

Ruby master - Bug #16772

Build becomes slow with CIFS mounted srcdir

04/09/2020 12:43 AM - ko1 (Koichi Sasada)

Status:	Closed	
Priority:	Normal	
Assignee:	shyouhei (Shyouhei Urabe)	
Target version:		
ruby -v:		Backport: 2.5: UNKNOWN, 2.6: UNKNOWN, 2.7: UNKNOWN

Description

Recent 9e6e39c3512f7a962c44dc3729c98a0f8be90341 increases many include files and it makes slow build on my machine.

My build environment is not normal:

- srcdir is managed on Windows 10 host file system and edit it on windows native editors (xyzz)
- Build on Linux (Ubuntu 18.04) by mounting srcdir with CIFS (samba)

```
# on e7128aa772787a9c9e95708e2d2534484861a765
# gcc version 7.5.0 (Ubuntu 7.5.0-3ubuntu1~18.04)
# on Ubuntu 18.04
# on Hyper-V
# on Windows 10
# srcdir is mounted by CIFS (Samba) on Windows host file system
```

```
# without ccache
$ time make range.o
compiling /home/ko1/src/ruby/clean/range.c
```

```
real    0m17.662s
user    0m2.572s
sys     0m2.599s
```

```
# with ccache
$ time make range.o
compiling /home/ko1/src/ruby/clean/range.c
```

```
real    0m35.361s
user    0m4.628s
sys     0m5.283s
```

on 9e6e39c3512f7a962c44dc3729c98a0f8be90341~

```
# without ccache
$ rm range.o; time -p make range.o
compiling /home/ko1/src/ruby/clean/range.c
real 1.16
user 0.85
sys 0.06
```

Same machine, but srcdir on guest Linux (/dev/sda2 on / type ext4 (rw,relatime,data=ordered))

```
# on e7128aa772787a9c9e95708e2d2534484861a765
$ time make range.o
compiling /home/ko1/ruby/v2/src/trunk/range.c
```

```
real    0m1.207s
user    0m1.065s
sys     0m0.140s
```

Same machine, but compile on host Windows (mswin64).

```
$ time nmake range.obj
```

```
Microsoft(R) Program Maintenance Utility Version 14.14.26428.1  
Copyright (C) Microsoft Corporation. All rights reserved.
```

```
generating id.h  
id.h updated  
compiling C:/ko1/src/ruby/clean/range.c  
range.c
```

```
real    0m3.779s  
user    0m0.000s  
sys     0m0.046s
```

Another Linux box works fine.

```
# Linux box on another machine without ccache
```

```
$ time make range.o  
compiling /home/ko1/ruby/v2/src/trunk/range.c
```

```
real    0m1.992s  
user    0m1.858s  
sys     0m0.123s
```

I recognize that using CIFS for build environment is not normal environment, so it is not a big issue.
But I filed it if there is a chance to solve it.

BTW, I tried to make simple .c files which includes 1000 simple files, but only a few seconds to build. So the file number is not a big issue.

Related issues:

Related to Ruby master - Bug #16770: Commit: RUBY3_HAS_BUILTIN: fix for nonex...

Closed

Associated revisions

Revision 443389ef - 04/10/2020 05:53 AM - ko1 (Koichi Sasada)

reduce duplicate include.

Without this patch, 20k files are opened (openat syscall) because of duplicate includes. This patch reduced it to 3k and build time was reduced compile time of range.o from 15sec -> 3sec on my machine.
[Bug #16772]

History

#1 - 04/09/2020 12:59 AM - usa (Usaku NAKAMURA)

On my Windows PC, building ruby without tests takes over 20 min now.
And mswin-CI (<http://mswinci.japaneast.cloudapp.azure.com/vc12-x64/ruby-master/recent.html>) also fails by timeout.

#2 - 04/09/2020 06:41 AM - shyouhei (Shyouhei Urabe)

- Assignee set to shyouhei (Shyouhei Urabe)

#3 - 04/09/2020 06:42 AM - shyouhei (Shyouhei Urabe)

- Related to Bug #16770: Commit: RUBY3_HAS_BUILTIN: fix for nonexistent builtin - large increase in MinGW & mswin compile times added

#4 - 04/09/2020 01:42 PM - Eregon (Benoit Daloze)

[shyouhei \(Shyouhei Urabe\)](#) maybe it was split in too many header files?
Agreed before ruby/ruby.h and intern.h were too big, but 186 headers vs 26 before seems the other extreme.

#5 - 04/10/2020 05:53 AM - ko1 (Koichi Sasada)

- Status changed from Open to Closed

Applied in changeset [git|443389effc37308ce1a3c3a840082a344fc6af56](https://github.com/ruby/ruby/commit/443389effc37308ce1a3c3a840082a344fc6af56).

reduce duplicate include.

Without this patch, 20k files are opened (openat syscall) because of duplicate includes. This patch reduced it to 3k and build time was reduced compile time of range.o from 15sec -> 3sec on my machine. [Bug [#16772](#)]