SOUTHERN DISTRICTS COMMODORE USERS CLUB INC.

DISPATCH DISK

CONTENTS :-

EDITORIAL

Hello everyone,

Tonight's meeting is our A.G.M., so in line with that I would like to thank the club members and committee for their support and contributions over this past year. Plus on behalf of the club I must thank the out going committee for their time and effort in running the club over this past year, hopefully the new committee will have a good and successful year as we have had. After all the voting and selections are over the demonstration for this meeting is on how to convert from IBM to COMMODORE and back using BIG BLUE READER or similar type programs.

Also due at tonight's meeting are your membership fees, so if you could see to it as soon as possible it would of great benefit to all involved. If you are having any difficulties see one of the committee members and have admirable solution worked out. A point to remember is that the fees have increased, refer last month's DISPATCH DISK.

In this month's issue there is an interesting article about KEYBOARDING AND THE SCREEN EDITOR, I've place it in the POKES AND PEEKS section. It is excellent article by Louis F. Sander and I have used it as I have received it. There is the usual Editorial, Book Review, Computer Puzzle and Dispatch Disk notes.

JAN VAN DE BELT - EDITOR

A.G.M. EDITION

OCTOBER 1991
VOL 5 / NO. 10 64/128 NEWSLETTER

OCTOBER BOOK REVIEW

The book or magazine that I chose to review is the **July 1989 Compute!'s Gazette** and here it is...

MAKE IT SING : Speakers, Stereo, &MIDI Solutions : Art Hunkins describes how to get more sound refinements out of your 64/128.

ONLINE : ISLAND OF FANTASY : Cheryl Peterson talks about the mysteries of this more than just a fantasy game.

REVIEWS : *Spectrum 128* - the Why's and Woe's of the 128. / *Jack Nicklaus Championship Golf* - reviews better than Leader Board. / *Double Dare* & *Hollywood Squares* / *Powerplay Hockey* - USA vs. USSR. / *Calculator 128* - a calculator that runs in both 64 & 128 plus some added features.

MINE SWEEPER : Arcade action at its best! This game's frantic pace will keep you riveted to the screen for hours. A machine language program.

MONSTER BAR - B - Q : A novel game for kids of all ages and is written in Basic for the 128 only.

MATH MAGIC : An arcade style math game. Educational program for children aged 5 - 9 years and written for the 128.

CHR$ GRAPHICS : An utility program written in basic and machine language, that gives you a lot of control over designing and animating large multicolor images.

FINANCIAL PLANNER : Need some help sorting out your finances? This versatile and powerful program may provide the answers you have been looking for.

1581 DIRECTORY SORTER : Sort, rearrange and reorganize the directory on your 1581 disks how you want them to be.

SFX MACHINE : Discover the fantastic potential of the SID chip with this unusual yet powerful sound-generator.

THE PROGRAMMER'S PAGE : 64 Tips and 1571 ROMs.

BASIC FOR BEGINNERS : Musicale POKEs.

MACHINE LANGUAGE PROGRAMMING : Simple ML Music.

THE GEOS COLUMN : File Retriever. Same as UnScratch or UnTrash and works with any drive in either 64 or 128 versions.

HORIZONS : The Newsletter Awards.

D'IVERSIONS : Where have all the robots gone?

By Robert M. Cloosterman.....

COMPUTER WIZARD

BY LOUIS F. SANDER

Keyboarding and the Screen Editor

This month we welcome Commodore expert Louis F. Sander as a regular contributor.

Every issue Lou will be addressing the needs of our beginners, to help them acquire basic computing skills and add to their enjoyment of their new equipment.

It's safe to say that no hardware unit is more important than the keyboard, and that keyboarding know-how, even without touch typing, is the most basic computer skill. Without keyboard proficiency, working at the machine can be tediously slow, and more than a little frustrating. With it, even if you're not a typist, computing is much more rewarding. With this article and an hour or so of practice, you, or anyone, can become a keyboard expert.

