Subject: StaticImage cannot show BMP file
Posted by jerson on Wed, 10 Sep 2014 11:24:30 GMT
View Forum Message <> Reply to Message

I am using a StaticImage control in my project and can display JPG images using

stImg.Set("JPGFILE.JPG");

where stImg is a StaticImage control on layout

How can I display a .BMP file? I have found no example to load a BMP file from disk to staticImage. Would it be possible to use plugin/bmp for this purpose or am I shooting in the dark? Can someone please show me a simple example to load a file.bmp from disk and .Set to a StaticImage?

Jerson

Subject: Re: StaticImage cannot show BMP file
Posted by koldo on Thu, 11 Sep 2014 06:53:24 GMT
View Forum Message <> Reply to Message

Hello Jerson

StaticImage has to open .bmp files as easily as .jpg or other image formats supported by U++.

Please if you cannot open a .bmp in your program, try to do it using Controls4U_demo and tell me what happen.

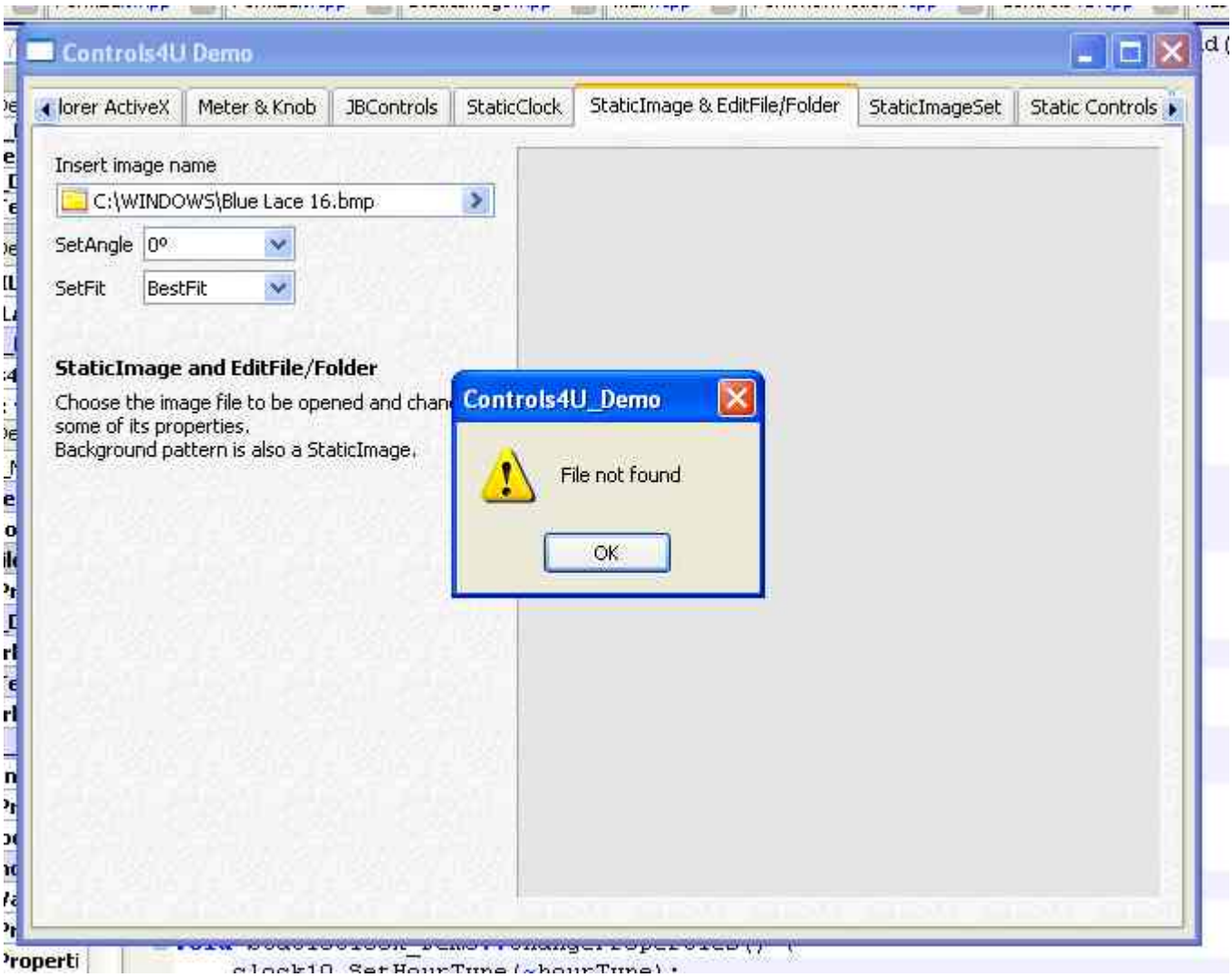
Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Thu, 11 Sep 2014 08:55:45 GMT
View Forum Message <> Reply to Message

