
 EXAMPLE 9

Description:
Aligning data structures.

Notes:

GCC uses "aligned" attribute for aligning.

IAR relies pragma directive and `__packed` extended keyword (in some cases)

Danger warning for IAR code: LOW

GCC code example:

```

-----
u8 Buffer1[18] __attribute__ ((aligned (4)));

struct InfoDef
{
    u8    addr[5];
    u16   Var16;
}__attribute__ ((packed, aligned (1)));

struct InfoDef InfoList[5];
  
```

GCC assembler output:

```

-----
                .comm      Buffer1, 20          @ 18
                .comm      InfoList, 36       @ 35
  
```

Equivalent IAR C code:

```

-----
#pragma data_alignment = 4
u8 Buffer[18];

#pragma data_alignment = 1
__packed struct InfoDef
{
    u8    addr[5];
    u16   Var16;
};

struct InfoDef InfoList[5];
  
```

IAR assembler output:

```

-----
161          #pragma data_alignment = 4
\
\ 162          u8 Buffer[18];          In section .bss, align 4
\          Buffer:
\ 00000000          DS8 20
163
164          __packed struct InfoDef
165          {
166          u8    addr[5];
167          u16   Var16;
168          };
169
170          #pragma data_alignment = 1
\
\          In section .bss, align 1
\ 171          struct InfoDef InfoList[5];
\          InfoList:
\ 00000000          DS8 36
  
```