rather random observation prompted you to write SUPERCAT. I know for a fact that he has made some big blank labels and he writes on them IN PENCIL. Now you know what kind of supertechies you're dealing with here. But did you want to know that?

But thanks a lot for the progs. In an era of big discs they should be a real boon -Joolz.⟩⟩

A GRAND-DAD'S TALE
Dear Joolz and Steve, following the surprise and pleasure of having my first letter to you printed in the

March issue of WACCI I've decided to have another go. I showed the letter to my wife Jean who then looked at a computer magazine for the first time in her life. She thought Fair Comment was like Dear Marge but in a different language. Perhaps we should call you Auntie Joolz?

For those who remember "A Grandad's tale" Siobhan Mary was born at ten minutes to ten on the evening of the 3rd of March. I was allowed in to see mother and baby about half an hour later. Great, I thought, we'll just manage last orders. But this was not to be. We got home from the hospital at about one in the morning, had a little drink and thought who can we phone at this time of night?

Well, remember all those type-ins you used to get in books and magazines for names, addresses and phone numbers? Somebody has found a use for one and even got rid of the syntax errors. Just pick up your phone and dial 153 and they will tell you your sister's phone number in New Zealand. Great what they can do with computers isn't it?

Mother and baby are thriving and they're both better looking than Phil Morley. Jean and I are much too young to be grandparents but our daughter didn't think about that at the time.

After you printed my letter I got a few phone calls; I was able to help a couple of readers get the Ram Music Machine cheap. I hope they are happy with their purchases. For anyone still interested, the shop is called Hitchens. They are part of the Littlewoods chain and sell off ex-catalogue goods cheap. Their phone number is 0229 870668.

One of the people who phoned kindly sent me a copy of the DW desktop disc for my trouble. It's quite good but not entirely bug free. The concept of putting groups of files into 'folders' is an excellent one and great for keeping a tidy collection of files on disc: but once I'd put something in a folder I couldn't get it out of that folder again. I had to use a disc editor to change the user number. The program didn't recognise drive B and the unerase program didn't unerase

either. I encountered a few problems when I transferred the desktop to other discs too.

The final phone call was from someone who not only lives locally, he actually works in the same factory and on the same shift as me. He had bought picture disc 4 from you but you had forgotten to include the instruction sheet. He didn't appreciate how to use .DOC files either.

I was able to show him the delights of NSWeeP and we managed to unsqueeze it all and load it into Stop Press.

The lucky fellow has a mouse. To quote my kids "I want one." I understand that the Genius mouse that you sell doesn't work with Stop Press. Pity. I've been considering which add-on/ peripheral to go for next, when funds allow: a mouse, 8-bit printer port, Protext on ROM, etc but haven't made any decision yet. I phoned up Arnor and asked how much it cost to upgrade from disc to ROM and they quoted £20. That seems a bit steep to me especially as they are currently selling the ROM for £25.

Rumours about the super duper GTi version of the CPC due out in the autumn leave me quite unimpressed so far. As I don't often play games extra sound and graphics capabilities have little appeal, especially if they are only available when a cartridge is plugged in; and how much are the cartridges going to cost?

A cartridge with disc formatter, editor, assembler etc, or with word processor, spell-check, mail-merge, database and spreadsheet would be interesting provided it was integrated and more sophisticated than mini-office 2. But I don't hold out much hope. What I would like to see include: more memory/ram disc, 8 bit printer port, 2 disc drives, built-in ROM sockets. Well we'll just have to wait and see. What do others think?

PS. I don't think my subscription has run out yet but if it has please send off the June edition and adjust my subscription accordingly. Yes, I know you put it on the label every time but the envelope goes into the bin very quickly when WACCI arrives. Hopefully the plain brown wrapper will

tell me exactly why he objects to those 'concentric circle' discs? Its just that my local dealer (not the Wave warehouse) sells them, uses them, swears by them and insists he's only had two returned out of the hundreds he has sold. In the meantime I'll be a good boy and not buy any.

Time to finish now, before my subscription runs out. Love to you all. Bye.

Andy Frame
Barrow in Furness

<<It must be subliminal learning then Andy. You caught your potential sub's expiry date in the nick of time. OMG's blipverts on the label must be working after all.

I've asked OMG about the concentric circle discs and he went a paler shade of grey. Seems there have been mucho problems with the construction, not so much drop outs but fall aparts. And they tend to do it inside the drive. Ever tried to get a disc out in three layers? You don't just lose the disc, you lose the drive.

As to the DW desk top disc andy, any desk top that ends up with you elbow deep in a disc editor does sound as though it still has its tiny problems, wouldn't you say?

Congratulations on the birth of Siobhan. Another addition to the great database in the sky I suppose. Still, it's nice to think that Telecom are getting there, even if BR aren't. Love to every one of you -Joolz.>>

THE PRICE OF COMMS
Dear WACCI, I read WoLi in the June issue with a great feeling of familiarity. Although I have never tried to use MEX with the Spectre Comms pack, I have found the instructions received with my Prestel membership to be very disjointed.

First you have instructions for the Spectre Comms pack itself, then instructions for the datachat modem and then instructions from Prestel, none of which seem to know what the other two are doing. I spent two days reading instructions before attempting to log on, then a further day when my

FROM UNCLE CLIVE AND FRIENDS

Dear Joolz- this is an extract from a letter from Graham Fletcher regarding FORTH+ the CP/M plus version of Forth which highlights several bugs? within this version of Forth:-

I have returned your disc to you with the version of FORTH I got from ADVANTAGE. On the disc are the squeezed .AQM, PQM, SQM files and the FORTH.SCR file which is needed by this version of FORTH (FORTH+.COM) for storing the SCREENs used by the EDITOR plus a text (TXT) file of notes on how to use this implementation of FORTH. The disc is used as virtual memory by this version of FORTH.

There are a number of problems (possibly "slip-ups" would be a better expression) I have experienced with this version of FORTH:-

1) Error messages are found on SCREENs 4 and 5. If the interpreter detects an error the SCREEN is changed to SCREENs 4 or 5 and the message displayed.
   You are not told that the SCREEN has been changed but you find out that you have been editing SCREEN 4 or 5 when you list the SCREEN!

2) It is very easy to delete a whole SCREEN from memory and from the disc. It happens when you think you are FLUSHing the buffers of a completed edited SCREEN.
   If the buffers are empty FLUSHing the buffers to a particular SCREEN

effectively puts an empty SCREEN on to the disc.
   The answer is to keep backup SCREENs (particularly SCREENs 4 and 5.)
   Making backup SCREENs is easy using the EDITOR COPY command.

3) When I came to make a copy of my copy of FORTH.SCR to show you the assembler I have added I found that neither NEWSWEEP nor PIP could copy the file seemingly because it is listed in the directory as having a disc requirement for 2000+ K - in fact, my FORTH.SCR needs only 32K. This problem arises when, in error, you try to LIST or LOAD high number SCREENs.
   I have included a hard copy of the assembler in the letter.

4) I have been trying to use FORTH to investigate GSX. To date, I have yet to get into GSX - CP/M usually locks up or resets to BASIC!

I have found the following books useful in trying to understand FORTH:

Starting Forth
by L. Brodie
(Useful Routines, How to set up a simple assembler)

BYTE (Aug 1980)
BYTE Publications Inc
(Articles about the logic behind FORTH)

Forth: The Next Step
by (I can't remember!)
(Useful Routines, particularly mathematical ones. Also routines to convert from Fig.Forth to Forth-79 and vice-versa.)

Forth on the BBC microcomputer
by R. de Grandis-Harrison
Pub Acornsoft
(Useful glossary of FORTH commands- the most complete I have come across. However, there are some commands that are unique to the Acornsoft version of FORTH.)

Forth Techniques
by Olney and Benson
Pub Pan
(Tries to show how FORTH can be used like other computer languages. It works in generalities so watch out for occasions when you have to investigate how FORTH is implemented on the CPC in order to interpret the routines given.)

That was Graham's letter:- in the mean time we're getting on with the Forth series- so watch this space and move into new realms of fun and knowledge.
   Your fondest uncle

Clive Bellaby

《Thanks Graham and Clive- and we're looking forward to having our minds improved here at The Towers -Joolz.》

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first attempt failed. However I have now used Prestel for 6 months and can find my way round very easily.
   Unlike Mr. Campbell I am very aware of the cost of using a modem. I believe the Gnome at Home bulletin board carries all the WACCI PD and much of the magazine content. Downloading at 1200/75 baud (The rate of the cheapest type of modem) is not too bad when you are using a local call rate. About 50K in 30mins, or 30p to BT and nothing to Prestel if you wait until after midnight. However to access a London board from outside London is 10p/min at the cheapest rate

or 5p/min if you are calling from another major city, £3.00 for 50K to BT plus whatever the board charges for the service. I gave that one a miss.
   PS. Does anyone know of any software that will allow me to access a scrolling bulletin board with a Datachat modem?

Linda Smith
Chester
MBX 011189399

《Yes Linda, comms are expensive all right. They're supposed to usher in a new era of instant communication. Isn't it funny how the phone bill

expands to take over the revolution? A few nights ago Peter C. was transferring some 700K of files to the Schloss and it took two and a half hours including the inevitable hiccups. All at cheap local rates but as he said there comes a time when it's cheaper to bring the disc across by taxi... As for the software for the Datachat, come on then folks, let's have some suggestions -Joolz.》

POSTSCRIPT

(Err, DMP 2000 actually.) As well as the ROMDOS loaders <<see further- Ed>> I have enclosed an order for a new ribbon for my DMP 2000. I have been using Ribbon Refresh which works reasonably well but as I am not sure how to get the plastic cartridge open (perhaps it doesn't come open?) I have resorted to filling an old nail polish bottle (one of my wife's I hasten to add) with the ink and using the brush in the lid to apply it to the ribbon.

Switching the printer on whilst holding down the Form Feed button causes the print head to move from margin to margin without printing anything, ad infinitum. This also has the effect of moving the ribbon through the cartridge which spreads the ink evenly over the ribbon.

The only problem is that a re-inked ribbon needs inking again rather sooner than is desirable. When I get my new ribbon I'll have another go at getting the old one open. Maybe I've just been too timid with it?

Jess Harpur
Gillingham

<<Yes, Jess, I think you may have been a bit timid. The DMP 2000 has a very nice arrangement inside its tiny cassette, with a stiff spongy "wheel" that rotates as the ribbon moves and passes ink to it via two small plastic rollers. Inking the ribbon itself is very little use. Use a sharp pointed knife to prize the top off the right hand cassette. If you look closely, you can see the join round the edge. There are little plastic pegs that come apart and go back together very nicely. Put a few drops of ink onto the sponge, wait an hour or so and that's it, done -Joolz.>>

HOO-RAY

Dear Joolz, At last I am more or less back in circulation. House move has gone OK and the number of "I wonder what's in there" boxes is getting quite small.

Incidentally Phillips TVs are ever so robust. Ours rolled across the back of the Metro on the last corner and

survived in perfect condition.

We now have a little computer room set up with everything to hand (when I can find it) and I am expecting the 2nd 3.5" disc drive to arrive any day now.

This idea of local contacts of members willing to share equipment in times of dire need sounds such a good idea I wonder how come I didn't think of it. Put my name, address and phone number forward please.

I may not have been reading my WACCIs too deeply, although I can't believe that but is MFU actually available and where from? I feel as though I've missed some vital information somewhere.

