## APSSTRAD COMTRGT




## RADICAL REVIEWS ?



ALL THE ITEMS THAT FOLLOU ARE THE ORIGINAL PROPERTY OF BONZO＇S SCRAPYARD．WHILE YOU ARE FREE TO TYPE IN THE UARIOUS LOADERS ETC．PLEASE TYPE IN THE REM STATEMENTS THAT GIVE CREDIT TO THE ORIGINAL PROGRAMERS．

## BONZO UPDATE NELS

PARA ASSAULT COURSE from Zeppelin＝HACKPACK POSTMAN PAT 3 by Alternative is OPTION IIA PRESIDENT from Addictive goes with OPTION 1 RUNNING MAN by Grandslam is BLITZ5 M＇F only． SKWEEK from whoever？？is an OPTION 7 job． WOMBLES from Alternative goes with OPTION 4.


## PUBIRIUIA－Mini BUST

First transfer the first two files using option or the Glenco freebie from A．A． Leave the tape where it stops．Type in this Bust and it will transfer the next two files for you．

20 REM（c）UNICORN SOFTWARE 1994
3 M MODE 1：BORDER 0：INK 0，0：INK 1，26：INK 2，14 INK 3.18
40 KEHORY 4999：LOAD＂SAUELOAD＂，9000：POKE 8000 0：POKE 800164
50 POKE 80日2， $0: P 6 K E$ 8003，8：POKE 8004，1：CALL 16384
60 SAUE＂PIC＂，B，\＆COOD， 4000
 POKE 800388
80 POKE 8004，1：CALL 9000：SAUE＂CODE＂，B，\＆3A84， \＆ 58 A2
90 CALL \＆ 3 A84：REM STARTS GAME
$0 . K$ Now the last file on side one of the tape will still need to be loaded each tine you play it．This file may be able to be transferred but once executed it moves up in memory and occupies the space of the Disc operating system，so if anyone does it LET OS KNOW． Here is the loader to get the last file：
20 REM（c）UNICORN SOFTWARE
3 REM GAME HAS TO PICK UP LAST FILE SIDE 1 40 MODE $1: B O R D E R$ O：INK O，O：INK 1 ， $26: I N K ~ 2,14$ ： INK 3，18：MEMORY 4999：LOAD＂PIC＂
50 LOAD＂CODE＂，\＆ 3 A84：CALL \＆3A84：REM START GAME

## EUENING STAR by Hewson

Transfer the files＂E，S，＂and＂L＂with OPTION 1 Leave the disc in the drive and use this to transfer the code．RUN＂EUESTAR＂when finished．

40 REM（c）UNICORN SOFTWARE
56 MEMORY \＆ 3 FFF：ITAPE：LOAD＂L＂， 24000 ：
POKE \＆4134，${ }^{\circ} C 9 C A L L \& 000$
6D POKE \＆18FC，\＆FB：IDISC：SAUE＂EUESTAR＂，B，\＆18FC， \＆7500，\＆18FC

ANGLEBALL by Mastertronic
20 REM（c）UNICORN SOFTWARE 1994
30 CSE日：RESTORE SOiFOR A＝\＆BE80 TO \＆BEA3：
READ B $: ~ B=\cup A L(" \& "+B \$)$
40 POKE A B：CS＝CS B B NEXI
50 DATA $06,08,21,9 C, B E, C D, 8 C, B C$

80 DATA $\mathrm{BC}, \mathrm{CD}, 00,20$
90 DATA $65,62,6 \mathrm{~F}, 6 \mathrm{C}$
100 IF CS＜ 35 ＇06 THEN PRINT＂DATA ERR＂：END I10 MEMORY E9FFF：PRINT＂INSERT REWOUND ANGLEBALLTAPE
12g PRINT＂PRESS ANY KEY TO BUST．＂；CALL QBB18：ITAPE
$13 \mathrm{C}^{2} \mathrm{LOAD}$＂ANGLEBALL＂：POKE \＆AO3A， 880
POKE \＆AD3B，\＆BE：IDISCICALL \＆AODO

## GIHLIGANS GOLD

Type this in，Place tape just passed first Machine Code loader：

1 R REM GILLIGANS GOLD（Ocean）Bust
दु REM（c）Unicorn Software 1994
30 REM This replaces loader
40 REM For dudes without Bonzo option 2
68 DATA $21,80,01,11,80,5 F, 3 E, 47, C D, A 1$
70 DATA BC，06，04，21，67，9C，CD，8C
90 DATÁ $5 \mathrm{~F}, 01,00,50, C D, 98, B C, C D$
100 DATA $8 \mathrm{~F}, \mathrm{BC}, \mathrm{CD}, 00,50,67,6 F, 6 \mathrm{C}$
11 DATA 64 C 9
 $b=V A L\left("{ }^{\prime}{ }^{\prime \prime}+b\right): P O K E \quad a, b: c 5=c 5+b: N E X T$
130 IF cs〈＞3948 THEN PRINT＂DATA ERROR＂：END
ELSECALL \＆9C40

## A．A．COVERTAPES

CORRECTION The NEBULUS transfer in the last issue had one typing mistake；Thelast two fiqures in line 110 said bc，change these to
sorry．．．．ED．

## TAPE 26 by BARRIE SNELL

Hard to do but well worth the effort：
When you have transfered everything to disc，then do a cot，you will find all the BIN numbers from 1 to g have been used． This makes it difficult to rename them because BAK files are bound to be created， which we do not want．BOOTRACKER uses 1， 2 3 and 4 BIN files plus Quick．boo and Tititun．boo BALLOON BUSTER USes S．BIN only．SYNTAX uses $6,7,8$ and gBIN files．

The easiest thing to do is to take your best FILE copier and a fresh blank formatted disc then copy MENU．BIN and S．BIN onto one side，then MENU．BIN 6，7，8，and S．BIN onto the other side．Now take your your original Tape 26 DISC and ERASE all the BIN files numbered 5 through to 9 ．

BOOTRACKER：Find a disc that has 45 fr fee space，plan ahead what BIN numbers arefree you will need 4 of them and can be re－numbered but in line $2 \theta$ you will need to alter the $x$ values to suit，All you do then is to Run the program on the next page，saue the 4 bin files，tnew file Bootrack．BIN， ＋Quick．boo and Titletun．boo to Your New Disc． RUN＂BOOTRACK＂．Now format the original．

Scrapyard continued....