Hi Koldo

I have tried your controls4u_demo too. Sorry, it comes back like this when I load the windows BMP file.

I am using v7635 with Mingw

File Attachments
1) controls4u.jpg, downloaded 1303 times



Subject: Re: StaticImage cannot show BMP file
Posted by koldo on Thu, 11 Sep 2014 09:10:44 GMT
View Forum Message <> Reply to Message

Hello Jerson

In my case it works well:

In your case either file does not exist or file format is not supported.

To know if there is a problem with the image format, you could try to open the file with TheIDE in an .iml file, by right clicking the mouse over the icon list, and choosing "Insert from file(s)".

Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Thu, 11 Sep 2014 09:16:28 GMT
View Forum Message <> Reply to Message

Hi Koldo

Interesting. Insert from files into iml works fine.

Subject: Re: StaticImage cannot show BMP file
Posted by koldo on Thu, 11 Sep 2014 09:51:08 GMT
View Forum Message <> Reply to Message

Could you send me a copy of the .bmp, if you want by a PM or by email?

Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Thu, 11 Sep 2014 10:52:00 GMT
View Forum Message <> Reply to Message

Sent PM

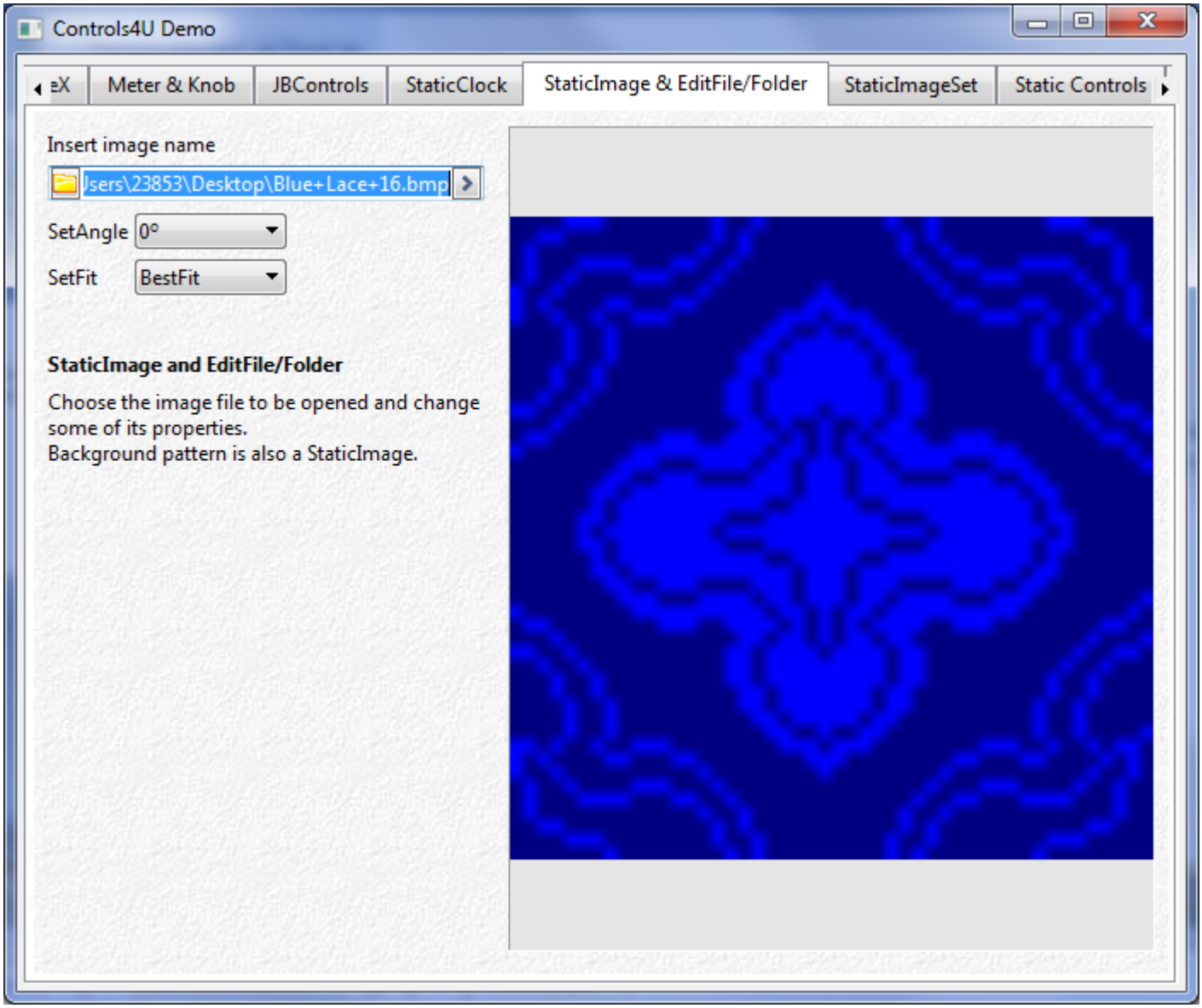
Subject: Re: StaticImage cannot show BMP file
Posted by koldo on Fri, 12 Sep 2014 06:41:29 GMT
View Forum Message <> Reply to Message

Hello Jerson

Your images open well:

Anyway, please try to choose Controls4U from your project package list, right button, select "Package Organizer", and add "plugin/bmp" package. Recompile all the package, and try to open de umages again.

File Attachments
1) Image.png, downloaded 1066 times



Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Fri, 12 Sep 2014 07:18:02 GMT
View Forum Message <> Reply to Message

Hi Koldo