I'm sorry to hear about John Hilton's sight problem, being a keen photographer and a bit of an amateur artist I sympathise. I did some reading for a non-sighted person studying computer programming at our local blind institute. He was learning COBOL and I'm still stumbling along in Basic. If there's anything I can do just let me know.

If you want to include Protext in my Helpline entry and delete "(the original versions)" from the entry as I think I'm getting to grips with the biggies now.

You may find a little goody enclosed if I can find a large enough jiffy bag, from the days when I thought in my innocence that putting programs onto ROM was child's play. Having said that a child could probably have done much better. Use or sell for WACCI they're no use to me now. I will also enclose a leaflet on some CPC Public Domain stuff, if I can find it. I don't know if WACCI knows the author but he might have some other goodies. Cheers,

Ray Barrow
18 Clydesdale Road
Quinton
Birmingham
B32 1DP
New phone number 021 422 2684

<<Ahuh. Moving is hell, that's true. And isn't it true that the time taken to empty those mysterious but irritating boxes stretches as you

reach the end so that you never quite finish unpacking? That's the whole secret.

You did miss a vital piece of information about where and how much to pay to get MFU. That's because at the time OMG hadn't signed the deal with Moonstone but you will have seen the good news in the June issue. GET YOUR MFU HERE. That's the place, Schloss WACCI.

Finally thanks for your thoughts about John Hilton. We're trying to organise a Talking WACCI and we'll let you know how we get on -Joolz.>>

FLASH TONY

Dear Joolz, thanks for the May '90 WACCI, or most of it anyway. I opened my mag to discover pages 2 and 35 completely blank. Page 2 being the important one as I am left in mid air. Its just like I remember at the ABC Minors Cinema Club on Saturday mornings in the 1950's when Flash Gordon was about to be blown to bits the film would freeze and a caption would say "will Flash Gordon escape - come back next week and see." Does that bring back memories to anyone or am I the only slightly aged WACCI person out here?

Where was I? Oh yes, Page 2. I enclose a sae and if you would be kind enough to photocopy said page I shall be eternally grateful, not to mention put out of my suspense with regard to what Steve was going to say about writing for WACCI.

Also in the May '90 mag Martin R. Dew says something which leads me to believe that he is waiting for something from me. If you are Martin I know nothing about it, perhaps OMG hasn't passed the message on.

Whilst on this subject I think it would be a good idea to publish names and addresses or telephone numbers so that we could respond directly to each other if necessary. I don't think this would detract from the club because I am sure that this would provoke greater interest and repartee. What does everyone think? We could always remain anonymous if we wanted by adding a line saying "do not publish

my address or phone number." Anyway Martin please contact me if you want to know anything (well not anything I'm not that good.)

With regard to Peter Cerosole's article re ROMDOS etc I would like to add something re Tasword. Peter says that ROMDOS doesn't work with Tasword without the use of the disc based RAMDOST - agreed but this isn't quite so laborious as Peter made it sound. I have set it up as follows.

ROMDOS defines the CONTROL and ENTER keys when pressed together to produce RUN"DISC, so the first thing I did was to create a tiny proglette named "Disc." This program has two lines: 10 !NOKEYS 'disables UTOPIA key definitions. 20 Run"KDS8PORT 'loads 8 bit printer port. The program clears the key definitions so that they are ready to receive those I have set up within Tasword and then runs the printer port program which is copied onto my Tasword working disc. I have added one line to the KDS8PORT program: RUN"TASWORD. Within Tasword I have added two additional lines: RUN"QUALITAS RUN"RAMDOST In practice the procedure is : 1. Working Tasword program disc in A: 2. 3.5" data disc in B: 3. Press CONTROL and ENTER 4. Lots of buzzing and whirring 5. Qualitas prompts for font names 6. Type names and press ENTER 7. Tasword loads 8. Off I go typing away

As you can see most of what happens is invisible to the user. On the working disc is: KDS8PORT, QUALITAS and FONTS, RAMDOST and TASWORD. This all leaves 4K free but no matter because all data is on the B drive.

There is nothing special about any of this, I did it all by following the relevant manuals.

One further piece of information re Peter's article is on the subject of ROMDOS and CP/M. After many hours of playing with all the various formats I found that D1(718K) is the most compatible with all my programs. Using other formats with Supercalc2 in particular I found that the contents of my spreadsheet files were being shuffled like a pack of cards with the result that none of them worked. Good job I backed up on 3" disc first - let

that be a lesson to all, always keep backups. Since using D1 I have had no trouble whatsoever with CP/M or AMSDOS.

If anyone wants more info on the above please contact me either through these pages or direct.

That's about all for now except to say keep up the excellent work and don't forget my Page 2.
PS. If you think the program "SPELL2" on the disc is good enough please include it in the FSW library.

Tony Buncher
21, North View Ave
Bideford
Devon
EX39 3LJ

<<Hi, Tony. I'm afraid I'm far too young to remember the Saturday Films but OMG's eyes flickered a bit there. Do you suppose... no, he couldn't possibly remember, could he? Anyway, so sorry about the page 2 and by the time you read this it will all have been sorted out. There are huge advantages, especially in quality of reproduction, in using professional printers but the drawback is that we don't staple the magazines ourselves any more, so we miss blank pages if they slip in.

Thanks for the ROMDOS/Tasword tips- I think the point that Peter was trying to make was that if you mostly use Tasword 6128, Basic and CP/M then you don't need to get ROMDOS at all; you can do it all with the RAMDOS disc, which is cheaper. (Was that it Peter? I think he's asleep... Ah, he nodded.) I've also asked him about the disc formats but all he can say is that he's never found any difference between them as far as file corruption is concerned- indeed, to the program (say Supercalc2) they should look exactly the same, as the program knows nothing about the operating system. Could it be, as D1 has 9 sectors per track a la Amsdos and D20 has 10, that your drive prefers one format to the other? Anybody got any ideas?

I'm sure people talking to each other directly won't hurt the club one bit. I've put in your full address; OMG says we'll do that if people ask

from now on (see Ray's letter.) It' better that way, so people won't fin their addresses being published will nilly. I'm sure most members wouldn' mind but some might and we don't wan to upset them.

Finally, it seems to me that Marti Dew wasn't so much asking fo something from you (I think that wa addressed at AJ) as thanking you fo the information in your last lette which was full of goodies- and so wa this one. Thank you Tony.-Joolz.>>

DRAWING THE LINE

Dear WACCI <<yes that's us>> I though it about time I did something t contribute towards WACCI, so here i is...DAVART?

Some of the commands might seem bit odd at first but it does work.
HISTORY... Not having the greates artistic talent I didn't feel I coul justify forking out for an art progra such as Art Studio. But I wanted a art program...

I wanted more than a simple scree designer so the effort in the back o the 6128 manual wasn't much use Having grasped a bit of Z-80 progging I attempted to write my own ar program. After a couple of disasters ended up with DAVART V.9. To my tota amazement it does mostly what I want.

I had a couple of real headaches.. How did you draw a circle in M/c? Couldn't fathom it, so I left it out.

Pattern fill...(pass the asprins).. Several attempts and I still couldn' get it to work properly, I thought i was probably the hot weather.
CREDITS... Anyway, scanning through m library of ACU back issues (all two o them) I came across the answer.

In Programmers surgery, a certai Jeff Walker wrote an article givin the theory behind such a routine Although in BASIC, it worked well Therefore the basis of my pattern fil routine was derived from that of M J Walker.

I hope there's no problem wit copyright etc. because the patter fill is an integral part of th program and there are only a fe lines... By the way it's 6128 only...

When loaded, Ctrl+H will give a list of commands.

Wottle it do? Well, here's a command summary:-

```
^Z + "mode no.": Change modes
^S + "bank no.": Save screen to memory
^R + "bank no.": Restore screen
^D             : Save screen to disc
^F             : Load from disc
^P             : Change current pen
^C             : Select pen size
^L             : Draw line
^TAB           : Select size of box
^X,^X          : Copy and Paste box
^X,^Q          : Copy and flip
^A,^X          : Cut and Paste
^A,^A          : Cut and clear box
^A,^Q          : Cut and flip
^ESC           : Return to basic
SPACE/FIRE     : Execute plot/line
SHIFT          : Speed up cursor
^+SHIFT        : Default cursor speed
COPY           : Eraser
^DEL           : Clear screen
^T             : Text at cursor
^H             : Command summary
^O             : Fill current pattern
^Y             : Slow fill current pen
^I             : Quick fill
^U             : Load new pattern
^J             : Keyboard/Joystick
```

I hope the program may be of some use to someone..

Andrew Ford
Dewsbury
W Yorks

《《Terrific Andrew, we may just be getting WACCI's own drawing program. OMG is going to get his hooks on it just as soon as I can get him away from doing the VAT.

Thank you very much- and I don't think that Jeff will complain too much about somebody in WACCI using one of his routines. But why did you call it DAVART, or have I missed something obvious? -Joolz.》》

```
+-----------------------------+
|        FAIR COMMENT         |
|       9 SOUTH CLOSE         |
|        TWICKENHAM          |
|         TW2 5JE            |
+-----------------------------+
```

BIG AL'S CAT

Dear Joolz, thanx for the advice in the September WACCI. I have not yet received the help sheet you referred to about CP/M (yawn) I intend to order some more FSW so you could send it along with that.

I told you about my program for Disc Labels, which I had sent to AA and you said that it could not be put in the FSW library unless they refused it. Well never mind, it is now superseded by the laziest label printer ever devised by my bone idle self.

Whilst using condensed mode on my CITIZEN 120-D, I happened to run the HARDCAT program and noticed that it would go on to a disc if it was converted to 2 columns instead of 4. I got out the hammer and chisel and chipped a bit off here and there and found myself with a fully automatic label maker. Very little typing needed, just run the program and enter a Title and a disc number and lo and behold, the program does the rest.

My apologies to the gents who prepared the original program, they might not think that I have improved it; but then I'm only an "L plater" and I do tend to bash things a bit.

You will find my effort on this disc, which has been labelled by the butchered program. I think that I have got it ready for the FSW library if you think fit.

It seemed to suggest it's own name, CATLABEL. It uses the command COPYCHR$ which is peculiar to the CPC 6128. If we could get a way to make a 464 do this same job, then the prog could become available to all CPCs. Can anybody help with that one?

To return to the software ordering; can I handle the Piccy Discs with AMX ART, or Tiny Desk Top Publisher? Perhaps I need to have a more elaborate Art package to use them.

You will see that I have managed to find out how to do NLQ with WACCIWRD. I did not realise that it would not work unless both a start and finish code were entered.

So now I have everything under control. I'm learning, perhaps I will soon be able to put up R plates. I managed to get VDE266 started; one

would need a university degree to drive it. I will probably stick with WACCIWRD. Time for bed now, so Goodnight

"AL the L plate" Cooper
Lisburn, Co. Antrim

《《Thanks for the prog, Al. OMG is processing it now, which means it will wend its way onto the FSW lists. But it will have to wait until he's recovered from the World Cup; he's spent a month here in his mirror shades and Bermudas. Do they have Cinzano louts in Italy?

The Piccy Discs hold CPC screen files and need something like Art Studio- I know that AMX Art doesn't handle them. I don't know about TDTP but I suspect that a DTP program won't like full screen picture files.

You do know that you can always put the piccydisc screens up with 'load"PICNAME.SCR",&C000'.

