Opensource Software Development

오픈소스 개발방식의 이해

KOSS LAB. – Software Engineer taeung@kosslab.kr

송태웅

Instructor

송태웅 (Taeung Song, https://github.com/taeung)

- KOSS(Korean Open Source Software) Lab. Software Engineer
- Opensource Developer (Linux Kernel perf, uftrace 등)

강연활동

- 삼성 SOSCON 2016 연사
- NAVER DEVIEW 2016 연사
- SK C&C Git/Github 교육영상 제작
- 서강대, 아주대 등 10 여개 대학 Git/Github 강의
- 국민대, 이화여대 등 Linux perf 및 오픈소스 개발참여 관련 특강

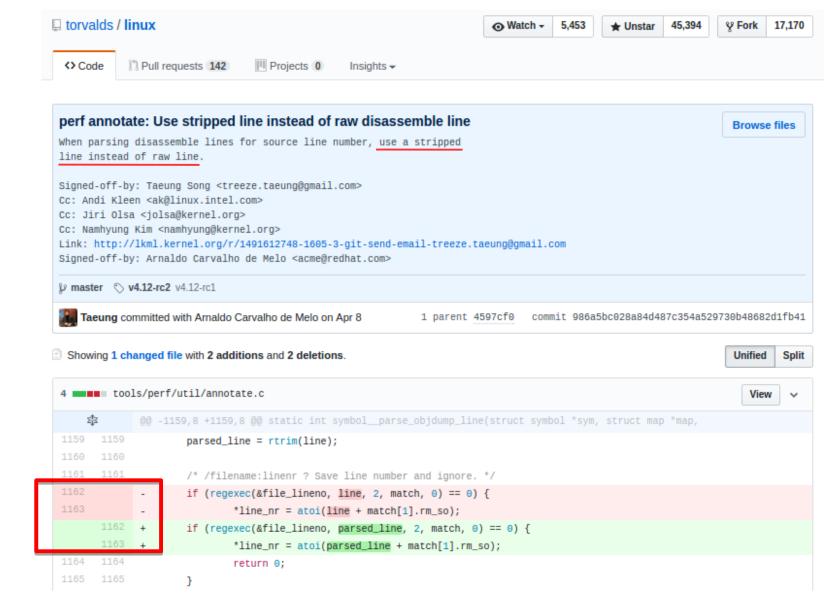
오픈소스 프로젝트는 어떻게 개발이 이루어 질까 ?

각종 오픈소스 (OS, framework, lib) 의 기술내용이 아닌

개발 매커니즘 (오픈소스 개발방식)

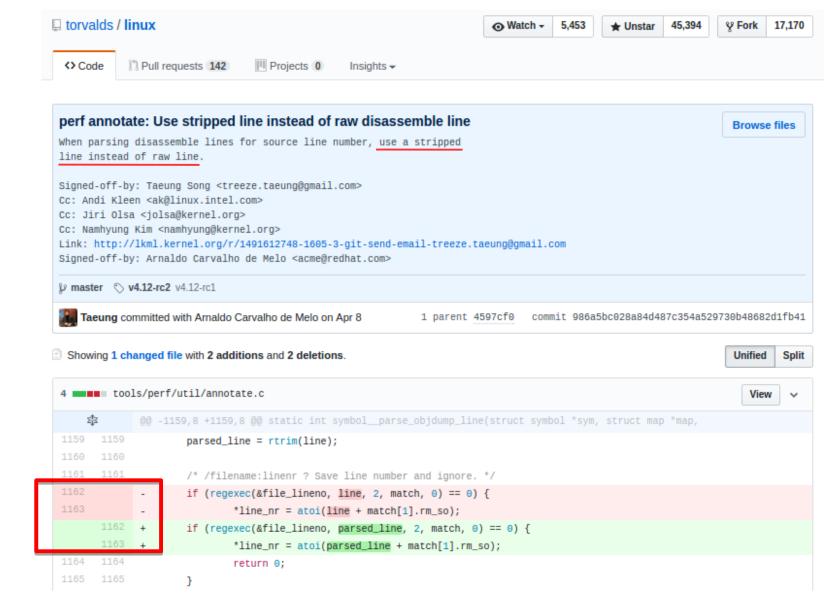
How to develop with Git?

Git 은 History 관리



Git은 Collaboration Tool

Git 의 Commit ? Patch ?



Hello world 찍을때,

Git 이 필요한가 ? Needs / Wants

Hello world 찍을때 ,

Git 이 Needs 인 세상 == 오픈소스 프로젝트

Commit 단위로 개발 진행 ?

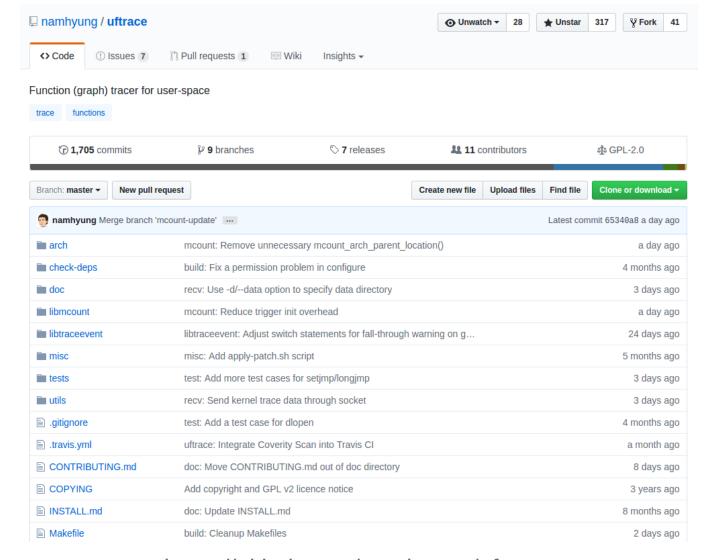
사례를 통해

오픈소스 개발방식 이해 해보자

오픈소스 프로젝트 uftrace:

간단한 소개

github.com/namhyung/uftrace



https://github.com/namhyung/uftrace

```
build passing coverity passed
```

uftrace

The uftrace tool is to trace and analyze execution of a program written in C/C++. It was heavily inspired by the ftrace framework of the Linux kernel (especially function graph tracer) and supports userspace programs. It supports various kind of commands and filters to help analysis of the program execution and performance.

- Homepage: https://github.com/namhyung/uftrace
- Tutorial: https://github.com/namhyung/uftrace/wiki/Tutorial
- Chat: https://gitter.im/uftrace/uftrace

Features

It traces each function in the executable and shows time duration. It can also trace external library calls - but only entry and exit are supported and cannot trace internal function calls in the library call unless the library itself built with profiling enabled.

It can show detailed execution flow at function level, and report which function has the highest overhead. And it also shows various information related the execution environment.

You can setup filters to exclude or include specific functions when tracing. In addition, it can save and show function arguments and return value.

It supports multi-process and/or multi-threaded applications. With root privilege, it can also trace kernel functions as well(with -k option) if the system enables the function graph tracer in the kernel (CONFIG_FUNCTION_GRAPH_TRACER=y).

How to use uftrace

The uftrace command has following subcommands:

- record : runs a program and saves the trace data
- · replay : shows program execution in the trace data

https://github.com/namhyung/uftrace

```
$ gcc test.c

void bar() {
}

void foo() {
 bar();
}
int main() {
```

foo();

```
$ gcc -pg test.c
void bar() {
                       <bar>:
                         call <mcount@plt>
                         ret
void foo() {
  bar();
                       <foo>:
                         call <mcount@plt>
int main() {
                         call <bar>
  foo();
                         ret
                       <main>:
                         call <mcount@plt>
                         call <foo>
                         ret
```

```
$ qcc -pq test.c
$ uftrace a.out
# DURATION
           TID
                  FUNCTION
                    monstartup();
  0.531 us [21315] |
  0.435 us [21315] | cxa atexit();
          [21315] | main() {
          [21315] | foo() {
  0.134 us [21315] | bar();
  0.890 us [21315] | } /* main */
```

```
$ uftrace -A fib@arg1 fibonacci 5
fib(5) = 5
# DURATION TID
                    FUNCTION
  0.770 us [31365] | monstartup();
  0.492 us [31365] | cxa atexit();
           [31365] | main() {
  1.507 us [31365] | atoi();
           [31365] | fib(5) {
           [31365] | fib(4) {
           [31365] | fib(3) {
  1.293 us [31365] fib(2);
  0.172 \text{ us } [31365] \mid \text{fib}(1);
  2.295 us [31365] | } /* fib */
  0.157 us [31365] | fib(2);
  3.025 us [31365] | } /* fib */
           [31365] | fib(3) {
  0.150 us [31365] | fib(2);
  0.155 \text{ us } [31365] \mid \text{fib}(1);
  0.917 us [31365] | } /* fib */
  5.232 us [31365] | } /* fib */
  4.856 us [31365] | printf();
 12.697 us [31365] | } /* main */
```

\$ gcc -pg fibonacci.c

```
fib(5) = 5
# DURATION TID FUNCTION
   0.718 us [31379] | monstartup();
   0.464 us [31379] | cxa atexit();
            [31379] | main() {
   1.442 us [31379] | atoi();
            [31379] | fib(5) {
            [31379] | fib(4) {
            [31379] | fib(3) {
   1.395 us [31379] | fib(2) = 1;
   0.174 \text{ us } [31379] \mid \text{fib}(1) = 1;
   2.562 \text{ us } [31379] \mid \qquad \} = 2; /* \text{ fib } */
   0.157 \text{ us } [31379] \mid \text{fib}(2) = 1;
   3.330 us [31379] | } = 3; /* fib */
            [31379] | fib(3) {
   0.152 \text{ us } [31379] \mid \text{fib}(2) = 1;
   0.154 \text{ us } [31379] \mid \text{fib}(1) = 1;
   5.351 \text{ us } [31379] \mid \} = 5; /* \text{ fib } */
   5.729 us [31379] | printf();
  13.627 us [31379] | } /* main */
```

\$ uftrace -A fib@arg1 -R fib@retval fibonacci 5

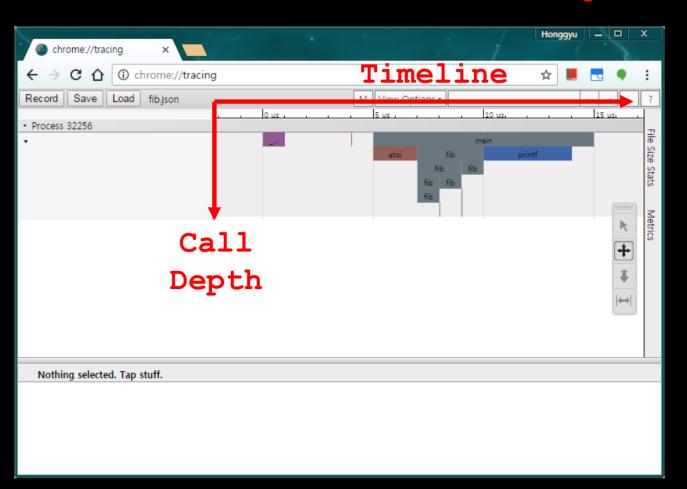
\$ gcc -pg fibonacci.c

```
$ gcc -pg fibonacci.c
$ uftrace record fibonacci 5
fib(5) = 5
$ uftrace dump --chrome
```

```
$ uftrace record fibonacci 5
  fib(5) = 5
  $ uftrace dump --chrome
{"traceEvents":[
{"ts":5913706403443,"ph":"B","pid":32256,"name":" monstartup"},
{"ts":5913706403444, "ph": "E", "pid":32256, "name": " monstartup"},
{"ts":5913706403447, "ph": "B", "pid":32256, "name": " cxa atexit"},
{"ts":5913706403447, "ph": "E", "pid":32256, "name": " cxa atexit"},
{"ts":5913706403448,"ph":"B","pid":32256,"name":"main"},
{"ts":5913706403448,"ph":"B","pid":32256,"name":"atoi"},
{"ts":5913706403450, "ph": "E", "pid":32256, "name": "atoi"},
{"ts":5913706403450,"ph":"B","pid":32256,"name":"fib"},
{"ts":5913706403450, "ph": "B", "pid":32256, "name": "fib"},
{"ts":5913706403452,"ph":"E","pid":32256,"name":"fib"},
{"ts":5913706403453, "ph": "E", "pid":32256, "name": "fib"},
{"ts":5913706403453, "ph": "E", "pid":32256, "name": "fib"},
{"ts":5913706403453,"ph":"B","pid":32256,"name":"printf"},
{"ts":5913706403457, "ph": "E", "pid":32256, "name": "printf"},
{"ts":5913706403458,"ph":"E","pid":32256,"name":"main"}
1, "metadata": {
"command line": "uftrace record fibonacci 5 ",
"recorded time": "Thu Sep 22 22:31:17 2016"
} }
```

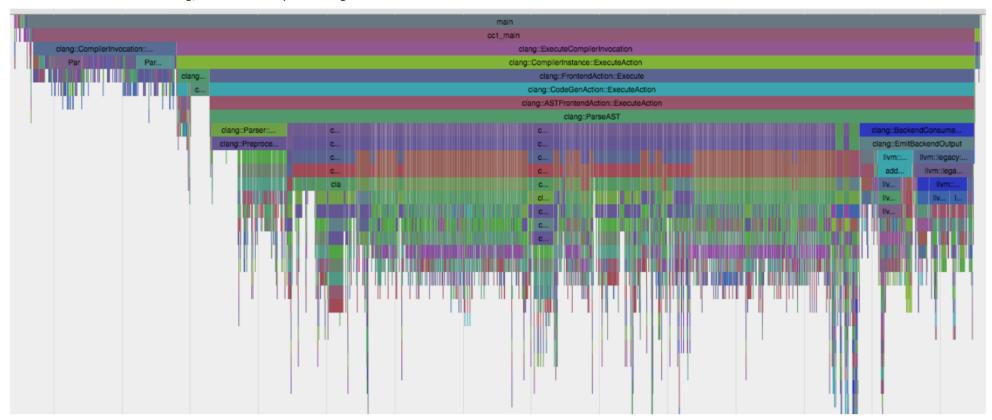
\$ gcc -pg fibonacci.c

- 1. Open Chrome Browser
- 2. Load JSON file in chrome://tracing



Compilation Procedure Study of Clang/LLVM

Internal function trace records of Clang/LLVM that compiles a target source code





http://tracingsummit.org/wiki/TracingSummit2016uftrace

https://youtu.be/U3hTR6-pWu0





uftrace: A function graph tracer for C/C++ userspace programs

CppCon.org

```
gcc -pg test.c
uftrace a.out
DURATION
             TID
                     FUNCTION
 0.531 us [21315]
                       monstartup();
 0.435 us [21315]
                       cxa atexit();
           [21315]
                     main()
           [21315]
                       foo()
 0.134 us [21315]
                         bar();
 0.564 us [21315] |
                         /* foo */
 0.890 us [21315] | } /* main */
```

https://cppcon.org/ https://youtu.be/LNav5qvyK7I

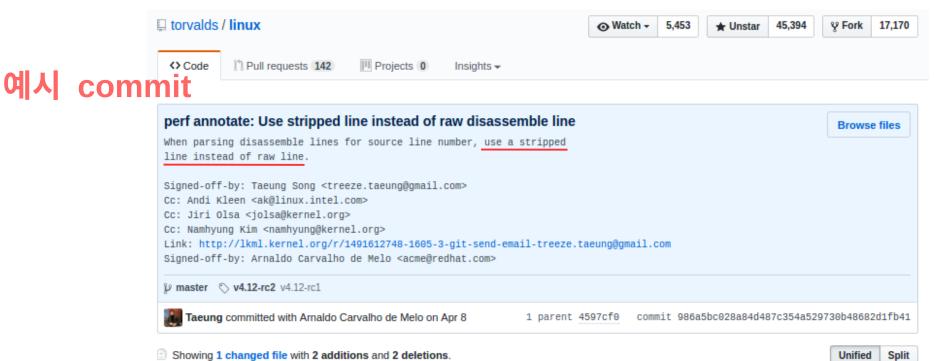
오픈소스 프로젝트 uftrace:

Pull request / Review 과정 예시

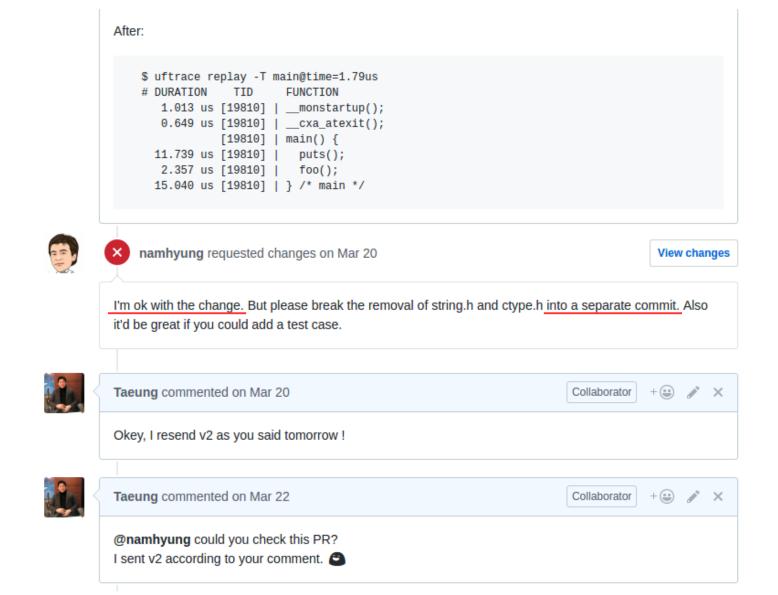
filter: Support a float time value for trigger #76