thanks for you taking time to look into this. plugin/bmp is already listed in the package tree along with plugin/jpg, tif, png etc. I even tried adding it to the USES list. Still BMP does not work for me. I think I will try with PNG and TIF too later today. As a last option, I will try rebuilding the ide from sources to see if it inherits the problem I face. Currently, I use a pre-compiled binary for IDE.

I shall update this thread after experimenting.

Regards

Jerson

Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Fri, 12 Sep 2014 08:36:11 GMT
View Forum Message <> Reply to Message

Hi Koldo

I undertook re-building the IDE package. After fixing the errors encountered I got it to build successfully

in void TextCompareCtrl::Paint(Draw& draw)
WString ln = (WString)l.text; had to be done in Textctrl.cpp to overcome WString expected error.

Result with Controls4u_Demo:
The newly built IDE now does not open BMP files now. Is it something to do with the MinGW 4.8.1 compiler I use?
PNG, JPG works. TIF does not list/shows blank when loaded. The new build of IDE says "New Bitmap Image.bmp not an image" for BMP files. The pre-compiled binary of IDE works correctly. Can someone hazard a guess as to what I am doing wrong?

Another issue which might be related to this problem is that I am unable to debug programs using gdb internal. The program seemingly executes till the breakpoint and the screen won't refresh. Asking it to single step into or step over a code line shows the status Running.... and then it stops again. Asking the debugger to run makes the code perform as normal. However, when the debugger stops at a breakpoint, there is no screen refresh. I am out of ideas as to where to look for answers; so, I never asked this question. GDB_MI2 mode at least works this far, Legacy mode crashes the IDE.