I'm glad to hear that that you like WACCIWORD so well. Your letter occasioned a sharp intake of breath from Creosote who loves VDE almost as much as Protext (but not as much, all right Peter, stop it and not as much as MEX, stop, this idiot is impossible, pax pax where was I?)

I don't know how I can bear it here, honest. But your letters do help a lot, really -Joolz.》》

UP AND RUNNING

Dear Joolz, I think it is most unkind of you to speak about Steve in the way that you do. He's not any of the things you say he is. Recently (whilst you were sunning yourself on the I.o.W. -albeit with a crowd of children), I believed that I had just cause to nag at him day after day over an order I had placed for a disc drive.

The guy was up to his eyebrows in work, preparing and putting together our magazine. Nevertheless Steve found the time to explain the reasons for the delay in despatching my order and was always kind, courteous, polite and amiable 《《we are talking about the same Steve, aren't we?》》 and he even found the time (when the disc drive

was at last ready to despatch) to send me a little message on the 3.5 ins. disc which comes with the drive.

What a pity it was that the drive didn't work. A desperate phone call to Peter C. and although Peter was very helpful and gave a lot of his time (once again thank you Peter) we couldn't get the drive to work. However, the following day a close examination of the cable showed a broken wire and this was fixed in no time (you hear that Peter?)

I use RAMDOS which is rather like having strawberries, the cream comes when you add MAXIDOS into the system. I would go even further and say that MAXIDOS is to RAMDOS what UTOPIA is to Amsdos. It is certainly a very powerful utility. A large number of facilities are available and all are simple and easy to use. The instruction manual is very well written and presents no problems.

If, like me, the first thing you want to do is to get a program typed in or copied over to your new 3.5ins. drive, then, of course you must format the disc. This is a snip under MAXIDOS where you simply run"DISC. and you are presented with a menu, press key number one and you are given an extensive range of selections including FORMAT. Here you are given a choice of RAMDOS formats D1,D10,D2,D20. and also Data and System formats.

A host of other commands are available including BACKUP, CAT, COPY, ERASE, VERIFY etc. For my money if, UTOPIA is Super then MAXIDOS is Super-Duper.

There are other facilities on the disc (what a shame it's not on ROM.) OPTIMIZER, what a splendid utility, toggle between A and B and you can totally re-organise your disc files. Should you have a duff disc then OPTIMIZER will tell you so but if all is well then then you can proceed and you are given a "Magic Lantern" of moving pictures as the work proceeds. The end result is that you have a neat and tidy disc of organised files. Hence you no longer have the disc motor buzzing and groaning (Peter Ceresole's words, not mine) as it drives the head back across holes and

gaps left by other files. Loading now is quick and silent with barely a murmur from the drive.

Get it! MAXIDOS is worth it just for the sheer silence as the machine seeks a file to load. But there are a host of goodies yet. There's a SECTOR EDITOR which is as good as any I've ever come across. One can actually use it, which can't be said for DU (sorry Peter.)

If you don't already have an ARCHIVER (the manual will tell you that they couldn't think up any other name for this utility) then you'll have one with MAXIDOS. You can save to tape any of RAMSDOS formats. Sure you'll need an awfully long tape for a 792K disc. But the manual will explain it all. Me! I'd be lost without my MAXIDOS disc now. It makes my RAMDOS purr like a kitten!

I'm sorry Joolz I did get carried away a bit there. I will be sending you my cheque in continuation of my subscriptions and no, I would not mind missing (not a lot) just one issue our MAGAZINE. During which time poor old hard working, energetic Steve could get some well earned rest and hopefully there wont be too many readers who will find this as bone of contention.

That's all for now. I'm going to get back to MAXIDOS and my 3.5" drive.

Reg Tabb
North Baddesley

<<Oh wow, Reg, OMG's looking all bashful and at the same time proud. How revolting. And Peter says he's glad it was the lead and you've fixed it. We talked about it at the time and he'd completely run out of ideas. But he's got jolly sniffy about DU- just told me that anyone who doesn't have the SOUL to use DU doesn't deserve to enjoy it. He's a silly boy.

But they're both jumping up and down about MAXIDOS and I think I can spot a review coming on. He Who Must Be Defied was saying that Optimize was so much fun to watch that you had to reckon the price of the program in terms of how many goes it would buy on an arcade game. But he has just told me to tell everybody out there that you should NEVER Optimize a CP/M boot

disc. Okay, that was the message.

In the meantime Peter, who has DU on ROM (poseur) says that MAXIDOS would be smashing on ROM too but that 80k into 16 won't go. He also says that the idea of archiving to tape is gruesome beyond the dreams of man.

Err.. Yes. Luv -Joolz.>>

THE NUMBERS GAME

Dear Joolz, I wonder if you or any of your readers can help me.

I enjoy playing about with very large numbers. I have programs in high-precision arithmetic for addition, subtraction and multiplication but not one for division.

I have a program which can calculate the reciprocal of a number and then I can multiply that by the other number but that is very inelegant and time-consuming.

I shall be happy to send a blank disc and pay return postage to anyone who can let me have an efficient program for high-precision division. Yours sincerely,

John Shaw
12, Watermans Way
Wargrave
Berks, RG10 8HR

<<Yours is an unusual request, John but I hope there's someone out there who also has an interest in large numbers and can help you.

I never thought about playing with large numbers- or at least, not for long. What do you do with them? Is it something I would enjoy learning about? Could you write and tell us about it? Please -Joolz.>>

FROM THE LYONS DEN

Hi All, Just thought I'd write and have a moan at you, 'cos I've missed you over the last two months!

Hope the system's settled down now and we can look forward to our regular dose of WACCI at monthly intervals.

The moan I spoke of concerns the hype that one has to suffer with games. For quite a while I've heard/read that TETRIS is the best game since sliced bread, how addictive

it is, how clever its concept is etc, etc, you know the stuff.

Well, (pardon the pun) it sucks! For the last umpty tump months I've been playing a game called FOURTRIS, by Ian Sharpe, which was a freebie in CwtA in November 1988. This game is extraordinarily similar to TETRIS, is extremely addictive, (I've been playing it and only it, constantly for the last two years) has smooth sprites, works on disc and doesn't mind ROMS. It has five levels of difficulty and is gob-smackingly good. It was also FREE.

TETRIS, admittedly costing me only £2.99 is chunky, difficult to load, jerky and slow to respond to key or joystick presses. It is on tape and won't let any ROMS alone. In fact it has all the lasting appeal of a dead frog in a hot summer. The display is murder to watch. (Death by yawning.)

How could anyone call this good when a freebie and I quote, "two page listing" can be so much better? I'm only glad I bought it now and not when it first came out at £11.95 on disc.

OK, so at the time the idea was new - so what? If TETRIS has a bit to tell you how many lines you've filled - who cares? It will also show you the next symbol - providing you can press f1 before the first piece hits the bottom - bully for it! It will even give you useless statistics to say how many of each colour you've been sent - how (un)-interesting. FOURTRIS runs much faster and does all the things TETRIS is supposed to do as a game better. Why can this be? Do software houses/ developers think we're all stupid out here? I think they're right 'cos loads of you bought the game at full price.

I feel better after that. Keep smiling.

Which is what I'm doing because I've just received my WACCI today, having just come back from a weekend in sunny Plymouth, (WHAT a journey!) It's really nice to get an edition in the correct month for a change. Keep it up. But look out, here come the moans:

Firstly, I am still not on the helpline after all this time, (I know Steve, you like to wait 'till there's a gap) but my letter offering help

wasn't even mentioned either Huh!

Secondly, I desperately need some money, so please advertise my DMP 2000 which is in very good nick and costs a mere £50 to a caring buyer. Also the freebies I am giving away, in the form of two copies of Soft 111, (Teach yourself Amstrad Basic) ABSOLUTELY FREE to a good home.

I see I got a mention in despatches from W.A.C.C. Smith; wow, recognition at last.

However he does seem to have missed the point of my letter which was about not letting the punter know if there is a delay - despite, I might add, a letter and a couple of 'phone calls. I know that small businesses have problems but communication with customers shouldn't be one of them so, (in the immortal words of Billy Bradshaw) Nah!

I'm really sorry about Auntie John leaving the fold, he should never have moved to Stockport, they're all snobs. I blame it all on Green, it's his fault John's got pretentions above his station - I'm not one to gossip... but I heard that Green thinks he can do what Ms. Whittaker did, (one strip game and the world's your bi-valve mollusc) - but I know he can't.

I agree with you that the new Plus range are not all that special. I was looking forward to a decent new sound chip but that seems to be the one area which hasn't been catered for. I'm just glad I didn't order one for the school music department, (we got an ST which doesn't work properly, instead) as I would have looked a right prat, (as opposed to a left one or a complete one.)

Why wasn't I given the chance to review ADLAN? I could have done with something to do over the long holiday to keep me busy. I like adventures too, you know. You forgot to say how much it costs as well. That's always useful to know.

Finally, I have just got hold of a copy of X-Press by Medway King and if you like I will do a review of it in the near future, give me a ring if you want me to - or anything else you'd like doing in that line. I may also have some AMS music files you may be

interested in, including two collections of christmas carol arrangements, a Bach orchestral suite and some of my own compositions- again, let me know if you want them.

I feel better after that. Keep on smiling. Loves and Kisses to Joolz.

Mike Lyons
Tyldesley

<<Whoosh- hi, Mike, I'm glad you sent that lot in on disc.... Yes, we're back and AJ is gone- except that he isn't really. His alter ego (John Kennedy) is still well and a member of WACCI. But the poor boy can't write half of AC and chew gum at the same time. Anyway, things will turn up (Uncle Saffron's Diary?) As to reviews- bung 'em in. OMG has never been known to turn down useful copy even if it does sometimes take a few months to fit it in... Joolz.>>

TEACHER TO TEACHER

Dear Joolz, many thanks for the disc labels - just the job. I was surprised that you didn't enclose a note saying how much I owed you. It was not till I read the magazine that arrived today, that I was aware how much to send. I have rounded it up to the £1 coin enclosed.

I was very pleased to read that you are well again. I can appreciate your dread of hospitals but you must admit that, when things get really rough, they are the place to be. I have personal reasons to be grateful... three pulmonary embolisms...

Tricky Dicky Nixon only had one and they made such a fuss! No problems now though, I was put on daily dose of Warfarin some thirty years ago and I have forgotten all about the rough times ever since.

We appear to have something in common. I used to lecture at Polytechs on instrumentation/engineering but, after many years, I did a course on teaching the handicapped and took up a post at Hereward College of FE, Coventry (residential for the physically handicapped- 16+ with good qualifications.) I thoroughly enjoyed

every minute. Later I got involved with various schemes for students with "learning difficulties" in technical colleges, ending up in Derbyshire, where I retired.

I note that you were taking a bit of stick in the September issue's edition of Fair Comment. At least you printed them and that's more than AA or ACU would do. I didn't realise that your staff was as small as 1.5 (who's the half? - Not you Joolz, I won't have that.

Please don't publish this letter - your readers are not interested in such trifles - hence this is not on disc. It is just to wish you well and say thanks for the labels.

As you may remember from my last published letter, now that I'm retired I run a correspondence course in Basic. I was going to offer to write you a series of articles (Twenty Lessons in Basic) but refrained from doing so because you already publish a similar series, viz Alan Tilling's "Very Basic Basic."

Keep healthy and all the best.