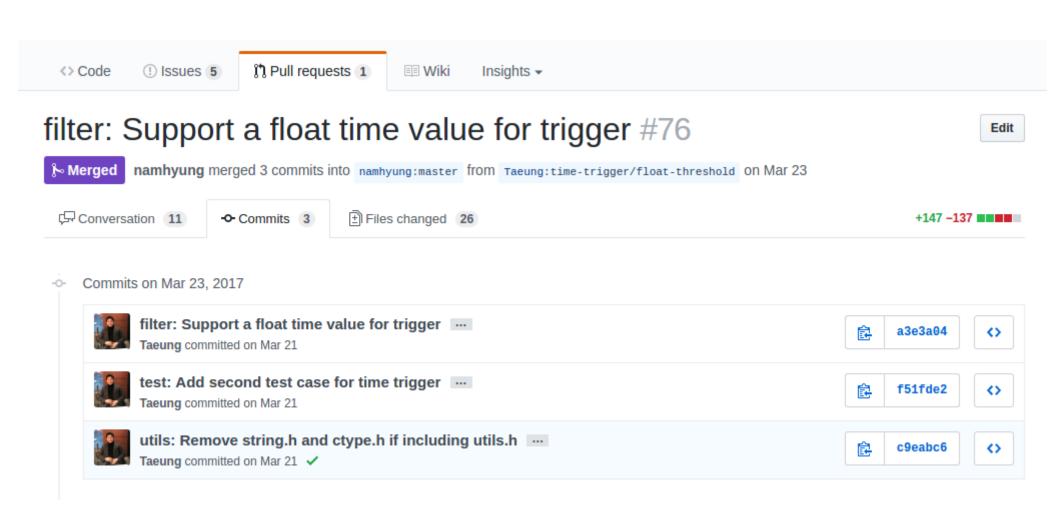
Edit

% Merged namhyung merged 3 commits into namhyung:master from Taeung:time-trigger/float-threshold on Mar 23 Files changed 26 Conversation 11 -O- Commits 3 +147 -137 Taeung commented on Mar 20 Collaborator + (2) Reviewers -Önamhyung × The time tigger cannot handle a float value so fix it using existing parse time(). Assignees -CE @namhyung No one-assign yourself I moved parse time() function into utils/utils.c But if you don't agree the movement, Labels Ö I'll resend v2 fixing it. None yet Before: -CE Milestone \$ uftrace record ./hello No milestone \$ uftrace replay -T main@time=1.79us # DURATION TID FUNCTION 1.013 us [19810] | __monstartup(); Notifications 0.649 us [19810] | __cxa_atexit(); [19810] | main() { **◄**× Unsubscribe 11.739 us [19810] | puts(); [19810] | foo() { You're receiving notifications 1.785 us [19810] | puts(); because you authored the thread. 2.357 us [19810] | } /* foo */ 15.040 us [19810] | } /* main */ 2 participants After: \$ uftrace replay -T main@time=1.79us Lock conversation # DURATION TID FUNCTION 1.013 us [19810] | __monstartup(); 0.649 us [19810] | __cxa_atexit(); Allow edits from maintainers. [19810] | main() { Learn more 11.739 us [19810] | puts(); 2.357 us [19810] | foo(); 15.040 us [19810] | } /* main */



4 tools/perf/util/annotate.c View 盘 00 -1159,8 +1159,8 00 static int symbol_parse_objdump_line(struct symbol *sym, struct map *map, parsed_line = rtrim(line); /* /filename:linenr ? Save line number and ignore. */ if (regexec(&file_lineno, line, 2, match, 0) == 0) { *line_nr = atoi(line + match[1].rm_so); if (regexec(&file_lineno, parsed_line, 2, match, 0) == 0) { *line_nr = atoi(parsed_line + match[1].rm_so); return 0;







namhyung commented on Mar 22

Owner + 😀



.

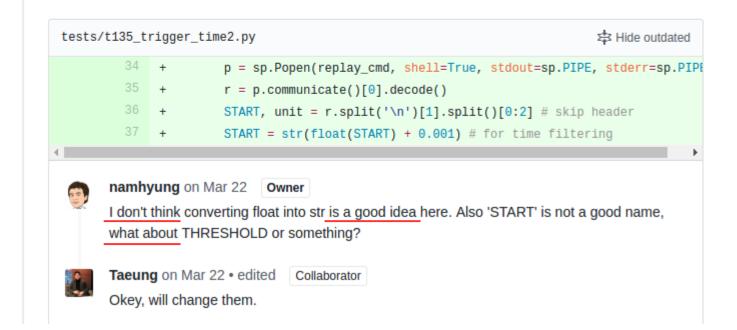
Oh, I missed that. Will check!



namhyung requested changes on Mar 22

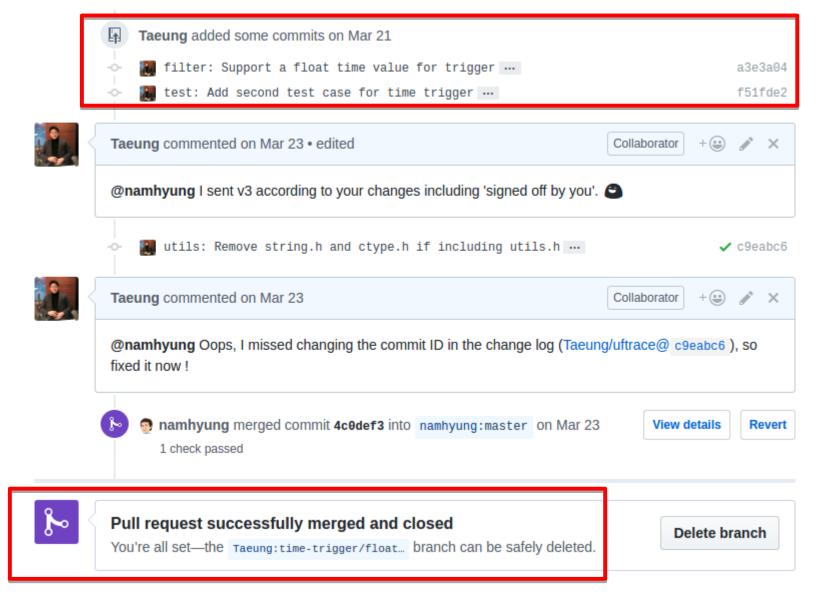


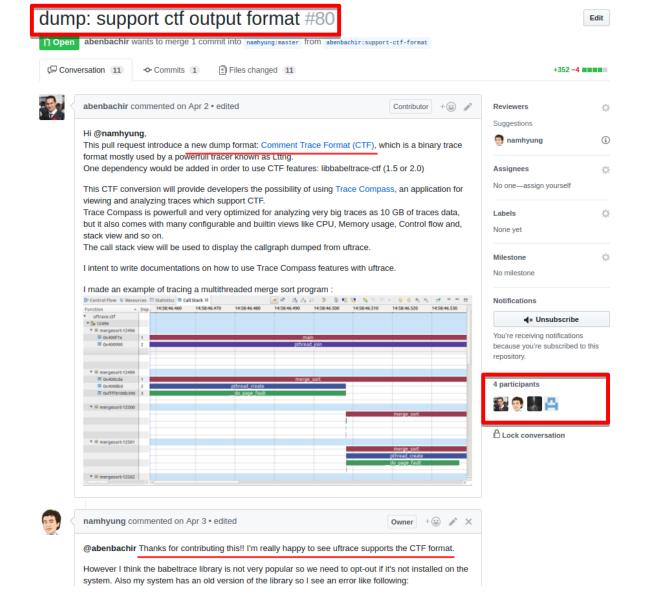
I'm not sure about the header file changes, but it seems to help writing C files with fewer lines. So I'll take it (and maybe move others later).



```
# Hide outdated
tests/t135_trigger_time2.py
         41 +
                       return TestBase.TEST_SUCCESS
         42 +
        43 +
                   def runcmd(self):
         44 +
                       return '%s replay -T main@time=%s -d %s' % (TestBase.ftrace, START,
      namhyung on Mar 22
      Here the time filter value might be longer than 3 digits. For my (failed) test case, it was -T
      main@time=1.27999999999999998us so I think it's better to print it as float with a precision
      limit:
         diff --git a/tests/t135_trigger_time2.py b/tests/t135_trigger_time2.py
         index f16230d..268f844 100644
         --- a/tests/t135_trigger_time2.py
         +++ b/tests/t135_trigger_time2.py
         @@ -4,7 +4,8 @@ from runtest import TestBase
          import subprocess as sp
          TDIR='xxx'
         -START=0
         +TIME=0
         +UNIT=''
          class TestCase(TestBase):
              def __init__(self):
         @@ -24,7 +25,7 @@ class TestCase(TestBase):
          """, sort='simple')
              def pre(self):
                  global START
                  global TIME, UNIT
                  record_cmd = '%s record -F main -d %s %s' % (TestBase.ftrace, TDIR, '
                  sp.call(record_cmd.split())
```

@@ -33,15 +34,14 @@ class TestCase(TestBase):





Make the configure script more packaging-friendly #98 Edit namhyung merged 6 commits into namhyung:master from pridi:configure 8 days ago **№** Merged Conversation 19 -O- Commits 6 Files changed 1 +26 -23 Dridi commented 9 days ago Contributor + 😀 🥒 Reviewers thepaul Hello, namhyung Someone's trying to introduce uftrace on Fedora [1] and I'd like to see this move forward. One problem is that the configure script doesn't meet packaging expectations, which is fixed in 77dcd9c ca9d704 . That Assignees Öshould make downstream maintainers lives easier since they'd less likely need to manually update the No one—assign yourself packaging whenever a guideline changes. I also polished the script a bit. Ö Labels None yet Dridi [1] https://bugzilla.redhat.com/show_bug.cgi?id=1398922 Milestone Ö-No milestone namhyung commented 9 days ago • edited Owner + 😀 🥕 🗙 Notifications Unsubscribe Thank you for fixing this, all look good to me. You're receiving notifications @thepaul @bkircher @ganadist Are you ok with this change? because you're subscribed to this repository. thepaul reviewed 9 days ago View changes 4 participants configure Lock conversation Contributor + 😐 🥕 🗙 thepaul commented 9 days ago Ok with the change other than my quibble about \$\{foo\%x\} vs \$\{foo\%x\}. This won't affect the deb packaging much.

오픈소스 프로젝트 uftrace:

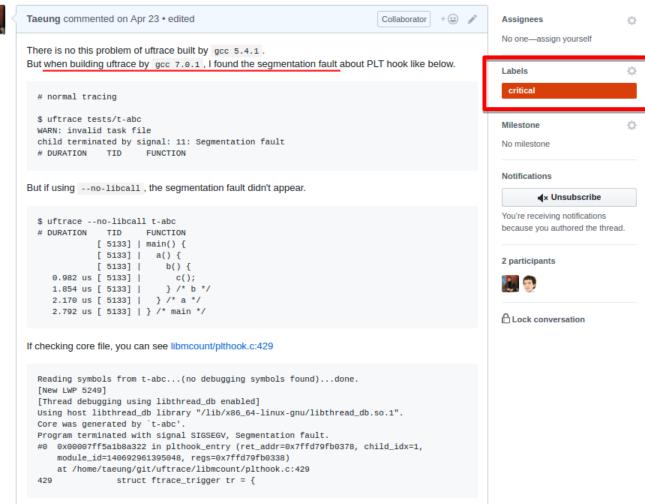
Issue / Disscusion 과정 예시

PLT hook segfault about GCC 7 #91

New issue

(Closed Taeung opened this issue on Apr 23 · 14 comments







namhyung commented on Apr 24 • edited

namhyung commented on Apr 24



Is the test program (t-abc) is a same binary for both case (or is it also rebuilt with GCC7)? I need to check

Owner + 😀

Owner + 😐



GCC changes about PLT handling..



40052b:

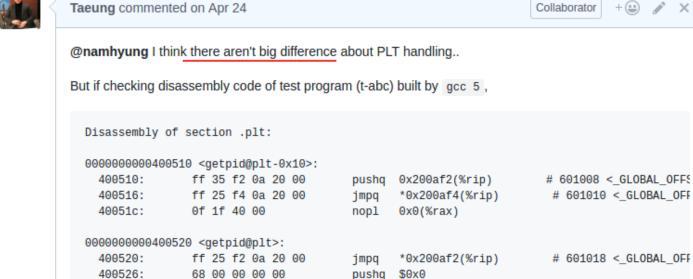
e9 e0 ff ff ff

output?

If the binaries are different (IOW rebuit), could you please chek there's any difference in the disassembly

400510 <_init+0x20>





jmpq

```
• B-2) test program(t-abc) built by gcc 7
  $ qcc -dumpversion
  7.0.1
  $ ./runtest.py basic
  Test case
                                           finstrument-fu
  -----: 00 01 02 03 0s 00 01 02 03 0s
                        : SG SG SG SG SG SG SG SG SG
  child terminated by signal: 11: Segmentation fault
 child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
  child terminated by signal: 11: Segmentation fault
namhyung commented on Apr 24
OK. Many thanks. Could you provide a link for libmcount-fast.so built with GCC7 so that I can take a look at
the binary?
Taeung commented on Apr 24 • edited
                                                                     Collaborator + 😐 🧪 🗙
@namhyung Okey, you want to download libmcount-fast.so built by gcc 7. Right?
```

Owner + 😐 🥕



namhyung commented on Apr 24

Yes, appreciated!



namhyung commented on Apr 24

Owner + 😀 🥕 🗙



And the problem might be due to stack alignment required by "movaps" instruction. Could you please test below patch?

```
diff --git a/arch/x86_64/plthook.S b/arch/x86_64/plthook.S
index baa6b52..fe0ff44 100644
--- a/arch/x86_64/plthook.S
+++ b/arch/x86_64/plthook.S
@@ -3,8 +3,10 @@ plt_hooker:
        .cfi_startproc
        /* PLT code already pushed symbol and module indices */
        .cfi_adjust_cfa_offset 16
        sub $48, %rsp
        .cfi_adjust_cfa_offset 48
       sub $56, %rsp
       .cfi_adjust_cfa_offset 56
       movq %rax, 48(%rsp)
        .cfi_offset rdi, -32
        movq %rdi, 40(%rsp)
        .cfi_offset rdi, -32
        movq %rsi, 32(%rsp)
@@ -19,11 +21,11 @@ plt_hooker:
        .cfi_offset r9, -72
        /* child idx */
        movq 56(%rsp), %rsi
        movq 64(%rsp), %rsi
       /* address of parent ip */
        lea 64(%rsp), %rdi
       lea 72(%rsp), %rdi
       /* module id */
        movq 48(%rsp), %rdx
        movq 56(%rsp), %rdx
        /* mcount_args */
        movq %rsp, %rcx
```

	Taeung commented on Apr 24		Collaborator	+ 😐	<i>(</i>)			
	Sure, after I tested this, will tell you the result!	•						
	Taeung commented on Apr 24 • edited		Collaborator	+ 😐	<i>(</i>)			
	@namhyung The segfault is gone! with your	@namhyung The segfault is gone! with your patch.						
	But I don't understand exactly what +8 and al	lignment for movaps instru	ıction means					
	I think I seem to need the domain knowledge a							
	namhyung commented on Apr 24		Owner	+ 🔐	<i>P</i> >			
· South St.	FYI http://x86 reneieschke.de/html/file_module_x8	6 id 180.html						
· New York	FYI http://x86.renejeschke.de/html/file_module_x80 (gdb) disas	6_id_180.html						
· ****	http://x86.renejeschke.de/html/file_module_x80 (gdb) disas Dump of assembler code for function pl	Lthook_entry:						
	http://x86.renejeschke.de/html/file_module_x80 (gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push	Lthook_entry: %r15 %r14						
	http://x86.renejeschke.de/html/file_module_x80 (gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push	Lthook_entry: %r15 %r14 %r13						
· >	(gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5308 <+8>: push	Lthook_entry: %r15 %r14 %r13 %r12 %rbp						
	(gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5309 <+9>: push	Lthook_entry: %r15 %r14 %r13 %r12 %rbp %rbx						
	(gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5309 <+9>: push 0x00007f09d8db5309 <+10>: pxor 0x00007f09d8db530e <+14>: sub	lthook_entry: %r15 %r14 %r13 %r12 %rbp %rbx %xmm0,%xmm0 \$0x58,%rsp						
	(gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5309 <+9>: push 0x00007f09d8db5300 <+10>: pxor	Lthook_entry: %r15 %r14 %r13 %r12 %rbp %rbx %xmm0,%xmm0	# 0x7f09d8fc	bce1 <	mcount			
	(gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5309 <+9>: push 0x00007f09d8db5309 <+10>: pxor 0x00007f09d8db530e <+14>: sub 0x00007f09d8db5312 <+18>: lea 0x00007f09d8db5319 <+25>: movq	lthook_entry: %r15 %r14 %r13 %r12 %rbp %rbx %xmm0,%xmm0 \$0x58,%rsp 0x2169c8(%rip),%rax	# 0x7f09d8fc	bce1 <	mcount			
	(gdb) disas Dump of assembler code for function pl 0x00007f09d8db5300 <+0>: push 0x00007f09d8db5302 <+2>: push 0x00007f09d8db5304 <+4>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5306 <+6>: push 0x00007f09d8db5308 <+8>: push 0x00007f09d8db5309 <+9>: push 0x00007f09d8db5309 <+10>: pxor 0x00007f09d8db530e <+14>: sub 0x00007f09d8db5312 <+18>: lea 0x00007f09d8db5319 <+25>: movq	1thook_entry: %r15 %r14 %r13 %r12 %rbp %rbx %xmm0,%xmm0 \$0x58,%rsp 0x2169c8(%rip),%rax \$0x0,0x40(%rsp)	# 0x7f09d8fc	ebce1 <	mcount			

```
(gdb) disas
  Dump of assembler code for function plthook_entry:
                                 push %r15
     0x00007f09d8db5300 <+0>:
     0x00007f09d8db5302 <+2>:
                                 push %r14
     0x00007f09d8db5304 <+4>:
                                 push %r13
                                 push %r12
     0x00007f09d8db5306 <+6>:
     0x00007f09d8db5308 <+8>:
                                 push
                                       %rbp
     0x00007f09d8db5309 <+9>:
                                 push %rbx
     0x00007f09d8db530a <+10>:
                                 pxor %xmm0,%xmm0
     0x00007f09d8db530e <+14>:
                                 sub $0x58,%rsp
     0x00007f09d8db5312 <+18>:
                                 lea 0x2169c8(%rip),%rax
                                                                  # 0x7f09d8fcbce1 <mcount
     0x00007f09d8db5319 <+25>:
                                 movq $0x0,0x40(%rsp)
  => 0x00007f09d8db5322 <+34>:
                                 movaps %xmm0,0x20(%rsp)
  (gdb) p $rsp
  1 = (void *) 0x7fffa19971f8
                                                                               + 😐
Taeung commented on Apr 24
                                                                    Collaborator
Thank you!
   namhyung added bug critical and removed bug labels on Apr 24
    namhyung closed this in 7b80ea8 on Apr 24
   This was referenced 29 days ago
   -mfentry segfault on GCC 7 #92
                                                                                    (f) Closed
   PLT hook segfault from < __fentry__@plt> on GCC7 #100
                                                                                    (f) Closed
```



Showing 1 changed file with 26 additions and 26 deletions.

