Ruby master - Bug #18049
Cannot build ruby-3.0.2 on NetBSD
07/27/2021 01:49 PM - sydofficious (Kenneth Dunlap)

<table>
<thead>
<tr>
<th>Status</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee</td>
<td></td>
</tr>
<tr>
<td>Target version:</td>
<td></td>
</tr>
<tr>
<td>ruby -v:</td>
<td></td>
</tr>
<tr>
<td>Backport:</td>
<td>2.6: UNKNOWN, 2.7: UNKNOWN, 3.0: UNKNOWN</td>
</tr>
</tbody>
</table>

**Description**

I get random segfaults when attempting to build on NetBSD

```
uname -a
NetBSD juggler.panix.com 9.1 NetBSD 9.1 (PANIX-STD)
```

```
#2: Thu Mar 18 17:46:23 EDT 2021 root@juggler.panix.com:/misc/obj64/misc/devel/netbsd/9.1/src/sys/arch/amd64/compile/PANIX-STD amd64
```

Configuration summary for ruby version 3.0.2

* Installation prefix: /usr/local
  * exec prefix: ${prefix}
  * arch: x86_64-netbsd9.1
  * site arch: ${arch}
  * RUBY_BASE_NAME: ruby
  * enable shared: yes
  * ruby lib prefix: ${libdir}/${RUBY_BASE_NAME}
  * site libraries path: ${rubylibprefix}/${sitearch}
  * vendor path: ${rubylibprefix}/vendor_ruby
  * target OS: netbsd9.1
  * compiler: gcc
  * with pthread: yes
  * with coroutine: ucontext
  * enable shared libs: yes
  * dynamic library ext: so
  * CFLAGS: ${optflags} ${debugflags} ${warnflags}
  * LDFLAGS: -L. -fstack-protector-strong -Wl,-export-dynamic
  * DLDFLAGS: -Wl,--compress-debug-sections=zlib
  * optflags: -O3
  * debugflags: -ggdb3
  * warns: -Wall -Wextra -Wdeprecated-declarations
  -Wduplicate-cond -Wimplicit-function-declaration
  -Wimplicit-int -Wmisleading-indentation
  -Wpointer-arithmetic -Wwrite-strings
  -Wimplicit-fallthrough=0 -Wmissing-noreturn
  -Wno-cast-function-type
  -Wno-constant-logical-and-operand -Wno-long-long
  -Wno-missing-field-initializers
  -Wno-overlength-strings
  -Wno-packed-bitfield-compat
  -Wno-parentheses-equality -Wno-self-assign
  -Wno-tautological-compare -Wno-unused-parameter
  -Wno-unused-value -Wsuggest-attribute=format
  -Wsuggest-attribute=noreturn -Wunused-variable
  * strip command: strip -S -x
  * install doc: no
  * JIT support: yes
  * man page type: man
  * BASERUBY -v: ruby 3.0.1p64 (2021-04-05 revision 0fb782ee38)
  [x86_64-netbsd9.1]
This particular time, it segfaulted here:

making prelude.rb

This particular time, it segfaulted here:
Other times it will segfault in other places. It seems pretty random.

Related issues:
Has duplicate Ruby master - Bug #18050: Cannot build ruby-2.7.4 on NetBSD

History

#1 - 07/27/2021 03:52 PM - xtkoba (Tee KOBAYASHI)
First, it should be clarified that it is the already installed /usr/local/bin/ruby (version 3.0.1p64) that segfaults here.

I guess that the source comes directly from a Git repository, as prelude.rbinc should be prebuilt in a release tarball which should be tried out for self-containedness.

To avoid using already installed Ruby interpreters try adding the option --with-baseruby=no to ./configure.

#2 - 07/28/2021 07:41 PM - sydofficious (Kenneth Dunlap)
This turned out to be an issue with miniruby when the NetBSD kernel has PaX ASLR (Address Space Layout Randomization) enabled. The following patch, applied post-configure, works around the problem.

```diff
--- Makefile.orig 2021-07-28 13:31:38.018160281 -0400
+++ Makefile 2021-07-28 13:37:35.292884198 -0400
@@ -270,6 +270,7 @@
 $(ECHO) linking $@
 $(Q) $(PURIFY) $(CC) $(LDFLAGS) $(XLDFLAGS) $(NORMALMAINOBJ) $(MINIOBJ) $(COMMONOBJ) $(MAINLIBS) $(LIBS) $(OUTFLAG)$@
 $(Q) $(POSTLINK)
+ paxctl +a $@

 $(PROGRAM):
 @$(RM) $@
```

#3 - 07/29/2021 06:47 AM - nobu (Nobuyoshi Nakada)
- Has duplicate Bug #18050: Cannot build ruby-2.7.4 on NetBSD added

#4 - 07/29/2021 06:49 AM - nobu (Nobuyoshi Nakada)
- Description updated

#5 - 07/31/2021 12:23 PM - nobu (Nobuyoshi Nakada)
Does this work?

```diff
diff --git a/configure.ac b/configure.ac
index d018e8a6f4f..2d91972c218 100644
--- a/configure.ac
+++ b/configure.ac
@@ -1176,6 +1176,10 @@
-, [netbsd*], [ LIBS="-lm $LIBS"
+, AC_CHECK_PROGS(paxctl, paxctl)
+ AS_IF([test -n "$paxctl"], [
+ POSTLINK="paxctl +a"$@$$POSTLINK:+; $POSTLINK]
+ ]),
[dragonfly*], [ LIBS="-lm $LIBS"
]}
```

#6 - 08/01/2021 12:36 AM - nobu (Nobuyoshi Nakada)
Maybe only miniruby needs to disable ASLR?
- Status changed from Open to Feedback