Mick Baker
Clowne

<<Dear Mick, despite what you said I feel your letter is so nice that I want to publish it anyway- even if I've had to type it in myself... sigh! Tiny fingers all bloody... If you really think that Alan is covering everything you'd want to talk about, fine but if there's something you feel you could add, do try us with your ideas about Basic. Go on. Alan can take it. And now, who's the half? Well, it's Creosote- although it's hard to count him as half of anything. I mean, all that weight and noise and----

OW! OW! OW! I really must hide that shatter-proof ruler. Anyway, he's a pig. Well, half a pig anyway -Joolz.>>

PRINTER PROBLEMS

Dear Joolz and Steve <<who?>> enclosed is a cheque for 6 months subscription to WACCI.

Could you please help me with a CP/M problem. If I try to print a file from CP/M and the printer is off line (or goes off line during printing) the usual 'LPT not ready' error message appears. If the Cancel option is chosen, control is returned to the program but when a second attempt is made to print, nothing happens. Using DEVICE to examine device attributes shows: LST: = Null device. This can be restored to LST: = LPT easily enough but why does it happen ? How else can I stop a file from being printed from VDE for example, other than switching the printer off line and pressing Cancel ?. The printer is a CPA-80+. Hope you can help, Best wishes

John Holbrow
Dilton Marsh

<<Well, John, this is one of those specialist CP/M queries so I'll pass it straight over to Uncle Clive:-

[[Hi John, I have have looked into this problem which is caused by the belt and braces approach used by operating systems. If the printer is off line, faulty or not connected you get the LPT not ready message. If you press cancel, CP/M assumes that you do not have a functioning printer so it disables the print routines.

There's nothing else for it, it's reset time. Press CTRL-SHIFT-ESC and then load CP/M to reset LST: to its original state.

To halt printing from within VDE press the ESC key. There may be a short(ish) delay while the printer prints out what's left in its buffer. To avoid this delay switch your printer OFF then ON which clears the print buffer. As you've stopped trying to print, the CPC doesn't notice. From your fondest Uncle Clive.]]

Thanks Clive- and here's another one for you from Tony Cole:-

Dear Steve babes <<Oh YUCK!>>, I recently purchased CP/M discs 6 and 7. I am new to this computer lark and need your assistance badly. I have a 6128, Panasonic 1081 printer, cassette deck and multiface 2 attached and run my discs under CP/M plus. The problems are as follows.

1) I have only managed to print out up to page 37 of the Cobol documentation, is this all there is? I have managed to print 180 odd pages of the JRT Pascal documentation.

2) The Pascal documentation gives a list of files which I presume you need to run Pascal. Where are all of these files? I know you're thinking 'what a plonker, they are the squeezed files'. Are they really? And if so how the hell do you unsqueeze them? Yes I've tried; do I need a blank disc to transfer these unsqueezed files on to to make a Pascal disc?

I am about to start stage two of a Computeach course which just happens to be Pascal and stage three is Cobol; this is the reason that I purchased CP/M discs 6 and 7.

Please help, how do you run these programs, I am going bald at 22, hopefully yours,

Tony Cole
Johnstone
Bonny Scotland

[Yeah okay Tony, Clive here, let's do the easy bits first.

Yes the Cobol manual only has 37 pages and again Yes you need to unsqueeze the Cobol and Pascal files. While I think about it, we have the Computeach Open Learning packages at our training centre, want to buy the answers?

Programming in Cobol has now been fully covered in WACCI starting at Issue 39, January 1990 and Auntie John outlined Pascal programming in earlier Issues.

To program in Pascal you need a word processor, VDE266 will do and a disc containing PASCAL.LIB, PASCALO.INT PASCAL1.INT, PASCAL2.INT, PASCAL3.INT, PASCAL4.INT, COMPILE.COM and EXEC.COM.

You write the source code (commands) using the WP package and save it on this disc as an ASCII file.

The ASCII file is compiled using COMPILE 'filename', this compiles the source code and checks for syntax errors. The program is run using EXEC 'filename'.

If you send me a copy of your original discs I will set them up for you, because it will take up far too much space to explain how this is done, TTFN, Uncle Clive.]

YOU CAN CALL ME AL

Dear Joolz, my September WACCI arrived this morning. I have been suffering from withdrawal symptoms and all that, as I awaited this best of all the CPC publications, with baited breath. Is that the right bait? It looks odd! You being a school teacher will surely know if it is correct. <<Nope- it's bated.>>

I have acquired PROTEXT on ROM, with PROMERGE PLUS and ROMDOS, which latter I am using to replace my old RODOS, in which, like many others, I have been dissapointed. I have kept RODOS but not on my Romboard, as I do not seem to be able to switch it off with the link system on my board. ROMDOS gives me none of the problems which bedevilled the RODOS system.

I see from PROPERGANDER a few issues back, that Romantic Robot are sending out a new version of RODOS, which will, perhaps, have the bugs removed from it. I wonder if they will offer a free update to all those who were let down by the present versions.

Also a few issues ago, you remarked to someone that I recommended the WACCIWRD processor and indeed I still do; but there can be no doubt that PROTEXT is really marvellous. What it is like from disc I cannot say but from ROM it is really handy; being there on line at the touch of three keys. It took me a while to discover that I could make a line as long as I liked, by just typing the ruler line past the end of the screen, (which then conveniently moves over by half a width) and so on, to as much as 159 characters, which is as much as my CITIZEN 120-D will put on one line.

I wonder how the PCW debate is coming along. They have one of these machines at my local 'Tech'. I took along a disc and tried to load a file with no results whatsoever. The thing would not even give me a sign on message. Upon asking the tutor, I discovered that it had no resident language at all, in the manner of BASIC in the CPCs. Apparently, one can do nothing, until one loads a special disc and this then provides the BASIC or CP/M or whatever, to enable the machine to be used. This seems to be a

recipe for disaster, as any corruption of the Start-up disc would render the machine useless, until a replacement was obtained. All very confusing to a simple soul like myself. But I dare say that those who use it, keep back-up copies and swear by their machine, as we do about our CPCs.

I would think that the PCW Word Processor could be little better, if at all, than my CPC and PROTEXT or WACCIWRD. Any advantage that it might have, could well be in the available software; but even then, there seems to be most everything that I will ever need, available for the CPC 6128. Now if some bright spark, can come up with a means of transferring software between these machines, we might yet get the best of both worlds.

I see that Phil Craven and Microstyle have come in for another bashing from an irate reader. Although I also had a long wait for my 3.5" drive, I must say that subsequent dealings with Phil have made me think that he really is a nice fellow and helpful to boot. He seems to know more than most, when one comes to hardware problems and I found him willing to volunteer help freely.

It was good to hear from Michael Fecher (Fair Comment, March) on the subject of X-ray corrupted discs. It would appear that we have at last gotten the attention of the right people; to solve the problem, or at least tell us authoritatively that there is no problem.

On this question, I must say that I am still having a problem with WACCI DISC 9. The replacement that you sent me seems to be exactly the same as the previous disc. I can CAT it but most of the programs will not run. I tried to load the FSWFORM.DOC into PROTEXT and got a Read Fail message; but some of the program had loaded. So I tried to print it and got the enclosed print out. Since you had said that I might

have a disc drive fault, I took the disc to the home of one of our Youth Club children where there is a 6128 and they were able to load it without a problem and to copy it onto another 3" disc. The copy works perfectly for me, so where do we go from here? If the magnetic head of my machine is out of adjustment, where do I find the adjusting screws? If I alter the adjustment, will my other discs, saved with the wrong adjustment, then fail? I hope not. It's all very perplexing.

I expect that there is a plus or minus of a few degrees either way in the adjustment and perhaps either my 6128 or yours (or even both of them) is too near one of the limits. If yours was plus and mine was minus, or vice-versa we might well have a problem of compatibility. But so far I have had no problems with any commercial programs from the software houses and I doubt if my machine is maladjusted.

However, upon looking at the print out obtained from the failed load, I am more inclined to think that the problem is due to some form of disc corruption, rather than a drive failure. I wonder if any other members have a similar tale to tell.

Time to go now. My dogs Spot and Goldie send their regggarrrrrds to the cats, God bless...

AL "The L plate" Cooper
Lisburn
Norn Iron

<<Well, Al, it's good to hear from you. I'm glad to hear you're enjoying your new word processor but then, as you may have gathered, the Protext Thought Police have an important listening post here at Schloss WACCI (a quick clearing of the screen using <ESC><CLR> there, as Peter C. glanced my way.) Now, onwards... I think your analysis, of the disc read failure you've been having with CP/M disc 9, is correct. Forget what you see after the failed load; if the other CPC copies the disc properly and you can then read it, the problem must be head alignment. It may only give you problems reading from a disc written to by OMG's machine here, for the

reasons you suggest. Certainly, though, there are no problems with those discs with either our second CPC, the WACCI PCW or Creosote's 6128. Certainly it looks as though the problem is marginal and if your head were realigned you should still be able to read all your existing discs. But a word of caution; although people have been known to do their own alignment, they tend to be unregenrate tech-heads with more nerve than judgement. The advice has to be to get it fixed professionally. Finally, as you will have seen from Peter's review in June, there is "RESCUE.COM" to copy files even from PCW 9512 discs to the CPC. As there's a version of Protext that runs on the PCW, slightly more powerful than the CPC version but a bit slower, you can use both machines and move files between them "seamlessly"- that's PC's word for it. What a pretentious boy -Joolz.>>

DUTCH TREAT

Dear Joolz, Once again, greetings from the country where there is still a market for MSX software. Many thanks to Steve for sorting out the problem with my magazines - you should now have my renewal sub, which I believe should run from May.

Many thanks too for the "Small C" software I ordered; it is very good and free from the bugs in the previous version I had (not from you.) My offer to provide some additional functions is hereby withdrawn - they are all on the disc anyway. I'm happy to go on the helpline for C; I know more about FORTRAN (sorry) than C but I guess a helpline for that would not do much for the value of my B.T. shares.

I'm wondering if my last letter also got lost and/or you did not realise it was on disc - or have I just upset you? Anyway, I'll risk boring you by repeating some of my queries and comments.

Has anyone out there had a Panasonic KX-P1090 printer which refuses to read the 8th bit. Of course I did not find this out until I invested in the XDS port - MJC Supplies were very good

in replacing my first port when I complained it was faulty. anyone else had this trouble? And why has DATTIM in SuperCalc2 been printing rubbish on the screen since my last birthday?

Why is everyone so keen on a mouse? Around 25 years ago, I used a roller-ball (attached to an Elliott 503) and I still think it was so much more convenient. Mind you, having a new job, I am converting from a VAX to a Mackintosh, so perhaps I'll start loving the little rodents.

All the nonsense about X-rays seems to have quietened down. You are quite right in doubting that aluminium foil does any good as aluminium is virtually transparent to even soft X-rays. As a rule of thumb, anything which has a significant X-ray absorption is heavy. Also, I don't know how any reasonable dose of X-rays can alter the magnetisation of the disc.

A few months ago, "Amateur Photographer" reported on a test in which they had passed very sensitive films 20 times through the X-ray machines at Gatwick and Heathrow without any visible effect. In addition, using X-rays would mean a human operator having to look at every single package. So no, sorry, X-rays are innocent.

It is much more likely that metal detectors are the culprits. They generate high frequency magnetic fields which, if strong enough, can totally erase magnetic recordings. These machines can also work automatically, diverting suspect packages for human inspection. Here, wrapping in aluminium foil will give some protection as electric currents in the aluminium reduce the field getting to the disc inside. You'd get even better screening by wrapping in several layers of foil separated by an insulating layer such as cling film.