## 5 REM Save this as "BOO.BAS"

10 REM Convert MENU.BIN from Tape 26 to BOOTRACK.BIN to Run it automatically
$20 \times 1=1: \times 2=2 \times 3 x^{3}=3 \times 4=4$ REM put YOUR $\times$ values here
30 MEMORY \&TFFiload"menu.bin" a8000
46 POKE \&80D7, $62: P O K E \& 80 D 8,1$ POKE \&80D9,0: REM DO NOT ALTER THIS LINE
58 POKE \& $8618, \times 1$ : POKE \& $8623, \times 2: P O K E$ \& $864 \mathrm{~F}, \times 3: P O K E$ 51 REM ${ }^{8}{ }^{2}$ FOR LINE 50 SEE NOTES AND ALTER $x$ to suit 60 SAUE"BOOTRACK.BIN", $\mathrm{b}, 88000$, $27 \mathrm{~d} 3,280 \mathrm{cl}$
70 REM FOR 'HACKERS line 60 saves "filename.ext", binary, loadaddress, length, execution address

## BALLOON BUSTER

Find a games disc with $16 k$ free and that does not use 5 .BIN. Tupe in the program below, then RUN it with the disc in drive that has the MENU.BIN and S.BIN on it.
 When finished simply transfer the New Loader "BALLOO.BIN" and "S.BIN" files to your games disc.

5 REM SAUE THIS AS BAL,BAS
16 REM CONUERTS MENU.BIN TO BALLOO.BIN TO AUTO RUN $20 \times i=5$
30 MEMORY \&FFFF:LOAD"MENU.BIN", \&8000
 50 POKE \&8682, x1:If you want to alter bin number then see notes for BOOTRACKER, alter line 20 to suit
60 SAUE"BALLOO.BIN", $\mathrm{b}, 28000,27 \mathrm{~d} 3,280 \mathrm{cI}$
SYATAX
Needs disc with 47 k free and four bin numbers that are not present already:

5 REM save this as SYN.BAS
18 REM Converts MENU.BIN to SYNTAX.BIN to, auto run
$20 \times 1=6: \times 2=7 \times 3=8: \times 9=9$ REM put your bin No's here
30 MEMORY \&TFFF:LOAD"MENU.BIN 2 , 8000

 286ef. 4
60 SAOE"SYNTAX.BIN", $\mathrm{b}, 88000,27 \mathrm{~d} 3,280 \mathrm{c} 1$



This is the End of Busting the Menu system used by A.A. our sincere thanks to BARRIE SNELL and ALEX (Unicorn) but if we notice any more transfers we will inform you. such as this couple:
URIDIUM Cover Fag packet No 38 is BONZO OPTION 1
RICK THE ROADY is cracked by this BUST from ale
10 REM AA 31 SIDE B
26 REM CORYYight UNICORN SOFTWARE 1993
30 REM INCLUDES it's oun loader
5 CALL \&BBFF:CALL \&BB4E:INK EOBORDER OIINK 1,26
6В PRINT"INSERT"CHR (24)"TAPE 31"CHRT24"SIDE "C'HR\$(24) "B"CHR ${ }^{6}$ (2 4 )
70 PRINT "Insert Destination Disc In Drive"
80 PRINT "THEN PRESS ANY KEY,..: ${ }^{\prime}$ WHILE INKEY $=$ "":WEND
90 DATA $21,40,00,11,87, A 6,3 E, F 2, C D, A 1, B C$
100 DATA $06,{ }^{\circ} 7,21,08, B F, C D, 8 C, B C, 3 E, 02,21$
110 DATA $40,00,11,87, A 6, C D, 98, B C, C D, 8 F, B C$

140 DATA CD, $8 \mathrm{FF}, \mathrm{BC}, \mathrm{CD}, 18, \mathrm{BB}, \mathrm{CB}, \mathrm{BQ}, \mathrm{BO}, 0 \mathrm{E}, \mathrm{FF}$
159 DATA $21, C 8, B E, C D, 16, B D, C D, C B, B C, 3 E, 01$
160 DaTA CD, $0 E, B C, 21,0 F, B F, C D, F E, B E, 06,97$
180 DATA BC, CD, 7 A, BC, $21, C 7, A B, 11,87, A 7,01$
190 DATA $87, A 6, E D, B 8,21,2 C, B F, C D, F E, B E, C D$
Z日も DATA $18, B B, C 3,00,01,7 E, F E, F F C 8, C D, 5 A$
210 DATA BB, $23,18, \mathrm{~F} 6,72,6 \mathrm{~F}, 61,64,69,65,32$
220 DATA $52,49,4 \mathrm{~B}, 20,54,48,45,20,52,4 \mathrm{~F}, 41$
230 DATA $44,49,45,29,49,53,29,4 C, 4 F, 41,44$
250 DATA $72,65,73,73,20,61,6 \mathrm{E}, 73,20,6 \mathrm{~B}, 65$

260 DATA 79, RE, $2 E, 2 E, 18, F F, 00,00,00,00,00$
Z20 DATA *AC*
288 chk=0: $x=$ abe 80

300 a=UAL("\&"+a§):POKE X,
310 x $=x+1$ ichk $=c h k+2$ GOTO 290
320 IF chk < \&
330 call abe80
346 PRINT"DATA ERROR OLD BEAN"


## Bronpropn stprer here

Yup, Bankraid versions 2 and III are ready to go, complete with instructions. Just send a disc with return paid pony express envelope to your favorite Ranch, either Martin's or Dave's. The programs are FREE but a small donation towards paper would be appreciated, as the Instructions take up? pages. So for those of you who sidewinded us into letting you have them early, here are a few stick ups from the past:
ARKENOID Speedpatch
AUENGER Autopatch
BRAINACHE Speedgatch
DIZZY (Original) Speedpatch
EQUINOX futopatch
FUTURE KNIGHI Autopatch
GAMEOUER Speedpatch
GRAND PRIX WHOTSIT Speedpatch
HERBERT Autopatch
JACK THE NIPPER Autopatch
MAGMAX Speedpatch
NEMISIS WARLOCK Speedpatch
PRO SKI SIMULATOR Speedpatch
SARACEN Speedpatch
SILENT SERUICE Speedpatch
STAINLESS STEEL Autopatch
STRIKE Tronicfer
THING ON A SPRING Autopatch
WEST BANK Autopatch
WILLOW PATIERN Keyraid(Hold before last file XEUIOUS Speedpatch
ALL THE ABOUE ARE AUTOMATIC TRANSFERS JUST READ THE INSTRUCTIONS

Now for some MANUAL ones just to break your horses in before hitting the trail.
GAME
GNGLEBALL
AUF MONTY
BLASTEROIDS
BOUNDER
CONUOY RAIDER
COPOUT
DEATHMISH 3
GHOSTHUNTERS
KRAKOUT
NEXOR
RED LED
BOCK WRESTLE
THING?
TRAILBLAZER
BRgo couple seem tef bet the locate 310 and
There are also around 15 INSTALL specials still to come in future issues, but we have alrady had one Masked Raider who has broken two Banks already, FLYSPY and ACADEMY well done Ronald Lalewicz of Perth, and thanks for letting us know, ride em cowhoy. So as you can all see it's quite easy really. Get those discs in but the most important thing PLEASE LET US KNOW OF ANY RAIDS YOU GET TO GO ACROSS, WHETHER THEY ARE LISTED AS BONZO TRANSFERS OR NOT we all need to know, so that a proper data base can be formed. Also no-one seems to be able to get hold of AUATAR 50 BONZO discs may not be available in future. SO TRY THEM ALL ON BANKRAID please....... Dave Muggeridge

# Setting up an ASCII file for printing via a Typesetter 

Dave Caleno

In many cases a prospective author, or authoress, of a book or other literature has set an article on their oun computer using a word processing package. He or she then, as was normal, gives the printer a draft printed Hard Copy of the article, double line spaced, and the Typesetter then resets, or perhaps uses some Optical Character Recognition program to input the text pages, to his own PC or Apple Mac based system. This is all well and good except that the article or book has then been set twice, if manually input, which incurs an added expense to the author of the article.

