A CURSORY GLANCE

Commodore is shipping the model 2040 dual floppy disk system for the Pet. You should know my biases before I evaluate this new product: Cursor is a software publisher. We (currently) publish programs for only one personal computer - the Commodore Pet. Naturally, it is in our best interest for Commodore to thrive, for each new machine that they sell represents a potential new subscriber for us. As of April, 1979, there are only three personal computers that appeal to a mass market: Apple, Radio Shack and Pet. In certain respects, Commodore has better features than the other two, including a very nice screen editor, pretty graphics (although not in color), and a reasonable operating system and Basic. The small keyboard on the 8K Pet was probably a mistake, although not near as bad as some TRS-80 enthusiasts would lead you to believe. Back to disks: the TRS-80 has had disks available for months, while Pet owners were limited to cassette tapes. But a wonderful disk system was being designed and soon we were to benefit from the greater care that Commodore was taking in its design. For example, the TRS-80 disk holds about 90,000 characters on one diskette. Commodore stores about 170,000 characters on the same 5 inch diskette.

Based on my limited experience with the Pet 2040 disk system, I think they screwed it up very effectively. I think I know why, too: when the Pet operating system was designed, they were in a big hurry to get it out the door, so that they could sell lots of machines. They didn't put any "hooks" into the main operating system for the disk system. After all, they had the IEEE-488 bus, right, and everyone assumed that their disk system problems were solved. Well, their disk box does hang on the 488 bus, and it does have a lot of smarts all its own. There are two microprocessors inside, (one of them is a 6502, just like in the Pet). The disk box has its own local RAM memory (which is nice, since the disk system doesn't use any of your precious memory in the Pet). But there are costs to the disk system being completely separate from the host computer. Worst example I can give: you have to write a short Basic program to find out what error you got when the disk system fouls up. In fact, the only way that you know that a disk error happened is to look at the error LED on the disk unit. There is no message on the screen!

Why did I buy the bloody thing? Well, it speeds up my work a lot. As an example, the program GAMMON in this issue loads in about seven seconds, and CIRCLE loads in about four seconds. If the 2040 disk system proves to be reliable, Commodore will sell a lot of them. One last "gottcha": the new disk does NOT work with the old ROMs! Well, since they fixed a lot of problems with the new ROMs, that doesn't bother me, as long as they provide the new ROMs at a reasonable price. (Remember, your hardware had a warrenty, but the software i.e. ROMs did not!) There seems to be a small problem: the new ROMs will not be available until mid-July for the older Pets. (If you bought your pet before February of 1979, you have an old Pet.) Sigh!

CURSOR 9 HAS THESE PROGRAMS: (Programs ending with '!' use CB2 sound.)	
COVER9	A spiral pattern designed by Ken Matthews.
YAHTZEE	The game of Yahtzee for one to four players. By Glen Fisher.
SLOT!	The Cursor Casino, with sound! By Mark Heaney.
FLIP	A utility to help convert text in programs from old to new ROMs. By Glen Fisher.
CIRCLE	Great circle navigation: How far is it to... Program by Martin Mabee
GAMMON	A very good 16K game of Backgammon - you against the Pet. By David Malmberg and Glen Fisher.

"Everything is deeply intertwingled."
- Theodor H. Nelson

MORE ABOUT THE PROGRAMS

YAHTZEE... Up to four people can play the YAHTZEE, with all of the scores being displayed in an easy to read fashion. The game is very close to 8K, so the instructions are very short. When the game begins, you first enter the names of the players. To roll the dice on the first roll you press [RETURN]. When you see what you rolled, you can selectively roll dice by typing the value of the dice you want to roll. For example, if you type "263", it will roll the dice that have that value showing. If you want to roll more than one of a given value, then type it as many times as you want dice rolled. Example: you first roll: 2 2 5 6 6. You decide to try and get all sixes, so you want to roll both twos and the five. Type: 225, then [RETURN]. You select which combination of dice you want to score by typing the appropriate letter that appears in front of that choice. If you had rolled 1 1 1 5 3, you might select aces, which is selected by typing [A]. Sometimes you have to select something that gives you a zero score. To guard against an accident, the Pet will ask you "Really zero it?" If you type YES, then it will accept your request. (You can avoid this by typing a [Z] in front of your choice).

