

```

'*****
' *
' *                               R T C B
' *
' *-----*
' * Task      : Makes different routines available for reading  *
' *            and writing realtime clock data.                  *
' * Author     : Michael Tischer                                *
' * Developed on : 07/24/87                                       *
' * Last update  : 03/03/92                                       *
'*****
'
DECLARE FUNCTION RTCRead% (Address%)
DECLARE FUNCTION RTCDT% (Address%)

CLS                                     'Clear screen
PRINT "RTCB (c) 1987, 92 by Michael Tischer": PRINT
PRINT "Information from the battery operated realtime clock"
PRINT "=====
PRINT

IF (RTCRead(&HE) AND 128) = 128 THEN      'Bit 7 = 0 --> Battery O.K.
PRINT "          WARNING! Clock battery is low"
ELSE
PRINT "- The clock is running in";
PRINT (RTCRead(&HB) AND 2) * 6 + 12; "hour mode"

PRINT "- the time: ";
PRINT USING "##: "; RTCDT(&H4);
PRINT USING "##: "; RTCDT(&H2);
PRINT USING "##"; RTCDT(&H0)

PRINT "- the date: ";
PRINT USING "##"; RTCDT(&H8);
PRINT "- ";
PRINT USING "##"; RTCDT(&H7);
PRINT "- ";
PRINT USING "####"; RTCDT(&H9) + 1900
PRINT

END IF

'*****
' * RTCDT: Reads the contents of a date or time memory location, and *
' *            converts the contents to decimal.                    *
' *-----*
' * Input   : ADDRESS% = The memory address (0-63)                *
' * Output  : The contents of this address in decimal notation    *
'*****
'
FUNCTION RTCDT% (Address%)

    Ret% = RTCRead(Address%)      'Read contents of the memory address
    IF (RTCRead(&HB) AND 2) <> 0 THEN      'Test for BCD mode
        RTCDT% = (Ret% AND 15) + INT(Ret% / 16) * 10      'Convert BCD to DEC
    ELSE
        RTCDT% = Ret%
    END IF

END FUNCTION

'*****
' * RTCRead: Reads the contents of a memory location on the RTC.   *
' *-----*
' * Input   : ADDRESS% = The memory address (0-63)                *
' * Output  : The contents of this address, or -1 if this address  *
' *            contains an invalid number                          *
'*****
'
FUNCTION RTCRead% (Address%)

    IF (Address% < 0) OR (Address% > 63) THEN
        RTCRead% = -1
    ELSE
        OUT &H70, Address%      'Memory location in the RTC address register
        RTCRead% = INP(&H71)     'Read contents of the RTC data register
    END IF

```

END FUNCTION

```
'*****
'* RTCWrite: Writes a memory location to the RTC.
'*-----*
'* Input   : ADDRESS% = The memory address (0-63)
'*          CONTENTS% = New contents of this memory location
'*-----*
'
```

SUB RTCWrite (Address%, Contents%)

```
    OUT &H70, Address%      'Memory location in the RTC address register
    OUT &H71, Contents%     'Write new contents to the RTC data register
```

END SUB