SPOT Column

for Recreational Computers

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Heard around the quayside

Commodore continues to make changes to its product line. The latest is the discontinuance of the original 2001-8 machine, with the builtin cassette tape and small keyboard. In its place is the 2001-8N, which/is identical to ~~except for memory size~~ its bigger brothers ~~with~~ which have 16 or 32K memory. In effect, it means a price increase for economy minded PET purchasers, since it costs an additional $100 to get a tape cassette. What you do get is the full-size keyboard, and the new corrected ROM set.

Speaking of price changes, Commodore has twice now made a super offer to schoool systems, giving them three machines for the price of two. But ~~the~~ most recently, ~~last time,~~ the offer was abruptly ~~withdrawn~~ shortened by 30 days. This caused havok with many PET dealers, who planned extensive advertising and sales campaigns based on Commodore's offer. It's stunts like this that will cause the PET to lose the ~~support~~ backing of its army of supporters.

Several other changes seem to be in the wind. Commodore is getting ready to release a new enclosure for the PET, made of structural foam (like the Apple) rather than steel. The appearance of the PET is somewhat "softened", but otherwise unchanged. The PET ~~was one of~~ (and TI 99/4 were the only) two personal computers tested by the FCC which ~~already~~ meets the July 1980 limits on RF interference; lets hope this change doesn't effect the excellent shielding currently ~~supplied~~ provided by the metal case. Rumor also has it that Commodore will be switching the character generator on the PET back to the way it was on the first 8K PETs. ~~I think this is a good move~~ It was a mistake to change it in the first place, and this will throw even more confusion into the arena!

Lastly, Commodore is hard at work on a "business" machine. The major change is the use of a larger, 80 character screen, and builtin floppy disks. (Sound like the Tandy TRS-80 Model II??). Will it have a 6502 CPU or a 6809, as several of the newer products now under development elsewhere are expected to have? The 6809 is a nice upgrade from the 6502. It contains a series of 16 bit extensions to the current 8 bit architecture of the 6500/6800 family, but to the outside world looks like an 8 bit processor, so all standard peripheral chips are still compatible. ~~The=main~~ Compared to a 6800 it is quite a bit faster; unfortunately when compared to a 6502 running at the ~~small~~ same speed it is pretty much even, although much easier to write programs for.

PET Tips

You may have noticed that on the new PET even when you POKE characters
to the screen there is no "snow". This same change permits the PET to
print characters ~~on the screen~~, or list programs much faster than before,
although Commodore's software doesn't take advantage of this. ∧ But You can
make your PET go faster by issuing a POKE 59458,62. Now LIST a long program!
(To restore the PET back to the normal mode, issue POKE 59458,30.) Doing
this on an 8K PET ∧also makes thing go faster, but the screen blinks on and off
in a very distrubing fashion.

You did know that the machine language monitor supplied by Commodore is
in ROM on the new PETs? The manual indicates that you load it from tape,
but it's really there. One quick way to start it up is to SYS(1024). Details
about using the monitor are in the User's Manual; remember that an X
command gets you back to BASIC.

We all know that programs which do PEEKs and POKEs often work on one
model of the PET, but not on the other. I was surprised to see ~~one~~ a program
which worked fine on an 8K PET have a totally messed up display format when
run on a new PET, and there wasn't a PEEK or POKE to be found. There are
changes in BASIC itself to be wary of! One example is this little expression:
~~enter~~ typing ?SPC(40);:?POS(0) on an old PET prints 40, and on the new PET
prints 0. What changes have you run into?

PET Publications

The PET Gazette is no longer. Len Lindsay's fine magazine has disappeared, but is replaced by COMPUTE, The Journal for Progressive Computing. Issue 1, dated Fall 1979, is already out, and is a beautiful, slick 102 page magazine with lots and lots of good information and sources of products for the PET. Robert Lock, President of A Small System Services, Inc. has put together a superb replacement *magazine*, and has Len Lindsay as his Senior Contributing Editor. As a sign of how much work went into COMPUTE, ~~even~~ someone managed to get Commdore to pay for 4 pages of advertising, a first to my knowledge. There is a change in orientation from the PET Gazette. More like MICRO, COMPUTE plans to provide information for all 6502 based machines, which includes the Apple, KIM, SYM *AIM, OSI* and the new Atari. You can subscribe to COMPUTE for $9 for six issues (one year). An alternative is a $7.50 "personal/retail" subscription, where your copy is bulk delivered to a local dealer for you to pick up, instead of being sent by Pony Express. Sounds like a cheaper and faster way to get COMPUTE. Subscriptions can be ordered from COMPUTE, P.O. Box 5119, Greensboro, NC 27403. All technical correspondance can still be sent to Len Lindsay, 1929 Northport Dr. #6, Madison, WI 53704.