\$\frac{1}{2}\$
\frac{1}{2}\$
\frac{1}{2

Unified

Split

Edit New issue



① Open namhyung opened this issue on Apr 11 · 17 comments

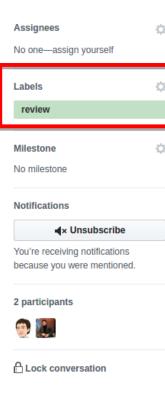


namhyung commented on Apr 11 • edited by Taeung + 😐 Owner Add basic support for event tracing. The event tracing is usable when there are available events on the system. Currently systemtap SDT can be used, and it's already added to many programs and libraries on Ubuntu systems at least. It doesn't save and show event's arguments yet but it'll be added soon. The code was pushed to review/sdt-support-v1 branch.

An SDT event can be defined using STAP PROBE* macro like following. I defined "uftrace:event1" event (note that an event has PROVIDER:EVENT format) with a single argument of "n". The code will add a NOP insn at the point of the event. For more information, please see SDT implementation page.

The uftrace will replace the NOP insn to an invalid op so that it can generate an illegal opcode exception which sends SIGILL signal to the current task, And then it registers a signal handler for SIGILL to process the event information and continue to proceed with the next instruction.

```
$ cat tests/s-sdt.c
#include <stdio.h>
#include <stdlib.h>
#include <sys/sdt.h>
                           // <-- include the SDT header
void foo(int n)
 STAP_PROBE1(uftrace, event1, n); // <-- defined here
 printf("n = %d\n", n);
int main(int argc, char *argv[])
 int n = 1;
 if (argc > 1)
   n = atoi(argv[1]);
```

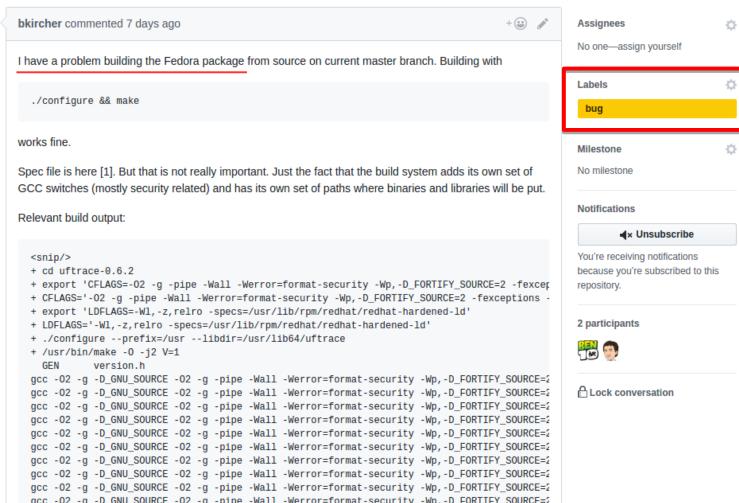


Fedora packaging FTBFS #99



(F) Closed bkircher opened this issue 7 days ago · 5 comments





Edit

New issue

Assertion error: Assertion `sess' failed when reading multithreaded data #40

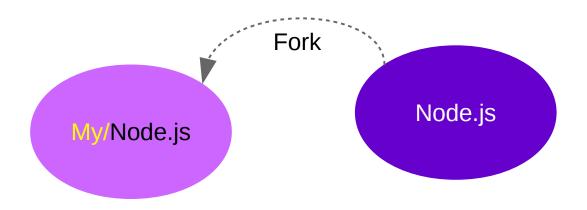
Edit New issue

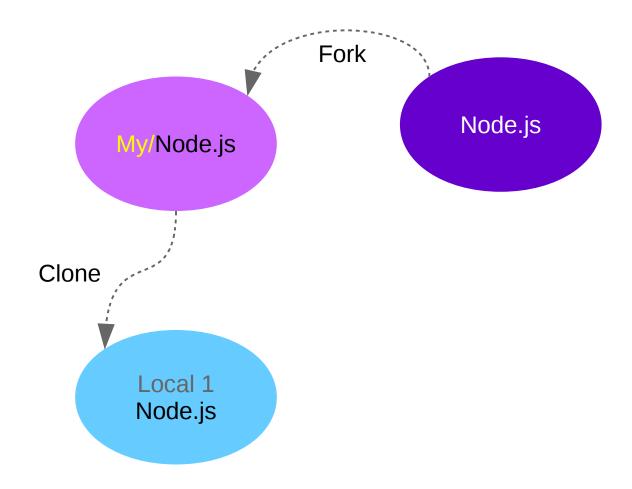
(F) Closed tahini opened this issue on Dec 22, 2016 · 11 comments tahini commented on Dec 22, 2016 Contributor Assignees No one-assign yourself I don't know if it's me, a bug or just lack of documentation, but I get this message when trying to 'uftrace report' on data from a multithreaded application (compiled with -lpthread): Labels uftrace: /home/me/sources/uftrace/utils/session.c:198: add session ref: Assertion Sess' critical failed. Milestone This is my task.txt file. It appears to have no way to identify the session for tid 9461. Shouldn't the SESS argument be the pid instead of the tid? No milestone [me@me multithread]\$ cat uftrace.data/task.txt **Notifications** SESS timestamp=2525026.536462738 tid=9460 sid=c979e932a604f4f8 exename="/home/me/sources/te **▲**× Unsubscribe TASK timestamp=2525026.536514704 tid=9460 pid=9457 TASK timestamp=2525026.536579834 tid=9461 pid=9457 You're receiving notifications because you're subscribed to this repository. I can work on a fix if need be. 2 participants **E** namhyung commented on Dec 22, 2016 Lock conversation @tahini hi, thanks for using uftrace and reporting the bug. Looking at the task file, the task 9460 seems not a main thread, right? I'm not sure why task 9457 (the main thread, I guess) was not recorded and the session came from task 9460. If your program is not too big, could you please share it to investigate more? tahini commented on Dec 22, 2016 Contributor + (4)

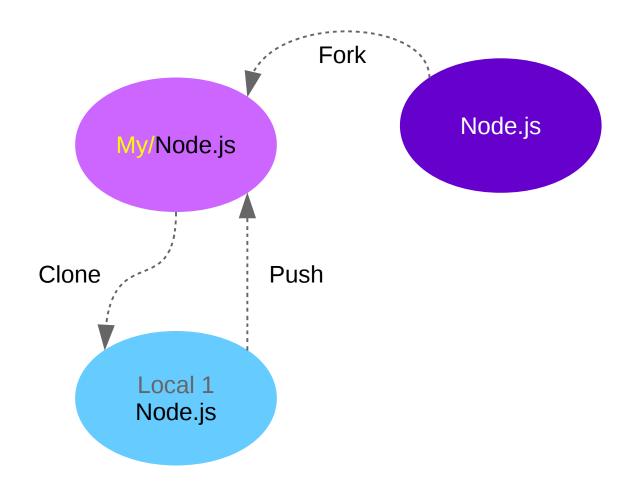
oh the program is not big at all! It's a toy program I did just to test and benchmark uftrace for students that

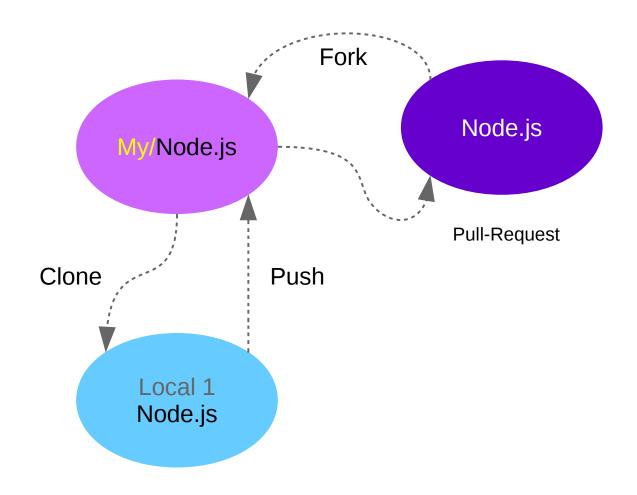
오픈소스 협업구조

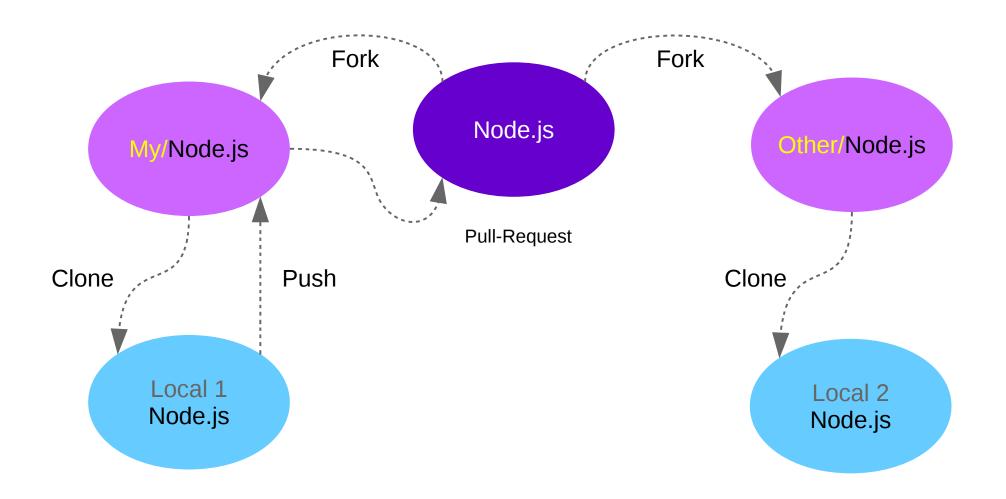


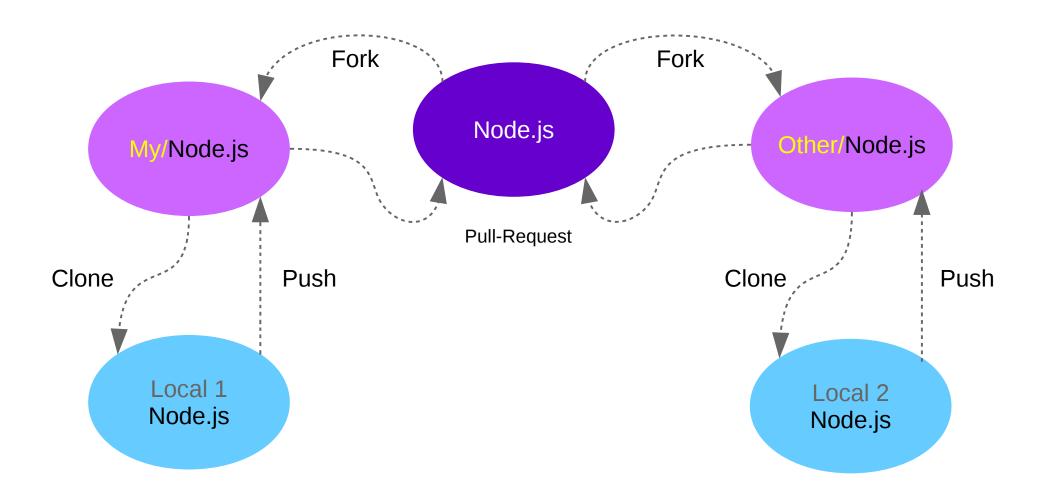












Why?

VCS (git, svn, ...) 의 배경

소프트웨어의 특징

- 비가시성
- 변경성
- 제조가 아니라 개발

Commit 단위개발 Idea

- " Commit 단위로 코딩하고 리뷰하고 토론하고 적용한다"
 - → 집단지성의 극대화 → SW 취약점 극복 전략



소프트웨어의 특징

- 비가시성
- 변경성
- 제조가 아니라 개발



Commit 단위 개발방식 장점

- 개발과정 가시화
- Line by Line 명확한 관리 참고: code style, code convention
- 협업 용이
- 코드품질 상승
- 다수 버그 / 오류 미리차단

개발자 입장에서 본 여러가지 확장적인 효과

- Commit 단위개발을 통한 집단지성 극대화
- 집단지성을 통한 SW 기술발전 이바지
- 기업의 SW 기술적인 성장배경, 인력보강, 채용
- 개인의 기술학습,교육,성장배경,취업,이력
- NHN 엔터테이먼트, 카카오
 - → Pull-Request 개발방식 도입

오픈소스 프로젝트 (Linux Kernel, GNU, tensorflow, react 등)

살펴보기 (Github / Not Github)

Not Github

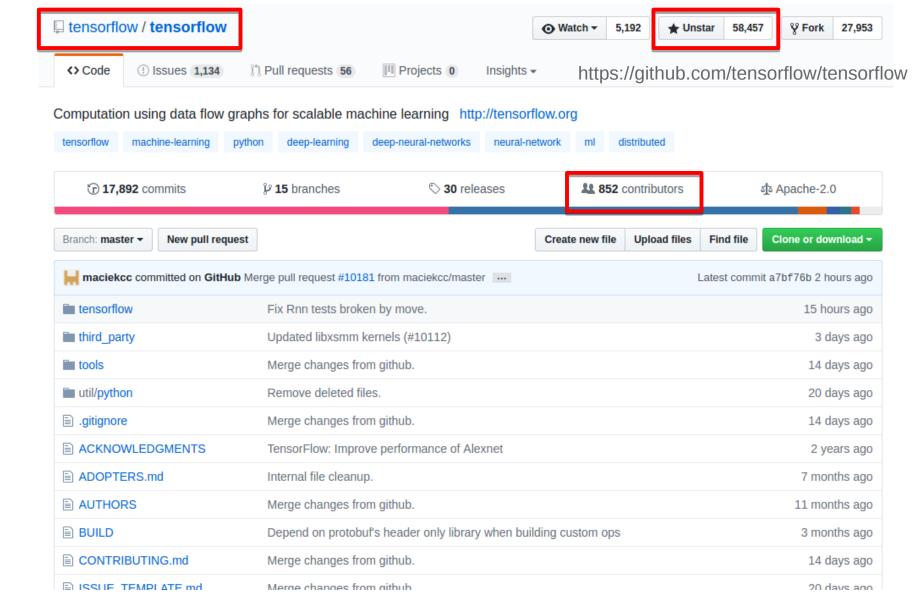
- Apache (http://git.apache.org)
- Linux kernel (http://git.kernel.org)
- GNU (http://git.savannah.gnu.org/cgit/)
- Webkit (git://git.webkit.org/WebKit.git)

. . .

Github

- Node.js (https://github.com/nodejs/node)
- Tensorflow (https://github.com/tensorflow/tensorflow)
- Spring-boot (https://github.com/spring-projects/spring-boot)
- React (https://github.com/facebook/react)
- Elasticsearch (https://github.com/elastic/elasticsearch)
- Flask (https://github.com/mitsuhiko/flask)

...

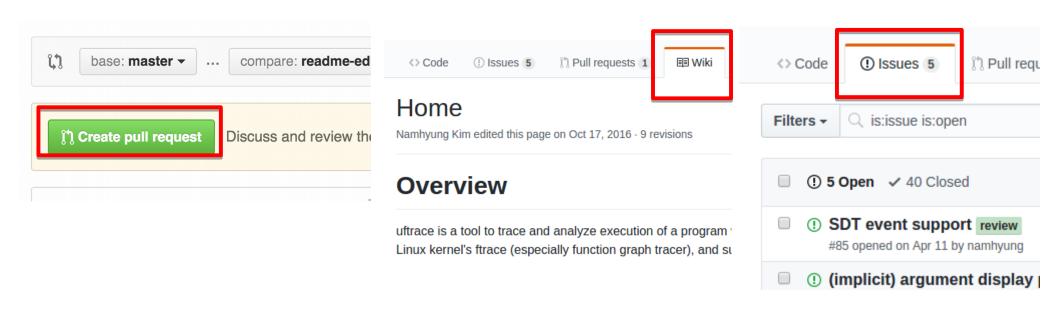


Linux Kernel 공식 git repository https://git.kernel.org

Kernel.org git	•				
Git repositories hosted at kernel.org					
ex					
ame	Description	Owner	ldle	Links	
uetooth					
bluez-hcidump.git	Bluetooth packet analyzer	Marcel Holtmann	3 years	summary log tree	
bluez.git	Bluetooth protocol stack for Linux	Marcel Holtmann	26 hours	summary log tree	
obexd.git	OBEX Server	Marcel Holtmann	3 years	summary log tree	
sbc.git	SBC library	holtmann	17 months	summary log tree	
pot					
dracut/dracut.git	dracut - Initramfs generator using udev	Harald Hoyer	8 days	summary log tree	
efilinux/efilinux.git	The efilinux UEFI boot loader	Matt Fleming	21 months	summary log tree	
syslinux/syslinux.git	The Syslinux boot loader suite	Syslinux workgroup	18 months	summary log tree	
evel					
pahole/pahole.git	Pahole and other DWARF utils	Arnaldo Carvalho de Melo	10 days	summary log tree	
sparse/chrisl/sparse.git	Chris Li's sparse repository.	Christopher Li	5 weeks	summary log tree	
sparse/sparse.git	C semantic parser	Christopher Li	13 months	summary log tree	
ocs					
kernel/kernel-docs.git	Kernel Documentation tree	Doc Group	2 years	summary log tree	
kernel/ksmap.git	Kernel.org keysign map source	Kernel.org users	4 days	summary log tree	
kernel/website.git	Kernel.org website source	Doc Group	13 days	summary log tree	
man-pages/man-pages.git	Linux man pages Sections 2, 3, 4, 5, and 7	Michael Timothy Kerrisk	9 days	summary log tree	
man-pages/website.git	Website files for /doc/man-pages	Michael Timothy Kerrisk	2 weeks	summary log tree	
ditors	. •	•			
uemacs/uemacs.git	Micro-emacs	Linus Torvalds	16 months	summary log tree	
ext2/e2fsproqs.qit	Ext2/3/4 filesystem userspace utilities	Theodore T'so	3 days	summary log tree	
ext2/xfstests-bld.git	Build framework and autorun scripts for xfstests	Theodore T'so	4 weeks	summary log tree	
fat/fatattr/fatattr.git	FAT attribute set utility	H. Peter Anvin	7 years	summary log tree	
fuse/dbfs.git	FUSE fs w/ Berkeley DB backend.	Jeff Garzik	7 years	summary log tree	
fuse/fuse-ext2.git	FUSE ext2 filesystem driver.	Jeff Garzik	10 years	summary log tree	
squashfs/squashfs-tools.qit	squashfs tools development	Phillip Lougher	4 months	summary log tree	
xfs/dmapi-dev.git	Data Management API runtime environment	Christoph Hellwig	5 years	summary log tree	
xfs/xfs-documentation.git	XFS AsciiDoc Documentation tree	XFS FS Group	3 months	summary log tree	

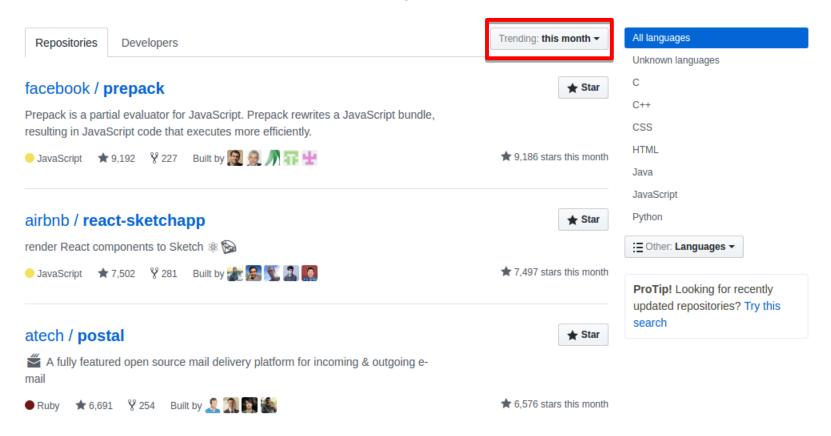
Github 기반 프로젝트와의 차이점

Pull-request, Wiki, issue 등

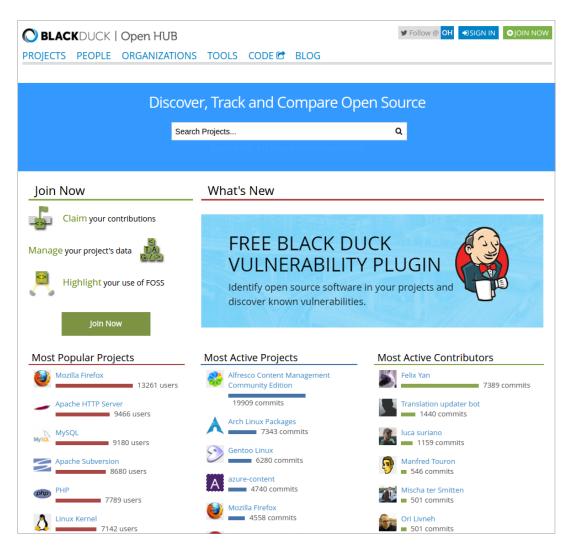


Trending in open source

See what the GitHub community is most excited about this month.



