

1 strcmp.c

CK--

KLEE: done: total instructions = 26647

KLEE: done: completed paths = 201

KLEE: done: generated tests = 201

Time: 0m28.017s

K*--

KLEE: done: total instructions = 53

KLEE: done: completed paths = 2

KLEE: done: generated tests = 2

Time: 0m16.240s

2 strcmp2.c

CK--

KLEE: done: total instructions = 588540

KLEE: done: completed paths = 5251

KLEE: done: generated tests = 5152

Time: 15m26.207s

K*--

KLEE: done: total instructions = 101

KLEE: done: completed paths = 5

KLEE: done: generated tests = 5

Time: 0m16.240s

3 strcmp3.c

CK--

Gives KLEE: ERROR: /home/zehranaz/kleestr/keel-uclibc/libc/string/strlen.c:22: memory

KLEE: done: total instructions = 584199

KLEE: done: completed paths = 5251

KLEE: done: generated tests = 5152

Time: 17m23.153s

K*--

KLEE: done: total instructions = 69

KLEE: done: completed paths = 3

KLEE: done: generated tests = 3

Time: 0m3.501s

4 strcmp4.c

CK--

KLEE: done: total instructions = 6070

KLEE: done: completed paths = 7

KLEE: done: generated tests = 7

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Time: 0m0.277s
K*--
KLEE: done: total instructions = 52
KLEE: done: completed paths = 2
KLEE: done: generated tests = 2
Time: 0m0.120s

5 strcmp5.c
CK--
KLEE: done: total instructions = 6796
KLEE: done: completed paths = 13
KLEE: done: generated tests = 13
Time: 0m0.416s
K*--
KLEE: done: total instructions = 52
KLEE: done: completed paths = 2
KLEE: done: generated tests = 2
Time: 0m0.116s

strcmp6.c
6 CK--
KLEE: done: total instructions = 5324
KLEE: done: completed paths = 1
KLEE: done: generated tests = 1
Time: 0m0.263s
K*--
KLEE: done: total instructions = 35
KLEE: done: completed paths = 1
KLEE: done: generated tests = 1
Time: 0m0.123s

7 strlen.c
CK--
KLEE: done: total instructions = 15660
KLEE: done: completed paths = 101
KLEE: done: generated tests = 101
Time:      0m7.108s
K*--
KLEE: done: total instructions = 52
KLEE: done: completed paths = 2
KLEE: done: generated tests = 2
Time:      0m2.907s

8 strlen2.c /strlen/27 KLEE: ERROR: /home/zehranaz/kleestr/keel-uclibc/libc/string/strlen.c:22: me
CK--
KLEE: done: total instructions = 1048260
KLEE: done: completed paths = 10101

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K*--
KLEE: done: generated tests = 10001
KLEE: done: total instructions = 54
KLEE: done: completed paths = 2
KLEE: done: generated tests = 2
Time: 0m17.528s

9 str_tests.c

CK-- (clean klee doing better in terms of generating test cases somewhat interesting)

KLEE: done: total instructions = 522494
KLEE: done: completed paths = 905
KLEE: done: generated tests = 903
Time: 6m19.385s

K*--
KLEE: ERROR: /home/zehranaz/kleestr/klee/examples/evaluation_suite/str_tests.c:22: r
KLEE: done: total instructions = 41
KLEE: done: completed paths = 1
KLEE: done: generated tests = 1
Time: 0m0.447s

10 str_tests2.c - Tests only strcmp (Worse case for Klee in terms of tests generated)

CK --
KLEE: done: total instructions = 6662
KLEE: done: completed paths = 14
KLEE: done: generated tests = 12
Time: 0m0.172s

K* --
KLEE: done: total instructions = 29
KLEE: done: completed paths = 1
KLEE: done: generated tests = 1
Time: 0m0.059s

11 str_tests2_longerstring.c - Worse for K* in test generation

CK-- (104)
KLEE: ERROR: /home/zehranaz/kleestr/klee-uclibc/libc/string/strcmp.c:34: memory error
KLEE: done: total instructions = 1879076
KLEE: done: completed paths = 1805
KLEE: done: generated tests = 1803
Time: 25m22.328s

K*--
KLEE: done: total instructions = 29
KLEE: done: completed paths = 1
KLEE: done: generated tests = 1
Time: 0m0.066s

12 str_tests3.c - Tests only strlen (Worse case for Klee in terms of times)

CK--

KLEE: done: total instructions = 6155
KLEE: done: completed paths = 7
KLEE: done: generated tests = 5
Time: 0.253s