There are two new student workbooks for beginners learning PET BASIC. Both are in active classroom use, and are desgined to be used with the PET at hand, but don't need an instructor nearby. They gently introduce the PET, starting with the keyboard, and seem very effective. Cow Bay Computing, Box 515, Manhasset, N.Y. 11030 has released "Feed me, I'm your PET computer" for beginners. It is available for $4.95, and has a companion book "Looking good with your PET" for intermediates (also $4.95).

A series of similar workbooks was developed at San Jose State University,
with parallel editions for the PET, Apple and TRS-80. Beginners can
get started with "Training your computer (PET edition)". Ten or more copies
can be ordered from METRA Instruments, Inc., Pickering Division,
2056 Bering Drive, San Jose, CA 95131, for $2 each. Single copies
may be ordered from Creative Publications, P.O. Box 10328, Palo Alto,
CA 94303, for $4 a copy.

If you are interested in interfacing any devices to your PET through
the user port, or in understanding how the CB2 music works, you probably
should take a look at Rodnay Zaks' "6502 Applications Book", published by
SYBEX, 2020 Milvia Street, Berkeley, CA 94704. It is chock full of
details on all the various peripheral chips that are used in the PET,
and includes details about programming them in assembly language. The
book costs $12.95, and is available in most computer retail stores.

PET Hardware add-ons

One of the more remarkable gadgets to put on a PET has been developed by Innovision, P.O. Box 1317, Los Altos, CA 94022. The Prestodigitizer^{tm} tablet attaches to the PET's user port, and can be used to provide handwritten input to the PET. The accompanying drawing shows the letter B written on the surface of the tablet, which is split into the 7 regions shown. ~~Programs~~ Sample programs which come with the Prestodigitizer tablet can recognize all the numbers or letters when written on the tablet using the metal tipped stylus provided. In fact, you can even train the PET to recognize your own handwriting. This handsomely packaged device comes with a useful manual, and cassette tape with several sample applications. It costs $48.50 plus $1.50 (and tax in California), and can be ordered either from Innovision, or at local computer dealers.