Github 에서 제공하는 trending 페이지 https://github.com/trending



전세계 각종 오픈소스 통계 사이트 https://www.openhub.net/



오픈소스 커미터 개인별 통계 뷰 https://www.openhub.net/accounts/namhyung



Taeung Song Taeung

Follow

Block or report user

- KOSS Lab
- Seoul, Republic of Korea
- http://developerpostit.blogspo...

Organizations



Overview Repositories 11 Stars 94

Followers 55

Following 69

오픈소스 커미터 개인별 통계 뷰 https://github.com/taeung Pinned repositories

torvalds/linux

Linux kernel source tree

● C ★ 45.6k ¥ 17.2k

Function (graph) tracer for user-space

namhyung/uftrace

● C ★ 324 ¥ 40

linux-perf

perf contribution (mirrored from git://git.kernel.org/pub/scm/linux/kernel/git/acme/linux.git perf/core)

●C ★5 ¥10

trace-cmd

* trace-cmd contribution (mirrored from git://git.kernel.org/pub/scm/linux/kernel/git/rostedt/tracecmd.git)

C

binutils-gdb

GNU Binutils contribution (mirrored from git://sourceware.org/git/binutils-gdb.git)

C

elfutils

T GNU elfutils contribution (mirrored from git://sourceware.org/git/elfutils.git)

C

259 contributions in the last year



Linux Kernel 프로젝트

개발과정

Linux Kernel 공식 perf git repository



Kernel.org git repositories

kernel/git/tip/tip.git

1 of 1

Git repositories hosted at kernel.org

index		

Name	Description	Owner	ldle	Links
pub/scm/bluetooth				
bluez-hcidump.git	Bluetooth packet analyzer	Marcel Holtmann	4 years	summary log tree
bluez.git	Bluetooth protocol stack for Linux	Marcel Holtmann	2 weeks	summary log tree
obexd.git	OBEX Server	Marcel Holtmann	4 years	summary log tree
sbc.git	SBC library	holtmann	3 years	summary log tree
nuh/sem/hoot				
	•••			
remergiringarsamsung-pinem.git	Samsung pin control unver development tree	iuiiiasz i iya	o years	summary log ucc
kernel/git/tglx/apic.git	x86 irqdomain conversion history	Thomas Gleixner	2 years	summary log tree
kernel/git/tglx/history.git	Linux kernel history	Thomas Gleixner	12 years	summary log tree
kernel/git/tglx/rt-history.git	Linux-RT history tree	Thomas Gleixner	16 months	summary log tree
кетпелдилитету.геатпултах-рwm.git	Pww.subsystem.ree	mieny Reding	z weeks	summary log tree
kernel/git/tip/tip.git	Unnamed repository; edit this file 'description' to name the repository.	TIP group	13 hours	summary log tree
kemengintiwanaisa-unver-puliu-unstable.git	aisa-unver pullu stup, for aisa-unstable-z.o tree	rakasılı iwal	19 HIOHUIS	summary log tree
kernel/git/tiwai/alsa-driver-build.git	ALSA driver build stub	Takashi Iwai	19 months	summary log tree
kernel/git/tiwai/hda-emu.git	HD-audio emulator program	Takashi Iwai	6 months	summary log tree
kernel/qit/tiwai/linux-firmware.git	Unnamed repository; edit this file 'description' to name the repository.	Takashi Iwai	4 years	summary log tree

Linux Kernel 공식 Mailing List: Review, Disscusion 목적

Majordomo lists at VGER.KERNEL.ORG

REMEMBER: Subscription to these lists go via <majordomo@vger.kernel.org>!

Note about archives: Listed archives are those that have been reported to vger's maintainers, or that we have found out otherwise. As things are, list of archives is not complete.

alsa-devel, autofs, backports, ceph-devel, cgroups, cpufreg, dash, dccp, devicetree-compiler, devicetree-spec, devicetree, dmaengine, dwarves, ecryptfs, fio, fstests, git-commits-24, git-commits-head, git, hail-devel, initramfs, irda-users, kernel-janitors, kernel-packagers, kernel-testers, keyrings, kvm-commits, kvm-ia64, kvm-ppc, kvm, lartc, libzbc, linux-8086, linux-acpi, linux-admin, linux-alpha, linux-apps, linux-arch, linux-arm-msm, linux-assembly, linux-bbs, linux-bcache, linux-block, linux-bluetooth, linux-btrace, linux-crypto, li linux-diald, linux-doc, linux-edac, linux-efi, linux-embedded, linux-ext4, linux-fbdey, linux-fido, linux-fpqa, linux-fscrypt, linux-fsdeyel, linux-fsf, linux-ftp, linux-acc, linux-acc, linux-hams, linux-hexagon, linux-hotplug, linux-hwmon, linux-i2c, linux-ia64, linux-ibcs2, linux-ide, linux-iio, linux-input, linux-ipx, linux-isdn, linux-japanese, linux-kbuild, linux-kernel-announce, linux-kernel-announce.posters, linux-kernel, linux-kselftest, linux-laptop, linux-leds, linux-linuxss, linux-lugnuts, linux-m68k-cvscommit, linux-m68k, linux-man, linuxmca, linux-media, linux-metag, linux-mmc, linux-modules, linux-msdos-devel, linux-msdos, linux-new-lists, linux-newbie, linux-next, linux-nfs, linux-nilfs, linux-numa, linux-omap, linux-opengl, linux-parisc, linux-pci, linux-perf-users, linux-pm, linux-ppp, linux-pwm, linux-raid, linux-rdma, linux-remoteproc, linux-renesas-soc, linux-rt-users, linux-rtc, linux-s390, linux-samsung-soc, linux-scsi, sctp, linux-security-module, linux-serial, linux-sh, linux-smp, linux-soc, linux-sound, linux-sparse, linux-spi, sygalib, linux-tape, linux-tegra, linux-tip-commits, linux-trace-users, linux-unionfs, linux-userfs, linux-watchdog, linuxwireless, linux-word, linux-wpan, linux-x11, linux-x25, linux-x86 64, linux-xfs, live-patching, lys-devel, mm-commits, netdev, netfilter-devel, netfilter, perfbook, platform-driver-x86, reiserfs-devel, smatch, sparclinux, stable-commits, stable-rt, stable, stqt, target-devel, trinity, ultralinux, util-linux, xdp-newbies,

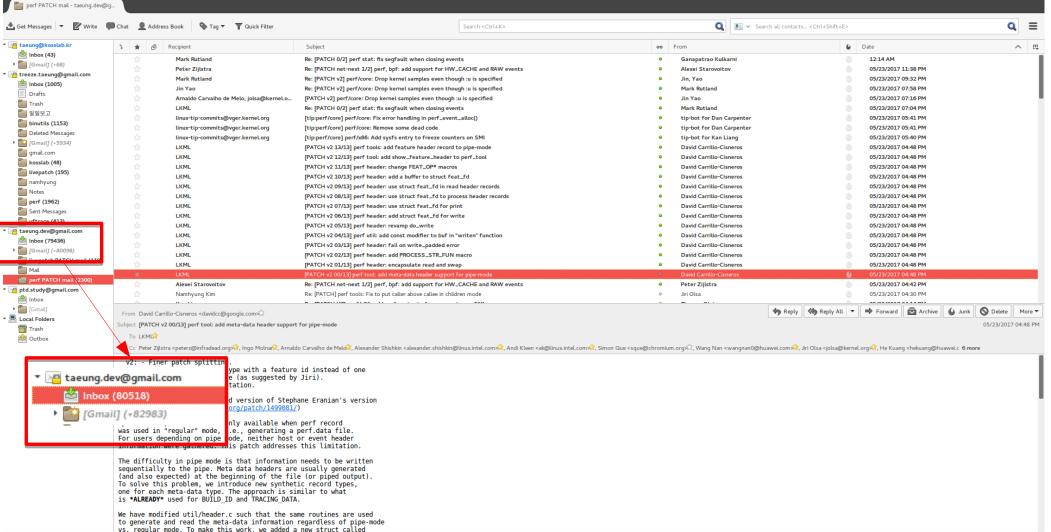
Listname	Number of subscribers
List: alsa-devel; (<u>subscribe</u> / <u>unsubscribe</u>)	
Info:	
Archives: http://www.spinics.net/lists/alsa-devel/	203
Footer:	
To unsubscribe from this list: send the line "unsubscribe alsa-devel" in	

Linux Kernel 프로젝트가

Active 하게 개발되고 있나?

Linux Kernel 프로젝트는

완전히 Active 하게 개발되고 있다



_ = x

PATCH(commit) mail Review 와 Discussion

From Namhyung Kimia

From David Carrillo-Cisneros <davidcc@google.com>\(\hat{\pi}\) Subject [PATCH v2 00/13] perf tool: add meta-data header support for pipe-mode Cc Peter Zijlstra <peterz@infradead.org>//c, Ingo Molna//r, Arnaldo Carvalho de Melo//r, Alexander Shishkin <alexander

- v2: Finer patch splitting.
 - Add only one record type with a feature id instead of one record per new feature (as suggested by Jiri).
 - Add perf.data documentation.

(This is a rebased and updated version of Stephane Eranian's version in https://patchwork.kernel.org/patch/1499081/)

Up until now, meta-data was only available when perf record was used in "regular" mode, i.e., generating a perf.data file. For users depending on pipe mode, neither host or event header information were gathered. This patch addresses this limitation.

The difficulty in pipe mode is that information needs to be written sequentially to the pipe. Meta data headers are usually generated (and also expected) at the beginning of the file (or piped output). To solve this problem, we introduce new synthetic record types, one for each meta-data type. The approach is similar to what is *ALREADY* used for BUILD ID and TRACING DATA.

We have modified util/header.c such that the same routines are used to generate and read the meta-data information regardless of pipe-mode vs. regular mode. To make this work, we added a new struct called feat fd which encapsulates all the information necessary to read or write meta-data information to a file/pipe or from a file/pipe.

```
Subject Re: [PATCH 3/7] perf report: create real callchain entries for inlined frames
   To Milian Wolff <milian.wolff@kdab.com>
   Cc LKMI🚉, perf groupa, Arnaldo Carvalho de Melo <acme@redhat.com🔌, David Ahern <dsahern@gmail.com🔌, Peter Zijlstraa, Yao Jin <yao.jin@linux.intel.com🚖, kernel-team@lge.com
On Thu. May 18, 2017 at 09:34:07PM +0200. Milian Wolff wrote:
         if (strcmp(funcname, base sym->name) == 0) {
                  // reuse the real, existing symbol
I don't know whether it's required by coding style quide but please
use C-style block comment if possible (especially for multiline comments).
                  inline sym = base sym;
         } else {
                  // create a fake symbol for the inline frame
                  inline sym = symbol new(base sym ? base sym->start : 0,
                                            base sym ? base sym->end : 0.
                                            base sym ? base sym->binding : 0,
                                            funcname);
                  if (inline sym)
                          inline sym->inlined = 1:
         free(demangled):
         return inline sym;
  static int inline list append dso a2l(struct dso *dso,
                                          struct inline node *node)
                                          struct inline node *node.
                                          struct symbol *sym)
         struct a2l data *a2l = dso->a2l;
         char *funcname = a2l->funcname ? strdup(a2l->funcname) : NULL:
         char *filename = a2l->filename ? strdup(a2l->filename) : NULL;
         struct symbol *inline_sym = new_inline_sym(dso, sym, a2l->funcname);
          return inline list append(filename, funcname, a21->line, node, dso);
         return inline list append(inline sym, filename, a2l->line, node);
  static int addr2line(const char *dso name, u64 addr.
                       char **file, unsigned int *line, struct dso *dso,
                       bool unwind inlines, struct inline node *node)
                       bool unwind inlines, struct inline node *node,
                       struct symbol *sym)
         struct a2l data *a2l = dso->a2l:
 @@ -241,7 +264,7 @@ static int addr2line(const char *dso name, u64 addr,
          if (unwind inlines) {
                  in\bar{t} cnt = 0:
```

GNU 공식 git repository https://sourceware.org/git/

git://sourceware.org/				 9
			re Search	1
	<u>List all pr</u>	<u>ojects</u>		_
Project	Description	Owner	Last Change	
archer.git	Repository for Project Archer.	gdb@sourceware.org	33 hours ago	summary shortlog log tree
automake.git	git mirror of automake cvs	jim@meyering.net	9 years ago	summary shortlog log tree
binutils-gdb.git	gdb and binutils	gdb@sourceware.org	6 hours ago	summary shortlog log tree
cluster.git	Cluster Project	cluster-devel@redhat.com	8 years ago	summary shortlog log tree
cygwin-apps/base-files.git	base-files - A set of importan	corinna@redhat.com	8 months ago	summary shortlog log tree
cygwin-apps/calm.git	calm - Cygwin server-side	jturney@sourceware.org	9 days ago	summary shortlog log tree
cygwin-apps/crypt.git	crypt - a library implementing	corinna@redhat.com	11 months ago	summary shortlog log tree
cygwin-apps/csih.git	csih - Cygwin service installa	corinna@redhat.com	4 months ago	summary shortlog log tree
cygwin-apps/cygrunsrv.git	cygrunsrv - a wrapper for	corinna@redhat.com	2 years ago	summary shortlog log tree
cygwin-apps/cygutils.git	cygutils - Chuck Wilson's	corinna@redhat.com	17 months ago	summary shortlog log tree
cygwin-apps/editrights.git	editrights - A helper tool	corinna@redhat.com	2 years ago	summary shortlog log tree
cygwin-apps/genini.git	genini - Script to create	corinna@redhat.com	23 months ago	summary shortlog log tree
cygwin-apps/htdocs.git	cygwin-apps htdocs - The cygwi	corinna@redhat.com	37 hours ago	summary shortlog log tree
cygwin-apps/login.git	login - The unix login(1)	corinna@redhat.com	2 years ago	summary shortlog log tree
cygwin-apps/mt.git	mt - The unix mt(1) tool with	corinna@redhat.com	3 years ago	summary shortlog log tree
cygwin-apps/rebase.git	rebase - The rebase tool,	corinna@redhat.com	14 months ago	summary shortlog log tree
cygwin-apps/robots.git	robots - The game; Fight again	corinna@redhat.com	4 years ago	summary shortlog log tree
cygwin-apps/run.git	run - Launch cmdline programs	corinna@redhat.com	21 months ago	summary shortlog log tree
cygwin-apps/setup.git	setup - the official Cygwin	corinna@redhat.com	14 hours ago	summary shortlog log tree
cygwin-apps/shutdown.git	shutdown - Shutdown, reboot	ffes@users.sourceforge.net	3 months ago	summary shortlog log tree
cygwin-apps/windows-default-manifest.git	windows-default-manifest	corinna@redhat.com	2 years ago	summary shortlog log tree
cygwin-apps/xorg-doc.git	xorg-doc - Cygwin XOrg documen	jturney@sourceware.org	3 months ago	summary shortlog log tree
cygwin-htdocs.git	cygwin htdocs - The cygwin	corinna@redhat.com	8 days ago	summary shortlog log tree
dm.git	git mirror of device-mapper	jim@meyering.net	8 years ago	summary shortlog log tree

GNU 공식 Mailing List 구독등록

Mailing lists
There are three binutils mailing lists:
bug-binutils@gnu.org (archives) For reporting bugs. binutils@sourceware.org (archives) For discussing binutils issues. binutils-cvs (archives) A read-only mailing list containing the notes from checkins to the binutils git repository. (This list has an odd name for historical reasons.)
You can use this form to subscribe to the binutils@sourceware.org or binutils-cvs@sourceware.org mailing lists: Mailing list: binutils Your e-mail address: Digest version? subscribe Send in the request
To subscribe to the bug-binutils@gnu.org mailing list, see the bug-binutils info page.
You may wish to browse the old mail archives of the gas2 and bfd mailing lists. These were the discussion lists for binutils until May 1999. Please do not send mail to them any longer.

https://www.gnu.org/software/binutils/

```
From Cupertino Miranda < Cupertino. Miranda @synopsys.com > \( \hat{\alpha} \)
Subject [PATCH 0/8] [ARC] Several fixes for ARC linker
  To binutils@sourceware.ord
  <del>Cc Cupertino.Miranda@synopsy</del>s.comြ, Claudiu.Zissulescu@synopsys.comြ, Francois.Bedard@synopsys.comြ
Ηi,
Please find attach a series of patches fixing several identified issues for
ARC linker.
[PATCH 1/9] [ARC] Avoid creating dynamic relocs when static linked is
[PATCH 2/9] [ARC] Disable warning on absolute relocs when symbol is
[PATCH 3/9] [ARC] Reassign the symbol got information to actual
 FAIL -> UNSUPPORTED: Run pr18718 with PIE (1)
 FAIL -> UNSUPPORTED: Run pr18718 with PIE (2)
  FAIL -> UNSUPPORTED: Run pr18718 with PIE (3)
 FAIL -> UNSUPPORTED: Run pr18718 with PIE (4)
 FAIL -> UNSUPPORTED: Run pr18718 with PIC (1)
 FAIL -> UNSUPPORTED: Run pr18718 with PIC (2)
  FAIL -> UNSUPPORTED: Run pr18718 with PIC (3)
 FAIL -> UNSUPPORTED: Run pr18718 with PIC (4)
```

FAIL -> UNSUPPORTED: Run pr18718 with PIE (3)
FAIL -> UNSUPPORTED: Run pr18718 with PIE (4)
FAIL -> UNSUPPORTED: Run pr18718 with PIE (1)
FAIL -> UNSUPPORTED: Run pr18718 with PIC (1)
FAIL -> UNSUPPORTED: Run pr18718 with PIC (2)
FAIL -> UNSUPPORTED: Run pr18718 with PIC (3)
FAIL -> UNSUPPORTED: Run pr18718 with PIC (4)

[PATCH 4/9] [ARC] Don't convert DYNAMIC@ to GLOBAL OFFSET TABLE
[PATCH 5/9] [ARC] ARC PC32 dynamic reloc incorrectly generated.
[PATCH 6/9] [ARC] Add RELOC_FOR_GLOBAL_SYMBOL in ARC target code.

