
RDKEY input subroutine

A program gets a character from the keyboard by making a subroutine call to RDKEY at memory location \$FD0C. RDKEY sets the character at the cursor position to flash, then passes control via the input link KSW to the current input subroutine, which is normally KEYIN or BASICIN.

RDKEY displays a cursor at the current cursor position, which is immediately to the right of whatever character you last sent to the display (normally by using the COUT routine, described earlier). The cursor displayed by RDKEY is a flashing version of whatever character happens to be at that position on the screen. It is usually a space, so the cursor appears as a blinking rectangle.

KEYIN input subroutine

KEYIN is the standard input subroutine when the 80-column firmware is inactive; BASICIN is used when the 80-column firmware is active. When called, the subroutine waits until the user presses a key, then returns with the key code in the accumulator.

If the 80-column firmware is inactive, KEYIN displays a cursor by alternately storing a checkerboard block in the cursor location, then storing the original character, then the checkerboard again. If the firmware is active, BASICIN displays a steady inverse space (rectangle), unless you are in escape mode, when it displays a plus sign (+) in inverse format.

KEYIN also generates a random number. While it is waiting for the user to press a key, KEYIN repeatedly increments the 16-bit number in memory locations 78 and 79 (hexadecimal \$4E and \$4F). This number keeps increasing from 0 to 65535, then starts over again at 0. The value of this number changes so rapidly that there is no way to predict what it will be after a key is pressed. A program that reads from the keyboard can use this value as a random number or as a seed for a random-number routine.

When the user presses a key, KEYIN accepts the character, stops displaying the cursor, and returns to the calling program with the character in the accumulator.

Escape mode is described in the next section, "Escape Codes."