If the prospective author, using a CPC and one of the many WP packages, has a 3.5 inch disk drive and one of the many CPC-PC transfer programs that are about at the moment, MFU, $2-\mathrm{in}-1,22 \mathrm{Disk}$ (which is the one I received with my 3.5 inch drive and MS800, and with which I have been successful in using converting Masterfile III databases to a Mainframe computer via a PC), then the following may be of interest:

Set the article or book as you would normally, with any coding you want to use for bold, italic, etc., and get a hard copy of the article, there is no real need for it to be double spaced as this copy will only be used as a guideline for checking your article once it is inputted to the printers system.

You now need a copy of the article without using printer codes from the particular word processing package that you are using, and also have the Word Wrapping function if incorporated in the program turned off, this is the file that will be dumped to disc as a pure ASCII file to send to the printer.

A set of Flags or Markers would then preferably be added to the text, in this ASCII file, in appropriate places to show the printer exactly where changes to the format of the text matter will occur. These Flags would perhaps show where the text changes into Italic or Bold print, or to show where the size of the text increases to denote Headings or Sub/Side Headings in the article, etc.
As an example of the Flags the following could be used:
*B for the start of Bold text, then *R to return to normal text; *I to start Italic print and again ${ }^{*} \mathrm{R}$ to return to normal print. (I have used the * here in the example, but if you have used asterisks in your copy, then another ASCII character, that is not used anywhere else in your article, should be used.) For Headings and Sub- or Side Headings, something like: ${ }^{*} 1 \mathrm{~S}$ Chapter One ${ }^{*} 1 \mathrm{E}$, and ${ }^{*}$ IS Chapter Two ${ }^{*} 1 \mathrm{E}$, could be used for an article title or chapter title; these markers are used to show the start and end of the text for the particular heading. Subsequently all side headings would possible be ${ }^{*} 2$ SHeading*2E, and if you have any further levels of headings they would be numbered ${ }^{3} 3$--*3E, etc.
The example codes in the above paragraph should now be marked on your draft copy, in the appropriate places, which should be sent with your ASCII file on disc to the printer, so that he has a visual check of where formats change (see Example 1 below). You would need to consult the printer as to what your particular needs are for Type sizes, Type faces and Style (whether headings are right justified or centred, etc.) of the finished article, most would be able to show you various types of printing and you could then pick the style that you like the best.

## *1SExample 1*1E

We can then set the text and then add the coding to change to *BBold Type*R, and then further on we change to *IItalic Type ${ }^{*} \mathrm{R}$ and then back to the Roman face.
*2SA SUB HEAD centred*2E
Text follows here there and not quite every where in this example of a second level heading.
*3S*BAnother Heading*R*3E
Then back to text
The previous paragraphs should be adequate for the majority of straight forward article and books, just remember that any Flags you put in the text file, you must let the printer know exactly what they are and also what you are trying to achieve on the printed item from them.

## Problems in ASCII file conversion

There are certain formats of text setting that can be used in word processing programs, both for the CPC and the PC, that are extremely difficult to convert from the WP program to output via an ASCII file to a printers system. Some of the main ones are Tabulated matter, Mathematical Equations and Accented Characters.
For conversion of Accents and for normal ASCII codes above 128 it is best to use the system of putting Flags into the text for the printer to change into the required character. The same is true for the input of Mathematical symbols, but please remember to let the printer know exactly what character is to be inserted for each particular Flag.
The ASCII codes for Letters, Numbers and anciliary symbols on the keyboard are virtually standard on the CPC and the PC but codes 0 to 31 and 128 to 255 on different systems are usually totally different, although most PCs have a lot of codes common to other PCs in these areas. It may be an idea if you show the ASCII codes from the CPC Manual that comes with your machine to the printer, so he can compare it with the ASCII codes of his particular system. If you have regular dealings with one printer he would perhaps make up a special ASCII Recode Table, on his equipment, that would take certain codes from your file and automatically convert them to certain sequences of coding that are specific to his equipment.
With Tabular matter a major problem arises because of the different way many printers Typesetting systems treat the Tab commands that are used in WP programs. In spreadsheet style matter, ie tabulated columns of figures across the page the input file only shows a space normally between the columns and there is no coding that the printer can pick up that differentiates between the different columns.
Column 1 line 1
Col 2 line $1 \quad$ Col 3 line 1
Column 1 line 2
Col 2 line 2 Col 3 line 2
Column 1 line 3
Col 2 line $3 \quad$ Col 3 line 3
For this style of setting it is best to return to the Flag system on your ASCII file, and mark each line across the tabulated material such as:

## First line ACROSS the text area

*TSColumn 1*T1Column 2*T2Column 3*T4 etc.*TE
Second line ACROSS the text area
*TSColumn 1*T1Column 2*T2Column 3*T4 etc.*TE

And so on down each line of the Tabular matter until the bottom of the table is reached.

The major problem of Tabulated matter is when the text matter itself is defined as two or more narrow columns of text set side by side under the main single text column. It is easy to do on a WP program using the tab keys, but is virtually impossible to transfer this style of setting via an ASCII downloaded file.

An example of this is as follows:
Suppose you have a main text column of 80 characters width, you then want to set two columns under this, set side by side and of 38 characters width each. You set the tab keys up as column 1, from 0 to 38 characters, column 2 from 42 to 80 characters. When setting to copy in the first line of Column 1 is set, then press the Tab key and set in the first line of Column 2; then return to the first column and set the second line of copy, Tab and set the second line of Column 2; return to Column and set line 3 etc, to the end of the copy for these reached. You would then carry on setting, without using the Tab key the next bit of text to the full 80 column width. When the file is dumped as an ASCII file the Tab commands no longer exist and all that will be seen is the text in Column 1, Line 1 follows by four spaces and then the text of Column 2, Line 1 ; the next line down shows Column 1, line 2, four spaces and Column 2 line 2, and so on down the page until it comes to the full 80 column line again. (See Example 2 below.)