Regards
Jerson

PS: Interchanged versions of MinGW. Problem still remains. JPG, PNG, TIF works ok, only BMP has a problem.

Subject: Re: StaticImage cannot show BMP file
Posted by jibe on Fri, 12 Sep 2014 12:19:00 GMT
View Forum Message <> Reply to Message

Hi Jerson,

Looks like there is something wrong at least in your bmp plugin... Did you try with a fresh and clean install of the latest night build ? Today's version is 7654.

Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Fri, 12 Sep 2014 13:05:10 GMT
View Forum Message <> Reply to Message

Hello Jibe

I am using 7635, so, I am not too far out of date. Hopefully nothing has changed in the plugin. I wouldn't know how to confirm that though.

I have been trying to decode what is going wrong. In the file BMP.cpp(LoadBMPHeader()) I found something wrong.

The following directives gave me this
sizeof(BMP_INFOHEADER) = 40
AsString(header.biWidth) = 50266112
AsString(header.biHeight) = 65536
AsString(header.biPlanes) = 24 This should be bits per pixel (bitCount)
AsString(header.biBitCount) = 0 This is the cause of failure. Code exits here Valid values 1,4,8,16,24,32
AsString(header.biCompression) = 3032481792 This too is wrong
AsString(header.biSizeImage) = 33

Can someone more knowledgeable than me please check why this happens.

My suspicion is that something is going wrong with the BMP structures alignments.

Regards
Jerson

Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Fri, 12 Sep 2014 13:33:42 GMT
View Forum Message <> Reply to Message

Hello Koldo and Jibe

I have resolved the issue.

This is the original structure in bmphdr.h
```
struct BMP_FILEHEADER {
 word    bfType;
 dword   bfSize;
 word    bfReserved1;
 word    bfReserved2;
 dword   bfOffBits;
```

sizeof(BMP_FILEHEADER) shows 16!!!

So, I made the following change
 word   bfOffBits;

Now, I get sizeof(BMP_FILEHEADER) as 14 which is the expected value

With this change, BMP files are being displayed in Controls4U_Demo. Can some of you experts please check what's causing this behaviour??

Regards
Jerson

Subject: Re: StaticImage cannot show BMP file
Posted by hans on Sat, 13 Sep 2014 18:18:45 GMT
View Forum Message <> Reply to Message

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" aligment 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.

Subject: Re: StaticImage cannot show BMP file
Posted by jerson on Sun, 14 Sep 2014 03:19:58 GMT
View Forum Message <> Reply to Message

Hello Hans

Thanks for your reply. The structure is defined correctly as I can see with the __attribute__
packed as below

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

struct BMP_FILEHEADER {
 word    bfType;
 dword   bfSize;
 word    bfReserved1;
 word    bfReserved2;
 dword    bfOffBits;

 void    SwapEndian()
 {
#ifdef CPU_BIG_ENDIAN
  bfType = UPP::SwapEndian(bfType);
  bfSize = UPP::SwapEndian(bfSize);
```