Commodore keyboards are notable for their ruggedness and useful layout, and their good design sets Commodore apart from other brands. Commodore's excellent screen editor makes the keyboard even more useful. The screen editor is the built-in software which lets us use the keyboard to write things onto the screen, and to change them once they're there. But the keyboard and screen editor are so complex, with so many useful features, that few of us have really mastered their use. Since they really are easy to master, we're pleased to help you do it.

We'll explore our subject in depth, through a series of carefully chosen examples. If you type each one, and note our instructive comments, you'll be a black-belt Commodore keyboarder in no time. (Well, maybe not in *no* time—it takes an hour or so to do it right.) But your new-found knowledge will make you a faster keyboarder, and you'll easily regain that hour. Whether you're a skilled touch typist or a ten-thumb hunt-and-pecker, working our examples will make you a better computerist.

Our examples move quickly from elementary matters to fine points, since power lies in the fine points, which are easy to learn and use. As you learn them, remember that practice makes perfect. The more you use each technique, the more natural it will become for you, and the more time you'll save at future keyboard sessions. Although we've created our examples on a 64, we've tested them on the VIC 20, Commodore 16 and Plus/4. Most of them will also be useful to PET and CBM owners.

The first step is to turn on your computer, with this article in front of you, and your user's manual standing by for reference. We'll assume that you have some familiarity with keyboarding on your machine. If you've typed in one or two short programs (and gotten them to run), you're ready to read further here. If you've not yet reached that point, start at the beginning of your user's manual, reading every page and doing every example. It won't take you long to get some programs up and running.

Assuming you are qualified, let's start the examples. Each one is numbered, and each assumes that you've mastered the previous material. We recommend that you go through every one, to take advantage of our step-by-step learning program.

1. Observe the alphabetic keys—the ones lettered from A through Z. Each is labeled with a letter on the keytop, and two graphics symbols on the keyfront. The keytop symbol is printed whenever the key is pressed by itself. Press the "A" key now, and observe that an upper-case A is printed. (If you get a lower-case a, turn your computer off, then turn it on and start again.) Now press either SHIFT key, and while it is down, press the "A" key again. Notice that the right-hand keyfront character, a spade, appears on the screen. Press the Commodore logo key, and while it is down, press the "A" key again. This time the left-hand keyfront symbol, a small right-angled character, will appear. Take note of the SHIFT, Commodore logo and CTRL keys. They have different purposes, but they all work the same way—they must be fully depressed before another key is pressed, just like the shift key on a typewriter.

2. Now simultaneously press the SHIFT and the Commodore logo keys. Observe the changes in the three characters you typed in step one. The "A" becomes "a," the spade becomes an "A", and the graphic character remains unchanged. Press SHIFT and Commodore once more, and you'll return to the original character set. If you don't understand the two character sets, experiment with them and you'll get the idea pretty quickly. The two character sets differ only in the shifted and unshifted keys A to Z, plus three or four other characters (shifted @, shifted pound sign, and Commodore asterisk on all computers, plus shifted up-arrow on the VIC and 64).

3. Observe the numeric keys, labeled from one to nine. Notice that the keytops have two symbols: a number and a punctuation mark above it. The keyfronts are labeled with one or more colors or other words. Press the "6," then the shifted "6," noticing

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that the SHIFT key causes the upper character on the keytop to be printed. (It's called an ampersand.) Observe that some other keys are labeled in this way, namely the colon, semicolon, comma, period, and slash. When there are, in addition to two labels on the keytop, other labels on the keyfront, the keyfront functions are enabled by pressing the key while the CTRL or Commodore keys are depressed.

Depending on your computer, you may have a few keys with only one label on the keytop, and one on the keyfront. These keys have the keytop function when unshifted, and the keyfront function when shifted. Examples of this are the programmable function keys on all computers but the Plus/4, and the up-arrow key on the VIC and 64.