Have you put sound on your PET yet? If not, the best way to go is to get the Soundware adapter, from CAP Electronics, 1884 Schulman Avenue, San Jose, CA 95124, or your local retailer, for $29.95. It's very attractively packaged, and includes a handy instruction book and demo tape. Even if you already made your own "CB2" sound box, get ahold of the tapes from Soundware called Action Pack, The Classics and Word Fun. Each costs only $9.95, and contains three excellent programs with sound incorporated. They are well done, and quite inexpensive.
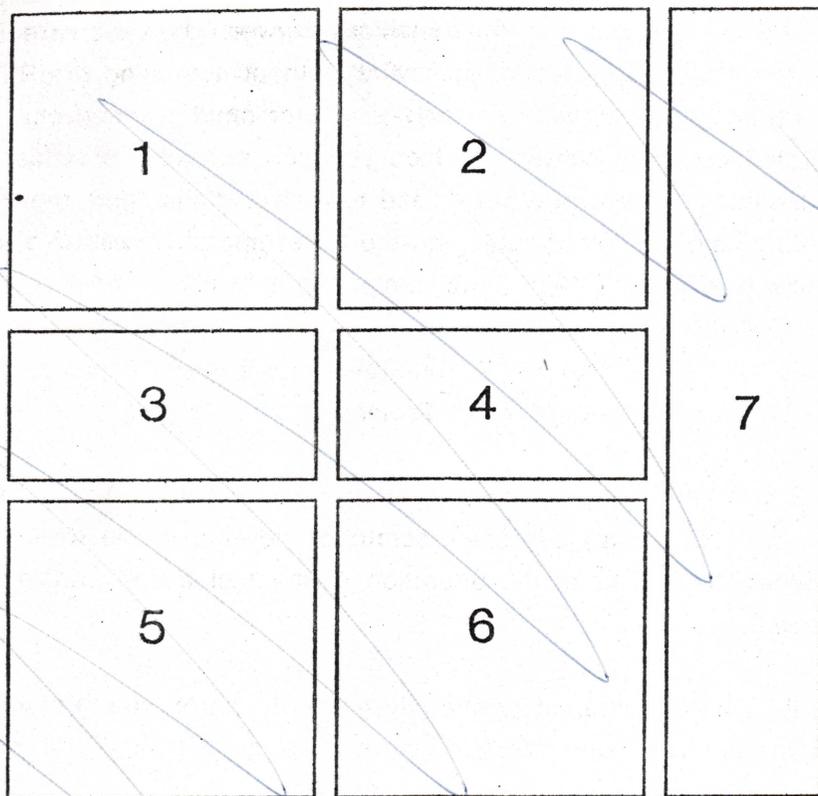
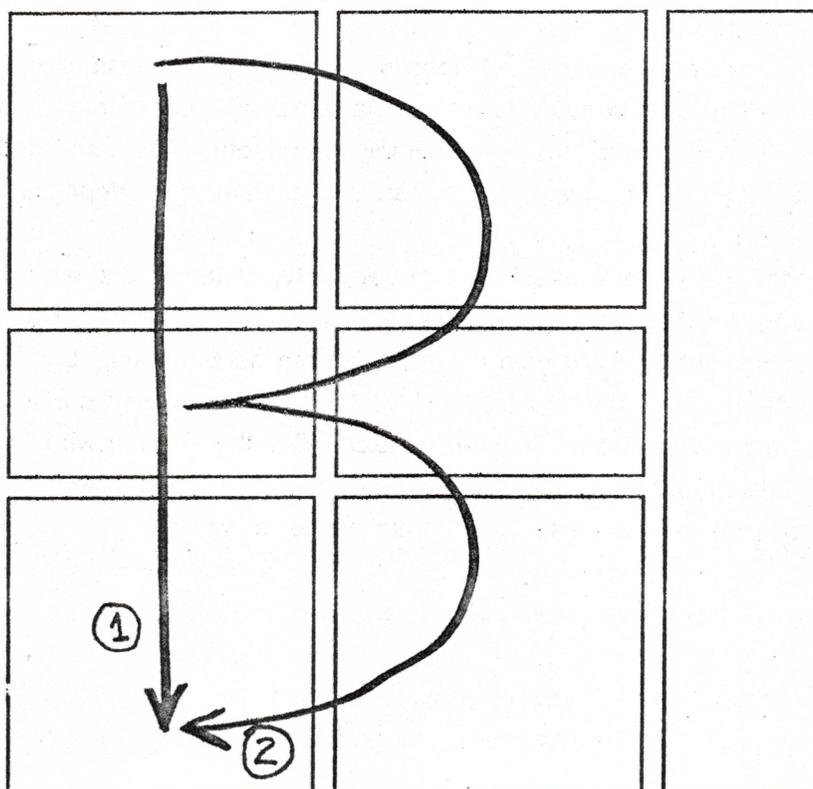Figure 1. Top view of tablet with regions labeled

Figure 2. Two strokes used to draw the letter B

Another source of interesting music tapes (other than many of the fine
programs still coming regularly from CURSOR Magazine) ~~is~~ are the Allen Comp~~ter~~uter
Products Music Box 1 and Animation 1 tapes. These two tapes, available
at $10 each from Allen COmputer Products, 34844 Munger Drive, Livonia, MI 48154,
each contain four selections, from Bach, Chopin andMozart to the Can-can
and Flight of the Bumble-bee. All eight programs have an amusing animated
screen displayed ~~will~~ while the music plays. Unfortunately the author's
attempt to make the programs run on either old or new ROM machines is
somewhat muddled and inconsistent. ~~With=a=bit=of=fooling=around=they~~ Just
the same, they contain quite a bit of pleasant whimsy, although not as
high quality ~~are~~ as those from Soundware or CURSOR.

A light pen for the PET is available from the 3G Company, Route 3, Box 28A, Gaston, Oregon 97119, for $29.95 plus $1.50 mailing and handling charge. The light pen resembles a ballpoint pen, and plugs into the user port of the PET. It requires no external power supply, and adds an additional dimension to games and graphic programs. This type of light pen is quite simple, essentially responding to the presence or absence of light. By displaying one or more flashing cursors on the screen, and testing in software whether the blinking of the cursor is in synch with what the light pen sees, it is simple to set up multiple choice or menu driven programs. The light pen I tested did not have polarizing plugs on the user port connector, and the orientation of the connector always seemed "upsidedown" to me, until I placed a "this side up" sticker on the back. Other than this oversight, it is a very well put together product, and one that adds a lot of enjoyment to the PET. Software which is written for use by this light pen is available from several sources. I found the programs written by Quill Software, 2512 Roblar Lane, Santa Clara, CA 95051 to be the best. The light pen is best suited for a multiple choice scenario, such as in the game of Swords and Sorcery, Hunt the Wumpus, or Othello. There are four tapes available from Quill, priced at about $20 each. I suggest you write them for a complete up-to-date list, as new ones are made available. regularly.