

Ruby - Bug #20147

FreeBSD libyaml

01/04/2024 01:09 PM - kaiuekandykoga (Kaíque Koga)

Status:Open Priority:Normal Assignee: Target version: ruby -v:	Backport:3.0: UNKNOWN, 3.1: UNKNOWN, 3.2: UNKNOWN, 3.3: UNKNOWN
Description I use ruby-install to manage multiple Ruby versions. Some time ago I had issues installing Ruby 3.2.2 https://github.com/postmodern/ruby-install/issues/463, and the same issue was open for ruby-build in https://github.com/rbenv/ruby-build/issues/2184. I am trying to install Ruby 3.3.0 using ruby-install, and the same behaviour is occurring. Please, take a look in the links I have provided for detailed information. <pre>/usr/home/kandy/src/ruby-3.3.0/lib/yaml.rb:3: warning: It seems your ruby installation is missing psych (for YAML output). To eliminate this warning, please install libyaml and reinstall your ruby. uh-oh! RDoc had a problem: cannot load such file -- psych run with --debug for full backtrace *** Error code 1 Stop. make: stopped in /usr/home/kandy/src/ruby-3.3.0 !!! Compiling ruby 3.3.0 failed! Thank you.</pre>	

History

#1 - 01/05/2024 01:55 AM - hsbt (Hiroshi SHIBATA)

I could install Ruby 3.2.2 on FreeBSD 14.0 with ruby-build and the following configuration.

```
./configure "--prefix=$HOME/.rbenv/versions/3.1.3" --enable-shared --with-readline-dir=/usr/local --with-libffi
i-dir=/usr/local --with-libyaml-dir=/usr/local --with-openssl-dir=/usr/local --with-ext=openssl,psych,+ --disa
ble-dtrace
```

I'm not sure why FreeBSD didn't detect headers from /usr/local implicitly.

#2 - 01/29/2024 04:35 AM - kaiuekandykoga (Kaíque Koga)

The day I reported this bug I was still able to compile Ruby using master. Today I have decided to try compiling again from master, before compiling I have fetched from upstream and the compilation was not working anymore. If I use the 7f9c174102d0e2369befc7b88f2c073becaa7560 that is the last commit from January 5 is compiling. I am trying to find what was the recent commit that broke the compilation, at least for me. I have upgraded my machine recently, and I am using FreeBSD 14.0-RELEASE-p4 at the present.

#3 - 01/29/2024 05:30 AM - kaiuekandykoga (Kaíque Koga)

The 76afbda5b566148b9e73939e0ff9b8464d59806c. The last commit from January 6 is not compiling. It seems that something was changed on January 6 that broke the compilation in my environment.

#4 - 01/29/2024 07:46 AM - kaiuekandykoga (Kaíque Koga)

Analyzing the changes made on January 6. From 9b78ef75522b1f6aa20fc81ddf06e5fb40db152d I am not able to compile. Even though the previous commits I can compile, the message of yaml.h not being found keep showing up.

#5 - 12/30/2024 11:19 PM - kaiuekandykoga (Kaíque Koga)

I am doing some research around UNIX programming, and I have decided to understand a bit further about how include directive looks for paths. I am currently using FreeBSD 14.0-RELEASE.

```
kandy@freebsd:~ $ freebsd-version
14.0-RELEASE
```

I have gcc and clang.

```
kandy@freebsd:~ $ gcc --version
gcc (FreeBSD Ports Collection) 13.3.0
Copyright (C) 2023 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

```
kandy@freebsd:~ $ clang --version
FreeBSD clang version 16.0.6 (https://github.com/llvm/llvm-project.git llvmorg-16.0.6-0-g7cbf1a259152)
Target: x86_64-unknown-freebsd14.0
Thread model: posix
InstalledDir: /usr/bin
```

How am I verifying the include directive?

Create main.c with something like