4. Look carefully at the CLR HOME key, and notice that its labels work like those on the number key. Unshifted, the key has the lower function, HOME. Shifted, it has the upper one, CLR. The same is true for INST DEL and RUN STOP (and for the CRSR keys, on the VIC and 64). If you're aware of this principle, you're ahead of many experienced Commodore users. One key has a similar two-word keytop label, but it doesn't work in the manner described here. Can you find it?

5. By now you've found it: SHIFT LOCK, which works like the shift-lock keys on typewriters. Press it once, and every key becomes a shifted key. Press it again, and things return to normal. Notice that when it's activated, the key remains partially depressed, just like most other push on/push off switches. When your keyboard starts acting strangely, there's a good chance that SHIFT LOCK has been pressed by mistake.

6. Now that you're familiar with key labeling, experiment with your keys to see what they do under various conditions. If some keys give unusual results, such as printing a reverse-field graphics character, press RETURN and try them again. (You've inadvertently gotten into quote mode, which we'll explain later.)

At this point, you're reasonably familiar with the keyboard and what it does. From now on, each example will illustrate a specific characteristic

With this article and an hour or so of practice, you, or anyone, can become a keyboard expert.

of the Commodore screen editor. The screen editor, of course, is the always-running internal program that relates keyboard activity and the screen.

7. Type PRINT 7+7 ⟨RETURN⟩ and observe that your computer prints the sum, 14.

8. Type PRINT 8+8 ⟨SHIFTED RETURN⟩ and note that your computer ignores your command. When shifted, the RETURN key merely moves the cursor to the start of the next line, ignoring whatever you have typed. This is useful when you make a typing error and want to start again on a new line, without entering the erroneous material into the machine.

9. Type PRINT 9+9, then a handful of spaces or cursor rights. Press RETURN, and observe that the proper sum is printed. Conclusion: The cursor can be anywhere on a line, and when RETURN is pressed, the line will be entered into the computer. It's a simple fact, yet thousands aren't aware of it.

10. Move your cursor somewhere in the center of the next line, then type PRINT 10+10 ⟨RETURN⟩. Observe that the computer accepts the line, even when it doesn't start at the leftmost position on the screen.

The following examples illustrate an important phenomenon that often vexes beginners—Commodore's so-called quote mode. When an odd number of quotation marks have been typed on the keyboard, the screen editor goes into a different mode, and certain keys (cursor keys, for example), instead of having their normal effect, print various reverse-field characters on the screen. Quote mode is usually entered by typing one quotation mark, but typing three, or five, or any other odd number will have the same effect. Quote mode is cancelled as soon as an additional quotation mark is typed (making an even number in total), or when RETURN or SHIFTED RETURN is pressed. On the Commodore 16 and the Plus/4, it can also be cancelled by typing ESC O.

11. The purpose of quote mode is to allow BASIC's PRINT statement to be used for controlling the cursor, character colors, and other operations that are activated from the keyboard, but which do not print characters onto the screen. When the computer encounters a reverse field quote mode character in a PRINT statement, it executes the corresponding cursor movement or other action, rather than printing the quote mode character itself.

12. To illustrate quote mode, type one quotation mark (the shifted "2" key), then try pressing the cursor keys, CLR, HOME, and the CTRL number keys. Notice that each such key prints a reverse-field character, instead of performing its usual function. (On the VIC and 64, the function keys F1-F8 also do this.) Now simultaneously press the SHIFT and Commodore logo keys, observing that many of the reverse field characters change their on-screen appearance. Even though they look different, they will still perform the same function when included in a PRINT statement.

13. Type PRINT " ⟨CLR⟩ then five cursor downs, and notice the reverse-field characters. The CLR should have given you a heart, while the cursor downs should have given Q's. (If something else happened, you didn't get into quote mode.) Press RETURN and notice that the screen clears, with the READY prompt appearing five lines below its normal location. The PRINT statement read the heart and the Q's, interpreted them as CLR and cursor downs, then behaved as though those keys themselves had been pressed. Interesting, eh?

14. Type PRINT " ⟨SHIFTED RETURN⟩, then several cursor downs. Notice that the cursor down key now moves the cursor down, instead of printing the Q's. That's because the shifted return took the editor out of quote mode. Also note that the screen didn't clear (because the return was shifted, as previously shown in step eight).