PASS -> FAIL: plugin claimfile lost symbol
PASS -> FAIL: plugin claimfile replace symbol
PASS -> FAIL: plugin claimfile resolve symbol
PASS -> FAIL: plugin claimfile resolve symbol with source
PASS -> FAIL: plugin claimfile replace symbol with source
PASS -> FAIL: plugin claimfile resolve symbol with source
PASS -> FAIL: plugin 2 with source lib
PASS -> FAIL: plugin 3 with source lib
PASS -> FAIL: plugin 3 with source lib
PASS -> FAIL: plugin 3 with source

This is the case because after adding RELOC_FOR_GLOBAL_SYMBOL, the linker became more meticulous identifying undefined symbols. After breafly checking the logs, I noticed that our target fails to pass those tests as it aborts with a undefined symbol message. ARM for example reports the same undefined symbol, however it does not abort the linker.

```
[PATCH 7/9] [ARC] Fixed TLS for IE model.
[PATCH 8/9] [ARC] Fixed condition to generate TEXTREL.

FAIL -> UNSUPPORTED: Run pr19579
FAIL -> UNSUPPORTED: Run pr19579 (-z now)
```

[PATCH 9/9] [ARC] Corrected conditions for dynamic sections creation.

Looking forward to your review.

Cheers, Cupertino

PATCH(commit) mail Review 와 Discussion

```
From Jan Beulich < JBeulich@suse.com> \( \hat{\parallel{1}} \)
Subject Re: [PATCH] X86: Add SHL/SAL ModRM.reg == 6 alias
   To Borislav Petkov <br/>
<br/>
bp@suse.dex\( \hat{\parallel{1}} \)
   Cc H.J. Lu <hjl.tools@gmail.com>\(\hat{a}\) binutils@sourceware.org\(\hat{a}\) Michael Matz <matz@suse.de>\(\hat{a}\)
    On 23.05.17 at 15:13, <bp@suse.de> wrote:
 --- a/opcodes/i386-dis.c
 +++ b/opcodes/i386-dis.c
 @@ -3482,7 +3482,7 @@ static const struct dis386 reg table[][8] = {
         "rcrA", { Eb, I1 }, 0 },
         "shlA", { Eb, I1 }, 0 },
         "shrA", { Eb, I1 }, 0 },
         Bad Opcode }.
          "shlA", { Eb, I1 }, 0 },
       { "sarA", { Eb, I1 }, 0 },
I can certainly see why we want this (and I think I even have a
similar change sitting somewhere waiting to be submitted), but ...
  --- a/opcodes/i386-opc.tbl
 +++ b/opcodes/i386-opc.tbl
... why does the assembler need to know? When we've added
support for other aliases not so long ago, we did leave the
```

assembler alone.

I've also added H.J. as the x86 maintainer to Cc.

Jan

Linux Kernel 프로젝트

Perf 개발과정

Kernel 소스 받기 (perf 기준)

\$ git clone git://git.kernel.org/pub/scm/linux/kernel/git/tip/tip.git

\$ vi linux/MAINTAINERS

tools/perf/

. . . 9425 PERFORMANCE EVENTS SUBSYSTEM 9426 M: Peter Zijlstra <peterz@infradead.org> 9427 M: Ingo Molnar <mingo@redhat.com> 9428 M: Arnaldo Carvalho de Melo <acme@kernel.org> 9429 R: Alexander Shishkin <alexander.shishkin@linux.intel.com> 9430 L: linux-kernel@vger.kernel.org git git://git.kernel.org/pub/scm/linux/kernel/git/tip/tip.git perf/core 9431 T: 9432 S: Supported 9433 F: kernel/events/* 9434 F: include/linux/perf event.h include/uapi/linux/perf event.h 9435 F: 9436 F: arch/*/kernel/perf event*.c arch/*/kernel/*/perf event*.c 9437 F: arch/*/kernel/*/*/perf event*.c 9438 F: arch/*/include/asm/perf event.h 9439 F: arch/*/kernel/perf callchain.c 9440 F: 9441 F: arch/*/events/*

. . .

9442 F:

Commit 만들기 예시

\$ git commit -asm "perf tools: Add a tip to tips"

commit 을 PATCH 파일로 만들고 code style 검사

- \$ git format-patch -1
- \$ scripts/checkpatch.pl <.patch 파일명 >

Git sendmail 설정

\$ cat ~/.gitconfig

```
... 생략 ...

[sendemail]

smtpserver = smtp.gmail.com
smtpserverport = 587
smtpuser = 본인메일 @gmail.com
smtpencryption = tls
... 생략 ...
```

실제 PATCH mail 전송 예시

```
$ git send-email --confirm=never \
--to "Arnaldo Carvalho de Melo <acme@kernel.org>" \
--cc "linux-kernel@vger.kernel.org" \
--cc "Jiri Olsa <jolsa@kernel.org>" \
--cc "Namhyung Kim <namhyung@kernel.org>" \
--cc "Ingo Molnar <mingo@kernel.org>" \
--cc "Peter Zijlstra <peterz@infradead.org>" \
```

https://lkml.org/lkml/2016/3/27/48

```
Date
           Sun, 27 Mar 2016 13:16:26 +0200
From
           Jiri Olsa <>
           Re: [PATCH] perf config: Tidy up the code setting buildid dir
Subject
On Thu, Mar 24, 2016 at 04:49:33PM +0900, Taeung Song wrote:
> Add new perf buildid config() into perf default config,
> bring set buildid dir() next to perf default config.
> rename some variable name as more readable name and etc
> in order to clean up code about buildid dir.
> Cc: Jiri Olsa <iolsa@kernel.org>
> Cc: Namhyung Kim <namhyung@kernel.org>
> Cc: Wang Nan <wangnan0@huawei.com>
> Signed-off-by: Taeung Song <treeze.taeung@gmail.com>
> ---
> tools/perf/perf.c | 3 +--
> tools/perf/util/config.c | 57 +++++++++++++++++
> 2 files changed, 23 insertions(+), 37 deletions(-)
though it's failry simple change we try to separate changes
seems like 3 independent changes:
- perf.c hunk change
- buildid dir command config/perf buildid config rework
- set buildid dir fix
thanks,
jirka
```

https://lkml.org/lkml/2016/3/27/77

Subject Re: [PATCH] perf config: Tidy up the code setting buildid dir Taeung Song <>
Date Mon, 28 Mar 2016 00:41:29 +0900

Hi, jirka

Thank you for your review :-)

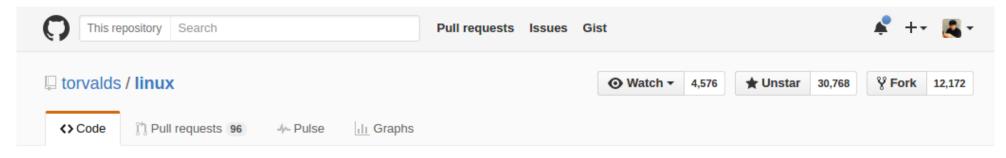
I'll resend the patchset.

Thanks, Taeung

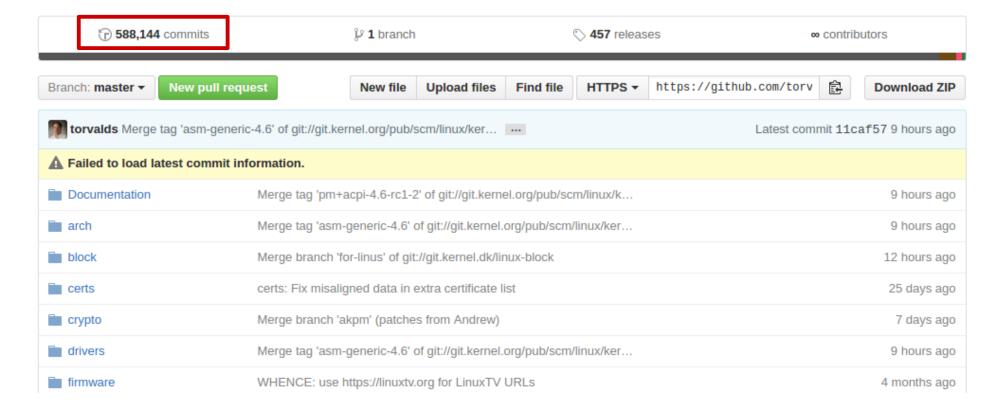
I got it.

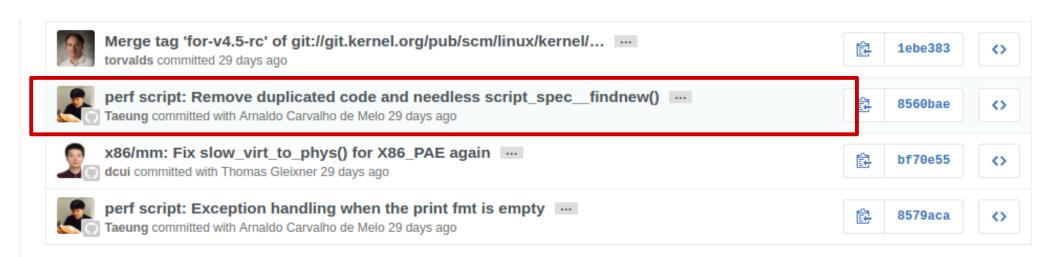
https://lkml.org/lkml/2016/3/28/373

```
Date
         Mon, 28 Mar 2016 21:52:42 +0200
         Jiri Olsa <>
From
Subject
         Re: [PATCH 1/3] perf config: Remove duplicated the code calling set buildid dir
share 0
share 0
On Mon, Mar 28, 2016 at 02:22:18AM +0900, Taeung Song wrote:
> Cc: Jiri Olsa <jolsa@kernel.org>
> Cc: Namhyung Kim <namhyung@kernel.org>
> Signed-off-by: Taeung Song <treeze.taeung@gmail.com>
for the patchset:
Acked-by: Jiri Olsa <jolsa@kernel.org>
thanks,
jirka
> tools/perf/perf.c | 3 +--
> 1 file changed, 1 insertion(+), 2 deletions(-)
... 생략 ...
```



Linux kernel source tree





Commits on Feb 25, 2016





perf script: Exception handling when the print fmt is empty

Taeung committed with Arnaldo Carvalho de Melo 29 days ago



8579aca



<>

<>

<>



21	to	ols/perf/builtin-script.c
Σį	Ē	00 -1212,23 +1212,6 00 static struct script_spec *script_specfind(const char *spec)
1212 1213 1214	1212 1213 1214	return NULL; }
1215 1216 1217		-static struct script_spec *script_specfindnew(const char *spec, - struct scripting_ops *ops) -{
1218 1219 1220		<pre>- struct script_spec *s = script_specfind(spec); -</pre>
1221 1222		- if (s) - return s; -
1223 1224 1225		- s = script_specnew(spec, ops); - if (!s) - return NULL;
1226 1227 1228		- script_spec_add(s); -
1229 1230 1231		- return s; -} -
1232 1233 1234	1215 1216 1217	<pre>int script_spec_register(const char *spec, struct scripting_ops *ops) { struct script_spec *s;</pre>
Σ1	ξ	00 -1237,9 +1220,11 00 int script_spec_register(const char *spec, struct scripting_ops *ops)
1237 1238 1239	1220 1221 1222	if (s) return -1;
1240	1223	- s = script_specfindnew(spec, ops); + s = script_specnew(spec, ops);
1241 1242	1224 1225	if (!s) return -1;
	1226 1227	<pre>+ else + script_specadd(s);</pre>
1243 1244 1245	1228 1229 1230	return 0;
Σ1		

\$ git shortlog -sn --no-merges | nl | head -100

```
5931
              H Hartley Sweeten
              Al Viro
        5900
  3
        5081 Takashi lwai
        5039 Mauro Carvalho Chehab
  5
        4011
              Johannes Berg
  6
        3978
              Mark Brown
        3955
              Tejun Heo
  8
        3860 David S. Miller
  9
        3578 Thomas Gleixner
 10
        3576
               Greg Kroah-Hartman
        1784
             Linus Torvalds
 46
 82
        1255
               Namhyung Kim
. . .
 1224
       81
               Taeung Song
```

[생략]

17255 1

* 참고 : 2015-2017 active 개발자 수 : 6475 명

Linux Kernel 누적 commit 수 1등



H Hartley Sweeten bigguiness

Unfollow

Block or report user

Overview Repositories 0 Stars 17 Followers 122 Following 2

Popular repositories

bigguiness doesn't have any repositories you can view.

39 contributions in the last year

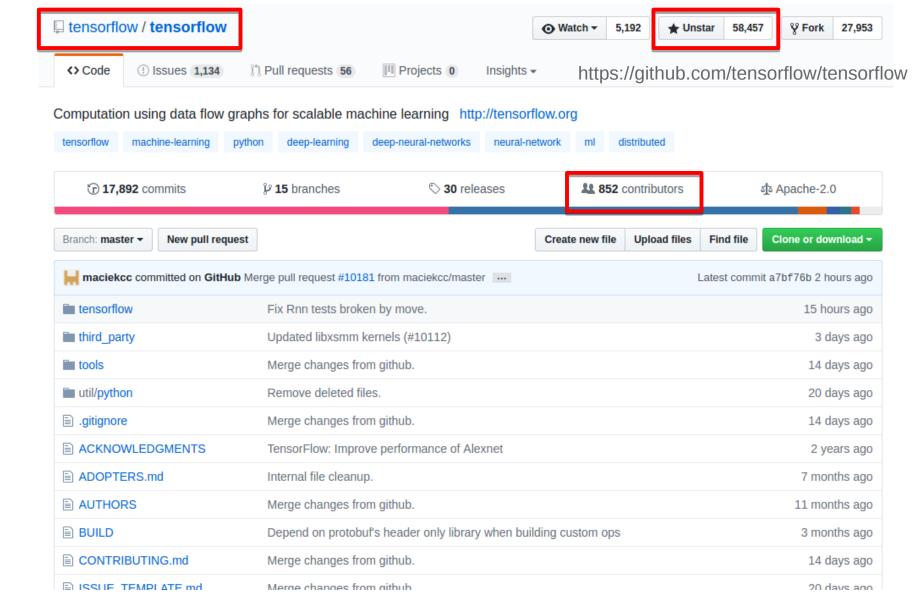


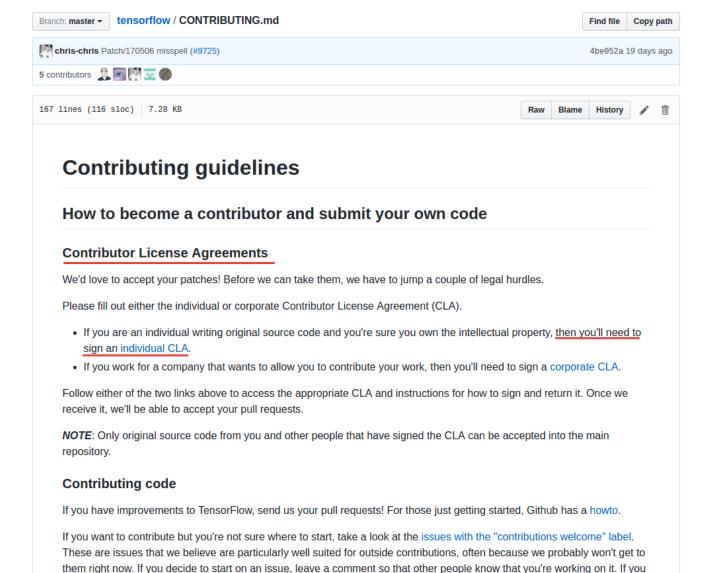
BUT

Kernel.org git repositories			
♦ (i) ♠ https://git.kernel.org	C Q Search	☆自♥↓♠	∅ ~ ≡
kernel/git/tglx/history.git	Linux kernel history	Thomas Gleixner	12 years
kernel/git/tglx/rt-history.git	Linux-RT history tree	Thomas Gleixner	16 months
kernel/git/thierry.reding/linux-pwm.git	PWM subsystem tree	Thierry Reding	2 weeks
kernel/git/tip/tip.git	Unnamed repository; edit this file 'description' to name the repository.	TIP group	2 hours
kernel/git/tiwai/alsa-driver-build-unstable.git	alsa-driver build stub, for alsa-unstable-2.6 tree	Takashi Iwai	19 months
kernel/git/tiwai/alsa-driver-build.git	ALSA driver build stub	Takashi Iwai	19 months
kernel/git/tiwai/hda-emu.git	HD-audio emulator program	Takashi Iwai	6 months
kernel/git/tiwai/linux-firmware.git			4 years
kernel/git/tiwai/salsa-lib.git	kernel/git/tiwai/salsa-lib.git SALSA-library development repository		24 months
kernel/git/tiwai/sound-unstable.git	Unnamed repository; edit this file 'description' to name the repository.	Takashi Iwai	16 months
kernel/git/tiwai/sound.git	Sound sub-system tree	Takashi Iwai	25 hours
kernel/git/tj/cgroup.git	cgroup export tree	Tejun Heo	15 hours
kernel/git/tj/libata.git	libata export tree	Tejun Heo	18 hours
kernel/git/tj/misc.git	miscellaneous kernel branches	Tejun Heo	4 months
kernel/git/tj/percpu.git	percpu export tree	Tejun Heo	2 weeks
kernel/git/tj/wq.git	workqueue export tree	Tejun Heo	3 weeks
kernel/git/tmlind/linux-omap.git	OMAP development tree	Tony Lindgren	7 days
kernel/git/tomba/linux.git	Tomi Valkeinen's kernel tree	Tomi Valkeinen	20 hours
kernel/git/torvalds/linux.git	Linux kernel source tree	Linus Torvalds	5 hours
kernel/git/torvalds/pesconvert.git	PES-file thumbnailer, Brother embroidery format	Linus Torvalds	5 years
kernel/git/torvalds/uemacs.git	Micro-emacs	Linus Torvalds	4 years

Github 기반 오픈소스 프로젝트 간단하게 살펴보기

(tensorflow, react, elasticsearch, node.js, spring-boot)





want to help out, but not alone, use the issue comment thread to coordinate.

