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Code examples using Turbo Pascal 7

RTS is pin7 on a DB9 connector. It is pin4 on a DB25 connector.

Turn RTS pin "on" (+ voltage):

procedure RTS_ON; assembler; asm mov dx, \$3FC {for COM1 port. Use \$2FC for COM2} in al, dx or al, 2 out dx, al end;

Turn RTS pin "off" (- voltage):

procedure RTS_OFF; assembler; asm mov dx, \$3FC {for COM1 port. Use \$2FC for COM2} in al, dx and al, not 2 out dx, al end;

The RDTSC cycle counter is built in to the Pentium chip. It counts at the processor frequency.

How to get the 64-bit unsigned RDTSC processor cycle counter in a 16-bit real-mode app:

function rdtsc64: comp; var int64: comp; begin asm db \$0F, \$31; db \$66, \$89, \$46, \$F0; db \$66, \$89, \$56, \$F4; end; rdtsc64:=int64; end;

Read any 16 bits from the lower 32 bits of the RDTSC counter into an unsigned word

{The value of "shift" you should use depends on your CPU frequency and the largest time interval you want to measure. set "shift" to any value between 0 and 16. shift:=0 gets the lowest 16 bits; shift:=16 gets the highest 16 bits}

var shift: word;

function RDTSC16: word; assembler;

asm

db \$0F, \$31;

mov cl, byte ptr shift;

db \$66; shr ax,cl;

end;

Read the 16-bit 1.193* MHz channel 0 down-counter from the 8254 Programmable Interval Timer:

function _8254Chan0: word; assembler; asm mov dx, \$40 in al, dx mov ah, al in al, dx xchg ah, al end;

*NOTE! On newer machines, the frequency of this counter is doubled to 2.386 MHz