15. Type ABCDEFG, then put your cursor on the D. Press the INST key (shifted, of course, remembering step

Continued next page

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four) and note that space is opened to the left of the D. Press the cursor down key, and note that the machine acts as though it's in quote mode. Do another cursor down, observing that quote mode has disappeared! The principle here is that inserted spaces behave as though quote mode is in effect. Typing a quotation mark into an inserted space does not put you into quote mode, *unless* the space it is typed into is the *only* inserted space, or the last one in a group of inserted spaces. If you type a quotation mark there, the editor will remain in quote mode until you exit it in one of the usual ways. (See example ten.)

16. This step applies to all computers except the VIC 20. If you understand character codes, you can use quote mode to improve your keyboarding, since CHR$(1) through CHR$(29) or CHR$(31) can be entered directly from the keyboard. Get into quote mode and press CTRL A, which should produce a reverse field A. The other letter keys, B through Z, will behave identically. When a PRINT statement encounters the CTRL A character, it will print a CHR$(1). CTRL B will print a CHR$(2), and so on through CHR$(26), printed from CTRL Z. The other such codes, not all available on the C16 and Plus/4, are:

CHR$(27) CTRL colon
CHR$(28) CTRL pound sign
CHR$(29) CTRL semicolon
CHR$(30) CTRL up arrow
CHR$(31) CTRL left arrow

These codes are especially useful in working with printers, where CHR$(1) through CHR$(31) are often used to control special features. CHR$(27), called ESC or ESCAPE by many printers, is the most common example. Inside your computer, many of these CHR$ codes are used to move the cursor, change colors, and so on.

Sharp-eyed readers will see that the quote mode representation of RVS ON, or CHR$(18), normally gotten by pressing CTRL and the "9" key, is a reverse field R. Since R is the eighteenth letter of the alphabet, a CTRL R will produce a CHR$(18), which also appears in quote mode as a reverse field R. So a RVS ON can be produced either way. Once I learned this fact, I began using CTRL R exclusively, since that combination is much easier to type with one hand than the standard CTRL 9.

The screen editor is the built-in software which lets us use the keyboard to write things onto the screen, and to change them once they're there.

17. Now let's enter some BASIC lines. Type 123REM (no embedded spaces), then press RETURN. List the line and observe that the computer has automatically inserted a space after the line number. This feature makes your listings easy to read, and it's the only time the computer adds anything to your input. Move the cursor to the center of a blank line, then enter 124REM. List line 124 and see that the leading spaces have been stripped.

18. Enter these lines: 0REM, 63999REM, -10REM and 64000REM. Note that the valid range of BASIC line numbers is from 0-63999. Attempting anything outside that range causes a syntax error. Enter the line 100.5 REM, then list it and see what happens. If you attempt to execute such a line, you'll get a syntax error. Now delete line 63999 by typing 63999 [RETURN]. List your program to see that the line is really gone. Repeat the process for lines 0 and 100.

19. Enter 19 PRINT "HELLO." List it, then put your cursor on the "H," and change the H to J. Press RETURN, then list the line again, noticing that HELLO has indeed been changed to JELLO. This illustrates the most important principle of the screen editor: To change a line, you just type the changes on the screen, then press RETURN. As in examples nine and ten, it doesn't matter where your cursor is on the line when RETURN is pressed, and it doesn't matter whether your line starts at the right margin. Whenever you press RETURN, everything on the cursor's current logical line is entered into the computer. Unfortunately, many people are confused about this simple point, and they waste lots of time and keystrokes while editing BASIC lines.

20. Since the screen editor accepts anything on the logical line that the cursor is on when RETURN is pressed, it's easy to duplicate lines. Type 20 REM DUPLICATE LINE ⟨RETURN⟩. Then put your cursor on the "0" in the line number, press the "1" key, then press RETURN. When you list your program, you'll see lines 20 and 21. This feature can be used to enter identical lines, or lines that are almost identical. In the latter case, you enter the first line, then use the cursor to change its line number and to make the other necessary changes. When you're finished, press RETURN, and the second line will be entered into memory. If you have additional similar lines, you can repeat the process.