Products > Open Source Programs Office

Contributor License Agreements

Google Individual Contributor License Agreement

In order to clarify the intellectual property license granted with Contributions from any person or entity, Google Inc. ("Google") must have a Contributor License Agreement ("CLA") on file that has been signed by each Contributor, indicating agreement to the license terms below. This license is for your protection as a Contributor as well as the protection of Google; it does not change your rights to use your own Contributions for any other purpose.

You accept and agree to the following terms and conditions for Your present and future Contributions submitted to Google. Except for the license granted herein to Google and recipients of software distributed by Google, You reserve all right, title, and interest in and to Your Contributions.

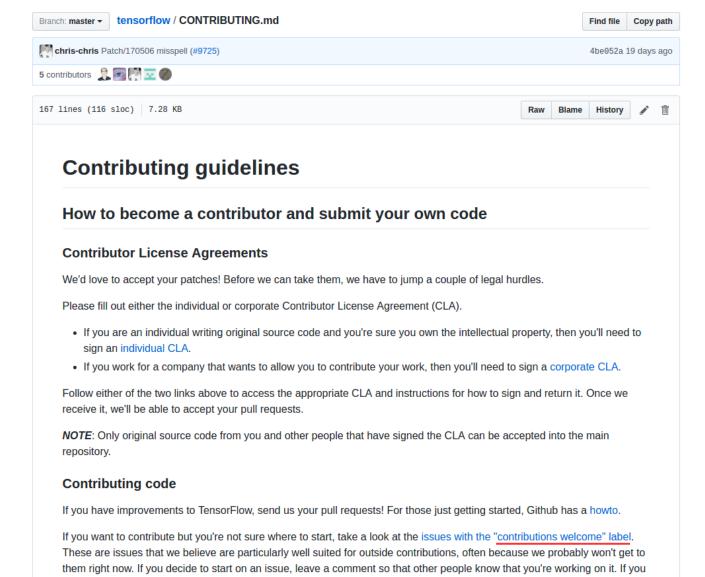
1. Definitions.

"You" (or "Your") shall mean the copyright owner or legal entity authorized by the copyright owner that is making this Agreement with Google. For legal entities, the entity making a Contribution and all other entities that control, are controlled by, or are under common control with that entity are considered to be a single Contributor. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

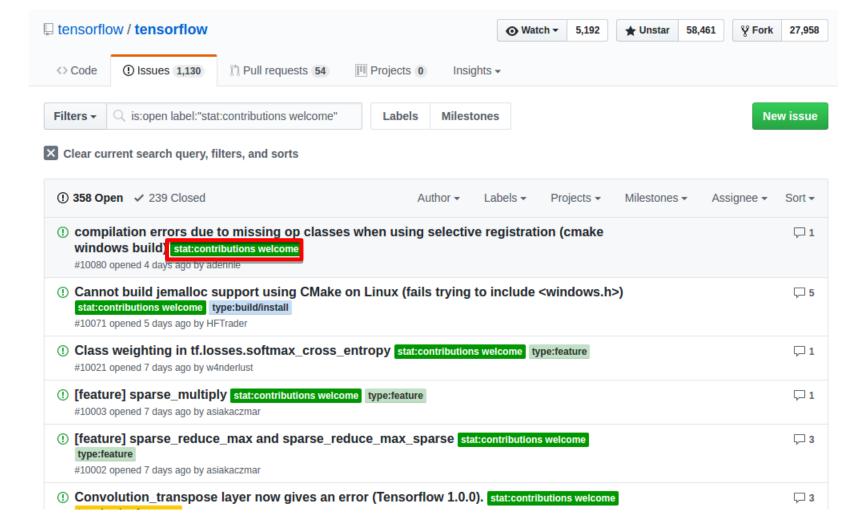
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sublicense, and distribute Your Contributions and such derivative works.

https://cla.developers.google.com/about/google-individual?csw=1



want to help out, but not alone, use the issue comment thread to coordinate.



https://github.com/tensorflow/tensorflow/labels/stat%3Acontributions%20welcome

Contribution guidelines and standards

Before sending your pull request for review, make sure your changes are consistent with the guidelines and follow the TensorFlow coding style.

General guidelines and philosophy for contribution

- Include unit tests when you contribute new features, as they help to a) prove that your code works correctly, b) guard
 against future breaking changes to lower the maintenance cost.
- Bug fixes also generally require unit tests, because the presence of bugs usually indicates insufficient test coverage.
- Keep API compatibility in mind when you change code in core TensorFlow, e.g., code in tensorflow/core and tensorflow/python. TensorFlow has reached version 1 and hence cannot make non-backward-compatible API changes without a major release. Reviewers of your pull request will comment on any API compatibility issues.
- When you contribute a new feature to TensorFlow, the maintenance burden is (by default) transferred to the TensorFlow team. This means that benefit of contribution must be compared against the cost of maintaining the feature.
- Full new features (e.g., a new op implementing a cutting-edge algorithm) typically will live in tensorflow/contrib to get some airtime before decision is made regarding whether they are to be migrated to the core.

License

Include a license at the top of new files.

- C/C++ license example
- Python license example
- Java license example
- Go license example
- Bash license example
- HTML license example
- JavaScript/TypeScript license example

Bazel BUILD files also need to include a license section, e.g., BUILD example.

C++ coding style

Changes to TensorFlow C++ code should conform to Google C++ Style Guide.

Google C++ Style Guide

Table of Contents

<u>Header</u> <u>Files</u>	Self-contained Headers
Scoping	Namespaces Unnamed Namespaces and Static Variables Nonmember, Static Member, and Global Functions Local Variables Static and Global Variables
Classes	Doing Work in Constructors Implicit Conversions Copyable and Movable Types Structs vs. Classes Inheritance Multiple Inheritance Interfaces Operator Overloading Access Control Declaration Order
<u>Functions</u>	Parameter Ordering Write Short Functions Reference Arguments Function Overloading Default Arguments Trailing Return Type Syntax
Google- Specific Magic	Ownership and Smart Pointers cpplint
Other C++ Features	Rvalue References Friends Exceptions Run-Time Type Information (RTTI) Casting Streams Preincrement and Predecrement Use of const Use of constexpr Integer Types 64-bit Portability Preprocessor Macros 0 and nullptr/NULL sizeof auto Braced Initializer List Lambda expressions Template metaprogramming Boost std::hash C++11 Nonstandard Extensions Aliases
Naming	General Naming Rules File Names Type Names Variable Names Constant Names Function Names Namespace Names Enumerator Names Macro Names Exceptions to Naming Rules
Comments	Comment Style File Comments Class Comments Function Comments Variable Comments Implementation Comments Punctuation, Spelling and Grammar TODO Comments Deprecation Comments

https://google.github.io/styleguide/cppguide.html

Running sanity check

If you have Docker installed on your system, you can perform a sanity check on your changes by running the command:

```
tensorflow/tools/ci\_build/ci\_build.sh~CPU~tensorflow/tools/ci\_build/ci\_sanity.sh
```

This will catch most license, Python coding style and BUILD file issues that may exist in your changes.

Running unit tests

There are two ways to run TensorFlow unit tests.

1. Using tools and libraries installed directly on your system.

Refer to the CPU-only developer Dockerfile and GPU developer Dockerfile for the required packages. Alternatively, use the said Docker images, e.g., tensorflow/tensorflow:nightly-devel and tensorflow/tensorflow:nightly-devel-gpu for development to avoid installing the packages directly on your system.

Once you have the packages installed, you can run a specific unit test in bazel by doing as follows:

If the tests are to be run on GPU, add CUDA paths to LD LIBRARY PATH and add the cuda option flag

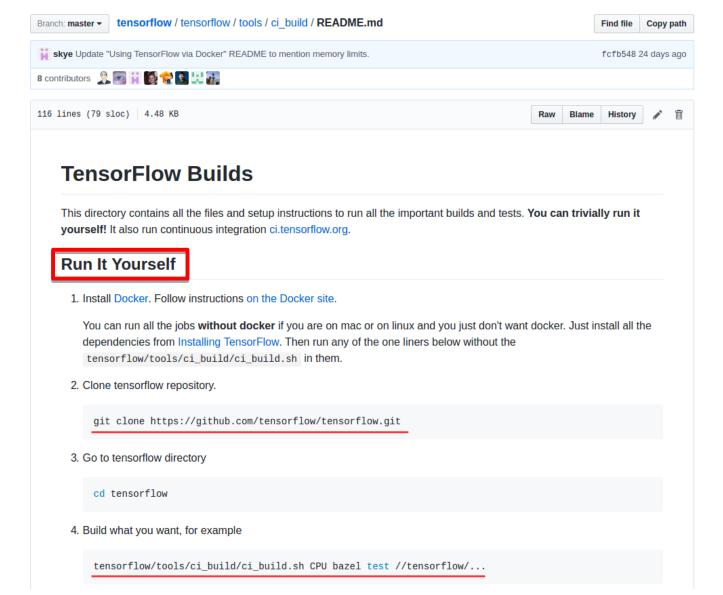
```
export LD_LIBRARY_PATH="${LD_LIBRARY_PATH}:/usr/local/cuda/lib64:/usr/local/cuda/extras/CUPTI/lib64:
export flags="--config=opt --config=cuda -k"
```

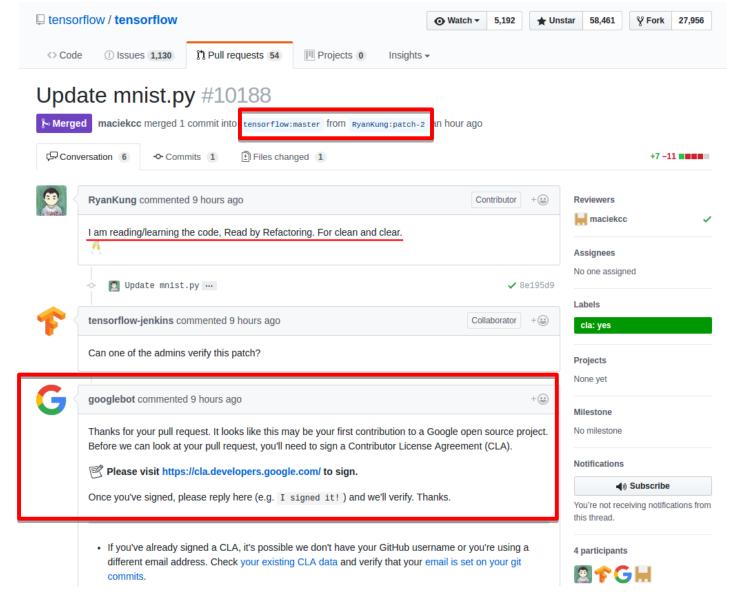
For example, to run all tests under tensorflow/python, do:

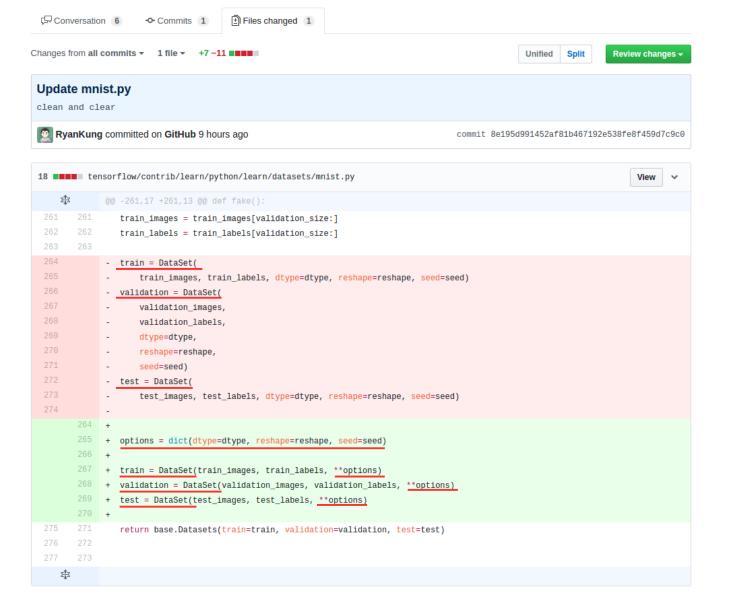
```
\verb|bazel test $\{flags\} // tensorflow/python/...
```

2. Using Docker and TensorFlow's CI scripts.

See TensorFlow Builds for details.

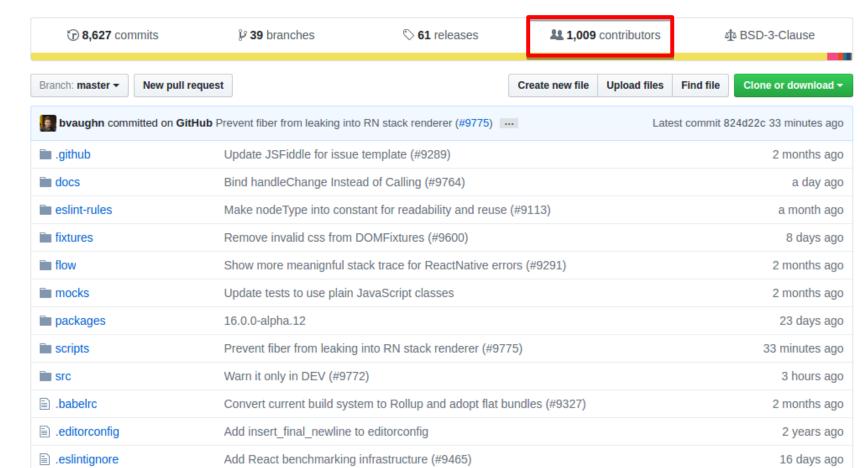


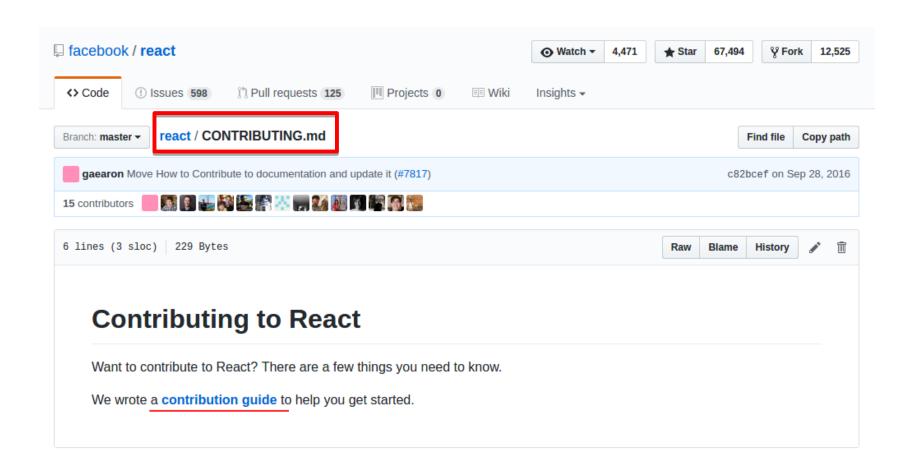






A declarative, efficient, and flexible JavaScript library for building user interfaces. https://facebook.github.io/react/





QUICK START

Installation Hello World Introducing JSX Rendering Elements Components and Props State and Lifecycle Handling Events Conditional Rendering Lists and Keys Forms

Lifting State Up Composition vs Inheritance

Thinking In React

ADVANCED GUIDES

JSX In Depth Typechecking With PropTypes Refs and the DOM Uncontrolled Components Optimizing Performance React Without ES6

React Without JSX

Reconciliation

Context

Web Components **Higher-Order Components** Integrating with Other Libraries

How to Contribute

React is one of Facebook's first open source projects that is both under very active development and is also being used to ship code to everybody on facebook.com. We're still working out the kinks to make contributing to this project as easy and transparent as possible, but we're not quite there yet. Hopefully this document makes the process for contributing clear and answers some questions that you may have.

Code of Conduct

Facebook has adopted a Code of Conduct that we expect project participants to adhere to. Please read the full text so that you can understand what actions will and will not be tolerated.

Open Development

All work on React happens directly on GitHub. Both core team members and external contributors send pull requests which go through the same review process.

Branch Organization

We will do our best to keep the master branch in good shape, with tests passing at all times. But in order to move fast, we will make API changes that your application might not be compatible with. We recommend that you use the latest stable version of React.

If you send a pull request, please do it against the master branch. We maintain stable branches for major versions separately but we don't accept pull requests to them directly. Instead, we cherry-pick non-breaking changes from master to the latest stable major version.

