CCXVII / mujs Public

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[BUG] two null pointer deference mujs-pp #161

Closed

kdsjZh opened this issue on May 13 · 0 comments

kdsjZh commented on May 13 • edited •

Brief summary

Hello, I was testing my fuzzer and found several bugs in mujs-pp.

Compiling the program

I compile mujs's latest commit db110ea in ubuntu 22 (docker image) with gcc 11.2.0-19ubuntu1. With command make build=sanitize

BUG1

When parsing an incorrect argument (e.g. ./build/sanitize/mujs-pp -h), a null pointer deference will be triggered. mujs-pp might didn't check the argument it parsed.

AddressSanitizer: DEADLYSIGNAL

```
==1229272==ERROR: AddressSanitizer: SEGV on unknown address 0x00000000000 (pc 0x7f182f7a1cfb bp
0x000000000000 sp 0x7fff2b38aa10 T0)
==1229272==The signal is caused by a READ memory access.
==1229272==Hint: address points to the zero page.
    #0 0x7f182f7a1cfb in _IO_fclose (/lib/x86_64-linux-gnu/libc.so.6+0x82cfb)
```

- #1 0x7f182fabee48 in __interceptor_fclose ../../src/libsanitizer/sanitizer common/sanitizer common interceptors.inc:6233
- #2 0x7f182fabee48 in __interceptor_fclose
- ../../src/libsanitizer/sanitizer_common/sanitizer_common_interceptors.inc:6228 #3 0x55c4ca90b44d in js_ppfile /benchmark/mujs/pp.c:37
 - #4 0x55c4ca90b985 in main /benchmark/mujs/pp.c:106
 - #5 0x7f182f74cd8f (/lib/x86_64-linux-gnu/libc.so.6+0x2dd8f)

- #6 0x7f182f74ce3f in __libc_start_main (/lib/x86_64-linux-gnu/libc.so.6+0x2de3f)
- #7 0x55c4ca8a59c4 in _start (/benchmark/mujs/build/sanitize/mujs-pp+0x169c4)

AddressSanitizer can not provide additional info.

SUMMARY: AddressSanitizer: SEGV (/lib/x86_64-linux-gnu/libc.so.6+0x82cfb) in _IO_fclose ==1229272==ABORTIN

BUG₂

A null pointer deference in jsP_dumpsyntax will be triggered when parsing a crafted js file, when running ./mujs-pp \$POC, as shown in the attachment

```
AddressSanitizer: DEADLYSIGNAL
______
==1412001==ERROR: AddressSanitizer: SEGV on unknown address 0x000000000000 (pc 0x55faed39dd7e bp
0x7ffe11e19bb0 sp 0x7ffe11e19b90 T0)
==1412001==The signal is caused by a READ memory access.
==1412001==Hint: address points to the zero page.
   #0 0x55faed39dd7e in jsP_dumpsyntax /benchmark/mujs/jsdump.c:685
   #1 0x55faed3ea327 in js_ppstring /benchmark/mujs/pp.c:24
   #2 0x55faed3ea704 in js ppfile /benchmark/mujs/pp.c:77
   #3 0x55faed3ea985 in main /benchmark/mujs/pp.c:106
   #4 0x7f5c97280d8f (/lib/x86_64-linux-gnu/libc.so.6+0x2dd8f)
   #5 0x7f5c97280e3f in __libc_start_main (/lib/x86_64-linux-gnu/libc.so.6+0x2de3f)
   #6 0x55faed3849c4 in start (/benchmark/mujs/build/sanitize/mujs-pp+0x169c4)
AddressSanitizer can not provide additional info.
SUMMARY: AddressSanitizer: SEGV /benchmark/mujs/jsdump.c:685 in jsP_dumpsyntax
==1412001==ABORTING
```

POC for bug 2

crash.zip

Credit

Han Zheng (NCNIPC of China, Hexhive) Yin Li, Xiaotong Jiao (NCNIPC of China)

ccxvii added a commit that referenced this issue on May 17

Issue #161: Don't fclose a FILE that is NULL.

910acc8

ccxvii added a commit that referenced this issue on May 17

Issue #161: Cope with empty programs in mujs-pp.

f5b3c70

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2 participants