SLOT!... This is a simple program that is lots of fun. You should hook up your Pet for sound to get the full benefit. (Reminder: in any program that uses sound, if you use the stop key to interrupt the program while it is producing sound, you won't be able to save programs on cassette until you turn the Pet off, and then back on again).

FLIP... As you may know, Commodore has developed a new set of ROMs. One of the changes that they've made involves the way that upper and lower case is handled. With the old ROMs, when you POKE 59468,14 you are in upper and lower case mode, but the lower case letters are shifted (i.e. the opposite of a normal typewriter). With the new Pet ROMs, the opposite is true. The problem you may find is taking programs written for the old ROM convention and translating them for the new ROMs. Please note that there is not usually a simple solution, even with FLIP! To use FLIP, first read it into the Pet and RUN it, which stores it in the second cassette buffer. Then read in the program that you want to convert, and type SYS(826). Note that FLIP is reversible, so that after you flip a program, the next time you type SYS(826) it will be flipped back to its original condition.

The toughest problem that you'll find is that it will still take some work to convert a program to the new ROMs, because FLIP doesn't know whether a given part of the program is expecting graphics mode (POKE 59468,12) or upper and lower case mode. Ideally, flip would only operate on that text that is used with upper and lower case, but there isn't a practical way to do that. Instead, you'll need to experiment by flipping the program, running it and seeing which parts you don't want flipped. At this point you can flip it back, and use a trick: the flip program normally works only on PRINT, INPUT and DATA statements. So, for lines that you don't want flipped, just edit them so they start (temporarily) with the keyword REM. Now when you type SYS(826) and flip the case of the program, it will ignore those lines! One more thought: this program normally flips strings in quotes in DATA statements. If you want DATA left untouched, type: POKE 884,255 before you type SYS(826).

CIRCLE... We wanted to have as much data as possible in this program, yet still fit it into 8K. So, there are no directions within the program at all! However, it is an easy program to use, as you will see. There are two ways that you can use the program: you can tell it the country (or state) from which the trip begins, and it will search its built-in data bank for the information. For example, if you want to find the distance from Washington, D.C. to Los Angeles, California, when the program asks "From where:" you would type the first letter of the state [D]. It will then query you for each city that it knows about. Next, it will ask "To where:", and you repeat the procedure. The second way of using the program is to press [RETURN] when it asks "From where:". When you do this, it assumes that you want to enter latitude and longitude in degrees, minutes (and seconds if you like). Degrees, minutes and seconds are separated by commas. For latitudes you'll need to also enter [N] or [S] for North or South, and for longitudes naturally you'll need to put in East or West. The CIRCLE program was purchased from Martin Mabee who wrote the original version for the TRS-80 cassette magazine CLOAD. It was rewritten for the Pet by Glen Fisher. If your favorite country or city is missing, it is because we had to perform extensive surgery to make it fit into 8K. You can customize the program quite easily by adding or deleting data statements.

GAMMON... Sorry folks: if you have an 8K Pet, this program will not work for you, since it needs about 14k! We realize that many people have 8K Pets, but from our mail, it also seems that a lot of our readers have expanded their Pets to 16K. Since there are many things that have to be severely "stripped down" to fit in 8K, it seems reasonable that from time to time CURSOR should publish some larger programs. Actually, we'd like to get feedback from you on this matter. To make life easy for us, please send a postcard, and express your opinion about 8K vs. larger programs in CURSOR. Next month I'll report back to you with the results. (Please, no six page letters on this one. I'm already behind in answering the mail!)

GAMMON is a great version of Backgammon co-authored by David Malmberg and our software editor Glen Fisher. It has excellent instructions, so we won't have to say much here. I will mention that before I reviewed this game, I had only played one or two games of Backgammon a few years ago. However, I find the computer version to be really interesting and fun. If you don't already know the game, don't be afraid to try and learn, as it is one of the most interesting that I have found. If you are a novice, there is a strange Backgammon term you'll see: a "blot" is simply a single piece all by itself. The game is such that blots are not what you want to have on the board, as they are vulnerable to attack by your opponent.