21. Type 21REM, followed by 90 or more other characters. When you are finished, your cursor will be two or more lines below the line with the number. Move your cursor up to the line with the number, then press RETURN. A Plus/4 or Commodore 16 will give an error here, and the computer will not accept the line. If you have a Commodore 64 or VIC, list the line and observe that the computer has cut it off to 80 spaces (88 for the VIC), plus the computer-inserted space after the line number. That's the maximum number of spaces the screen editor will permit in a program line.

The whole point here is that there's a maximum line length the screen editor can handle—80 characters for the 64, and 88 characters for the other Commodore machines. It's interesting to know that BASIC can handle lines up to 251 characters in length. You'll sometimes see such lines in special or tricky programs, but they're never created by typing them onto the screen.

22. Type in another line, longer than your computer's line length limit, this time pressing RETURN when your cursor is at the end of what you've typed. You'll get an error message, and when you try to list the line, you'll see that it hasn't been entered. When the cursor passes the eightieth or eighty-eighth character,

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the computer thinks that it's on a "new" line.

A valid line of text, composed of up to 80 (or 88) characters, and printed on up to four screen lines, is called a *logical line.* A logical line can cover one or more physical screen lines, up to the maximum length discussed above. A RETURN or SHIFTED RETURN starts a new logical line, which, at this point, is one physical line in length. When typing moves the cursor to the rightmost screen position of this physical line, the stage is set for lengthening the logical line. The lengthening takes place as soon as the spacebar or any printing key is pressed, wrapping the cursor around to the start of the next physical line.

The screen editor keeps careful track of physical and logical lines, even when they are scrolled up the screen. You can see this on a VIC or 64 if you list part of a program which contains both short and long logical lines. Move the cursor to the bottom of the screen, then observe what happens as you repeatedly press the cursor down key. When a short logical line (occupying one physical line) is forced off the screen, the screen scrolls upward by one physical line. But when a single cursor down forces a multi-line logical line off the screen, the screen scrolls several lines, until the entire logical line has been forced off.

23. Everyone knows that "?" can be used as an abbreviation for PRINT, and many of us know the abbreviations for the other BASIC keywords. Type 23:?:?:?:... repeating the ":?" combination a total of 35 times. Press RETURN, then list line 23. Surprise! The computer has expanded the abbreviations, and the length of the listed line now exceeds the maximum length of a logical line. That's perfectly OK, since the concept of a logical line only applies when the screen editor is used to enter or edit material on the screen.

24. Using the listing you just made, edit line 23 by changing one of the first few PRINTs to an END. Move your cursor to the beginning of the line—not usually important, but important here. Then press RETURN. A Plus/4 or Commodore 16 will give you an error. If you have a Commodore 64, or VIC, list the line and observe that it's been truncated, or cut off, to the maximum length of one logical line.

Examples 23 and 24 show that the screen editor can't handle anything more than the maximum logical line. It doesn't care whether key words are abbreviated, so long as you don't type or edit a line of more than 80 (or 88) characters. The older machines accept overlength lines and truncate them, while the newer ones reject them and give an error message.

Well, readers, you've just experimented with all the important features of Commodore's keyboard and screen editor. If you've meticulously followed our examples, you have a good understanding of Commodore keyboarding. In the future, we'll use that knowledge in a very interesting way—creating some graphic displays. C

HINTS AND TIPS
FOR GAMES FANATICS

This month we have the following pokes and peeks for RALLY CROSS SIM, PRO SCATEBOARD SIM, MAGIC CARPERT and LEAONARDO.