Semantic Versioning

React follows semantic versioning. We release patch versions for bugfixes, minor versions for new features, and major versions for any breaking changes. When we make breaking changes, we also introduce deprecation warnings in a minor version so that our users learn about the upcoming changes and migrate their code in advance.

Your First Pull Request

Working on your first Pull Request? You can learn how from this free video series:

How to Contribute to an Open Source Project on GitHub

To help you get your feet wet and get you familiar with our contribution process, we have a list of <u>beginner friendly issues</u> that contain bugs which are fairly easy to fix. This is a great place to get started.

If you decide to fix an issue, please be sure to check the comment thread in case somebody is already working on a fix. If nobody is working on it at the moment, please leave a comment stating that you intend to work on it so other people don't accidentally duplicate your effort.

If somebody claims an issue but doesn't follow up for more than two weeks, it's fine to take over it but you should still leave a comment.

Sending a Pull Request

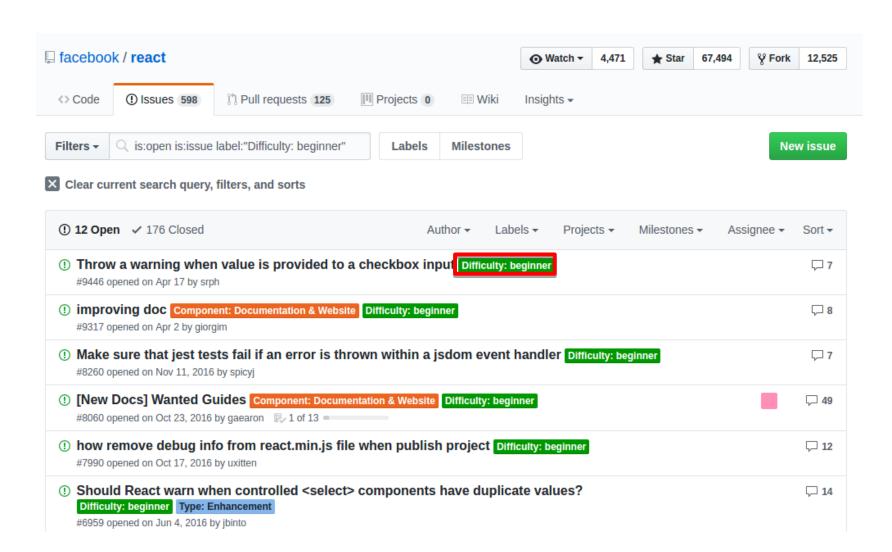
The core team is monitoring for pull requests. We will review your pull request and either merge it, request changes to it, or close it with an explanation. For API changes we may need to fix our internal uses at Facebook.com, which could cause some delay. We'll do our best to provide updates and feedback throughout the process.

Before submitting a pull request, please make sure the following is done: 1. Fork the repository and create your branch from master.

- 2. If you've added code that should be tested, add tests!
- 3. If you've changed APIs, update the documentation.
- 3. If you've changed APIS, update the document

4. Ensure the test suite passes (npm test).

- 5. Make sure your code lints (npm run lint).
- 6. Format your code with prettier (npm run prettier).
- 7. Run the Flow typechecks (npm run flow).
- 8. If you added or removed any tests, run ./scripts/fiber/record-tests before submitting the pull request, and commit the resulting changes.
- 9. If you haven't already, complete the CLA.



Contributor License Agreement (CLA)

In order to accept your pull request, we need you to submit a CLA. You only need to do this once, so if you've done this for another Facebook open source project, you're good to go. If you are submitting a pull request for the first time, just let us know that you have completed the CLA and we can cross-check with your GitHub username.

Complete your CLA here.

Contribution Prerequisites

- You have node installed at v4.0.0+ and npm at v2.0.0+.
- You have gcc installed or are comfortable installing a compiler if needed. Some of our npm dependencies may require a compilation step. On OS X, the Xcode Command Line Tools will cover this. On Ubuntu, apt-get install build-essential will install the required packages. Similar commands should work on other Linux distros. Windows

will require some additional steps, see the node-gyp installation instructions for details.

- You are familiar with npm and know whether or not you need to use sudo when installing packages globally.
- You are familiar with git.

Development Workflow

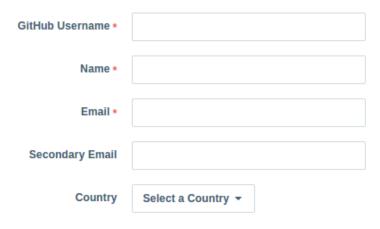
After cloning React, run npm install to fetch its dependencies. Then, you can run several commands:

- npm run lint checks the code style.
- npm test runs the complete test suite.
- npm test -- --watch runs an interactive test watcher.
- npm test <pattern> runs tests with matching filenames.
- npm run flow runs the Flow typechecks.
- npm run build creates a build folder with all the packages.

Contributing to Facebook Projects

We welcome you to follow, fork, and work on, our open source projects. If you want to contribute back to our repositories, we need to ask you to complete the Contributor License Agreement (CLA) below. If you will be contributing on behalf of your employer, you will need to complete the corporate CLA for your company.

This agreement clarifies the ability for us to incorporate your contributions. You only need to complete this form once, and you'll then be able to contribute to any of our projects.



Facebook, Inc. Individual Contributor License Agreement ("Agreement"), v1.0

You accept and agree to the following terms and conditions for Your present and future Contributions submitted to Facebook, Inc. ("Facebook"). Except for the license granted herein to Facebook and recipients of software distributed by Facebook, You reserve all right, title, and interest in and to Your Contributions.

Definitions.

"You" (or "Your") shall mean the copyright owner or legal entity authorized by the copyright owner that is making this Agreement with Facebook. For legal entities, the entity making a Contribution and all other entities that control, are controlled by, or are under common control with that entity are considered to be a single Contributor. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

Style Guide

Our linter will catch most styling issues that may exist in your code. You can check the status of your code styling by simply running $\ \mathsf{npm}\ \mathsf{run}\ \mathsf{lint}$.

However, there are still some styles that the linter cannot pick up. If you are unsure about something, looking at Airbnb's Style Guide will guide you in the right direction.

Code Conventions

- Use semicolons ;
- Commas last ,
- 2 spaces for indentation (no tabs)
- Prefer ' over "
- 'use strict';
- 120 character line length (except documentation)
- Write "attractive" code
- Do not use the optional parameters of setTimeout and setInterval

Introductory Video

You may be interested in watching this short video (26 mins) which gives an introduction on how to contribute to React.

Meeting Notes

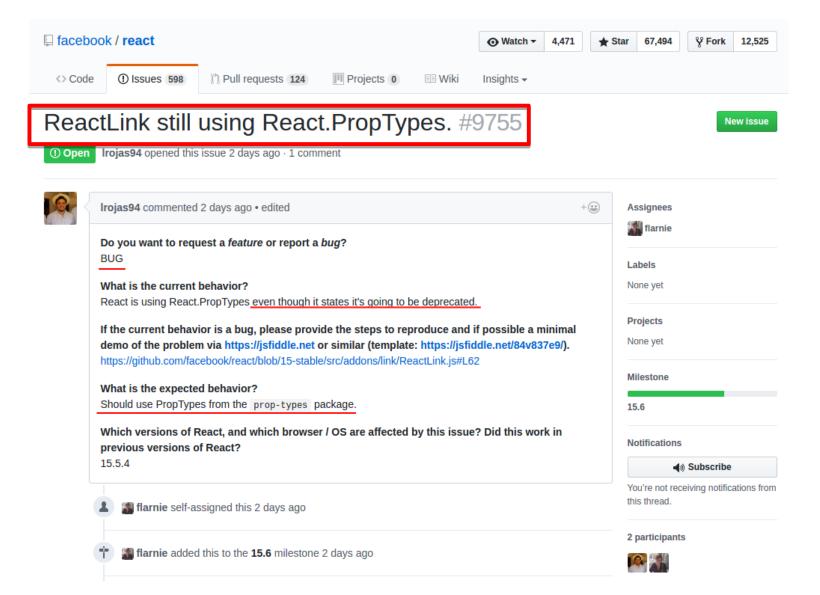
React team meets once a week to discuss the development of React, future plans, and priorities. You can find the meeting notes in a dedicated repository.

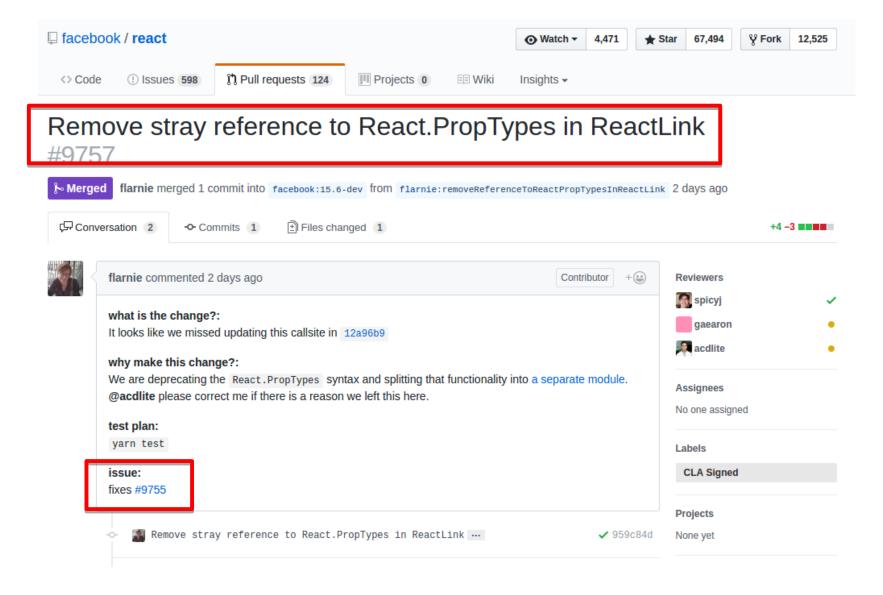
License

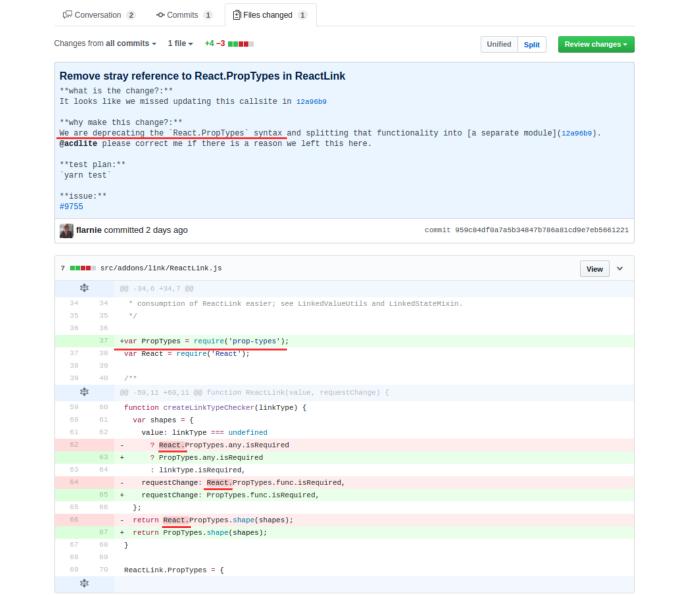
By contributing to React, you agree that your contributions will be licensed under its BSD license.

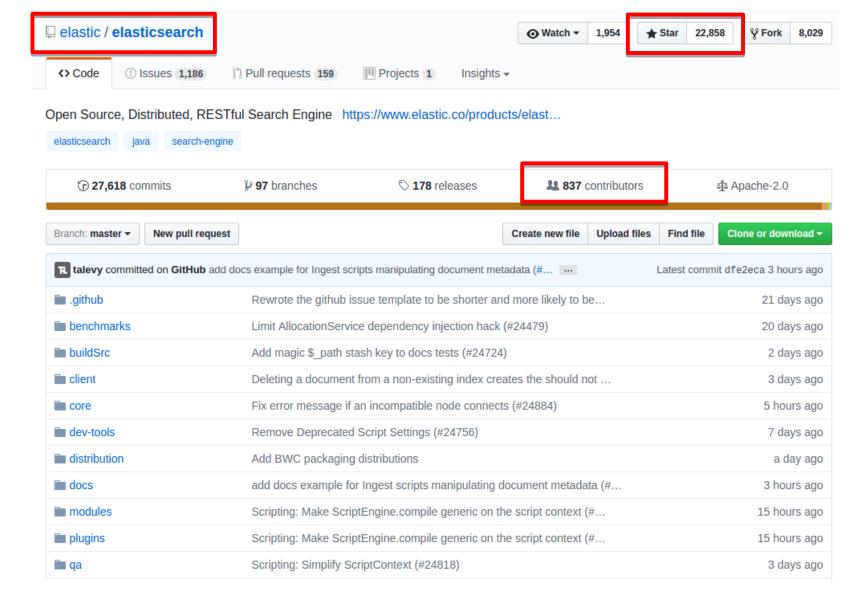
What Next?

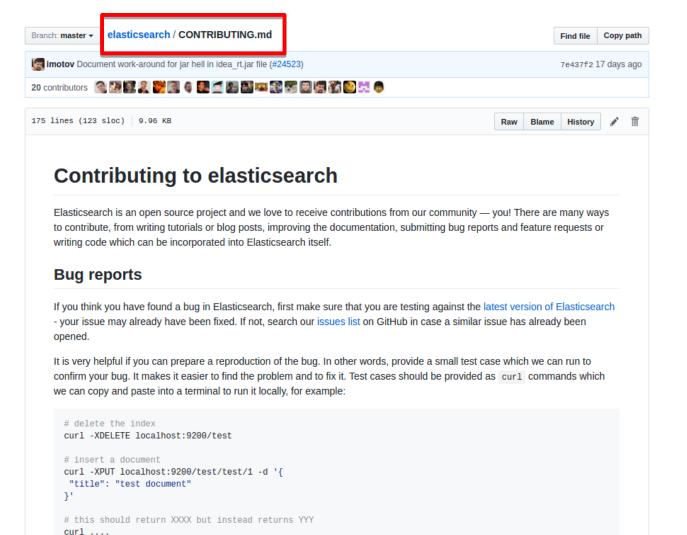
Read the next section to learn how the codebase is organized.











Contributing code and documentation changes

If you have a bugfix or new feature that you would like to contribute to Elasticsearch, please find or open an issue about it first. Talk about what you would like to do. It may be that somebody is already working on it, or that there are particular issues that you should know about before implementing the change.

We enjoy working with contributors to get their code accepted. There are many approaches to fixing a problem and it is important to find the best approach before writing too much code.

The process for contributing to any of the Elastic repositories is similar. Details for individual projects can be found below.

Fork and clone the repository

You will need to fork the main Elasticsearch code or documentation repository and clone it to your local machine. See github help page for help.

Further instructions for specific projects are given below.

Once your changes and tests are ready to submit for review:

Submitting your changes

ice your changes and tests are ready to submit for review

1. Test your changes

Run the test suite to make sure that nothing is broken. See the TESTING file for help running tests.

2. Sign the Contributor License Agreement

Please make sure you have signed our Contributor License Agreement. We are not asking you to assign copyright to us, but to give us the right to distribute your code without restriction. We ask this of all contributors in order to assure our users of the origin and continuing existence of the code. You only need to sign the CLA once.

3. Rebase your changes

Update your local repository with the most recent code from the main Elasticsearch repository, and rebase your branch on top of the latest master branch. We prefer your initial changes to be squashed into a single commit. Later, if we ask you to make changes, add them as separate commits. This makes them easier to review. As a final step before merging we will either ask you to squash all commits yourself or we'll do it for you.

4. Submit a pull request

Push your local changes to your forked copy of the repository and submit a pull request. In the pull request, choose a title which sums up the changes that you have made, and in the body provide more details about what your changes do. Also mention the number of the issue where discussion has taken place, eg "Closes #123".

At Elastic, we are passionate about our products, its users, and the community. You are important to us, so we feel it is only right to ensure we have the agreement of our contributors to use their work, whether it be code or documentation.

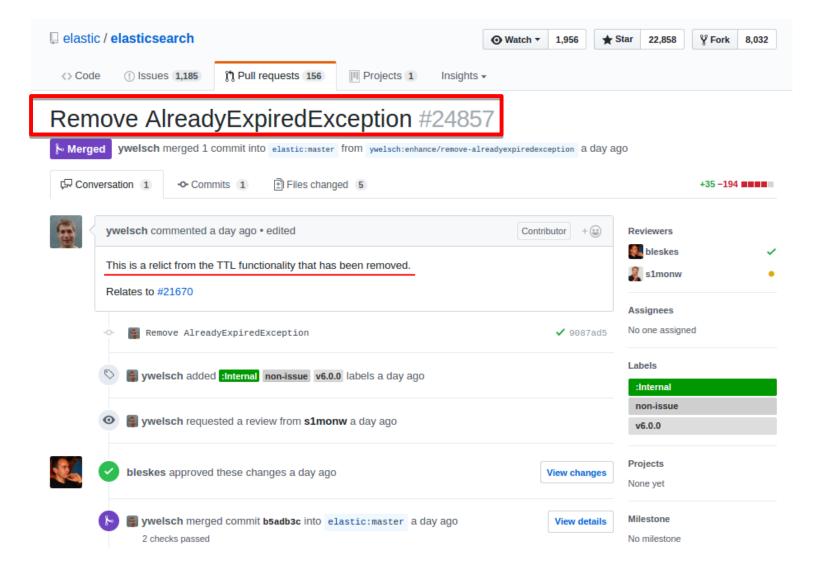
Therefore, we are asking all contributors to sign a contributor license agreement (CLA). CLAs are generally common and accepted in most Open Source software projects. We all wish for Elasticsearch to be used and distributed as widely as possible, and for its users to be confident about the origins and continuing existence of the code. The CLA help us achieve that goal.

The CLA is a license agreement, which enables Elastic to distribute your code without restriction. It doesn't require you to assign to us any copyright you have, the ownership of which remains in full with you. You cannot withdraw permission for its use at a later date.

