
Subject: Re: StaticImage cannot show BMP file
Posted by [hans](#) on Sat, 13 Sep 2014 18:18:45 GMT
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Hi, your struct BMP_FILEHEADER has the wrong memory layout,
it must be "packed" meaning no gaps between the members.

You have:

```
struct BMP_FILEHEADER {  
    word  bfType;    2 bytes  
    gap----->2 bytes  
    dword bfSize;    4 bytes  
    word  bfReserved1; 2 bytes  
    word  bfReserved2; 2 bytes  
    dword bfOffBits;  4 bytes
```

In sum 16 bytes

but the Microsoft spec requires that no gap between members exists (in the time defining the struct it was traded not to "waste" space often).

So it must be

```
struct BMP_FILEHEADER {  
    word  bfType;    2 bytes  
    dword bfSize;    4 bytes  
    word  bfReserved1; 2 bytes  
    word  bfReserved2; 2 bytes  
    dword bfOffBits;  4 bytes
```

In sum 14 bytes

Your change to get it work (bfOffBits changing type) is not right, because
you have still bfSize member at invalid memory position.

The upp code tries to get the "packed" alignment by using for Microsoft Compiler

```
#ifdef COMPILER_MSC  
#pragma pack(push, 1)  
#endif
```

or for GCC

```
#ifdef COMPILER_GCC
```

```
__attribute__((packed))  
#endif
```

You can check if the right compiler `#define` is defined.
Or your compiler ignores this directive for whatever reason.

Hope it helps.
