

# CHRISTMAS SPECIALS

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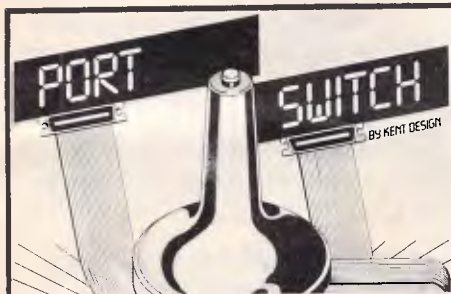
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## CHIP CHAT

Altair 8800, the first mass-produced microcomputer (1975).

(2) Michael Shroyer — the Electric Pencil package had to be customised for different processors, video boards, and memory sizes.

(3) Ken Uston — he is banned at most casinos throughout the world and turned to computers two years ago.

(4) Chuck Peddle — his brief stint at Apple in 1980 didn't work out; now he has founded NNA (No Name Available, so called because every name he tried to get was already registered).

(5) Nolan Bushnell — after founding Atari and selling out to Warner in 1980, his later ventures haven't fared so well.

The November 'Prize Crossword' winner is T Robinson and the solutions are:

### ACROSS

3Negation 6Firmware 7Stores 8Set  
9Blow 10Director 12Parity 13Program  
15Failure 17Wafers 18Magnetic  
22Read 23End 24Divide 25Computer  
26Generate

### DOWN

1Writer 2Tablet 3Network 4Automation  
5Operator 6Fused 11Card reader  
14Real time 16Embrace 19Grammy  
20Twenty 21Coder

## BLUDNERS

For those of you trying to run Connect-Four for the Commodore 64, you might find this subroutine useful which was omitted from the August issue of APC.

```
1749 :
1750 REM: EVALUATE X,Y
1760 E=EC (X)
1770 FOR D=0 TO 3:Q=X (D) :R=Y (D)
1780 FOR C1=1 TO 2:N=0:
      I=X+Q: J=Y+R
1790 IF B(I,J) <> C1 THEN 1820
```

And from Chris Stamboulidis who submitted the program 'Mini Calc' published in the October issue of

```
970 INPUT "HIT <RETURN> TO SAVE"; NA$:FOR T % = 1 TO 9: FOR Y%=
      1 TO 43
980 PRINT#"MIN",CHR$(34)$(T%, Y%),CHR$(34)$(T%,Y%): NEXT: NEXT
990 GOTO 170
```

APC: "There was one point which I omitted to mention in the documentation.

When writing numerical constants during the entry of functions, ensure that they are enclosed by '<' and '>'.

For example, to multiply the contents of cell 2,4 by 0.3, you would write:

```
"[2,4]*<.37>"
```

Also, the SAVE routine should be modified to prevent possible problems with 'INPUT#'ing strings with commas inside them. The following lines should now read:

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