RALLY CROSS SIM

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POKE 3822,96
POKE 4376,44
SYS  2071
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PRO SCATEBOARD SIM

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POKE 3701,69
POKE 56567,103
SYS  28416
```

MAGIC CARPET

```
POKE 52957,234
POKE 48546,234
POKE 59259,234
SYS  32768
```

LEONARDO

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POKE 34117,0
POKE 34391,252
POKE 38162,252
SYS  19456
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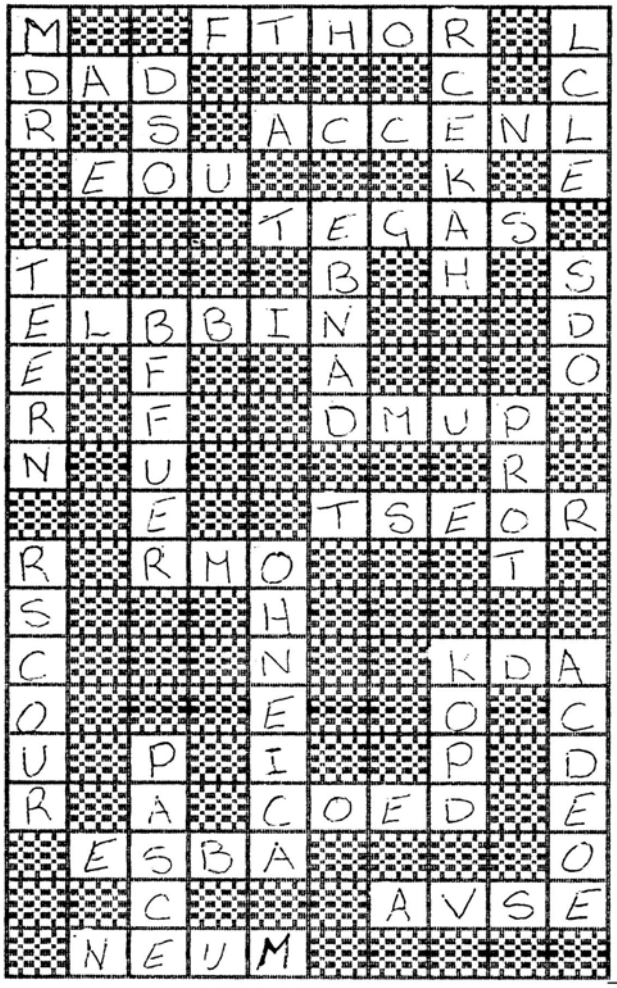
COMPUTER PUZZLE

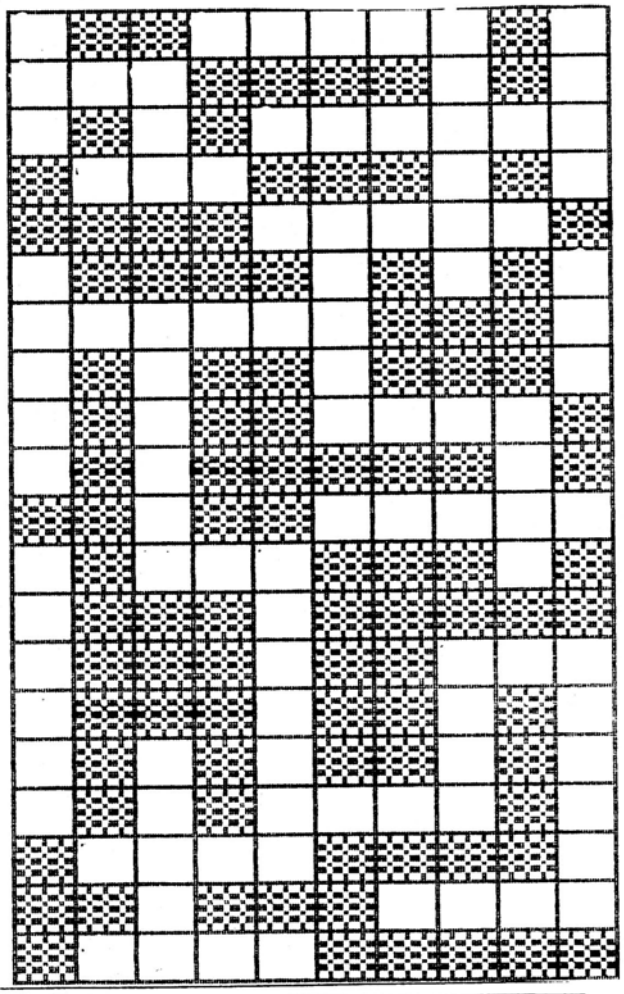
OCTOBER PUZZLE

JUMBLE WORD NO.2

THE LEFT HAND GRID CONTAINS THE SOLUTIONS FOR THE RIGHT HAND GRID. THEY ARE IN THE RIGHT PLACES-

EXCEPT THE WORDS HAVE BEEN SCRAMBLED. UNJUMBLE THE WORDS SO YOU CAN READ ACROSS AND DOWN.





1	2	3	4	5	6	7	8	9	10	11	12
A	C	E	B	V	Z	H	S	Y	D	M	P
13	14	15	16	17	18	19	20	21	22	23	24

COMPUTER PUZZLE
AUGUST PUZZLE
CLUE WORD CROSSWORD

DISPATCH DISK NOTES

COMMITTEE 1990-91

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NEWSLETTER ED-	J. Van de Belt	382-8660
64 LIBRARIAN-	J. Carey	294-8447
128 LIBRARIAN-	M. Tippins	381-3181

Our Disk and Magazine libraries are open at each general meeting from 7:30pm.

If you have any contributions for the newsletter, see Rob, Jeff or Jan.

NEXT MEETING

Our next general meeting will be held on the 20th NOVEMBER at 7.30 pm.

SUBJECT:- TO BE ANNOUNCED

LOCATION:- Meetings are held in the house behind the Salvation Army Hall at 186 Elizabeth Rd. in Morphett Vale, just in from Beach Rd.

DOOR FEE:- There is a door fee of $2 per family, which includes the Newsletter plus coffee / tea and biscuits.

MEETING RULES

1) NO SMOKING
2) NO DRINKING
3) NO SWEARING

Through the generosity of the Salvation Army, we are allowed to use the facilities in this house, in return for which we give them a relatively small donation. We ask for your co-operation in respect to the above.

