### Bug #3637

**Description**

*Hello,*

I'm working in cross compiling Ruby to Windows (GCC) using modern GCC versions, provided by mingw-w64 team targeting 32bits mode.

In this work, I found win32ole tries to define access to members of nameless union.

According to mingw-w64 developers, these hacks access were needed with older versions of GCC (prior 3.4) but nowdays are no longer required.

Looking at the source of these changes, dates 2002 (!) which is way before GCC 3.4

The following patch removes the definition of NONAMELESSUNION under MinGW and allows correct compilation under GCC 3.4.5, GCC 4.5.0 and cross-compilation under GCC 4.5.1 (experimental)

```bash
diff --git a/ext/win32ole/extconf.rb b/ext/win32ole/extconf.rb
index b4f09fc..d566be2 100644
--- a/ext/win32ole/extconf.rb
+++ b/ext/win32ole/extconf.rb
@@ -38,7 +38,7 @@ end
 case RUBY_PLATFORM
 when /mswin/
 $CFLAGS += ' /W3'
-when /cygwin/, /mingw/
+when /cygwin/
 $defs << '-DNONAMELESSUNION'
 end
create_win32ole_makefile
```

mingw-w64 developers suggest a check for GCC version instead of NONAMELESSUNION definition.

I believe this also should be backported to 1.9.2, 1.9.1 and 1.8 branches.

Thank you.

---

### Associated revisions

**Revision d4fc0799b7cc9bb7af1bccc6580e1e3091dd087b - 08/02/2010 12:21 PM - suke (Masaki Suketa)**

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

**Revision d4fc0799 - 08/02/2010 12:21 PM - suke (Masaki Suketa)**

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]
Revision 28835 - 08/02/2010 12:21 PM - suke (Masaki Suketa)

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

Revision 28835 - 08/02/2010 12:21 PM - suke (Masaki Suketa)

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

Revision 28835 - 08/02/2010 12:21 PM - suke (Masaki Suketa)

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

Revision 28835 - 08/02/2010 12:21 PM - suke (Masaki Suketa)

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

Revision 28b376e76b39492e2cb6c74eddbab8c53ec8bd89f - 08/08/2010 03:01 PM - yugui (Yuki Sonoda)

merges r28835 from trunk into ruby_1_9_2.

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

Revision 28b376e7 - 08/08/2010 03:01 PM - yugui (Yuki Sonoda)

merges r28835 from trunk into ruby_1_9_2.

- ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_1_9_2@28927 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision aed0594 - 11/22/2010 05:15 AM - shyouhei (Shyouhei Urabe)

merge revision(s) 28835,28894:
* ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]
* ext/win32ole/extconf.rb: ditto.
* ext/win32ole/win32ole.c: fix checking version of GCC.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_1_9_2@28927 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 16b5c5e9 - 11/22/2010 07:22 AM - shyouhei (Shyouhei Urabe)

Mon, 22 Nov 2010 05:15:39 +0000 shyouhei shyouhei@b2dd03c8-39d4-4d8f-98ff-823fe69b080e
merge revision(s) 29849:

merge revision(s) 28835,28894:
* ext/win32ole/win32ole.c: NONAMELESSUNION defined only if gcc version is older than 3.4.4. [ruby-core:31567] [Bug #3637]

09/11/2021
Forgot to mention that with NONAMELESSUNION defined produces the following error:

http://gist.github.com/499840

Since *DESC structures do not define the union in any way.

This issue was solved with changeset r28835.
Luis, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

This condition will be false when GCC version is 2.95.3, 3.3.5 or 3.3.6. Is it ok?

Yusuke Endoh mame@tsg.ne.jp
Hello Yusuke,

Indeed, my patch was more naive and just removed /mingw/ from the extension compilation process mainly since oldest MinGW available is 3.4.5.

Masaki committed this change. The inverse logic will not work with 4.5.0, 4.5.1 or 4.6.0.

#6 - 08/07/2010 09:58 AM - akr (Akira Tanaka)

I was going to backport r28835, but I'm now afraid if it looks like slightly wrong.

#if (defined(GNUC)) && (GNUC <= 3) && (GNUC_MINOR <= 4) && (GNUC_PATCHLEVEL <= 4)

This condition will be false when GCC version is 2.95.3, 3.3.5 or 3.3.6. Is it ok?

I recommend something like the macro GCC_VERSION_SINCE in pack.c.

Tanaka Akira

#7 - 08/07/2010 10:19 AM - suke (Masaki Suketa)

Sorry, I re-committed the version check logic of gcc.
(trunk revision 28894)

I tested mingw gcc 3.4.5 and cygwin gcc 3.4.4 and cygwin gcc 4.3.4.

Regards,
Masaki Suketa

#8 - 08/27/2010 01:45 PM - shyouhei (Shyouhei Urabe)

- Status changed from Open to Closed