## Example 2

. . . . this represents the end of the text set to the full measure.
We then go into the first We then set our text for column of the doubled up the second column of the text and it seems to ...
This paragraph then returns to the full measure that we have previously been using for our article

Consequently with the above example the text that is being input to the printers system is seen as one line with four spaces in the middle of it. It would be possible for the printer to manually insert his systems particular codes for tabulating the copy, but this would be quite costly and the results would not be satisfactory, as the typeface that would be used on his system is like the proportional printing on a dot matrix printer, in that the different characters of text are of different widths to each other. The tabulated columns would not therefore look anything like as uniform as it appears on your original printout.

The only way round this style of setting, if you particularly want to have tabulated columns like this, is to use the old Flags system again;
*T1 (then set all the text for Column 1)*T2 (then set all the text for Column 2)*T3. (See example 3 for how to set the text for the printer.)

## Example 3

... this represents the end of the text set to the full measure.
*T1
We then go into the first column of the doubled up text and it seems to ...

## *T2

We then set our text for the second column of the narrow measure text
*T3
This paragraph then returns to the full measure that we have previously been using for our article

There may well be other quirks that crop up in the transfer of files from one format to another. These are a few that I have had personal experience of.

## Using the Argonaut's 8 K Sector Disk Copier for a Disc back up

To use the Disk Copying utility for backing up 8K Sector Disks produced by Jason 'The Argonaut' Brooks proceed as follows, I have used the game entitled 'Dominator' for this example:
Load the copier and Run "Menu", then press 1 for the 8 K sector copier, you are then asked to insert the source disk.
Place the original disk in the drive and then press ' $T$ ', after a few seconds the screen starts flashing and the screen colour changes to blue, and you can hear a tone from the internal speaker.
Take out the original disk and insert a freshly formatted disk, then press ' $T$ ' again. Three files, called Disc, Discl, and Disc2 should then be copied to your destination disc.
Reset the computer, and put a disk copier/editor into the drive, I used Goldmark's Nirvana for this. Map the original disk and make a note of the tracks that appear to have several sectors with the same numbers on them. In my case there appeared to be several tracks with the number
\&23. After these tracks the sector numbering should return to normal CPC numerics, it would appear that these start from track number 20. These are the levels for the game.

Use the copier to copy only the tracks on the original disk from track 20 onwards onto the destination disk that you have with the three Disc files already read to them.
Using Nirvana to do this you would proceed as follows: Load the File Management program, and then press ' $D$ ' for disc copy. You are then asked 'Copy disc', press ' Y '. At the prompt 'Copy all tracks' press ' N '. Then you press 20 and 41 for the tracks to be copied.

You should then have a full working back up of the original disc. You could rename the first Disc file to something different, but there doesn't seem much point to that. One word of warning, DO NOT in any circumstances copy any other files onto this disc as they would probably corrupt some of the level information. So keep this disc only for this one game.


If you have been following these little art lessons you should have a feu screens under your belt, the question is "What do you do with them"? I have been racking my brain cells for a few solutions, and of all things a P.D. library gave me some answers, Obviously you could string them together to make a little slideshow, or print them out in colour (see special offer), but have you ever thought of making a deno or converting a screen into overscan.

Unless you are a wiz at machine code or have a $6128+$ and Rob Buckley's SMART+ there is no way you could make a screen in overscan, until quite recently that is. Over in sunny Ireland there's a nice bloke called Mark MoCormick ( Pawn) Who runs The Vault, Ireland's leading public domain library (with software like this he deserves a plug), In his stock he has a selection of PROGRAMMING discs, the ones you will need to do what is covered here and more are No's 1,2 and 4, His copy charge is 25 p per disc side but one thing to remember is that they use different stamps over there, so I suggest you enclose an extra 36 p for return postage, that will cover two discs.


Swap discs and go into Aduanced Art Studio, and select the MODE then load up your SC1 screen. If your in MODE 0 put another box over the broken one, if you don't you know what's going to happen.
Go back into FILES and erase the SCI screen and resave it under an ordinary A, A,S screen for future use, Why full up the disc with four files when one will do the job just as good, it's only a matter of saving the screens as SC1,SC2 etc.
There's three ways you can produce a screen using this package ; Hard, easy and even easier, So I'll start with the latter, You've seen those pictures where the so called artist has painted a series of different coloured shapes and calls it 'Passion at sunrise' then have the cheek to put lots of 0 's on the end of the price, [ I take it you don't call that art John ". Ed] ( No it aint, my four year old could do better, As yet he has'nt sold any but we've had offers $n \mathrm{~J}, \mathrm{R}_{1}$ ) All you do is fill the one screen with different coloured shape and save it four times. Remenber SC1,SC2,5C3 and SC4, Then convert them with OUERSCANL and change the loader as described later.

Now for the hard way... Select CO-ORDS and copy a picture you've done on paper into the four different squares, then it's just a matter of going to
and fro from Advanced Art Studio to Overscal and Overscal. If you do intend to do it this way I suggest you stay well clear of Pattern fills coz they are a sod to get right.


## 

Now its time for the one you've all been waiting for 'The easy way'. The best way I have found 50 far is to design one on A.A.S as normal (or do a Blue Peter), when it's complete use CO-ORDS to split it up into quarters. Save them as WINDOWS $1,2,3$ and 4. You will probably work this out right away but just to be on the safe side here's the CO-ORDS used to convert a whole A.A.S. screen:
SC1 $=320,200$
MODE 0 CO-ORDS
SC2 $=324,200$
SC3 $=320,198$
From these locations DEFINE A WINDOW to the opposite corner.

After saving the windows it's a good idea to clear the screen and load up each part in turn, so you make sure nothing overlaps or there is any gaps. If it's okay it's time for the next bit.
Cut and paste the windows in turn onto the square (don't overlap it) provided by the creator. You will notice that your windows are slightly smaller, obviously this is because the missing part is
 the BORDER, so what you have to do is make each section that much bigger by extending your picture a bit. Remember to save each section as 'filename.SC1', SC2, SC3 \& SC4.


OUERSCA1 is easy, just input the screen name and it converts the A.A.S. screens into one big 24 K pic. Next use the loader provided (OUERSCAL) to see what it looks like in overscan, if it's wrong it's back to the old drawing board. If it's OK but the colours are all wrong, GREAT we're getting somewhere. All that is needed now is to alter the program slightly. Press ESC and edit line 2050 that the fist MODE is the one your using.
Line 11 you change to $A \$=$ your screen": then the inks used. Check that it works, then save it for prosperty. Or you could change the program into a little slide show as I have done.