```
kandy@freebsd:~ $ cat main.c
int main()
{
    return 0;
}
```

With gcc

```
kandy@freebsd:~ $ gcc -v main.c
Using built-in specs.
COLLECT_GCC=gcc
COLLECT_LTO_WRAPPER=/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/lto-wrapper
Target: x86_64-portbld-freebsd14.1
Configured with: /wrkdirs/usr/ports/lang/gcc13/work/gcc-13.3.0/configure --enable-multilib --with-build-config=bootstrap-debug --disable-nls --enable-gnu-indirect-function --enable-host-shared --enable-plugin --libdir=/usr/local/lib/gcc13 --libexecdir=/usr/local/libexec/gcc13 --program-suffix=13 --with-as=/usr/local/bin/as --with-gmp=/usr/local --with-gxx-include-dir=/usr/local/lib/gcc13/include/c++/ --with-gxx-libcxx-include-dir=/usr/include/c++/v1 --with-ld=/usr/local/bin/ld --with-pkgversion='FreeBSD Ports Collection' --with-system-zlib --without-zstd --enable-languages=c,c++,objc,fortran,jit --prefix=/usr/local --localstatedir=/var --mandir=/usr/local/share/man --infodir=/usr/local/share/info/gcc13 --build=x86_64-portbld-freebsd14.1
Thread model: posix
Supported LTO compression algorithms: zlib
gcc version 13.3.0 (FreeBSD Ports Collection)
COLLECT_GCC_OPTIONS='-v' '-mtune=generic' '-march=x86-64' '-dumpdir' 'a-'
/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/cc1 -quiet -v main.c -quiet -dumpdir a-
-dumpbase main.c -dumpbase-ext .c -mtune=generic -march=x86-64 -version -o /tmp//ccKZaZAx.s
GNU C17 (FreeBSD Ports Collection) version 13.3.0 (x86_64-portbld-freebsd14.1)
    compiled by GNU C version 13.3.0, GMP version 6.3.0, MPFR version 4.2.1, MPC version 1.3.1, isl versio
n none
GGC heuristics: --param ggc-min-expand=100 --param ggc-min-heapsize=131072
ignoring nonexistent directory "/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/include-fixed"
ignoring nonexistent directory
"/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/../../../../x86_64-portbld-freebsd14.1/include"
#include "... " search starts here:
#include <...> search starts here:
/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/include
/usr/local/include
/usr/include
End of search list.
Compiler executable checksum: 3c47ef89548a28bf388bdc1461d3116e
COLLECT_GCC_OPTIONS='-v' '-mtune=generic' '-march=x86-64' '-dumpdir' 'a-'
/usr/local/bin/as -v -o /tmp//ccrwI8Gg.o /tmp//ccKZaZAx.s
GNU assembler version 2.43.1 (x86_64-portbld-freebsd14.1) using BFD version (GNU Binutils) 2.43.1
COMPILER_PATH=
/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0:/usr/local/libexec/gcc13/gcc/x86_64-portbld-fr
eebsd14.1/13.3.0:/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1:/usr/local/lib/gcc13/gcc/x86_64-por
tbld-freebsd14.1/13.3.0:/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1:/usr/local/lib/gcc13/gcc/x86_64-
portbld-freebsd14.1/13.3.0/../../../../x86_64-portbld-freebsd14.1/bin/
LIBRARY_PATH=
/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0:/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.
1/13.3.0/../../../../x86_64-portbld-freebsd14.1/lib:/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13
.3.0/../../../../lib:/usr/lib/
```

