

FEBUARY 87.

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Next meeting : MONDAY 23rd at 7:30 pm.

Location : Salvation Army Hall Elizabeth Rd. Morphett vale.  
Subject : 1. Newsroom operating through a modem or  
programming with EPROM.  
2. Amiga Demonstration.

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Disclaimer : The views expressed in this newsletter are  
those of the writer/writers, and are not necessarily of the  
club's committee members.

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## SINGLE SIDED TO DOUBLE SIDED DISK FORMAT CONVERSION

by Michael Knill

I have a commodore 128D computer which is a commodore 128 and 1571 drive built into the same box. This makes it portable and saves space by putting the monitor on top.

I obtained a reasonable amount of software that would run on the 128 however they were all single sided disks. The 1571 drive can read the single sided format however it seemed that the drive took more time deciding that it was a single sided disk in the drive than it took loading the program. I then I took the task of converting single to double sided disk format.

The Block Availability Map (BAM) is a table or map of the disk which indicates which blocks have been used and which blocks are free. The BAM format on the double sided disk is very similar to the single sided format and only uses an unused portion of the normal single sided BAM and the other side of the disk for its extra BAM storage. This is done for disk compatability as the disk may still be read by a single sided drive if the bottom of the disk is not accessed eg > track 35.

The directory structure is exactly the same for both formats.

### PROCEDURE

A seperate disk and a disk copy program are required for my method of conversion. I have used FAST HACKEM which is a widely used program but any program will do.

The first thing that must be done is to format the destination disk in double sided format. In 128 mode this is done by:

```
Header"disk name",Iid
```

The diskname is unimportant as it will be overwritten however the disk id must be the same as the disk you wish to convert. This is found by displaying the directory. The disk id is the 2 character code after the disk name. \*NOTE\* the disk id is not the '2A' in the top right hand corner, this is the disk version (2) and format type (A).

The disk you wish to convert must now be copied onto side 1 of the disk you have just formatted. \*NOTE\* do not use a copy programme which formats the entire disk before it copies as it will change the format you have just created.

You now have a disk which, with a little BAM modification, looks like a double sided disk. This is where you use the program listed opposite. Type in the program and run it.

When prompted, insert the disk that has just been formatted and copied to and press return.

You now have a double sided disk with no data past track 35.

Note that the drive must be reset before it will read the double sided format.

## SUPERBASE PART II

In the last superbase instruction, the procedure of formatting the database and entering data was shown.

In this instruction I hope to introduce the concept of programming and extracting information.

### 1. WHY PROGRAM THE DATABASE:

Programming provides a very large amount of flexibility from the ability to tailor the outputting of data to suit your needs.

Programming can also make the database very user friendly where all entering and outputting can be under program control.

A program can even auto-boot so the user need not even know how to use the menus. This is what is used in the major business databases.

All programs are loaded and saved from the menu. This is done by typing 'load"filename"' or 'save"filename"' if there is a program in memory. The programs that are already on the disk can be viewed by selecting the Maintain option from the second menu and displaying the directory. The programs which may be loaded have a .p suffix. Note: do not include the .p in the filename when loading or saving programs. Clearing the program area is also done from the menu by typing 'new' and return.

To get into programming mode, press F5 from the second menu.

Programing is very similar to BASIC and most basic commands can be used. A list of all the extra commands are given in the programming section in the Superbase Manual.

Just like BASIC, a linenumber is given and the command typed after it. Multiple commands may be typed on a single line if seperated by a colon (:).

Once the program has been written, it can be tested by typing 'run' and return or you can return to the menu by pressing F1 and runstop. This program will remain in memory until it is replaced and can be executed at any time by pressing F7 from the first menu.

All the following commands may be typed directly from the menu without the need to write a program.

They may also be selected as a menu option which saves the



## COMMODORE DRIVES

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After buying the first computer an often asked question is, "Should I buy a disk drive?" There are many considerations but it usually comes down to money. This is an attempt to provide some information on commodore drives and drive accessories.

### 1. THE DRIVES

There are a number of drives available for Commodore 64 and 128 computers.

#### 1.1 1541 Cost - \$380

First is the 1541 commodore drive. This may take up to 3 minutes to load a programme. The total storage capacity is 168k. To give some indication of this figure a typical BASIC programme is about 10k to 20k in size. On the other hand the wordprocessor Paperback Writer uses one disk with two blocks free. (Four blocks is about 1k.)

This drive will operate on both the C64 computer and the 128 in all modes.