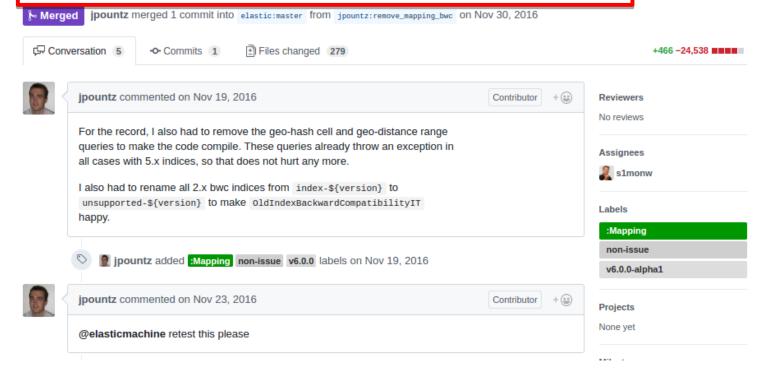
The next step is for you to select the appropriate agreement below, read the terms, and once comfortable, complete the electronic signature. After this, you will receive a copy of the agreement by email, and we can start to use your valued contribution within the different Elasticsearch projects.

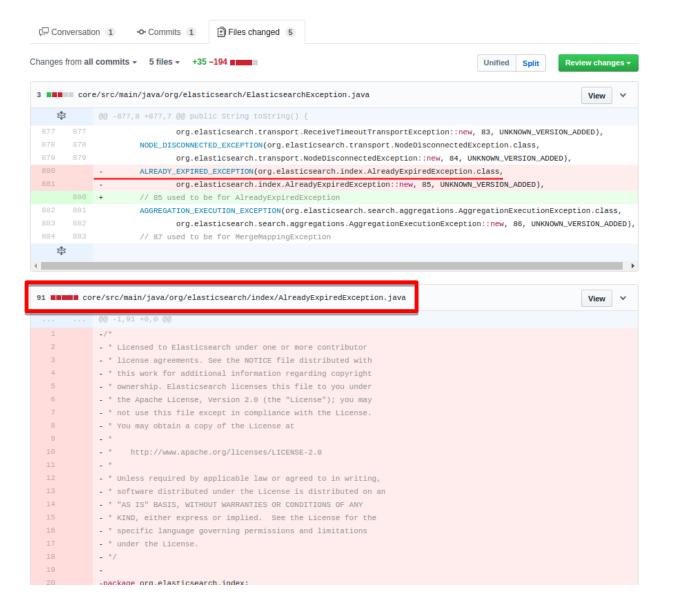
Please select the appropriate description that reflects why you are signing up:

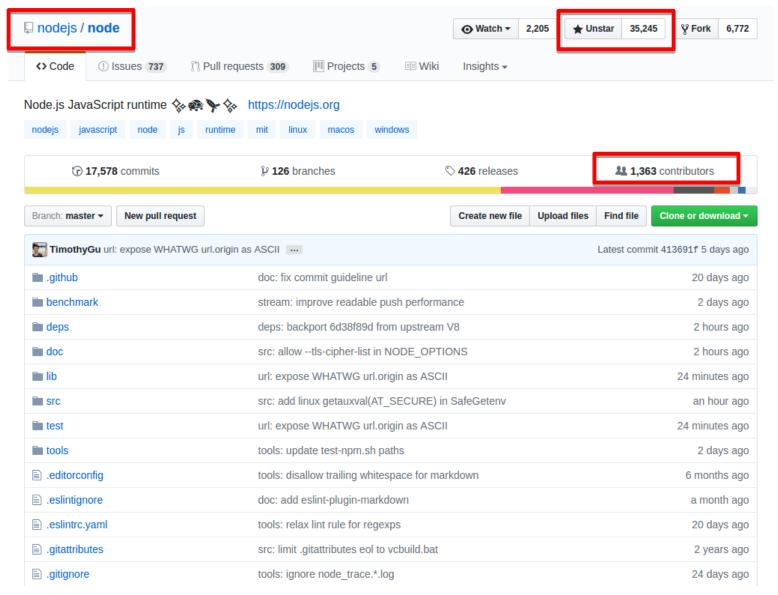
- An individual contributor
- An individual contributing under an existing company contributor agreement
- A company wanting its employees to contribute



Remove 2.x backward compatibility of mappings. #21670









Contributing to Node.js

Code of Conduct

Please read the Code of Conduct which explains the minimum behavior expectations for Node.js contributors.

Issue Contributions

When opening issues or commenting on existing issues, please make sure discussions are related to concrete technical issues with Node.js.

- For general help using Node.js, please file an issue at the Node.js help repository.
- Discussion of non-technical topics (such as intellectual property and trademark) should use the Technical Steering Committee (TSC) repository.

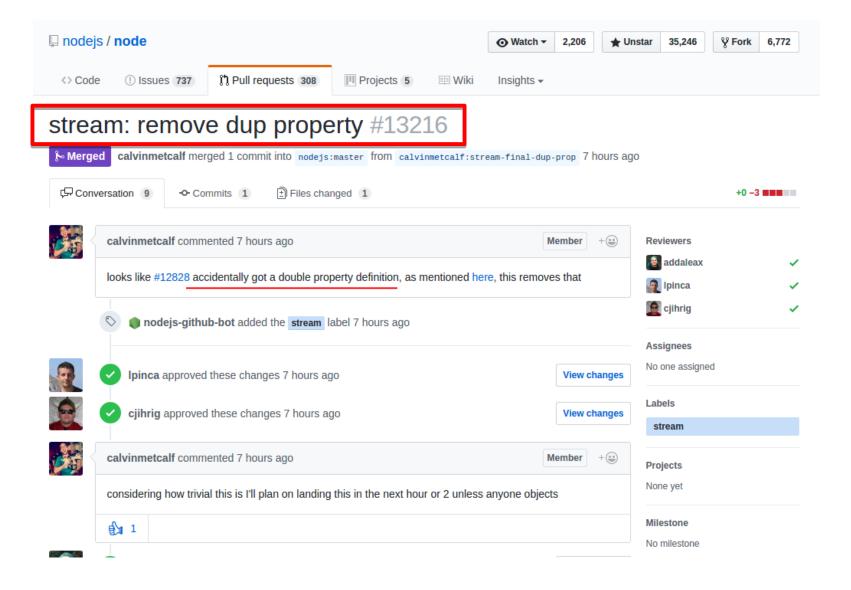
Code Contributions

This section will guide you through the contribution process.

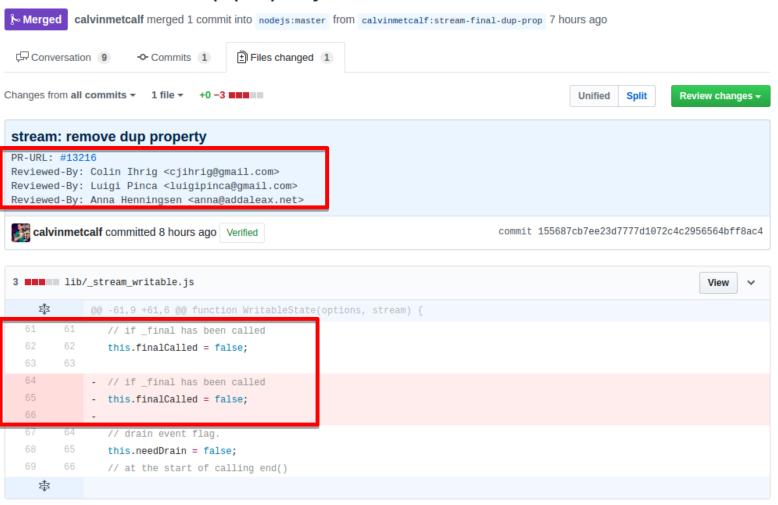
Step 1: Fork

Fork the project on GitHub and clone your fork locally.

\$ git clone git@github.com:username/node.git

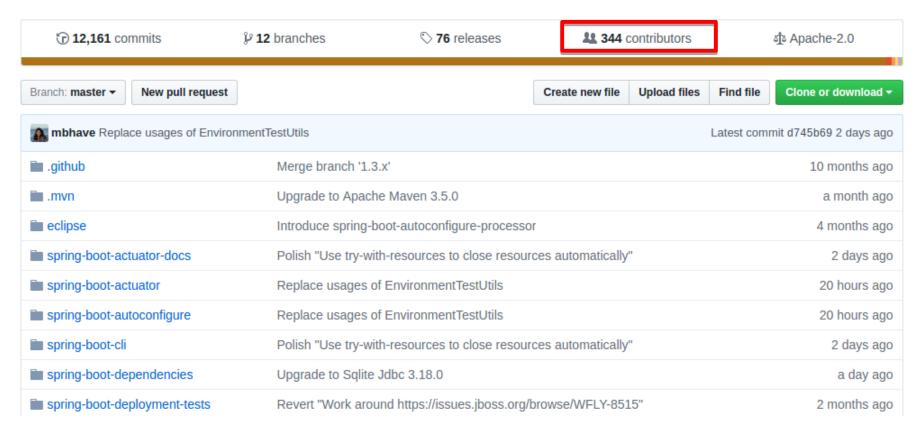


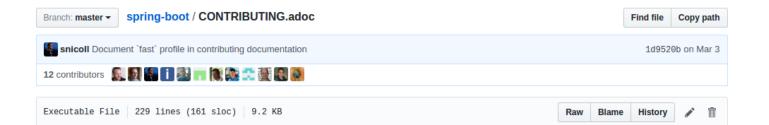
stream: remove dup property #13216





Spring Boot http://projects.spring.io/spring-boot





Contributing to Spring Boot

Spring Boot is released under the Apache 2.0 license. If you would like to contribute something, or simply want to hack on the code this document should help you get started.

Code of Conduct

This project adheres to the Contributor Covenant code of conduct. By participating, you are expected to uphold this code. Please report unacceptable behavior to spring-code-of-conduct@pivotal.io.

Using GitHub issues

We use GitHub issues to track bugs and enhancements. If you have a general usage question please ask on Stack Overflow The Spring Boot team and the broader community monitor the spring-boot tag.

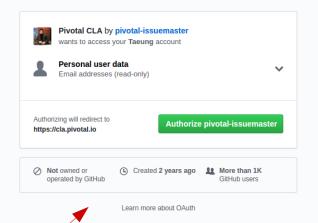
If you are reporting a bug, please help to speed up problem diagnosis by providing as much information as possible. Ideally, that would include a small sample project that reproduces the problem.

Sign the Contributor License Agreement

Before we accept a non-trivial patch or pull request we will need you to sign the Contributor License Agreement. Signing the contributor's agreement does not grant anyone commit rights to the main repository, but it does mean that we can accept your contributions, and you will get an author credit if we do. Active contributors might be asked to join the core team, and given the ability to merge pull requests.



Authorize Pivotal CLA



Code Conventions and Housekeeping

None of these is essential for a pull request, but they will all help. They can also be added after the original pull request but before a merge.

- Use the Spring Framework code format conventions. If you use Eclipse and you follow the 'Importing into eclipse' instructions below you should get project specific formatting automatically. You can also import formatter settings using the eclipse-code-formatter.xml file from the eclipse folder. If using IntelliJ IDEA, you can use the Eclipse Code Formatter Plugin to import the same file.
- Make sure all new . java files to have a simple Javadoc class comment with at least an @author tag identifying you, and preferably at least a paragraph on what the class is for.
- Add the ASF license header comment to all new . java files (copy from existing files in the project)
- Add yourself as an @author to the .java files that you modify substantially (more than cosmetic changes).
- · Add some Javadocs.
- A few unit tests would help a lot as well someone has to do it.
- If no-one else is using your branch, please rebase it against the current master (or other target branch in the main project).
- When writing a commit message please follow these conventions, if you are fixing an existing issue please add Fixes gh-XXXX at the end of the commit message (where XXXX is the issue number).

Working with the code

If you don't have an IDE preference we would recommend that you use Spring Tools Suite or Eclipse when working with the code. We use the M2Eclipse eclipse plugin for mayen support. Other IDEs and tools should also work without issue.

Building from source

To build the source you will need to install Apache Maven v3.2.3 or above and JDK 1.8.

Default build

The project can be built from the root directory using the standard maven command:

\$./mvnw clean install

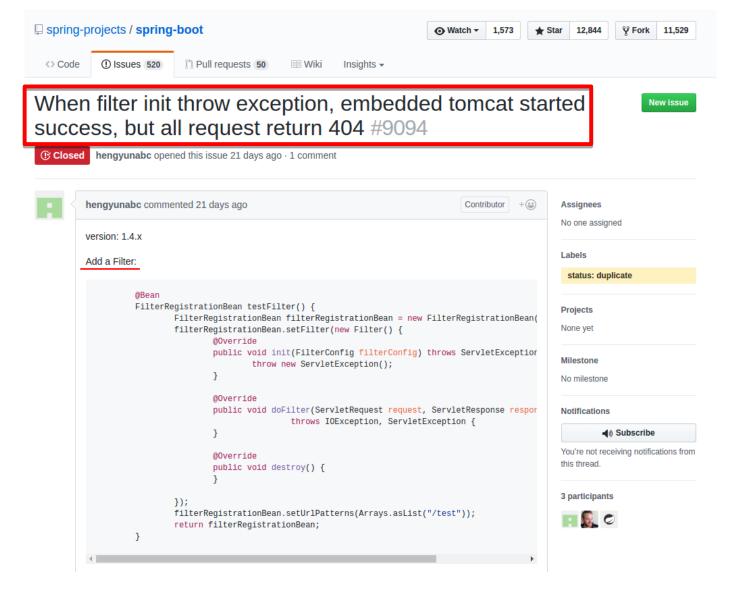
Note You may need to increase the amount of memory available to Maven by setting a MAVEN_OPTS environment variable with the value -Xmx512m

If you are rebuilding often, you might also want to skip the tests and the execution of checkstyle until you are ready to submit a pull request:

\$./mvnw clean install -DskipTests -Pfast

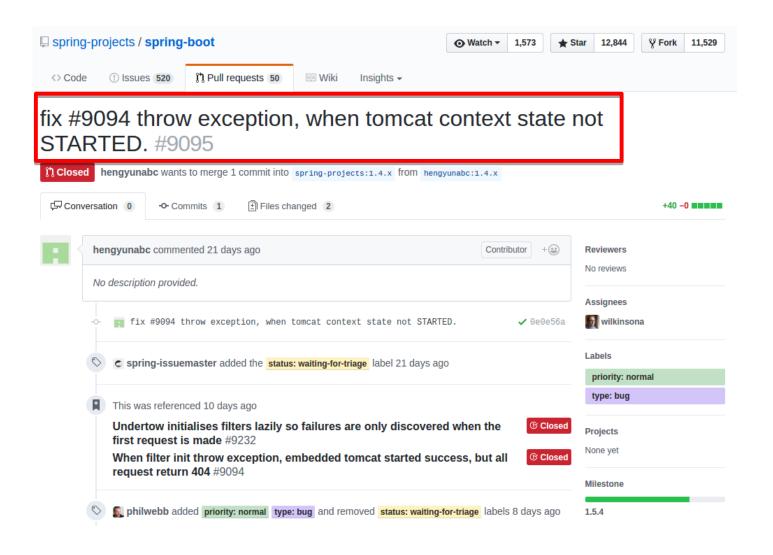
Full Build

Multi-module Maven builds cannot directly include maven plugins that are part of the reactor unless they have previously been built. Unfortunately this restriction causes some compilations for Spring Boot as we include a maven plugin and use it within the samples. The standard build works around this restriction by launching the samples via the maven-invoker-plugin so that they are not part of the reactor. This works fine most of the time, however, sometimes it's useful to run a build that includes all modules (for example when using maven-versions-plugin. We use the full build on our CI servers and during the release process.



```
Tomcat print error log:
~[classes/:na]
j.initFilter(ApplicationFilterConfig.java:279) ~[tomcat-embed-core-8.5.6.jar:8.5.6]
|.<init>(ApplicationFilterConfig.java:109) ~[tomcat-embed-core-8.5.6.jar:8.5.6]
Start(StandardContext java: 4572) [tomcat-embed-core-8.5.6.jar: 8.5.6]
iternal(StandardContext.java:5215) [tomcat-embed-core-8.5.6.jar:8.5.6]
'ecycleBase.java:150) [tomcat-embed-core-8.5.6.jar:8.5.6]
.d.call(ContainerBase java:1403) [tomcat-embed-core-8.5.6.jar:8.5.6]
.d.call(ContainerBase java:1393) [tomcat-embed-core-8.5.6.jar:8.5.6]
ava:266) [na:1.8.0_112]
r(ThreadPoolExecutor.java:1142) [na:1.8.0_112]
un(ThreadPoolExecutor.java:617) [na:1.8.0_112]
112]
apache.catalina.core.StandardContext : One or more Filters failed to start. Full details in
.apache.catalina.core.StandardContext : Context [] startup failed due to previous errors
But spring boot started success:
20:29:24.521 INFO 27483 --- [
                                                                                                         main] s.b.c.e.t.TomcatEmbeddedServletContainer : To
                                                                                                         main] com.test.Application
20:29:24.531 INFO 27483 --- [
                                                                                                                                                                                                : Started Applic
All http request will return 404.
         spring-issuemaster added the status: waiting-for-triage label 21 days ago
          in hengyunabc added a commit to hengyunabc/spring-boot that referenced this issue 21 days ago

→ Image of the original o
                                                                                                                                                                                                                        0e0e56a
                        STARTED.
philwebb commented 8 days ago
                                                                                                                                                                                                          Owner
Closing in favor of PR #9095
```



```
Conversation 0
                                        Ell Files changed 2
                       -O- Commits 1
Changes from all commits ▼ 2 files ▼ +40 -0 ■■■■■
                                                                                                   Unified
                                                                                                           Split
                                                                                                                     Review changes ▼
 8 ...java/org/springframework/boot/context embedded/tomcat/TomcatEmbeddedServletContainer.java
                                                                                                                          View
      $
              @@ -192,6 +192,7 @@ public void start() throws EmbeddedServletContainerException {
                              if (connector != null && this.autoStart) {
                                  startConnector(connector);
         195 +
                              checkThatContextHaveStarted();
                              checkThatConnectorsHaveStarted();
                              this.started = true;
                              TomcatEmbeddedServletContainer.logger
      $
              00 -221,6 +222,13 00 private void checkThatConnectorsHaveStarted() {
         224
                  private void checkThatContextHaveStarted() {
                      LifecycleState state = this.findContext().getState();
         227 +
                      if (!LifecycleState.STARTED.equals(state)) {
         228 +
                          throw new EmbeddedServletContainerException("Context state expect STARTED, but " + state, null);
         229 +
         230 + }
         231 +
  224
                  private void stopSilently() {
                       try {
                          stopTomcat();
      $
```

Thank you

미래부 KOSS LAB. – Software Engineer taeung@kosslab.kr

송태웅