```

COLLECT_GCC_OPTIONS='-v' '-mtune=generic' '-march=x86-64' '-dumpdir' 'a.'
/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/collect2 -plugin
/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/liblto_plugin.so -plugin-opt=
/usr/local/libexec/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/lto-wrapper -plugin-opt=-fresolution=
/tmp//ccqbVNSp.res -plugin-opt=-pass-through=-lgcc -plugin-opt=-pass-through=-lgcc_s -plugin-opt=-pass-through=
-lc -plugin-opt=-pass-through=-lgcc -plugin-opt=-pass-through=-lgcc_s --eh-frame-hdr -m elf_x86_64_fbsd -V
-dynamic-linker
/libexec/ld-elf.so.1 /usr/lib/crt1.o /usr/lib/crti.o /usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3
.0/crtbegin.o -L/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0 -L
/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/../../../../x86_64-portbld-freebsd14.1/lib -L
/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/../../../../tmp//ccrwI8Gg.o -lgcc --push-state
--as-needed -lgcc_s --pop-state -lc -lgcc --push-state --as-needed -lgcc_s --pop-state
/usr/local/lib/gcc13/gcc/x86_64-portbld-freebsd14.1/13.3.0/crtend.o /usr/lib/crtn.o
GNU ld (GNU Binutils) 2.43.1
Supported emulations:
aix5ppc
aix5rs6
aixppc
aixrs6
alpha
alphavms
arcelf
arclinux
arclinux_nps
arcv2elf
arcv2elfx
arm_wince_pe
armelf
armelf_fbsd
armelf_fuchsia
armelf_haiku
armelf_linux
armelf_linux_eabi
armelf_linux_fdpiceabi
armelf_nacl
armelf_nbsd
armelf_phoenix
armelf_vxworks
armelfb
armelfb_fbsd
armelfb_fuchsia
armelfb_linux
armelfb_linux_eabi
armelfb_linux_fdpiceabi
armelfb_nacl
armelfb_nbsd
armnto
armpe
avr1
avr2
avr25
avr3
avr31
avr35
avr4
avr5
avr51
avr6
avrtiny
avrxmega1
avrxmega2
avrxmega2_flmap
avrxmega3
avrxmega4
avrxmega4_flmap
avrxmega5
avrxmega6
avrxmega7
crisaout
criself
crislinux
cskyelf
cskyelf_linux
d10velf
d30v_e

```

d30v_o
d30velf
elf32_dlx
elf32_sparc
elf32_sparc_sol2
elf32_sparc_vxworks
elf32_spu
elf32_tic6x_be
elf32_tic6x_elf_be
elf32_tic6x_elf_le
elf32_tic6x_le
elf32_tic6x_linux_be
elf32_tic6x_linux_le
elf32am33lin
elf32bfin
elf32bfinfd
elf32cr16
elf32crx
elf32epiphany
elf32epiphany_4x4
elf32fr30
elf32frv
elf32frvfd
elf32ft32
elf32ip2k
elf32iq10
elf32iq2000
elf32lm32
elf32lm32fd
elf32lppc
elf32lppclinux
elf32lppcnto
elf32lppcsim
elf32m32c
elf32mb_linux
elf32mbel_linux
elf32mcore
elf32mep
elf32metag
elf32microblaze
elf32microblazeel
elf32moxie
elf32mt
elf32or1k
elf32or1k_linux
elf32ppc
elf32ppc_fbsd
elf32ppchaiku
elf32ppclinux
elf32ppcnto
elf32ppcsim
elf32ppcvxworks
elf32ppcwindiss
elf32rl78
elf32rx
elf32rx_linux
elf32tilegx
elf32tilegx_be
elf32tilepro
elf32vax
elf32visium
elf32xstormy16
elf32xtensa
elf32z80
elf_i386
elf_i386_be
elf_i386_fbsd
elf_i386_haiku
elf_i386_ldso
elf_i386_sol2
elf_i386_vxworks
elf_iamcu
elf_s390
h8300elf
h8300elf_linux

h8300helf
h8300helf_linux
h8300hnelf
h8300self
h8300self_linux
h8300snelf
h8300sxelf
h8300sxelf_linux
h8300sxnelf
hppaelf
hppalinux
hppanbsd
hppaobsd
i386aout
i386beos
i386bsd
i386go32
i386lynx
i386moss
i386msdos
i386nto
i386pe
i386pe_posix
m32relf
m32relf_linux
m32rlelf
m32rlelf_linux
m68hc1lelf
m68hc1lelfb
m68hc12elf
m68hc12elfb
m68kelf
m68kelfnbsd
m9s12zelf
mcorepe
mn10200
mn10300
moxiebox
msp430X
msp430elf
nds32belf
nds32belf16m
nds32belf_linux
nds32elf
nds32elf16m
nds32elf_linux
nios2elf
nios2linux
ns32knbsd
pc532macha
pdp11
pjelf
pjlelf
ppcmacos
pruelf
score3_elf
score7_elf
sh
shelf
shelf_fd
shelf_linux
shelf_nbsd
shelf_nto
shelf_uclinux
shelf_vxworks
shl
shlelf
shlelf_fd
shlelf_linux
shlelf_nbsd
shlelf_nto
shlelf_vxworks
shpe
tic30coff
tic3xcoff

tic3xcoff_onchip
tic4xcoff
tic54xcoff
v850
v850_rh850
vanilla
vaxnbsd
xgateelf
z80
z8001
z8002
aarch64cloudabi
aarch64cloudabib
aarch64elf
aarch64elf32
aarch64elf32b
aarch64elfb
aarch64fbsd
aarch64fbsdb
aarch64haiku
aarch64linux
aarch64linux32
aarch64linux32b
aarch64linuxb
aarch64nto
aarch64pe
arm64pe
elf32_x86_64
elf32b4300
elf32bmip
elf32bmipn32
elf32briscv
elf32briscv_ilp32
elf32briscv_ilp32f
elf32bsmip
elf32btmip
elf32btmip_fbsd
elf32btmipn32
elf32btmipn32_fbsd
elf32ebmip
elf32ebmipvxworks
elf32elmip
elf32elmipvxworks
elf32kvx
elf32l4300
elf32lmip
elf32loongarch
elf32lr5900
elf32lr5900n32
elf32lriscv
elf32lriscv_ilp32
elf32lriscv_ilp32f
elf32lsmip
elf32ltmip
elf32ltmip_fbsd
elf32ltmipn32
elf32ltmipn32_fbsd
elf32mipswindiss
elf64_aix
elf64_ia64
elf64_ia64_fbsd
elf64_ia64_vms
elf64_s390
elf64_sparc
elf64_sparc_fbsd
elf64_sparc_sol2
elf64alpha
elf64alpha_fbsd
elf64alpha_nbsd
elf64bmip
elf64bpf
elf64briscv
elf64briscv_lp64
elf64briscv_lp64f
elf64btmip