#### 1.2 1571 Cost - \$550

This drive was designed for the Commodore 128 computer but while it will work on all C64 computers has difficulty with some programmes. On the 128 in 128 and CP/M modes this drive will operate up to 15 times faster, but only at normal speed in 64 mode.

#### 1.3 SFD-1001

This is a 1000k drive and operates at four times the speed of the 1571. This drive is ideal for storing large amounts of data. This drive is not yet available in Australia, but may be bought in England.

#### 1.4 20M Hard Drive

This drive is currently under development, but is supposed to retail for less than \$1000. 20M is about 120 times the capacity of the 1541.

#### 1.5 Ram Drive Cost - \$350

This is simply a block of memory that can be plugged into the Commodore 128 and appears to the computer as a disk drive. For example games that continually return to the disk to load sections as the game progresses will operate much faster from ram drive. This only operates on the 128 in 128 and CP/M modes.

## 2. ADD ONS

The Commodore 1541 disk drive (and the 1571 on the 64 ) is one of the slowest on the market. For this reason a number of products are available to increase the speed of this drive.

### 2.1 Fastload Programmes

Programmes are available that can be loaded and run to increase the speed of the drive by about three times. One such is the Disector fastload menu system from Evesham Micros.

### 2.2 Cartridges

Amongst fast load cartridges are the Epyx, Mach 5, The Final Cartridge, Power Cartridge and quickdisk. These will speed up loading on the C64 by up to six times. They also include other features which make using the disk drive easier. They cost from around \$50 to \$120 but the dearer ones have more features.

### 2.3 Dolphin DOS

The most powerful add on I have seen is called Dolphin DOS from Eversham Micros. This is about \$200 and comes in several parts to be installed inside both the computer and drive. This is so far only available for the 1541A and 1541B although a version for the 1541C and 1571 is being developed. It speeds loading by up to 25 times and saving by up to 12 times and has many other powerful features.

### 2.4 Anti Knock

A particular problem on the 1541 is head knock. This is where the head on the drive knocks against the back stop when loading some programmes. This can cause the head to go out of alignment. There are a number of ways to get rid of this. An anti knock device can be bought for \$34 to be installed inside the computer. Some of the cartridges mentioned above have anti-knock built in.

Just a final note. Some of the cartridges and software mentioned will not work with some programmes. If you wish to buy any of these to work with particular programmes try them out first, otherwise you may be wasting your money.

Watch out for the survey of wordprocessors.

J.H.



AUSTEN'S TIPS AND TRICKS.

Well if you followed last month's newsletter you should understand POKES now. These are important so if you don't fully understand them please re-read the article or get someone to explain them a bit more.

One other command we need to know is PEEK. This command lets us see what numbers are inside the computer. It is a very easy command to use.....

PRINT PEEK (number) this is all we have to do, try this....

POKE 53280,1 (return)  
PRINT PEEK (53280) (return)

The computer should respond with 1..( The number you POKE'd into location 53280.)

The proper name for these locations is ADDRESSES. We will use that name from now on. Play with PEEK's and POKE's for a while, but be warned... For as easy as POKE is to use you can get into trouble with it.

POKE 1,0

If you did that you will now have reset your computer.

We tried to play with the OPERATING SYSTEM of the computer and that is something that should only be done by expert programers. But at least it is comforting to know that no real harm can be done.

For C128 owners many of the addresses we will be pEEKing and POKEing are differant. I will give you the correct ADDRESSES to use when you are in 128 mode.

For FAST-LOAD users when you disable the cartridge the manual says that to reenable it you must reset the computer. This is not true SYS 57192 does the job.

Next month I promise I will explain HIGH-BYTE LOW-BYTE numbers and we will see how they can open up a whole new world for us inside our computers.

Meanwhile try these.

C-64

Disable list POKE 775,0  
Screen off POKE 53265,11  
Screen on POKE 53265,27  
No line Numbers POKE22,35

C128

To UN-NEW a program...

128 mode  
BANK 15:POKE(PEEK(45)+PEEK(46)\*256),1:SYS24293  
64 mode  
Hold Commodore Key and press reset button..then  
POKE2050,1:SYS42291:POKE45,PEEK(34):POKE46,PEEK(35):CLR

===== FOR SALE /WANTED =====

Cheap disks forsale. Double sided/double density, \$17 per box. Will also take orders, See Sam Hancock.

Wanted.

Someone with experience using Money Manager and Elite. See P.Buis. Wanted to buy, C64. Any condition, only for parts. See Sam Hancock.