In response to Steve's question, I think it is a good idea to include the PCW range in your coverage. There is a lot in common between the two machines. I could not agree more with the recent comments about the "glossies." There is a good German

glossy (alas I can really only understand the pictures) covering the CPC, PCW and PC with a large serious content. I'll send you a copy sometime.

Under separate cover, I shall order MFU - it sounds just what I could do with. The letter is on the enclosed disc, hopefully in the correct format.
"Groetjes" and "tot ziens"
Tom Chisholm
Olieslager 10
5684NV BEST
The Netherlands

<<Good to hear from you Tom and Peter says to tell you he's not prejudiced about the Mac either and will actually use one if the only alternative is a typewriter. You know that they still make tracker-balls and that they have clever buttons that allow you to click and drag. You could get one for your Mac... Thanks for the low-down on X-Rays and, much more important, on MSX. Golly, do they still use them in Holland? Is that because Philips made some MSX machines? As for your last letter I can see OMG's eyes rolling. No, I'm sure you haven't upset him but he sends these things down the line to Peter C who sends them back again and between the two of them they lose things... Don't you boys? -Joolz.>>

A LATE LETTER

Dear Joolz, the date at the top of this letter was originally 16th March but due to unforeseen circumstances (the disc with my name and address on, specially for posting to WACCI didn't come back) I am actually writing it in mid-May <<and here we are publishing it in November- isn't time a wonderful thing?>>

I am glad that the disc came back eventually, even though it ended up being a different disc with a 3.5 inch disc label on (I hadn't realised they were the same size.) At least I am back in communication with WACCI HQ. (Oh no you groan!)

I see Steve has a new pot plant. Well it was new in November anyway. Does Auntie John provide them? I hope Steve is watering them properly - the

Strings 'n' Things

By Paul Dwerryhouse

In this, the last look at things decidedly stringy, we'll have a go at setting up a simple find and replace routine, shown in Fig 1.

The search routine is one I have used in a couple of my programs and, because it uses the INSTR command, by BASIC standards it is very fast.

LOOK OUT

Lines 10 to 50 loads your ASCII file into memory line by line (LINE INPUT stops inputting when it reaches a CR). The file is stored in the 'text$' array, ready for the search. At the end, 'n' holds the number of the last line of text.

Line 60 asks you for the word to search for and converts it into upper case, as INSTR is case sensitive.

Line 70 asks for the word to replace it with and also stores the length of the word to find in a variable called 'x', ready for some calculations later on. The command LINE INPUT, which is terminated by a return, is used again 60 and 70 so that you can enter things like commas and spaces.

Lines 80 to 110 form the main loop and line 90 places each of the lines in turn into a variable called 'temp$', converting to upper case so that everything is now uniform.

The sub-routine at line 120 uses the INSTR command and stores its returned value in 'findpos'. If its value is zero then the search has not found our word so return to get another line. If the program reaches line 140 then the value of findpos is greater than zero so print the current line to the screen so we can see its "before" state.

CHOPPITY-CHOP

Lines 150 and 160 chop the current line up into two temporary strings, 'a$' and 'b$', using the value of 'findpos' and 'x', in the LEFT$ and RIGHT$ commands.

Line 170 builds the current line back up for us by inserting 'replace$' between 'a$' and 'b$' and then prints its results to the screen in the "after" state.

Lines 180 and 190 take the new line and converts it into upper case and stores it back into 'temp$'. The program is then sent back to line 120. This ensures that if the searched for string occurs more than once in a line then the routine will pick up all occurrences of the word.

The sub-routine will only return to the main loop if the value of findpos is zero.

EXAMPLES

To use the program is simple but a couple of points before you start.

I will give you two examples of how to use it, the first to replace AND with OR. If you simply type in AND and OR then you will see that, as well as AND being replaced by OR, words containing AND now have these letters replaced as well. A word like standard will look like storard. The way to make this work properly is to input the following when asked for the word to find: <SPACE>AND<SPACE> and the word to replace it: <SPACE>OR<SPACE>. If you wish to replace STANDARD with NORMAL then it is OK just to type it as it stands but you never know, you might have standards, which will become normals. I leave it up to you

but I'm sure I don't have to show how to make the routine work so that this does not happen.

...strinGSANDThings...

THE PROTEXT BIT

A problem which has cropped up for me, as I'm not a Protext user, is how to load a Protext file stored on disc in the normal Protext fashion. The first such file I came across was a file called DISC.BAS on one of the WACCI FSW discs. This would not RUN or allow OPENIN to access it. I used DISC MENAGERIE to find out what it was and it reported a Protext file.

On the same WACCI FSW disc is SDM, the big screen operating system by J. Valentine. In this environment you can load an ASCII file and print to the screen or printer. Whilst playing with this program I asked it load in said DISC.BAS and it did.

Well the answer is very simple and a way that it can be included in a program is shown in Fig 2.

It makes BASIC carry on with the loading and ignore the error.

```
10 ON ERROR GOTO 110
20 DIM text$(1000):CAT
30 INPUT "File to load ";f$
40 OPENIN f$
50 n=1:WHILE NOT EOF
60 LINE INPUT#9,text$(n):n=n+1
70 WEND:n=n-1:CLOSEIN
80 FOR y=1 to n
90 PRINT text$(y)
100 NEXT:END
110 RESUME 50          Fig 2.
```

the attached disc. In total, around 200K of programs, puzzles and data. Ridiculous? Yes.

But in order to compile a dictionary of a full 64K and bolt it into the spare RAM, I had to find out how all those !BANKWHATEVER commands actually worked. This was largely achieved by playing with WACCIWRD.DIC listings and reading back issues of your organ. A small progette written to enable the filling of the second 64K became an end in itself. When it grew to 25K I christened it DICCED. It can best be described as a sort of single-field database for creation of word lists, doing word searches and exploring the depths of the CPC memory unreachable by other means. You also have time to do the Guardian Crossword while it loads a full complement of 8192 8-letter words. And it's on the disc.

The best of DICCED was rewritten and incorporated into XWORD2. If you end up in the bottom left hand corner needing a word to fill -J-P-O-Y the wordsearch still won't find one but it's more fun when you fail. So after reading the XWORD.DOC instructions, running XWORD2 and loading the standard dictionary XWD.DIC you can then load your half-finished crossword puzzle and carry on compiling.

Personally I like to have a theme to my crosswords. I therefore structured the XWD.DIC file so that the least useful words were in the top thousand slots. A merge option allows overwriting of these records with for instance a list of pop music words, or first names. Yes - they're on the disc too. Or make your own up with DICCED.

When the grid is full of words, enter the clues. Note the advanced anagram generator aids. Then print them out automatically numbered just like a real crossword.

But there's also XPRINT2. You can load your puzzle and dump the screen prints of fullsize blank grids and solutions ready for publication. Then you send them to a newspaper and get them rejected.

The disc also contains a selection of cryptic puzzles to illustrate the above features.

The strange thing about all this is

that the programs actually seem to work. I shall therefore probably leave them alone for another three years - unless any else has any bright ideas?

By the way, this is the short version of this letter. As befits a citizen of the home of that other compiler, Dr Samuel Johnson, I quote - "Was there ever yet anything written by mere man that was wished longer by its readers?"

Keith Mortimer
Lichfield
Staffs

《《Here at Castle WACCI the words of the divine Doctor are never far from our lips. If I can get OMG to find a four letter word for "work" (how about WORK?) I'll remind him every time I wake him up -OW! Some days it pays not to be too clever, he tells me. All right. And Keith, thanks for the updates which, I well believe, actually work -Joolz.》》

ALL BOMBED OUT

Dear Joolz and Co, halleluja, today I've got my May WACCI at last. I've read my letter and your reply in Fair Comment with great interest. I haven't got either the CP/M 2.5 stuff nor the PD software I ordered somewhere in April. Perhaps OMG should change my name from Langenhohl to Langenohl in his database. Thank you for giving my address to uncle Clive. We have had an interesting exchange of letters and phone calls since then.

Auntie John asked in his diary for an explanation how my Bomber program works. Bomber is written in Turbo Pascal. I've bought my Turbo complete with graphics libraries for CP/M 2.2 and CP/M +. I have only written two procedures, SYMBOL and SYMBOL_AFTER for the normal CP/M 2.2. But I have written graphics and other firmware procedures and functions for Turbo, JRT Pascal, Microsoft Basic and assembler to run under my expanded CP/M 2.2 with 62K TPA and the Vortex card. They will work under my special configuration only, I'm afraid.

As my holiday journey will start tomorrow in the very early morning I

can only shortly explain how to use the firmware under CP/M 2.2.

The problem when calling firmware routines under CP/M is the handling of the alternate register pair BC' and F'. The firmware uses these registers to store some system variables like ROM/RAM selection and screen mode. If you call any firmware vectors directly like you do it in MC programs under Amsdos you will sooner or later get a crash. But the good news is that there is a routine under CP/M2.2 at the address 0BE9Bh which does the correct handling of BC' and F' automatically.

An example: 'move 300,200' in Basic would be done under CP/M the following way:-

```
ld de,300    ; x-coordinate
ld hl,200    ; y-coordinate
call 0BE9Bh  ; the mystery call
dw   0BBC0h  ; gra move absolute
```

That's all. Quite simple, isn't it? Replace BBC0 with BBC3, BBC9, BBEA, BBED, BBF6, BBF9 and you will get the equivalents to mover, origin, plot, plotr, draw and drawr.

'Call 0BE9Bh' will work only when the 'SLOW' mode is selected. You can switch between FAST and SLOW mode using SETUP.COM of your CP/M 2.2 system disc. The simplier way to set CP/M to SLOW mode is the following:-

```
xor a
call 0BE9Eh
```

If your system is in 'fast' mode it will be set to 'slow', otherwise it will stay in 'slow'.

Please find on the enclosed disc the source files for ZMAC.COM, TEST.ASM, FIRMCALL.ASM and TEST.COM. But please do not add it to the WACCI PD library as I have send the same stuff to uncle Clive a few days ago asking him to find out how to make it work under CP/M+, converting my comments into proper English and send it to WACCI HQ for the PD library.

A last word to the BC' problem.

Small C from the WACCI PD does not work with floats on the CPC machines. If you look at the code of a compiled Small C program containing the float library you will find the killer 'EXX' instruction. Small C will run on the PCW machines only.

Next month when I'll be back from my holiday excursion across some of the former 'East Block' countries I'll tackle the problem of how to access the firmware from within Hisoft-C programs (CP/M version, of course.) I am sorry, dear auntie John but as I mentioned above I've got my May issue just eight hours earlier today and even a mildly famous programmer can't write a complete firmware library for C in a couple of hours whilst finishing his travel preparations at the same time.

Before I finish this letter let me complete AJ's book reviews about the 'C' language.