[^0]
## 

DEMO'S are written by Wiz kids to show off their programming skills, personally I think they are completly boring. To my way of thinking it would be more productive if they put their talents to making a game or even better a serious piece of software.
Demo-makers on the other hand allow us not 50 gifted users the chance to create something which would normally be way out of our reach.
on Mark's PROGROMMING 2 and 4 there are a wide selection of demo making aids. The best is NWC DEMO MAKER, the only problem I envisage is converting a normal screen into a BIN file. Something like this should do the trick.

10 ' Change screen to BIN file
28 MODE
30 INPUT "Name of screen to be changed to .BIN file";ns
40 INPUT "Save picture as:";s\$


78 MODE 2:CAT
80 PRINT"OK SCREEN CONUERTED TO BIN FILE"
If you get the discs I suggest you will find two more creators called Intro-maker and Vorspan Demo Creator, these are very simular in the way they work, the only real difference is that the former allows the user to choose between all three modes, while with Vorspan you can only use MODES 1 and 2. The idea behind both packages is that you alter the listing so that the route the rasters take are different and add a message to be scrolled. Bung in a screen and you have a demo, but (isn't there always a BUT ) you'll need a loader to view it outside the creator, Yes you can use the same loader for both packages, so here goes, the loader:

## 10 ' Vorspan \& Intro maker loader <br> 20 MODE ©: MEMORY \&8FFF <br> 36 FOR col=0 TO 15:INK col, BiNEXT <br> 40 LOAD"pic.scr", \&COOD <br> 50 FOR col=0 TO 15:READ ciINK col,ciNEXT <br> G0 LOAD"Demo.bin":CALL $A$ AOBO <br> 70 DATA $0,26,6,2,1,24,20,8,5,4,15,16,18,10,11,20$

Obviously my favourite as far as these two are concerned is Intro Maker because it lets you use all three modes. Unfortunetly to get different effect with the text the programmer had to muck about with the pens, this means that to get the scroll legible you have to have the right combination of inks, which in turn effects the colours you can use in your picture. or you could try not using those ink numbers in the screen which sounds easiest. In MODE 0 the pens Intro Maker uses are 1,4,5 \& 10. But it isn't as easy as just setting all these to white because half of them give a shadow effect. The way I have got round this is to set them as INK 1,26:INK 4,13:INK 5,26:INK 10,13. You aren't stuck with these two colours, the basic idea is that you try different combinations so that each demo you write looks completly different from any, other, Sounds easy, but there's a lot of demo's out there and to make yours stand out from, the rest will take a lot of trial and error That's why I headed this 'ENTER THE P.D.CHALLENGE'.

## 

Is there any one amongst you who can use an assembler to type a listing in for me? This machine code routine was given to me by an old friend who has moved down to a P.G. It will enable me to have four screens in memory at the same time, so please help.

John Reilly
NOTE* The Extra stamp goes towards club funds.ED

#  



Hurrah! It's the birthday issue. There are two fipages to celebrate, and as an extra bonus, we are giving away loads of games, read on, read on.....

## BABL BEAMOMS

RADICAL SOFTWARE 081-856-8402 TAPE £3.99: DISC $£ 5.99$
This excellent game came from the idea of Croco Magneto Radical Software said that down the grapevine, someone asked them to do something like croco, but better. Indeed they did. The basic concept of the game play is along the same lines, but in Ball Bearing you are given a better mission:
you are, guess what, a ball bearing. You bounce around various landscapes trying to find Niruanah. (You will find their C.D at our Price). (oh! I thought it was a disc copier...ED) The landscaapes you have to travel through are full of deady pantsis spikes and other things that will try and kill you. Each time the ball bounces, it uses some of it's precious oil reserues, that you can only replenish by collecting the rare oil banks.
Scattered around each level are Ball Rings. You have to collect these rings to end the the current part of the game, hoping that the next level, will be the level home.


Life as a Ball Bearing is not that great when you consider you have got gravity, blocks which make you crash, reverse blocks which twist the controls and numerous other objects. which do not aid your plan. But you can go invincible by turning into a fire ball.
Liked this game as soon as I turned it on. air the Music is qood titithas a sort of happy overscan illustration of the Ball in action.
The high score board was not original, although a very good idea which I like. The high scores are the names of the members from "Red Dwarf, if you have never seen it, start watching. The graphics are excellent, There is nothing of this sort to compare it with they are just great, and well suited they even seem just a tad like something out of Sonic the Hedgehog!? The back drop is bright, colourful and very detailed.

The blocks on the first two levels arelike an aztec zone, the next three levels are futuristic looking, 6 and 7 are in what 100 ks like an industrial warehouse, 8 my favorite, like a space zone, gand i0 ancient Rome on an alien planet!!

The pace of this game is what surprised me. The game has perfect scrolling, no screen jumping, like croco. This is one of the best games I have played of it's sort. Excellent graphics, teamed up with good gameplay are this games great points.

## Ball Bearing Round Up:-

GRAPHICS: $95 \%$ Excellent scrolling, would be $100 \%$ if not for the undocumented feature!!
SONICS :
$75 \%$ No in game tune, but apart from that very good.
PLAYABILITY:
UALUE time you play. 88\% Considering the price, wonderful.

## ODEB23L 80\% COSTO

## SECOND OPINION by Dave Muggeridge:

The whole game came as a bit of a surprise after reading the review in another place?? It is like a cross between TITAN, SONIC and CROCO, keeps you going, back to get just that bit further, and that's what a game is all about.... I give it $87 \%$ simply because if it did have any more in gamemusic or effects it would slow things down and spoil it.

## BADOB33 ADD MASD

T ${ }^{\text {number }} 3$ Tree Street, Chimpton, there A lives two really stupid chimps. Their names are Bangers and hash. The game is wors than the 1.U. proggy. You are either of te characters, and are about to "Get up to all sorts of tricks", as the instructions put it.
Mum wants you to go and gather some fruit for a huge pie she is making. Unfortunately it is not that easy as that, because there is a witch, called Mrs snitchnose, who does not, like you (typical). So she sends out her 'pet' ghosts to get you (Don't you mean bogy's. ..ED) What nice people live in Chimpton!. The graphics are bad, and could have been designed by the same person that designed the skoda. The sonics are worse. The detection is awful, dying when you have not even touched, ghost, or can only just see the witch, it's not my idea of fun. This must be one of the worst games i have ever reviewed...... $10 \%$,....' Buy this and die of boredom. (000 You little Monkey you.... ED)
崟


## THOMAS THE TANK ENGINE

## ALTERNATIUE-Budget Tape 0977797777

Thomashas todocertain things in this game, such as; Take the little brats to the sewage works. Take the rainforests to the timber yard, nice environmental things like that. okay, so I amexaggerating it a bit, he has to take the children to the beach, and the logs to the timber mill, was I lying that much?? Actually this game is pretty good, seeing as it is aimed at 4-5 year olds.
In this game you drive around find the carriage (always the same one !). Then take it to the Bridge, Hospital or whatever. Quite often another Engine will enter the screen, if it crashes into you, you have to go back to the beginning.