```
  bfOffBits = UPP::SwapEndian(bfOffBits);
#endif
 }
}
#ifdef COMPILER_GCC
__attribute__((packed))
#endif
;
```

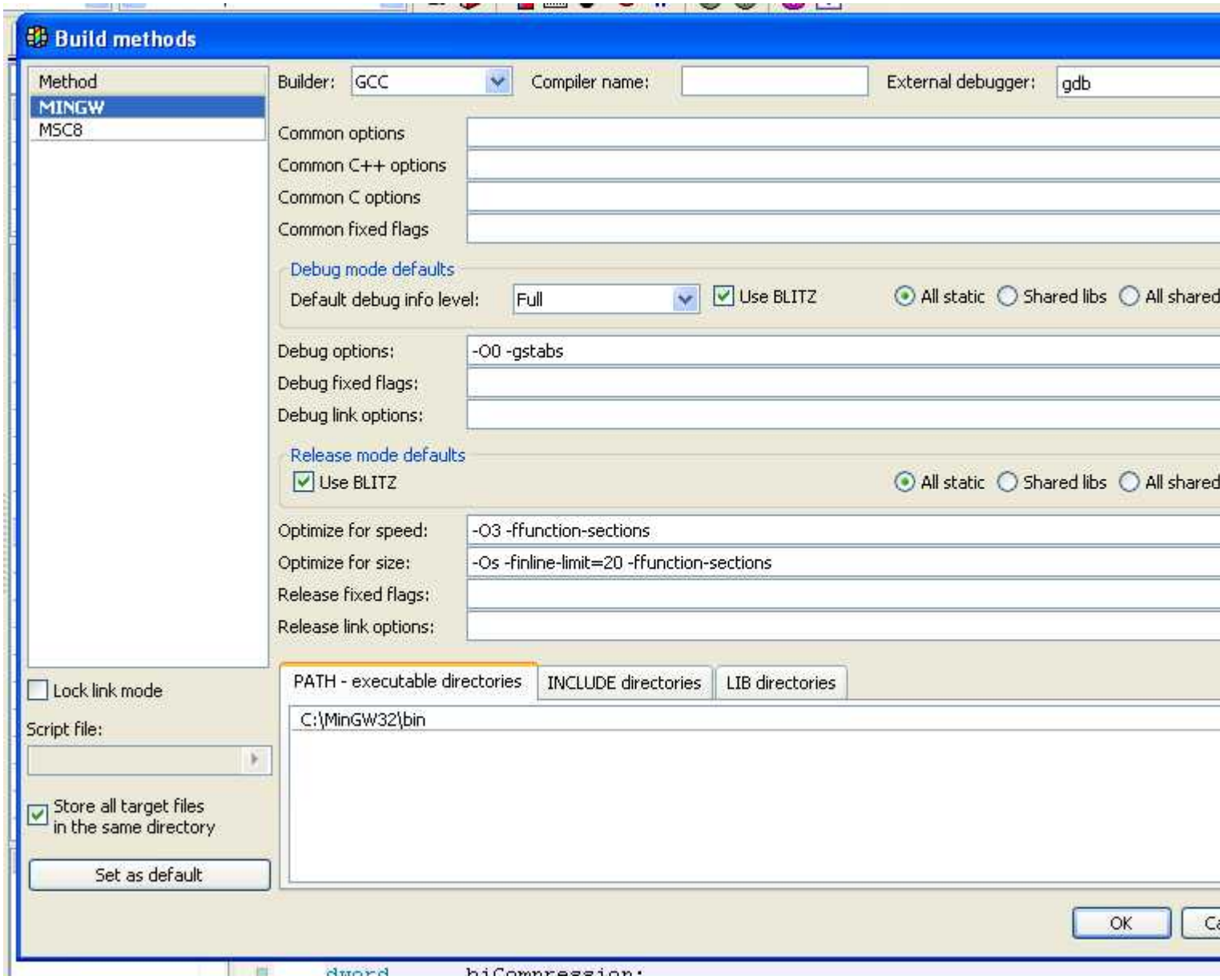
As I am a relative newbie to this toolchain, I really don't know where to look to identify if the compiler is messing things for me.

This is how my build methods screen looks.

Regards

File Attachments

1) 2014-09-14_085140.jpg, downloaded 1135 times


Build methods
Method
MINGW
MSC8
Builder:
GCC
Compiler name:
External debugger:
gdb
Common options
Common C++ options
Common C options
Common fixed flags
Debug mode defaults
Default debug info level:
Full
Use BLITZ
All static
Shared libs
All shared
Debug options:
-O0 -gstabs
Debug fixed flags:
Debug link options:
Release mode defaults
Use BLITZ
All static
Shared libs
All shared
Optimize for speed:
-O3 -ffunction-sections
Optimize for size:
-Os -finline-limit=20 -ffunction-sections
Release fixed flags:
Release link options:
Lock link mode
Script file:
Store all target files in the same directory
Set as default
PATH - executable directories
INCLUDE directories
LIB directories
C:\MinGW32\bin
OK