'The C Programming Language' by Kerninghan and Ritchie, the inventors of 'C' is a little bit on the expensive side but very good. It covers the complete standard of 'C'. A word to German readers: do not buy the German version 'Programmieren in C', it's an awful translation. Best wishes
Dietmar Langenohl
Hussitenstr.4-5/A8
1000 BERLIN 65

<<Oh Lord, Dietmar, another letter that makes me feel like a small creeping creature. I know by now that you've had the CP/M 2.5. When you've had a good go at it, let Clive or OMG know. We have a few copies out to CP/M friends. It could mean the 464 and 664 owners will have a brave new new world opened to them- with luck. Hope your tour of the East was uplifting- you're sitting in the middle of things in Berlin now, of course, rather than on the border. Very exciting. How does it feel? -Joolz.>>

SQUARE BASHING

Dear Joolz, I noticed Andrew Ford's letter in February's FAIR COMMENT. I don't have a DMP 2160 so what follows may be indirection but I recall seeing similar printouts to those that Andrew describes. At the time Professor David Hill, who as far I know still holds the chair of computing science at Calgary University, was staying as a house guest. I challenged him to print a square using the instructions provided with the CPC 664 and DMP 2000. We spent about 3 hours before we gave up. The results we achieved were similar to those that Andrew describes. I came to the conclusion that chairs in computing were issued to those who could hit the keyboard hardest; when I had to replace the keyboard membrane in the 664 I could clearly imagine David's fingers punching the poor old key board.

In the end I did manage to get the machine to print user defined characters. The sad thing is I can't remember how I did it. All I can say is that it took a fair bit of experimenting.

So far this has not been much use for Andrew but here is a suggestion; why not buy Qualitas Plus? It has a good character designer which is easy to use and the fonts supplied are very good for the occasional letter which requires a smarter appearance than normal. The whole set up works with my normal DIP switch setting of 1/3, 1/6 and 2/5 on, the rest off.

To prove that the facility works I enclose a sample of this letter in the Cyrillic script I designed with Qualitas - I don't know whether our kindly editors will be able to reproduce it, or even whether they will think it worthy of reproduction. <<It's fine- we can't reproduce it this time but see my reply.>>

With regard to the 3.5 inch drive saga I enclose some ramblings which may be of some interest.
----[pause of 3 weeks duration]----
That really has blown it. I'll tell you the reason for the pause in a moment if you'll just hang on. The March WACCI has just landed on the mat and the 3.5 inch drive saga seems to

have been done to death, those ramblings are probably useless now.

Public apology time. I think it must have been the full moon but I wanted to find out how to tranfer files from AMSDOS format to PCW format so I rang that nice chap that does for the BBC as a hobby. The poor chap was watching a TV show called "Vertex" or some such name, probably trying to get some tips on producing programs I would imagine. Peter asked me to ring back at the end of the item which was a touch tricky because we don't get live "Vertex" over here, in fact we hardly ever get dead "Vertex" either although the powers that transmit did let us see an awfully good programme on medicine in the year 2000. So I had to wait.

To pass the time I decided to see if my bottle of Arthur Bell's amber falling down fluid was past its drink-by date.

Peter was most helpful, thanx Peter and I enjoyed talking to him so much that couldn't remember whether the whisky was still good or not. A slurp later I realised that the UK and Germany were on different time zones and that there were a lot of Helpliners I had not spoken to. Tony Walker and John Hilton, nice to have spoken to you, thanx for the advice and really sorry that I lost track of time.

I told you so time. In February's Fair Comment I gave Peter a mild wigging for using Utopia calls and while I would hardly call John Carnew a deluge, he proved my point in his March letter, hope you've got things sorted out now, John.

I think a wind-up is in progress. That photo alleged to be Phil Morley doesn't look one little bit like the logo he put on a letter to me where he depicts himself as round faced, smiling and sporting a very smart bow-tie. Even his signature incorporates a chubby-cheeked smile.

A final burst of opinion and then I must dash away. I wasn't very fond of the Laserprint portion of the February WACCI, I prefer a style that I too can reproduce.

Bob Moffatt
Bushey, Herts

<<Peter says *"Vertex"*? He smiled, though. Anyway, your advice to Andrew is right up his street because it was our little PC who reviewed Qualitas in January and he agrees with what you say. Qualitas is very powerful and would lend itself beautifully to getting user defined characters from a DMP. At the time we published some gorgeous chinese characters that had been produced by Guenther Grimm. Guenther, who at the age of 70 was a lively WACCI member and a skilful and enthusiastic user of Prowort, the German version of CP/M Protext, had been chief cameraman for German TV in Mainz and in retirement wrote articles on Chinese as a hobby. He'd taken to Qualitas to produce his Chinese characters in various sizes for his papers. We were sad to hear that Guenther died earlier this year.

In the mean time, now that you're back in Blighty, Bob, we're expecting to hear even more from you.

And speak of the devil, here comes the next letter: -Joolz.>>

MORE MOFFATT

Dear Joolz, just another quick tip, about MFU this time. I suspect that many purchasers of MFU will have RAM/ROMDOS as their second drive and will therefore have patched their .EMS file according to the instructions in the RAMDOS manual. MFU will not work with this version of CP/M, all you get is a cursor on the screen and constant running of the drive motor. No problems with the unpatched version though.

OK, I've weakened, I've thought of something else to write about. Fanfold paper, paper weight and quality and microperforations. Glancing through the magazines I see a wide variety of prices for paper of similar density. At present my

ordinary paper is called "impact pro-line" and claims to be 70 gsm. A box of 1000 sheets cost £19.99 from a local shop. The tractor holes are slightly off-centre, enough for one side of the tractor strip to snag on the printer's feed mechanism causing the occasional feed problem. The microperf's were designed by the devil himself. Initially the paper parts at the dotted line perfectly, lulling you into a false sense of security and then, with just a few cms to go, the paper decides that it doesn't want to be separated from its neighbour after all and a jagged chunk of the text is pulled away with the tractor strip. The strange thing is that the paper seemed to be thinner and of poorer quality than some paper I had which claimed to be 60 gsm but a check of the density showed that both papers were as close to specification as my apparatus could measure.

Perhaps there is more to paper quality than the density and I will leave it to the paper technologists to point out that I was not measuring density but weight per unit area and the differences between linen, pulp and recycled papers. Much more to the point can anyone please recommend a source of good paper at a reasonable price? Yours,

Bob Moffatt

<<Right, MFU is one for Peter again:- [Okay Bob, you're right, MFU patches CP/M itself, so it needs the original version to run, then installs in drive B whatever format you specify (provided it's in the library file.) One thing I didn't make clear in the review, because I hadn't taken it on board then, is that if you then EXIT MFU, the format stays installed and you can use it with any other CP/M program. Protext on a Mini, maybe?]

As to paper quality, we're not experts here; we draft and and print the magazine pages for reproduction on 80 gsm butterfly from Wiggins Teape and that's fine for its purpose but expensive if you're doing roughs or listings. What's the collective WACCI experience on this? Are there any best buys? -Joolz.>>

XMASKWIZ ANSWERS

Steve, here are the answers to the Crimbo Compo that you've printed on page nine, hopefully.

1, English. Deaf people *read* Braille

2, Your name. Read it again and note the first word, the rest is padding.

3, White. If all four walls of the house face south then the house must be at the north pole, therefore the bear must be a polar bear.

4,

	£	s.	d.
Hair style (bob)		1	0
Hide curer (tanner)			6
Singer (tenor)	10	0	0
One stone (14lb)	14	0	0
Bicycle (1^1_4)			1^1_4
Ruler (Sovereign)	1	0	0
Nth & Sth poles (2 far things)			1_2
1 legged woman ($^1_2$ a knicker)		10	0
1_2 top of head (1_2 a crown)		2	6
Pig (guinea pig)	1	1	0
	26	15	13_4

5, a, Palms
b, Soles (of feet)
c, Chest
d, Temples
e, Nails
f, Face
g, Feet
h, Crown

Well, what did you expect it is only supposed to be a bit of fun after all. Have some fun over Xmas. Cheers.

Alan Tilling

the wacci fsw library

THE WACCI CP/M PUBLIC DOMAIN SOFTWARE PROGRAMS

These CP/M programs have all been tested by WACCI on an Amstrad CPC6128 computer. Although the programs have been tested, they are supplied on an as-is basis. WACCI UK accepts no liability for faults or non-operation.

CPM-001: BINCALC ...... 10K - *On-screen calculator.*
CPM-002: COMPARE ...... 10K - *Compares two files for differences.*
CPM-003: LOOK .... 12K - *Views and Edits ascii and binary files.*
CPM-004: NDDT .... 11K - *Improved version of DDT.*
CPM-005: NSWP .... 37K - *Disc and file management utility.*
CPM-006: QK20 .... 10K - *Assigns character strings to keys.*
CPM-007: RASMB .... 17K - *Z80 reverse assembler.*
CPM-008: UNERA .... 2K - *Unerases erased files.*
CPM-009: XIZI .... 22K - *8080 to Z80 to 8080 code translator.*
CPM-010: ZMAC+ZLINK ... 40K - *Z80 assembler and linker.*
CPM-011: CONV2 .... 3K - *Converts CP/M 2.2 files to CP/M Plus.*
CPM-012: LASM .... 10K - *Improved version of ASM.*
CPM-013: LOMD .... 2K - *Improved version of LOAD.*
CPM-014: Z80ASM .... 15K - *Z80 assembler.*
CPM-015: Z8E .... 190K - *Z80 debugging monitor and assembler.*
CPM-016: ZDEBUG .... 31K - *Non-symbolic Z80 debugging tool.*
CPM-017: SMALL-C ..... 157K - *Floating-point version of the language.*
CPM-018: SCI .... 59K - *Small-C-Interpreter.*
CPM-019: EBASIC .... 84K - *Compiles a subset of Basic to m/code.*
CPM-020: LISP .... 81K - *The essence of a Lisp interpreter.*
CPM-021: EPRO .... 37K - *A version of the Prolog language.*
CPM-022: CHEK .... 5K - *Checks disc quality.*
CPM-023: D .... 4K - *Directory utility.*
CPM-024: DISKDOC ...... 11K - *Disc doctor (not sure how it works).*
CPM-025: DISPLAY ...... 5K - *Displays text files f/wards or b/wards.*
CPM-026: ED.DOC .... 22K - *Instruction file for ED.COM*
CPM-027: FORM3 .... 3K - *Allows CP/M+ owners to read PCW discs.*
CPM-028: GREP .... 13K - *Emulates the UNIX grep command.*
CPM-029: LOOKAT .... 3K - *Dumps files in ascii format.*
CPM-030: RPIP .... 8K - *Improved version of PIP.*
CPM-031: SD .... 4K - *Directory utility.*
CPM-032: SETCOLOUR .... 12K - *CP/M 2.2 easy colour-change command.*
CPM-033: SORT .... 4K - *Sorts the contents of text files.*
CPM-034: VLIST .... 2K - *Controls text file scrolling speed.*
CPM-035: WCOUNT .... 7K - *Counts the words in text files.*
CPM-036: LBRDISK ...... 16K - *A library utility.*
CPM-037: DU .... 44K - *Powerful disc sector editor.*
CPM-038: NULU15 .... 82K - *Improved version of Library Utilty (LU)*
CPM-039: WRDCOUNT ..... 26K - *Another word-counter.*
CPM-040: ADVENT ...... 101K - *Big text-only adventure.*

