

Pascal listing: MF2P.PAS

```
{*****}
{*                                     M F 2 P                                     *}
{*-----*}
{*   Task           : Demonstrates key read from MF-II keyboards.   *}
{*-----*}
{*   Author          : Michael Tischer                               *}
{*   Developed on    : 01/28/92                                       *}
{*   Last update     : 04/07/95                                       *}
{*****}
```

program MF2P;

uses Dos, Crt; { Add DOS and CRT units }

const CR = #13#10; { Carriage Return & Linefeed }

```
{*****}
{* HexByte : Changes a byte into a two-digit hex string.           *}
{* Input   : BVAL = Byte to be converted                           *}
{* Output  : Two-digit hex string                                   *}
{*****}
```

function HexByte(bval : byte) : string;

const HexDigits : array [0..15] of char = '0123456789ABCDEF';

var dummy : string[2]; { Get string }

begin

 dummy[0] := chr(2); { String consists of two characters }

 dummy[1] := HexDigits[bval shr 4]; { Convert both }

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dummy[2] := HexDigits[ bval and $0F ];           { nibbles to hex }
HexByte := dummy;
end;

```

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{*****}
{ * TestMF: Tests whether the extended BIOS functions for reading the * }
{ *           MF-II keyboard are available.                           * }
{ * Input    : None                                                  * }
{ * Output   : TRUE if the functions are available, otherwise FALSE  * }
{*****}

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function TestMF : boolean;

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var Regs : Registers;           { Processor registers for interrupt call }

```

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begin

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    Regs.AX := $1200;           { Extended status function for MF-II keyboards }

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    intr( $16, Regs );

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    TestMF := ( Regs.AX <> $1200 );           { AX=$1200 : Function absent }
end;

```

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{*****}
{ * GetMFKey : Reads a key using extended keyboard function 10H.      * }
{ * Input    : None                                                  * }
{ * Output   : The returned keycode                                   * }
{*****}

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function GetMFKey : word;

```

```

var Regs : Registers;           { Processor registers for interrupt call }

```

```

begin

```

```

Regs.AH := $10;           { Extended read function for MF-II keyboards }
intr( $16, Regs );
GetMFKey := Regs.AX;       { Return keycode }
end;

```

```

{*****}
{ *                M A I N   P R O G R A M                * }
{*****}

```

```

var pdkey : word;

```

```

begin
  clrscr;
  writeln( 'MF2P - (c) 1992 by Michael Tischer' + CR );
  if ( TestMF ) then
    begin
      writeln( 'BIOS functions implemented for ' +
        'MF-II keyboards.' + CR + CR + 'Press any key ' +
        'or combination to display key codes.' + CR + CR +
        'Press <Esc> to end the program.' + CR );

      repeat
        pdkey := GetMFKey;           { Input loop }
        write( 'Scan : ', HexByte(hi(pdkey)), ' ',
          'ASCII: ', HexByte(lo(pdkey)) );
        { Get key }
        if ( (lo(pdkey) = $E0) and (hi(pdkey) <> 0 ) ) then
          write( ' <---- MF-II key' );
        writeln;
        until ( pdkey = $011b );      { Repeat until user presses <ESC> }
        writeln( CR );
      end
    else

```

```
        writeln( 'No BIOS extensions available for MF-II keyboards!');  
end.
```