K*--

KLEE: done: total instructions = 84
KLEE: done: completed paths = 3
KLEE: done: generated tests = 3
Time: 42.760s

13 str_tests3_longerstring.c

CK--

K*--

KLEE: done: total instructions = 84
KLEE: done: completed paths = 3
KLEE: done: generated tests = 3
Timing: 0m31.672s

14 str_assert_test.c

CK--

Runs and generates too many tests. No errors thrown. Had to be stopped.
KLEE: done: total instructions = 6295322
KLEE: done: completed paths = 17215
KLEE: done: generated tests = 17215
Time: 56m29.019s

K*--

Aborts with error. CVC4::TypeCheckingException

15 str_assert_test2.c

CK--

KLEE: done: total instructions = 8843
KLEE: done: completed paths = 32
KLEE: done: generated tests = 24
Time: 0m0.468s

K*-- (uninteresting result)

KLEE: done: total instructions = 44
KLEE: done: completed paths = 1
KLEE: done: generated tests = 1

16 str_test_badcase_zero.c (Comparing strlen to invalid results)

CK --

KLEE: done: total instructions = 7339
KLEE: done: completed paths = 16
KLEE: done: generated tests = 8

Time: 0m7.627s

K* --

Hangs and no tests returned.

17 str_tests_mixed_conditions.c (Worse for K*)

CK-- (134)

KLEE: done: total instructions = 6694

KLEE: done: completed paths = 18

KLEE: done: generated tests = 14

Time: 0m0.331s

K*-- (133)

KLEE: done: total instructions = 88

KLEE: done: completed paths = 4

KLEE: done: generated tests = 4

Time: 0m9.663s

18 str_indexing_test.c

CK 144

KLEE: done: total instructions = 5514

KLEE: done: completed paths = 3

KLEE: done: generated tests = 3

K* 145

KLEE: done: total instructions = 74

KLEE: done: completed paths = 3

KLEE: done: generated tests = 3

19 str_indexing_test_longer.c

CK 148

KLEE: done: total instructions = 5514

KLEE: done: completed paths = 3

KLEE: done: generated tests = 3

K* 146

KLEE: done: total instructions = 74

KLEE: done: completed paths = 3

KLEE: done: generated tests = 3

20 str_tests_mixed_conditions_longer.c

Ck 151

KLEE: done: total instructions = 867274

KLEE: done: completed paths = 8303

KLEE: done: generated tests = 8286

K*

KLEE: done: total instructions = 88

KLEE: done: completed paths = 4

KLEE: done: generated tests = 4

21 str_tests_mixed2.c

CK	151		
		KLEE: done: total instructions = 867274	
		KLEE: done: completed paths = 8303	
		KLEE: done: generated tests = 8286	
K*			
		KLEE: done: total instructions = 5513	
		KLEE: done: completed paths = 3	
		KLEE: done: generated tests = 3	
22 str_tests_mixed3.c			
CK			
		KLEE: done: total instructions = 7174	
		KLEE: done: completed paths = 15	
		KLEE: done: generated tests = 2	
K*			
		KLEE: done: total instructions = 5523	
		KLEE: done: completed paths = 3	
		KLEE: done: generated tests = 3	
23 str_tests_mixed4.c			
CK	176		
		KLEE: done: total instructions = 53480	Bad cases - not enough to cover most paths
		KLEE: done: completed paths = 225	
		KLEE: done: generated tests = 2	
K*	175		
		KLEE: done: total instructions = 5710	Doesn't explore all paths
		KLEE: done: completed paths = 5	
		KLEE: done: generated tests = 5	
24 strcat2.c			
CK	178		
		KLEE: done: total instructions = 6061804	
		KLEE: done: completed paths = 5151	
		KLEE: done: generated tests = 2553	
K*	177		
		KLEE: done: total instructions = 56	
		KLEE: done: completed paths = 2	
		KLEE: done: generated tests = 2	
25 strcat3.c			
	180		
CK		KLEE: done: total instructions = 5975285	
		KLEE: done: completed paths = 9601	
		KLEE: done: generated tests = 4562	
K*			
		KLEE: done: total instructions = 55	
		KLEE: done: completed paths = 2	

KLEE: done: generated tests = 2

26 strcat4.c

Ck 184

KLEE: done: total instructions = 33985

KLEE: done: completed paths = 196

KLEE: done: generated tests = 97

k* 182

KLEE: done: total instructions = 54

KLEE: done: completed paths = 2

KLEE: done: generated tests = 2

error: out of bound pointer

memory error: out of bound pointer

memory error: out of bound pointer

r: out of bound pointer