CPM-041: TEAM-GEN ..... 22K - *Scoresheet generator.*
CPM-042: USERFUNC ..... 12K - *A small library of Basic DEF FNs.*
CPM-043: BIO .... 14K - *Biorhythm chart generator.*
CPM-044: CAL .... 6K - *Calendar generator.*
CPM-045: CHESS .... 26K - *CP/M 2.2 version of the board game.*
CPM-046: GOLF .... 26K - *A text-only swipe round the golf course.*
CPM-047: MAZE .... 3K - *Maze generator.*
CPM-048: NEWPUZ .... 25K - *Wordsearch generator.*
CPM-049: OTHELLO ...... 22K - *Version of the board game.*
CPM-050: UKM7 .... 26K - *Comms utility adapted from MODEM7.*
CPM-051: INVENT .... 35K - *Inventory database.*
CPM-052: VDE .... 76K - *Fast, powerful word processor.*
CPM-053: SPELL .... 33K - *Spelling checker with dictionary.*
CPM-054: SCRIVENER ... 194K - *Relational spreadsheet/database.*
CPM-055: JRT PASCAL .. 208K - *Floating-point, standard version.*
CPM-056: JRT MANUAL .. 200K - *Manual on disc for the above language.*
CPM-057: COBOL .... 97K - *NPS Micro-Cobol v2.1.*
CPM-058: FORTH .... 54K - *16K version, can be enlarged easily.*
CPM-059: STOIC .... 62K - *A version of the language.*
CPM-060: EXPERT86 ..... 52K - *A very good expert system.*
CPM-061: MEX .... 141K - *Modem EXecutive comms utility.*
CPM-062: KERMIT .... 28K - *Comms utility for little green frogs*
CPM-063: LUCKY13 ...... 11K - *Lottery number generator and checker*
CPM-064: LOGAN .... 15K - *LOGic ANalyser and frequency counter*
CPM-065: WSCLEAN ...... 4K - *Clears the high bits from text files*
CPM-066: OPT .... 21K - *A Three Pass Optimiser for Small C*
CPM-067: STARTREK ..... 11K - *Scotty's in there again.*
CPM-068: HEXTO .. .. 18K - *Make DATA loaders from HEX files*
CPM-069: MAXELCAT ..... 57K - *Print out a catalogue of all your files*
CPM-070: MAKEASM ...... 17K - *Converts ZMAC files to source for JRTASM*
CPM-071: 80TRK .... 59K - *Stick a 5.25" drive on your CPC*
CPM-072: ZSM .... 24K - *PD assembler*
CPM-073: DISZ80 .... 22K - *Z80 op-codes into Zylog, 696 mnemonics*
CPM-074: CPM2TO3 ...... 7K - *Run 2.2 programs under CP/M Plus*
CPM-075: XRAS .... 160K - *Scrolling bulletin board host program*
CPM-076: MFT .... 3K - *Easy one-drive Multi File Transfer.*
CPM-077: CRUNCH/UNCR .. 17K - *User-friendly file squeezer.*
CPM-078: SIDEWAYS ..... 34K - *Prints spreadheets sideways.*
CPM-079: DISCKITA ..... 31K - *General purpose disk formatter +*
CPM-080: CLEANUP ...... 3K - *Slicker file erasing and typing.*

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CPM-081: SUPERZAP ..... 27K - A full screen interactive disc utility
CPM-082: PASSWORD ..... 3K - Protect your programs from prying eyes
CPM-083: SCRAMBLE ..... 2K - Similar to PASSWORD but trickier.
CPM-084: DISPLAY ....... 5K - A smart text reader.
CPM-085: FILECHOP ...... 6K - Breaks down ANY program.
CPM-086: LIST .......... 3K - Improve the appearance of listings.
CPM-087: MAKE .......... 3K - Simplifies area user changes.
CPM-088: NEWCCP ........ 9K - Adds extra commands to CP/M.
CPM-089: PCW .......... 3K - Read AND write to PCW formatted discs.
CPM-090: EPSETUP ...... 11K - Configuration program for Epson printers
CPM-091: B29 .......... 47K - MSWP workalike, views COM files as well.
CPM-092: MFT+ ......... 3K - Multi File Transfer with two drives.
CPM-093: PRINT ........ 7K - Text file printing aid.
CPM-094: RESCUE ....... 6K - rescues corrupted discs
CPM-095: CRCBUILD ..... 3K - Catalogue your discs. (CP/M 2.2)
CPM-096: MCAT ........ 23K - Catalogue your discs. (CP/M +)
CPM-097: EDIT ........ 16K - A text editor.
CPM-098: FINST ....... 40K - Cardbox filer program.

CPM-099: SHELL ......... 7K - CP/M menu driven environment.
CPM-100: BD04 .......... 6K - Checks discs for bad sectors and files.
CPM-101: ALLDIR ....... 1K - (2.2) All User Area DIRs.
CPM-102: UDIR ......... 1K - CP/M+ All User Area DIRs.
CPM-103: VIEW .......... 6K - Prints ANY file to the screen.
CPM-104: OSB2AMS ....... 6K - Run Osbourne CP/M programs on the CPC.
CPM-105: ANDYBASE...... 56K - Powerful database program.
CPM-106: VDE266 ...... 161K - The ultimate version of CPM-052
CPM-107: XOX ........... 9K - Pascal version of noughts and crosses.
CPM-108: RDMS ......... 55K - Read MS-DOS files.
CPM-109: UNERA ........ 6K - Recover erased files.
CPM-110: STATUS ....... 12K - Displays the current status of your CPC.
CPM-111: PACMAN ....... 24K - CP/M version of the arcade game.
CPM-112: MAKEBATCH ..... 4K - Easy creation of submit files.
CPM-113: ANDYBASE ..... 56K - Powerful databse.
CPM-114: TORNADO ...... 15K - Graphics, colour and sound under CP/M2.2
CPM-115: CLS .......... 1K - Clear screen under CP/M.
CPM-116: INSTALL.VDE ...11K - A guide to installing VDE on the CPC.
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THE WACCI HOMEGROWN PROGRAMS

These AMSDOS Basic programs have been tested by WACCI on an Amstrad CPC6128 computer. They are not Public Domain and copyright resides with WACCI UK and the original author/s. As such they may not be freely copied. Although the programs have been tested, they are supplied on an as-is basis. WACCI UK accepts no liability for faults or non-operation.

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AMS-001: MASTERS OF MIDWORLD . 29K - Graphical adventure.
AMS-002: MINIMON ............. 4K - Mini machine-code monitor.
AMS-003: CHARDES ............. 3K - Big-character designer.
AMS-004: HEADER READER ....... 2K - Colourful tape header reader.
AMS-005: FRUIT WORM .......... 4K - The old caterpillar/fly type game.
AMS-006: OTHELLO ............. 6K - Reversi simulation.
AMS-007: FOUR IN A ROW ....... 6K - Version of Connect 4 board game.
AMS-008: THE WORLD .......... 26K - Graphics demo of Earth spinning.
AMS-009: CHAT ............... 5K - Based on the famous Eliza.
AMS-010: JIGSAW-1 ........... 34K - Educational jigsaw.
AMS-011: EDDY ............... 15K - Good text editor for all CPCs.
AMS-012: XOX ................ 3K - Two player noughts and crosses.
AMS-013: PONTOON ............ 37K - You against the computer.
AMS-014: PROGDOC ............ 33K - Programmer's utility.
AMS-015: HELPING HAND ........ 5K - Decision aid.
AMS-016: BOMBER ............. 4K - Bomb the town & land your plane.
AMS-017: LIFE ............... 4K - The Game of Life.
AMS-018: LOCK'n'KEY .......... 8K - Maze game.
AMS-019: TUNNEL DIVE ......... 4K - Freefall game.
AMS-020: HEAD ............... 3K - Tape or disc header reader RSX.
AMS-021: MEMDATA+ ........... 3K - M/code into data statements.
AMS-022: KEYDEF ............. 2K - Single keypress command typing.
AMS-023: CHAMPIONSHIP DARTS .. 12K - Bonk... Bonk... Bonk...
AMS-024: GRID WARRIOR ........ 4K - Another caterpillar/fly game.
AMS-025: JIGSAW-2 ........... 51K - Educational jigsaw.
AMS-026: STAR CHASE ......... 11K - Space shoot-em-up.
AMS-027: UFO ESCAPE ......... 18K - Maze game.
AMS-028: HEADLESS ........... 3K - Headerless file tape to disc.
AMS-029: BEETLEMANIA ........ 31K - Machine-code game.

