

Wt - Bug #3069

Wt compile error: cannot convert 'PangoFontMap*' to 'PangoFT2FontMap*' for argument '1' to 'PangoContext* pango_ft2_font_map_create_context

05/05/2014 07:24 PM - Anonymous

Status:	Closed	Start date:	05/05/2014
Priority:	Normal	Due date:	
Assignee:	Koen Deforche	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:	3.3.4		

Description

Ran into this error well into a build of Wt libraries:

Building CXX object src/CMakeFiles/wt.dir/Wt/FontSupportPango.o

```
/home/keith/boost1.55.0_inst/wt-3.3.2/src/Wt/FontSupportPango.C: In constructor 'Wt::FontSupport::FontSupport(Wt::WPaintDevice*):
```

```
/home/keith/boost1.55.0_inst/wt-3.3.2/src/Wt/FontSupportPango.C:105: error: cannot convert 'PangoFontMap*' to 'PangoFT2FontMap*' for argument '1' to 'PangoContext* pango_ft2_font_map_create_context(PangoFT2FontMap*)'
```

```
make[2]: * [src/CMakeFiles/wt.dir/Wt/FontSupportPango.o] Error 1
```

```
make[1]: * [src/CMakeFiles/wt.dir/all] Error 2
```

```
make: * [all] Error 2
```

I'm building static libs to use on an embedded system. I started the build like this:

```
cmake \
```

```
-D MULTI_THREADED=ON \
```

```
-D RUNDIR=/var/www/wt \
```

```
-D WEBUSER=tkweb \
```

```
-D WEBGROUP=tkweb \
```

```
-D BOOST_ROOT=/home/keith/boost1.55.0_inst/boost_1_55_0/stage \
```

```
-D BOOST_LIBRARYDIR=/home/keith/boost1.55.0_inst/boost_1_55_0/stage/lib \
```

```
-D BOOST_INCLUDEDIR=/home/keith/boost1.55.0_inst/boost_1_55_0/boost \
```

```
-D SHARED_LIBS=OFF \
```

```
-D CONNECTOR_FCGI=OFF \
```

```
-D CONNECTOR_HTTP=ON \
```

```
-D USERLIB_PREFIX=lib \
```

```
-D Boost_USE_STATIC_LIBS=ON \
```

```
-D Boost_USE_STATIC_RUNTIME=ON \
```

```
-D CONFIGDIR=/etc/wt \
```

```
-D CMAKE_INSTALL_PREFIX=/home/keith/boost1.55.0_inst/boost_1_55_0/stage \
```

```
../
```

make

History

#1 - 05/05/2014 10:42 PM - Keith Stevens

I got it to compile by casting the argument as:

```
pango_ft2_font_map_create_context((PangoFT2FontMap*)pangoFontMap);
```

i.e. changed this:

```
#if PANGO_VERSION_MAJOR > 1 || PANGO_VERSION_MINOR > 21
```

```
context_ = pango_font_map_create_context(pangoFontMap);
```

```
#else
```

```
context_ = pango_ft2_font_map_create_context(pangoFontMap);
```

```
#endif
```

to this:

```
#if PANGO_VERSION_MAJOR > 1 || PANGO_VERSION_MINOR > 21
```

```
context_ = pango_font_map_create_context(pangoFontMap);
```

```
#else
```

```
context_ = pango_ft2_font_map_create_context((PangoFT2FontMap*)pangoFontMap);
```

```
#endif
```

Don't know yet if that's going to run without segfault but I'll let you know.

#2 - 05/07/2014 07:31 PM - Keith Stevens

I resolved this by using an older version.

#3 - 05/13/2014 11:27 AM - Koen Deforche

- Status changed from New to InProgress

- Assignee set to Koen Deforche

#4 - 05/13/2014 11:30 AM - Koen Deforche

- Status changed from InProgress to Feedback

Hey,

What version of pango were you using when you had this problem. And what pango version are you using that resolved the problem?

It seems that you should have got this problem only if something was wrong with pango version detection or if you were using a very old pango version?

Regards,

koen

#5 - 09/04/2014 02:32 PM - Alan Finley

I have the same problem.

I'm trying to build Wt in Centos 5 and pango-1.20.4-1.6 is the newest package I could find for that OS.

So I get a compile error here:

```
if (!pangoFontMap)
    pangoFontMap = pango_ft2_font_map_new();

#if PANGO_VERSION_MAJOR > 1 || PANGO_VERSION_MINOR > 21
    context_ = pango_font_map_create_context(pangoFontMap);
```

```
#else
    context_ = pango_ft2_font_map_create_context (pangoFontMap);
#endif
```

pango_ft2_font_map_create_context function takes an argument of type PangoFT2FontMap, but the pangoFontMap variable is PangoFontMap.

#6 - 09/04/2014 02:41 PM - Koen Deforche

Hey,

Ah, indeed, it looks like casting to PangoFT2FontMap* should be correct. Can you confirm?

Regards,

koen

#7 - 09/04/2014 04:12 PM - Alan Finley

- File pango.patch added

I don't think that using c-style casts on structs is a good idea :)

So I used PANGO_FT2_FONT_MAP macro to perform cast:

```
context_ = pango_ft2_font_map_create_context (PANGO_FT2_FONT_MAP (pangoFontMap));
```

Then I built a simple example with a WRasterImage:

```
Wt::WRasterImage pngImage("png", 600, 400);
Wt::WPainter p(&pngImage);
p.drawText(Wt::WRectF(0, 0, 100, 100), Wt::AlignLeft, Wt::TextSingleLine, "PANGO TEST");

std::ofstream f("pango_test.png", std::ios::out | std::ios::binary);
pngImage.write(f);
```

It produces a png file with a text. The only difference is that I get an image with a white background on Centos 5 and an image with a transparent background on Centos 6. But I'm not sure this is relevant to this issue.

You can see my patch in the attachment.

#8 - 09/04/2014 05:06 PM - Alan Finley

Also I'm not sure about this ckeck:

```
#if PANGO_VERSION_MAJOR > 1 || PANGO_VERSION_MINOR > 21
```

Should it be && instead of ||?

#9 - 09/04/2014 06:54 PM - Koen Deforche

Hey Alan,

Thanks for the patch.

The check is fine since we want everything later than 1.21 ?

Regards,

koen

#10 - 09/04/2014 08:31 PM - Alan Finley

Koen Deforche wrote:

The check is fine since we want everything later than 1.21 ?

Old version 0.28 will pass the current check.

I think it should be:

```
#if PANGO_VERSION_MAJOR >= 1 && PANGO_VERSION_MINOR > 21
```

#11 - 09/05/2014 11:38 AM - Koen Deforche

- Status changed from Feedback to Resolved

- Target version set to 3.3.4

#12 - 09/05/2014 11:40 AM - Koen Deforche

Hey,

Pango 1.0 dates from 2002, and we do not support pango < 1 (which probably has many API differences).

Moreover, the '&&' variant will not match pango 2.0

Regards,

koen

#13 - 10/22/2014 02:29 AM - Koen Deforche

- Status changed from Resolved to Closed

Files

pango.patch

452 Bytes

09/04/2014

Alan Finley