

Forum: [8-bit PIC](#)

Topic: [pic16f883 eeprom紀錄](#)

Subject: Re: [pic16f883 eeprom紀錄](#)

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查了一下 Hi-Tech PICC 的 Internal EEPROM 的用法，如下：  
(HI-TECH C for PIC10/12/16 User 's Guide)

For those PIC10/12/16 devices that support external programming of their EEPROM data area, the `__EEPROM_DATA()` macro can be used to place the initial EEPROM data values into the HEX file ready for programming. The macro is used as follows.

```
#include <htc.h>
__EEPROM_DATA(0, 1, 2, 3, 4, 5, 6, 7);
```

The library functions `eeeprom_read()` and `eeeprom_write()`, can be called to read from, and write to, the EEPROM during program execution. For example, to write a byte-size value to an address in EEPROM and retrieve it using these functions would be:

```
#include <htc.h>
void eetest(void) {
    unsigned char value = 1;
    unsigned char address = 0;
    // write value to EEPROM address
    eeeprom_write(address, value);
    // read from EEPROM at address
    value = eeeprom_read(address);
}
```

Be aware that if a program contains multiple instances of either macro, any code space saving will be negated as the full content of the macro is now duplicated in code space. In the case of `EEPROM_READ()`, there is another very important detail to note. Unlike `eeeprom_read()`, this macro does not wait for any concurrent EEPROM writes to complete before proceeding to select and read EEPROM. Had the previous example used the `EEPROM_READ()` macro in place of `eeeprom_read()` the operation would have failed. If it cannot be guaranteed that all writes to EEPROM have completed at the time of calling `EEPROM_READ()`, the appropriate flag should be polled prior to executing `EEPROM_READ()`.


For example:

```
#include <htc.h>
void eetest(void){
    unsigned char value = 1;
    unsigned char address = 0;
    // Initiate writing value to address
```

```
EEPROM_WRITE(address,value);
// wait for end-of-write before EEPROM_READ
while(WR)
continue; // read from EEPROM at address
value = EEPROM_READ(address);
}
```

附加檔案:

擷取.JPG(120.31 KB)



## EEPROM 初始燒錄值設定

- 在 **XC8** 底下，**PIC16F** 及 **PIC18F** 的設定語法是一樣的
  - ◆ 使用 `__EEPROM_DATA( )` 的巨集
  - ◆ 擺放位址從 EEPROM 0x00 的位址開始

範例:

```
#include <xc8.h>
__EEPROM_DATA(0x00,0x01,0x02,0x03,0x04,0x05,0x06,0x07);
__EEPROM_DATA(0x08,0x09,0x0A,0x0B,0x0C,0x0D,0x0E,0x0F);
```

在 Window 下 → PC Memory Views → EE Data Memory 視窗

Output	Tasks	Configuration Bits	Variables	Call Stack	Configuration Bits												
Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	ASCII
00	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	.....
10	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	.....
20	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	.....

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