```
elf64btmip_fbsd
elf64hppa
elf64kvx
elf64kvx_linux
elf64loongarch
elf64lppc
elf64lppc_fbsd
elf64lriscv
elf64lriscv_lp64
elf64lriscv_lp64f
elf64ltmip
elf64ltmip_fbsd
elf64mmix
elf64ppc
elf64ppc_fbsd
elf64rdos
elf64tilegx
elf64tilegx_be
elf_mipsel_haiku
elf_x86_64
elf_x86_64_cloudabi
elf_x86_64_fbsd
elf_x86_64_haiku
elf_x86_64_sol2
hppa64linux
i386pep
mno
```

```
COLLECT_GCC_OPTIONS='-v' '-mtune=generic' '-march=x86-64' '-dumpdir' 'a.'
```

With clang

```
kandy@freebsd:~ $ clang -v main.c
FreeBSD clang version 16.0.6 (https://github.com/llvm/llvm-project.git llvmorg-16.0.6-0-g7cbf1a259152)
Target: x86_64-unknown-freebsd14.0
Thread model: posix
InstalledDir: /usr/bin
"/usr/bin/clang" -cc1 -triple x86_64-unknown-freebsd14.0 -emit-obj -mrelax-all -disable-free
-clear-ast-before-backend -disable-llvm-verifier -discard-value-names -main-file-name main.c
-mrelocation-model static -mframe-pointer=all -ffp-contract=on -fno-rounding-math -mconstructor-aliases
-funwind-tables=2 -target-cpu x86_64 -tune-cpu generic -mllvm -treat-scalable-fixed-error-as-warning
-debugger-tuning=gdb -v -fcoverage-compilation-dir=/home/kandy -resource-dir /usr/lib/clang/16
-internal-isystem /usr/lib/clang/16/include -internal-externc-isystem /usr/include -fdebug-compilation-dir=
/home/kandy -ferror-limit 19 -fgnuc-version=4.2.1 -fcolor-diagnostics -faddrsig -D__GCC_HAVE_DWARF2_CFI_ASM=1
-o /tmp/main-cfa8b8.o -x c main.c
clang -cc1 version 16.0.6 based upon LLVM 16.0.6 default target x86_64-unknown-freebsd14.0
#include "... " search starts here:
#include <...> search starts here:
/usr/lib/clang/16/include
/usr/include
End of search list.
"/usr/bin/ld" --eh-frame-hdr -dynamic-linker /libexec/ld-elf.so.1 --hash-style=both --enable-new-dtags -o
a.out /usr/lib/crt1.o /usr/lib/crti.o /usr/lib/crtbegin.o -L/usr/lib /tmp/main-cfa8b8.o -lgcc --as-needed
-lgcc_s --no-as-needed -lc -lgcc --as-needed -lgcc_s --no-as-needed /usr/lib/crtend.o /usr/lib/crtn.o
```

It seems that the include directive in gcc looks for /usr/local/include, however the include directive in clang does not look for /usr/local/include. In FreeBSD, the clang is what comes with the base system.

```
kandy@freebsd:~ $ cc --version
FreeBSD clang version 16.0.6 (https://github.com/llvm/llvm-project.git llvmorg-16.0.6-0-g7cbf1a259152)
Target: x86_64-unknown-freebsd14.0
Thread model: posix
InstalledDir: /usr/bin
```

#6 - 12/31/2024 12:02 AM - Dan0042 (Daniel DeLorme)

kaiuekandykoga (Kaique Koga) wrote in [#note-5](#):

It seems that the include directive in gcc looks for /usr/local/include, however the include directive in clang does not look for /usr/local/include.

That sounds about right. When compiling Ruby on FreeBSD, I have this at the beginning of my script to make everything flow smoothly:

```
v=" -I/usr/local/include"; [[ $CPPFLAGS = *"$v"* ]] || export CPPFLAGS+= "$v"
v=" -L/usr/local/lib"; [[ $LIBS = *"$v"* ]] || export LIBS+= "$v"
```

As a result, RbConfig::CONFIG contains the /usr/local directories and that makes gem install also flow smoothly (iirc)