
EXAMPLE 5

Description:
Using packed data structures.

Notes:
GCC allows creating packed structures by using attribute "packed".

IAR relies on `__packed` extended keyword.

Danger warning for IAR code: LOW

GCC code example:

```
typedef unsigned char u8;
typedef unsigned short int u16;

//typedef struct __attribute__((packed))

struct __attribute__((packed)) Packed_Info {
    u8  Var8a;
    u16 Var16a;
    u8  Text[4];
};

u16 Length = sizeof(struct Packed_Info);
```

GCC assembler output:

```
                .global   Length
                .data
                .align    1
                .type     Length,object
                .size     Length,2
Length:
                .short    7
```

Equivalent IAR C code:

```
typedef unsigned char u8;
typedef unsigned short int u16;

//typedef __packed struct

__packed struct Packed_Info {
    u8  Var8a;
    u16 Var16a;
    u8  Text[4];
};

u16 Length = sizeof(struct Packed_Info);
```

IAR assembler output:

```
89      typedef unsigned char u8;
90      typedef unsigned short int u16;
91
92      __packed struct Packed_Info {
93          u8  Var8a;
94          u16 Var16a;
95          u8  Text[4];
96      };
97
\
\      In section .data, align 2
98      u16 Length = sizeof(struct Packed_Info);
\      Length:
\ 00000000 0700      DC16 7
```