

```
/*
 * Delay functions for HI-TECH C on the PIC
 *
 * Functions available:
 *   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.
 * To use DelayUs it is only necessary to include this file; to use
 * DelayMs you must include delay.c in your project.
 */

/* 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
picc -DXTAL_FREQ=100KHZ

Note that this is the crystal frequency, the CPU clock is
divided by 4.

* MAKE SURE this code is compiled with full optimization!!!
*/

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

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

#if XTAL_FREQ >= 12MHZ

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

#else

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

#endif

extern void DelayMs(unsigned char);
```