At the start of this program there is the Thomas music we all know and love, come on, we have all seen it at least once.) Unfortunately, (or fortunately, depending on which way you look at it) this music is not in the game, just a clamping noise, which is supposed to resemble steaming along a track.
Colour does not happen to pop up much in this game, The ouerall gape graphics do not come up to much either. But when you are 4 you may not think about that.
The background is in two colours and the rest is black and white. There is no scrolling... a agh. Endless jumping from screen to screen. Although I may act it sometimes I AM NOT 4-S years old, your little darlings may enjoy it very much.
SECOND OPINION: This is a Mode 1 , Spectrum Conversion. The train Jumps around corners and whether aimed at youngsters or not, should run a lot smoother than this, trying to reverse and go up is too hardfor 4 year olds. .....................48\% ONLY. And that's pushing it.....

## 

QUICKSHOT FROM BONDWEL
The Python Joystick is available for the Anstrad. Yes, not many people still make things for the strady, but Bondwell have. You see, it's all done with switches. You can use this stick with Atari, Commodore, MSX, Sega, Amstrad CPC's and so on. So if you own more than one type of computer, it is very handy.

The Python is bulky in design, but nice to hold. It has a hooded head, and two fire buttons. The base is spread and neat. It has suction pads.

The versatility of this joystick is very good. It is easy to manoeuure, and follows my directions. It is very sensitive, but not overly 50 .

The only thing I have against this stick, is the bulky base, the back of which is heauy. The front, however is small, spread out and very light. This sometimes causes the stick to tilt backwards, a bit annoying. All this aside, the PYTHON is a very durable joystick, and it's sleek black design my favorite colour, enhances game play, (Scream AAGAGH I knew you would say that abdut black AGAIN....ED)
The price is around $\mathrm{E} 16 . . . . .$. SCORE $83 \%$

## 207inid

By KIXX, Budget tape
021-625-3311


What can I say about this game that has not been said before?. This little game is a cute platform aduenture.
Tam and Rit have to save their fairy yillage and their mother, who is locked up in a high tower, Luckily for them, Tam and Rit have inherited Sheesanomo Rods and Rainhow Shoes, These allow them to build ladders and encircle their enemies with their rods, then bash them until they change into bonus points etc....
This is a very colourful gäé. It's fast action and enjoyable game play, with sicklysweet characters. Each level comprises of just one screen, and about 3 or more bad guys. If you collect all the flowers on screen, which is sometimes very difficult, you have the chance to collect the letters which spell the word EXTRA, then you get extra points and lives. A good platform game, which most people will find enjoyable at some point in their lives. The only let down on this game is possibly that there is no in-game music, and its quite easy to get killed, a little frustrating point. other than that a good game, especially on budget.

## E1\% ovarall

## To7BAYEN by Jomn Rerfog

Send Disc, S.A.Eteit to J.Reilly, 15 North Green, Forches Estater Barnstaple, North Devon, EX32 8EA****REUIEWBYD.MUGGERIDGE This is a G.A.C. Adventure you know the ones that you type in what is to happen next, then find it doesn't. Well this one is good news because you usually find it does happen. After getting the first uersion to Play Test from John, we made a few comments and John has re-written this whole game not just once but twice!!! Take note other games writers!!
The general plot is that you are a Teddy that has been 50 well loved that he is now a tatty teddy, and gets thrown away and goes to that eternal resting place in the sky Toyhaven. So all you have to do is get Teddy repaired and back to earth by Xmas.

The game loads and you are hit with a very good overscan screen, followed by another animated one, then comes the game its self. A compass is included to help find your way, nice touch John. The Graphics are possibly the best I've seen in a GAC game, some euen move!. The problems are a little unusual, a train, with no apparent way of buying a ticket, a gateway that gets locked behind you and you can't get back. action man who refuses to move. But with a little examination and imagination you will find gourself wandering around at will. Hardly ever dying (Hurrah), and enjoy the problem side verymuch. Well
above average, excellent Ualue.
\& ${ }^{\circ} / 6$ (9)


RADICAL SOFTWARE 081-856 8402 Tape or Disc


If you are a Plus owner and like Art on computers, just imagine being able to use gour 4896 colours to their full extent, and if this isn't enough, being able to do full width full height screens (overscan). Then to cap it all you find that the pictures will load into non plus machines, but with obvious loss of some colours.

Interested, so you should be. This program has most of the art facilities; Transparent Inks, Line Types, Patiern Fill, Windows spray etc. But it also contains a few bonus items, TEXT STYLES which allows any Size, Colour or Font. This is achieved by loading the chosen font, placing the pointer over the text file and press fire, a box appears that is the size of the text, you can adjust this size to whatever you require, then position the box and type in the text. I think this is the only art package that will allow this to happen, and it is brilliant.
Animation and Frames can be run using the file on the disc SPRMAK, this allows you to design 64 frames of sprites and animate them using the Zoom window, and Rob tells me that he has now added a sprite routine that works outside the Smart+.

So it is almost perfect, why almost, well there is no Rotate facility, When you first use the program you will find some of the Files on the disc are not documented, but a quick RUN of each file sorts that out. As with all Art packages it will take a couple of goes before you get to grips with all the utilities. If you use the ouerscan mode you will ind you can't run a basic progiam after the Screen loads without clearing the screen, although machine code programs runfine.

So in summary, this is the best package of its kind that $I$ have had the privilage to test, and at $£ 14.95$ on disc or E13.95 on tape, very good value for money. So with the couple of items mentioned above:

## 86\% OVERALL

## PTM B1E PONPO PROMES

It's the Birthday Issue and we have gone competition crazy. Just take a gander at the THREE quizes below:

WIN: PREHISTORIK 2 AND FINAL FIGHI:

QUESTION: WHAT ROUND UP SCORE DID ANGELA GIUE | PREHISTORIK 2 | WAS IT | (A) $75 \%$ | (B) $85 \%$ |
| :--- | :--- | :--- | :--- |

## COMPO NUMBER ? WIN: BANGERS \&ASH, THOMAS THE TANK BALL BEARING AND RODLAND

QUESTION: WHAT NUMBER IN TREE STREET DO BANGERS AND NASH LIUE AT?

