



Tech Info Library

Apple II Machine Language: Accessing the keyboard

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Security: Everyone

Apple II Machine Language: Accessing the keyboard

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When writing a machine language routine to check the keyboard for a single character, make sure that the routine checks for the high bit at the keyboard, signifying valid data, before the routine attempts to read data there.

Here is an example of such a routine:

```

                ORG   $300
KBD             EQU   $C000      ; location of keyboard data
KBDSTRB        EQU   $C010      ; location of keyboard strobe latch

ReadKey        BIT   KBD         ; test high bit of data reg.
                BPL   ReadKey    ; If not set retest till it is set
                LDA   KBD         ; Data at KBD is Valid (High Bit set)
                BIT   KBDSTRB    ; now clear the keyboard for the next char
                RTS              ; and we are done.
```

The act of striking a key will set the strobe bit automatically, so this routine clears it before returning.

If you are testing for a particular keystroke, put the test in a separate routine. Here is an example of how that would be done:

```

...
                BIT   KBDSTRB    ; Clear out any data that is already at KBD
WaitForA      JSR   ReadKey     ; get a key from the keyboard
                CMP   #$C1      ; is it an A????
                BNE   WaitForA  ; Nope go get another
                RTS
...

```

These methods apply to all Apple II's: II, II Plus, IIe, IIe enhanced, and IIc.

Apple Technical Communications