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1 /* *****
* Delay functions for HI-TECH C on the PIC
*
* Functions available:
5 * DelayUs(x) Delay specified number of microseconds
* DelayMs(x) Delay specified number of milliseconds
*
* Note that there are range limits: x must not exceed 255 - for xtal
* frequencies > 12MHz the range for DelayUs is even smaller.
10 * To use DelayUs it is only necessary to include this file; to use
* DelayMs you must include delay.c in your project.
*
*
*
15 * Set the crystal frequency in the CPP predefined symbols list in
* HPDPIC, or on the PICC command line, e.g.
* picc -DXTAL_FREQ=4MHZ
*
* or
20 * picc -DXTAL_FREQ=100KHZ
*
* Note that this is the crystal frequency, the CPU clock is
* divided by 4.
*
*
25 * MAKE SURE this code is compiled with full optimization!!!
* -----
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* (MPLAB-IDE 6.43)
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* ***** */

35 #ifndef XTAL_FREQ
#define XTAL_FREQ 4MHZ /* Crystal frequency in MHz */
#endif

#define MHZ *1000L /* number of kHz in a MHz */
40 #define KHZ *1 /* number of kHz in a kHz */

#if XTAL_FREQ >= 12MHZ

#define DelayUs(x) { unsigned char _dcnt; \
45 _dcnt = (x)*((XTAL_FREQ)/(12MHZ)); \
while(--_dcnt != 0) \
continue; }

#else

50 #define DelayUs(x) { unsigned char _dcnt; \
_dcnt = (x)/((12MHZ)/(XTAL_FREQ))|1; \
while(--_dcnt != 0) \
continue; }

#endif

55 extern void DelayMs(unsigned char);

```