IS IT (A) 3 (B) 13 (C)23
COMPO NUMBER 3 PLUS OWNERS ONLY::: HIN SMART +
ROB BUCKLEY OF RADICAL WROTE AN GDUENTURE IN HIS EARLY DAYS:

QUESTION: WAS IT
(A) DAY OF THE SUN
(B) ONCE A KNIGHT IS ENOUGH
(C) EUE OF SHADOWS

Answers to $\quad$ NGEELA at the usual address BUT please state clearly which answer is for which compo. (We really are mad, just look at what that lots worth, but someone HAS to win it.... ED)

THE WINNER OF SUPER COULDRON WAS KEUIN HUDSON OF YORKSHIRE..... Well done its on its way...


READERS SURUEY Lots of you have not returned these forms, please send them in A.S.A.P, without them I cannot see the overall views on the club.

However some asked for hints and tips on games......Just write to Angela. Which Games?

PLEASE NOTE THIS ISSUE IS SPECIAL: We will not be producing future issues like this or this size.

## TRAKERS REDUCED

If any of you want it send a $3^{\prime \prime}$ Disc $+E 5+S A E$ to Gary \& Scott Kennedy, 32 Lostock Rd. Seedley,Salford, Greater Manchester, MS LLH If you do not send a disc you won't get it.

AMSTRADS DEMISE
People ask for more games, more serious reviews. Now here is the Dillema. Last issue we reviewed the best Data Base yet, it was P.D. and Barrie made it clear that he would still send it out.... What happened. only one was requested, The same is happening in the games area, very few are being bought... The software Companies are losing heart and ALL talking about leaving the fomstrad SO IT'S UP TO YOU if you buy, then we may be able to keep things going a bit longer.

## AMSTRAD RIP OFF

If any of you are thinking about phoning AMSTKAD PLC, then think again. All you will get is a message about other numbers to call, ALL 08g1 NUMBERS that are charged to you at 36 P per minute CHEAP RATE, but as these numbers are only available at peak times you could pay $48 p$ per minute. Then you will be put on hold, transferred all over the place before you get the right person, only to find out they don't know anything about CPC's anyway. Hell done Amstrad, you really support your customers well.

AMSTRAD ACTION BTNDERS Are still available from A.A. Frice ES.99Each, not sure about postage.

## CPC THEN

The people that have asked about CPC NOW please note: James Hockney has closed this fanzine. He is thinking of starting a NEW MAGAZINE. If you have subscribed to CPC NOW and can't get your money back, or simply want to talk to him about using the subscriptions to start a magazine that the subscribers have not asked for, give him a ring on 0353663030. BUT please do not complain to us, as we can not get involved.
DONALN P,D Is being saved. Mainly thanks to the efforts of Barrie Snell and Arthur Cook. You can still get RB4 from Barrie, and he will still be available for Questions. The new Library will becalled King Arthur's Domain and will be opened in a few months time, SO WATCH THIS SPACE,
N.Z. CALITNG Yes our little club has reached New Zealand, so a quick welcome reachea new
to the new readers.

## FINONG THE BEAST

He get a few letters every month asking where we find our information, and can we publish some of it. Well apart from databases most of our knowledge can be found in books. The big surprise to the novice is that your computer has more built into it than first appears. You can also do a lot of programs yourself if you know where to look:
THE INS AND QUTS OF THE AMSTRAD published by Melbourne House... Guthor Don Thomasson

This guide lists all the IN calls and OUT calls that can be made either directly from basic or with a little knowledge of Machine Code and Basic. These calls are BUILT IN to your computer and you simply need to know the CALL.
For example, the command line WHILE INKEY末="": WEND. Which tells the program to await any keypress. Can be replaced hy simply CALL \&BBi8, To disarm the Break key ColL \&BB48. Or to arm the break key CALL $2 B B 45$. They are all here.

THE AMAZING AMSIRAD OMNIBUS Published by Interface Publications. Author Martin Fairbanks
A good book for the Novice that touches on, and gives a small introduction to Graphics, The Disc Drive, Exploring Artificial Intelligence LOGO (Yuk ED), Entertainment, Programming, Utílities, Some of the Calls Mentioned above, and a large section on Creating Adventures in BASIC. In fact there is more, all in all 415 pages of information and sample programs that you can learn from.
SURROUTINES FOR THE AMSTRAD Published by Argus Books. Authors A.P. \& D.S JEFFERSON

Goes into SUB-ROUTINES and mathmatical equations. How to structure them, enter them, leave them. Includes Sound, Sorting, Obiect code files, Graphs. With working example programs.

THE AMSTRAD CPC 464 ADUANCED USER CUIDE Fublished by Sigma Press. Author lark harrison

Quite a small publication that delves deeper into Animation, String Functions, Recursive Programming and a lot more. As the Title suggests this is not for the first time user and some of the explanations will have your head spinning if you have not got a clue of Básic.

280 MACHINE CODE FOR HUMANS Fublished by Granada. Authors R.Toothill and David Barrow
A good example of a book not for a specific Hachine. It breaks down Assembly Language into easy blocks, labels them and calls them from other routines with full working examples. You do need a knowledge of Memory addresses and will have to alter some parts to suit your own assembler.

Dave Muggeridge

## Honourable Mentions

I would like to thank all the following people for their articles and support, and also say sorry to those who $I$ could not fit in this issue.

Martin Cossins - Bonzo Scrapyard + Future item
Barrie Snell - RUN DISC Series, AA TAPES
John Reilly
Alex Cochrane - Big Busts, AA TAPES, COUER ART
Dave Caleno - PCPrinting, 8 K Format Copier
Nigel Mells - Bonzo Database
Angela Cook - Games Department +
Lee Rouane - For helpingwith the Scrapyard
Ronald Lalewicz- Bankraid + Future item
Also to all the members for their support.


This item and indeed Barries article that follows have been prompted by letters and phone calls asking various questions about protecting your programs fromprying eyes. Barrie sent a letter to me saying it would be better to run an article or two, rather than answer individual letters, so here we go:

## BASIC FILES TO ANOTHER USER AREA

The normal user area is 0, and if you switch on, then catologue a disc only the programs in user d will be shown. If you LOAD a file and then type in and enter the following IUSER, 7:SAUE"FILENAME you will find that the file would be saved to a blank disc. Reset the machine ; now CAT the disc, nothing will be catalogued. Now type IUSER, 7 and enter, then CAT the disc, there is your file. This means that your loader or menu MUST say luser, 7:RUN"FILENAME". Of course you can save to any user number available, it does not have to be?.

## MAJOR WARNING

No nothing to do with, number 10, BUT ALL THE ITEMS IN THIS AND BARRIE'S ARTICLE SHOULD ONLY BE CARRIED OUT ON BACK UP COPIES OF PROGRANS until you are confident of what you are doing. We will tell you how to hide the files from here on, but will not tell you how to make them re-appear. Indeed some files WILL NOT run under the methods described, so USE BACK UPS ONLY.

