



Tech Info Library

Pascal: Keypress function

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Security: Everyone

Pascal: Keypress function

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Keypress is a commonly used function residing in the Applestuff unit. If it's the only routine needed from this unit, it is more efficient to refer to the routine alone without loading the entire unit.

The following listing of the function Keypress can be assembled for linking to your host program as an "external" function. Follow the instructions that accompany the examples shown on pp. 136-182 of the Pascal Operating System Reference Manual.

```

        .FUNC Keypress,0      ;0 words of parameters passed
;*****
;*
;*  Function Keypress: boolean; external
;*
;*****
;
RETURN  .EQU 0                ;Storage for return address
CONCKVEC.EQU 0BF0A           ;Fixed address in BIOS
RPTR    .EQU 0BF18           ;Fixed buffer pointer
WPTR    .EQU 0BF19           ;Fixed buffer pointer
Version .EQU 0BF21           ;System version number
Keypress.EQU 0C000           ;Keyboard hardware
CONCK   .EQU 0FF5C           ;Way to get CONCK in old system

        PLA
        STA RETURN
        PLA
        STA RETURN+1
        PLA
        PLA
        PLA
        PLA                  ;Pop 4 bytes stack bias for function
        LDA #0
        PHA                  ;Return MSB zero
        LDA Keyboard
        BMI True

```

```
        LDA Version
        BNE $1          ;Jump if not original Pascal version
        JSR CONCK
        JMP $2
$1      JSR CONCKVEC    ;Check console
$2      LDA RPTR
        CMP WPTR       ;Char in buffer?
        BEQ Empty
TRUE    LDA #1         ;Yes, return Keypress=True
        BNE KPDONE     ;Always taken
EMPTY  LDA #0         ;No, return Keypress=False
KPDONE PHA            ;Push LSB result
        LDA RETURN+1
        PHA            ;Restore return address
        LDA RETURN
        PHA
        RTS
        .END
```

The sample program below illustrates the use of Keypress as an externally linked routine. Follow the instructions given on pp. 136-182 of the Pascal Operating System Reference Manual for assembling and linking external code.

```
Program Presstest;

Var I: integer;

Function Keypress: boolean; external;

Begin
I:=0;
Repeat
  Writeln (I);
  I:=I+1;
Until Keypress
End.
```

Apple Tech Notes

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