AMS-030: DISC ................ 2K - Intelligent disc menu.
AMS-031: SDUMP .............. 10K - Five mode 1 & 2 screen dumps.
AMS-032: ENGLEBERT .......... 8K - Bert game.
AMS-033: GLOBE .............. 7K - View Earth from space.
AMS-034: MULTIPROG .......... 2K - Holds 4 Basic progs in a 2nd 64K.
AMS-035: PIXELPLOTTER ........ 5K - 6128 Etch-a-Sketch program.
AMS-036: STORY .............. 12K - Zany prog that invents stories.
AMS-037: FUNCTDR ............ 2K - Plots graphs of maths functions.
AMS-038: FUNCTSOL ........... 2K - Solves quadratic equations.
AMS-039: FORMULAE ........... 3K - Mixes chemicals.
AMS-041: CGEN ............... 6K - Icon-driven character generator.
AMS-042: EXCAT .............. 5K - Extended cat to screen/printer.
AMS-043: EXPRINT ............ 5K - Prints ascii chars > 127.
AMS-044: PROFORMA ........... 2K - Cassette filing sheets to a DMP1.
AMS-045: NEATLIST ........... 4K - Emulates the BBC's LISTO command.
AMS-046: ROMREAD ............ 3K - Tells you about your roms.
AMS-047: SYMPHONY ........... 4K - Kaleidoscope pattern generator.
AMS-048: AMSIG .............. 173K - Mandlebrot Set Generator.
AMS-049: DRIPZONE ........... 54K - Addictive machine-code game.
AMS-050: DISCED ............. 5K - Disc sector editor RSX.
AMS-051: STARFIRE ........... 25K - Machine code zap-em-up game.
AMS-052: SCANNER ............ 2K - Scans lots of ASCII files.
AMS-053: BOUNCER ............ 4K - A version of Breakout.
AMS-054: BASIC+ ............. 13K - 45 new commands to Basic.
AMS-055: LABEL PRINTER ....... 6K - Single address labels.
AMS-056: MISSILE ............ 6K - A version of Missile Command.
AMS-057: SKETCH & PROGRAM ..... 8K - Turns sketches into prog lines.
AMS-058: SYNTH .............. 3K - 3-channel keyboard sound.
AMS-059: HOTRODS ............ 6K - Race game.
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AMS-060: BREAKOUT 3K	-	*Yawn.*
AMS-061: DEPRO 2K	-	*Load and list protected Basic.*
AMS-062: DIS 5K	-	*Good Z80 disassembler.*
AMS-063: PAIRS 4K	-	*A version of Pelmanism.*
AMS-064: XREF 15K	-	*A Basic cross-reference utility.*
AMS-065: WACMON 16K	-	*Versatile machine-code monitor.*
AMS-066: MUSIC COMPOSER 14K	-	*Compose one-channel melodies.*
AMS-067: LOGOPOLIS 15K	-	*Version of Logo.*
AMS-068: MATHS MAGIC 11K	-	*For numerical freaks.*
AMS-069: BREAKER 3K	-	*Dumps screens to disc.*
AMS-070: DISC MENAGERIE 29K	-	*Good disc utility.*
AMS-071: NOSEY 4K	-	*Edit memory and banks, view roms.*
AMS-072: SPRITES 6K	-	*Mode 0 sprite designer.*
AMS-073: SQUEEZER 4K	-	*Squeezes ascii files.*
AMS-074: CAVERNS OF SKELETOR 14K	-	*Multi-coloured maze game.*
AMS-075: ZENER CARDS 23K	-	*ESP test.*
AMS-076: SUM-VADERS 7K	-	*Educational maths game.*
AMS-077: ASTROSUITE 35K	-	*Find out about space.*
AMS-078: TEXT & PROGRAM 3K	-	*Text screens into program lines.*
AMS-079: WORDY 27K	-	*Advanced text editor.*
AMS-080: TRIVIA QUIZ 72K	-	*2 to 4 player quiz.*
AMS-081: PROTO 16K	-	*Good Z80 assembler.*
AMS-082: CHESS **CLOCK** 10K	-	*For chess freaks.*
AMS-083: DEFFONT 14K	-	*Excellent character generator.*
AMS-084: CALENDAR 7K	-	*Calendar generator.*
AMS-085: SNOOKER SCOREBOARD . . 4K	-	*For snooker freaks.*
AMS-086: PATIENCE 9K	-	*The soitaire card game.*
AMS-087: AUTOLINE 3K	-	*Intelligent graphics demo.*
AMS-089: CRUNCH 8K	-	*Educational Pacman.*
AMS-090: CALCULATOR 21K	-	*Scientific calculator.*
AMS-091: FONT 8K	-	*40-column text in Mode 0.*
AMS-092: FIRMWARE EXPLORER 5K	-	*Similar to Regiload.*
AMS-093: GOMOKU 5K	-	*Hybrid of Othello & Connect Four.*
AMS-094: MENU 4K	-	*Intelligent disc menu.*
AMS-095: OTHELLO 9K	-	*Another version of Reversi.*
AMS-096: UDGRAB 6K	-	*Grab user-defined graphics.*
AMS-097: STYLE 2K	-	*Analyses documents.*
AMS-098: DISCMAP 3K	-	*Maps sectors on any format disc.*
AMS-099: TAPE RSXS 2K	-	*Quick save and load screens.*
AMS-100: VIEWFAX 12K	-	*A Teletext type system.*
AMS-101: GO 15K	-	*Ancient Chinese strategy game.*
AMS-102: DI-SYMM 2K	-	*A colourful pattern generator.*
AMS-103: AGE 4K	-	*GEM type windows generator.*
AMS-104: SNAKES 5K	-	*A game (I think).*
AMS-105: OZ 4K	-	*Addictive peg-and-holes game.*
AMS-106: FRACTAL 11K	-	*CPC conversion of Macfractal.*
AMS-107: TEE-OFF 12K	-	*Golf game.*
AMS-108: PRIMES 2K	-	*Calcuates prime numbers.*
AMS-109: SOUNDFX 2K	-	*Explode, Ping, Bang, Zap RSXs.*
AMS-110: PHARAOH 9K	-	*Maze and beasties game.*
AMS-111: SHIFTY 10K	-	*Educational jigsaw type game.*
AMS-112: DIAMOND MINER 8K	-	*Underground hunt for jewels.*
AMS-113: CRAZY MAZE 5K	-	*Maze game.*
AMS-114: PATHFINDER 8K	-	*Confuzion type game.*
AMS-115: SPELLBOUND 17K	-	*Educational spelling tug-of-war.*
AMS-116: GRAPHIC MAGIC 9K	-	*Mode 0 screen designer.*
AMS-117: JIGSAW-3 .... 92K	-	*Jigsaw game (includes 5 jigsaws).*
AMS-118: WRITE IT RIGHT 12K	-	*Educational word game.*
AMS-119: SHEEPDOG 5K	-	*One man and his computerised dog.*
AMS-120: MONOPOLY 20K	-	*Variant on the board game.*
AMS-121: BACKGAMMON 40K	-	*Plays a hard game, but addictive.*
AMS-122: DOMINOES 30K	-	*Fives and Threes.*
AMS-123: DYS-SYMMII 5K	-	*Colourful pattern generator*
AMS-124: PRINTER 2K	-	*Printer setup utility.*
AMS-125: SDM 11K	-	*O.S. for Bigscreen Programs.*
AMS-126: ORRERY 9K	-	*Watch the world go round the sun.*
AMS-127: MUSIC 13K	-	*Easy music creator.*
AMS-128: ENVELOPE 8K	-	*Fiddle with ENT and ENV commands.*
AMS-129: POSTER 6K	-	*For use with Siren's Print Master.*
AMS-130: CONTOURS 9K	-	*16 colour mathematical contour map*
AMS-131: COMPLEX 9K	-	*Electrical engineers toolkit.*
AMS-132: DIABOLO 35K	-	*Multi format Solataire game.*
AMS-133: ADAM 6K	-	*Prints out A.D.A.M. text files.*
AMS-134: BANNER 4K	-	*Print 10" high lettered banners.*
AMS-135: GLOBE II 45K	-	*Much enhanced of the original.*
AMS-136: SYNTH2 .... 17K	-	*Another Synthesiser program.*
AMS-137: QUIZ 96K	-	*Trivia quiz + speech.*
AMS-138: SDUMP V.3 .... 7K	-	*Sdump suite+ helpful front-end.*
AMS-139: STATS 10K	-	*Statistics program.*
AMS-140: COLPRINT 1K	-	*Prints out text in columns*
AMS-141: SPREAD 45K	-	*A spreadsheet program*
AMS-142: DISC MENAGERIE II ... 28K	-	*Much enhanced version DM*
AMS-144: BIO 5K	-	*Hi-res Biorthym generator.*
AMS-145: NUMERO 12K	-	*The Cabbala made easy.*
AMS-146: 3D MAZE 7K	-	*Can you find the exit?*
AMS-147: PHI 8K	-	*Answers on a postcard please.*
AMS-148: S-LIGHT 3K	-	*Sound to light generator.*
AMS-149: DOMINOES II 10K	-	*The normal dominoes game.*
AMS-150: STRAIGHT 8K	-	*Generates straight line graphs.*
AMS-151: REGILOAD II 13K	-	*Regiload re-visited.*
AMS-152: HARDCAT 2K	-	*Printed disc catalogues.(6128)*
AMS-153: PACPLANT 25K	-	*Auntie John's version of Pacman.*
AMS-154: SDUMP V.4 .... 29K	-	*Now with added AGE enhancements.*
AMS-155: BIOMORPH 9K	-	*Tinker with genetics (6128).*
AMS-156: BANK+ 5K	-	*Manipulates banked memory (6128).*
AMS-157: DECOMP 7K	-	*Load compressed Art Studio files.*
AMS-158: EZMUSIC 14K	-	*Frequency tables become redundant.*
AMS-159: WACCIWORD v2.0....... 87K	-	*WACCI's very own word processor.*
AMS-160: INVGEN 17K	-	*Send other people an invoice.*
AMS-161: KEYBOARD 10K	-	*A comprehensive sound generator.*
AMS-162: GRAFPLOT 4K	-	*Plots graphs I think?*
AMS-163: DCHEAT 1K	-	*A cheat loader for DRIPZONE v3*
AMS-164: SPX 20K	-	*A Stock Market analyzer.*
AMS-165: 3DXOX 7K	-	*3D noughts and crosses.*
AMS-166: LNA 7K	-	*A Logic Network Analyser from AJ.*
AMS-167: PDG 3K	-	*The Prisoner's Dilemma Game.*
AMS-168: AGE128 .... 10K	-	*GEM type windows generator (6128)*
AMS-169: STROBE 16K	-	*Flashy pattern generator.*
AMS-170: MAGIC SQUARES 4K	-	*A bit of a puzzle.*
AMS-171: TYPING TUTOR 9K	-	*Improov yur typping acccurarcy.*
AMS-172: FOOTBALL 60K	-	*A pools predictor (it's a goody.)*
AMS-173: THE KIRK EDITOR 262K	-	*A very comprehensive WP.*
AMS-174: DWERRYBASE 20K	-	*Label printer with database.*
AMS-175: DISPLAY 139K	-	*Magic Lantern Picture show.*

Simply Saffron

This Month

Saffron Trevaskis examines... Wedlock!

Hello my petals. It's your loveable pouting Saffron here, in between the sheets of tranquillity, resting my head on the pillow of fantasy.

I've just come back from a fancy dress party-ette, where anyone who was anybody was there... including my ex-boyfriend.

He was supposed to be in London, working overtime at his business but oh no - there he was with a dress and tights on! I wouldn't of minded but the tights were mine - and he'd torn the seams. The bar-steward!

He had some sloane with him called Jurusha, an old enemy of mine. She said: "I thought I come along to liven up your cobwebbed party". The cheek! But I was ready with a reply: "The only cobwebs 'round here darling are inbetween your legs!"

Eat your heart out Mae West.

BRING BACK HANGING

That's what I say! But only for certain criminals, ie:-
1) *Any girl that turns up to a party with your boyfriend.*
2) *Any man that turns up to a party with a sloane.*
3) *Barbera Cartland, for her "Cruelty without Beauty" make-up.*
4) *Judge Pickles, the sexist prat.*
5) *Plumbers (they usually turn up three days late when you're not around and leave a childish note saying: "We called to unblock your pipes but you weren't in."*

Arrgh! I'm in a violent mood - what I need is either a fistful of trivia or a good hard shag. um... Err... I think we'll go for the trivia...

I'm a good girl at heart and so I don't like to swear. But I've got to say it... *Marriage!* That horrible tradition of self imprisonment just because some bloke got drunk and proposed to you in a rare flood of squishiness. Count me out. Here's a few newspaper and magazine stories I picked up in America that just go to show what a sham it is...

HARD EVIDENCE

Much to Jeremy Beadle's delight (that guy gives me the heebie-jeebies) it's pretty common these days to have the whole embarrassing ceremony video-taped. The San Francisco Chronicle carried a story where the father of the bride brought an envelope with $1,000 in cash to pay for the reception afterwards.

At the last minute he found he couldn't find it. After an agonising search he gave up and handed over a cheque instead.

The wine flowed, the guests ate, the speeches were made and then the video of the service was shown. That's when the trouble started. The father of the groom was seen slipping the envelope full of cash into his pocket. The marriage was annulled.

DOG EAT DOG

In Birmingham, Alabama, a man was arrested, charged and convicted of beating his wife over the head with her pet Chihuahua. He pleaded guilty, adding later that the dog was getting more attention than he was.

SOMETHING OLD
SOMETHING NEW

Streetwise, that's the word to describe New Yorkers. When one couple wanted to get married they found they had to rob banks to pay for the service. All went well, until the police caught them on their third raid. At the trial the judge said: "The wedding dress would come under the heading of 'something borrowed', I guess."

SPUD U DIDN'T LIKE

A Californian woman explained to a divorce court why she wanted to split from her dentist husband.

She said that although he made $40,000 a year he was extremely tight fisted. He never took his family on holiday, never bought his children any Christmas presents, he gave her a wedding ring formerly worn by his first wife and never spoke unless he was giving orders.

In all, the pig only gave his wife two presents during their marriage and one of those was a potato peeler.

WAXING LYRICAL

A Long Island man was stood up at the alter. The poor sap took it rather badly and tried to commit suicide. He filled his bath with water, got in and tried to drop his video recorder in with him. As it overturned however the flex on it tightened and the plug plinged out of it's socket. All the poor angel suffered was a broken ankle.

ooo000ooo

That's all for now my darlings. If you want me I'll be gloating outside the divorce courts. Until next month... relax, stay cool but above all, stay single! Yours in a pony-tail and mickey mouse nightshirt, *Saffron*