## SYSTEM FILES

The User method is $0 . K_{\text {. for }}$ Basic files, but most bin files will cause problems. You will need a good DIRECTORY EDITOR SUCh a Wombles MDOS, NIRUANA, etc. Run the Directory editor, put your back up disc in the drive, Tag (select), all the files except the loader, then press the key that selects SYSTEM, you you may find you have to do them one at a time on certain editors. Now if you switch off then caT the disc all you should have left is THE LOADER showing. Where have they gone ? Nowhere, they are still in user o, but although hidden from view, the loader can still find them.

## THE HOADER

So now they can still break into the loader to find the names of the files: Put a line in at the start of the programsaying something like:
1 ON BREAK CONTINUE:ON ERROR GOTO 5600
Now you can enter a line 5000 like
5000 IBASIC
This will cause the program to crash if an error report is generated any when.

There are different ways of protecting the actual loader, but the most popular way is to use your Directory editor (Not all have this facility) and now change the Loader file first to READ ONLY then change it again to a DIRectory file. But changing it to READ ONLY (RO) should prove good enough if you do not have the DIRectory file utility.
So those are the basics of it. If you know of any other tricks, or maybe a easier way of doing things LET US KNOW, as there are still a lot of people out there hungry for knowledge, and it could be that those people are the ones to keep the CPC going.
******** Dave Muggeridge******

## SPILIING OFIER

Barrie Snell, 8 St.Augustine Road, Southsea, Portsmouth, Hants PO4 9AD Has kindly offered Contact members his 4 dictionaries that work with PROSPELL these take up two discs (4 sides) and contain over 91,000 words. Just send your 3" or $3.5^{\prime \prime}$ discs + Return Postage Paid Jiffy. PLUS ONLY今B pence fee. It is quite fast on a multipass check
editors Forward: How many of you haye seen the above message when you CAI or do a IDIR on a disc with what looks like no readable files on the disc. How do they do it ? Well here is one way. The article is uritten about WOMBAT Which is Copyright of Eric Prattley 1989 , but by the end of the series if you have a knowledge of Disc and Sector Editing you will be able to work it out for most editors.
WOMBAT is better because you can see a mistake if you make one,

## series by mr barrie snell

Here is a brief attempt at explaining hou to achieve the above message on YOUR OUN discs:

As usual with this sort of thing there is the easy way and the hard way, well here is the hard way, because when you have finished with this little lot, you will see that it is well worth the extra effort.

Some of the things that follow, you may not know, but I won't insult your intelligence by telling you all the differences between CAT and IDIR: I will just jog your memory. say you are already in Mode $a$ and the disc contains 6 BASIC files, called for example: A.BAS B.BAS UP to F.BAS.
on screen doing a CAT you get:
A, BAS
C.BAS
E.BAS
B.BAS
D.BAS
F.BAS

But if you do a IDIR you see instead:
A.BAS
B,BAS
C.BAS
D.BAS
E.BAS
F.BAS

The easy way would be to know absolutel the number of directory tracks that you need to reserve for your message and rely on the person using it to do a CAT. Easy from there on, but what if he tries to do a IDIR ? The message you have on the Directory tracks would be cone out completely fouled up!

The solution to this dilemma is to expect both from the user, and make your prograf Universal to both inputs.

The previous positions of the on-screen file names A.BAS etc. are set absolutely, you could alter the actual disc bytes from the text "C.BAS" to be for example "HELLO" as your message, but this will be placed
on the screen in the same "osition that the original displayed. This is not what is wanted methinks.

So what do you do about the CAT and IDIR? Easy !! (Is It ?...ED) you can do a Locale command, the same as you do in BASIC within each edited version of the OUER WRITTEN BAS directory tracks so that you can cater for either input.

Unfortunately, you have to reserve certain bytes within each over-written file-name on the directory tracks to contain screen control codes to turn the screen text on and off, and of course, the codes for where to locate the IEXI OF THE MESSAGE. This means that there is only room within each original BASIC file-name in the directry tracks for 4 (YES ONLY FOUR) characters of your message,

## START THE PROCESS

Grab a pencil and eraser, also a copy of the 80-by-25 Mode ? Screen designer sheet, and write your screen message. Now count up the total number of charecters including the spaces befween the words or symbols, Now divide the number by 4 to arrive at the total number of directory tracks that you will need for your text.

If it works out as a fraction then round it up, Now allow at least an extra 8 for good measure, this is to allow for situations that may arise when you have one or two characters to urite into the directory track and then have to locate" the next characters to a new screen line position.

## HERE WE GO, HERE WE GO

Everything that follows applies to a three inch disc in the a drive, As far as I can make out it only works on the ' $A$ ' drive, but in the future I may see if can get it to work on a $3.5^{1 / \mathrm{B}}$ drive. This is no great hardship as you can copy your $3^{14}$ disc with its message to a 3.5" disc. So take a $3^{\prime \prime}$ disc and make it blank by formatting it to DATA FORMAT.

Not do a one line BASIC progran such as:

## 10 REM

Nou save it to disc by typing SAUEAM" 〈ENIER; Then Save it again with SAUE"B ${ }^{\prime \prime}$ and so on, saving it as many times as the amount of directory tracks that you calculated earlier.
for a larger message if you reach SAUE "Z" you can start again with SAUEABA and so on.

Next time we will start dealing with the Directory tracks.
**Barrie Snell **
Bonzo \& Database
In reply to a couple of queries, no I will not be republishing the all Bonzo Data Base in the near future, If you want a copy please send a STAMPED S.a.e plus a small donation to:

MR NIGEL MELLS (BONZO DBASE)
SHENDALE
51 AUONDALE ROAD
ASHFORD
MIDDX.
TWL5 3HP
Also a reminder of where to send your NEW Bonzo Discoveries to or maybe get the un-edited version of Bonzo Scrapyard, S.A.E Plus an EXIRA FIRST CLASS STAMP please to

BONZO SCRAPYARD
C'OMR MARTIN COSSINS
11 DULUERTON SQUARE
COTIINGLY
LEEDS
YORKS
LSII OLL
If you get any BANKRAID transfers to go then let DAUE NUGGERIDGE know if you are only a member of Contact, but if you get Scrapyard then take your pick, but please let Martin or myself know whatever you do. It can get a bit annoying passing information out and getting no feedback.


[^0]:     will be thinking about buying a printer, or euen a colour one. But are they worth the money? I will not answer that because it depends on your abilities. Instead I'll let you see for yourself before you part with your hard earned cash.
    SECOND OFFER: In puting these pages together I've had to muck about with the Demo Making discs and overscan, so if you get the discs I recommend and have any difficulties THEN I MAY BE ABLE TO HELP.
    BUT** Just send a SSA Jiffy with the disc + AN EXTRA first class stamp, for either converting YOUR picture to a colour print, or one of mine. John Reilly 15 North Gregn, Forches Estate,
    