While we can not control what people do away from our club meetings, Piracy of copyright material can not be condoned at our meetings.

DISCLAIMER

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

The use of the word "COMMODORE" in no way implies any connection with any organization bearing that name.

WANTED

ASSISTANCE REQUIRED- THE CLUB STILL NEEDS THE ASSISTANCE OF SEVERAL MEMBERS IN THE FOLLOWING AREAS:-

1)Newsletter contributions

2)Expert Register. Please help us to help others with their problems.

DEMONSTRATION TOPICS - If you have any requests for topics you would like to see demonstrated, speak up. Even, if it has already been done, and you missed it let us now. If there is reasonable interest, it can probably be repeated.

FUTURE MEETINGS - Help us to spread the word of our existence. The club has available various notices which could be placed where people will see them. Your local supermarket usually has a notice board as do some newsagencies and Delicatessens. See the club President or a Committee member to obtain some of these notices and spread the word of our User Group.

FOR SALE

PUBLIC DOMAIN SOFTWARE - We have a large range of PUBLIC DOMAIN Software for sale through library. Prices represents very good value. Catalogue disks are also available for only $1.00. See Jeff or Michael (for 128), at tonight's meeting for any enquires.

CHEAP DISKS - How much do you pay for your blank disk?. The club is making bulk purchases of disks to help members save some money. The price of these disks is 60c per disk, which works out to be $6.00 for a packet of 10.

If you are interested in some, see Rob at tonight's meeting.

MEMBERSHIP FEES

The scale of membership fees for this year will be as follows :-

Joining fee for new members	$ 5.00
Membership fee (to A.G.M.)	$12.00
Postal Members	$18.00

All previous members who have not renewed their membership are unfinancial and will have to rejoin the club and pay the joining fee again in order to add items to the club's disk and magazine libraries, we need money, so please pay up promptly.