

hifrog - Bug #5327

time out in disk.c

19/06/2017 18:07 - Sepideh Asadi

Status:	Feedback	Start date:	19/06/2017
Priority:	Normal	Due date:	
Assignee:	Antti Hyvärinen	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
Description			
for e.g claim 15, 16,...			
gets timeout with 32, 64 bit unwind 10,...			

History

#1 - 20/06/2017 09:34 - Karine Even Mendoza

1. This shall be run properly with 64 bits, there are many error messages saying it shall better be run in 64 because of the SSA encoding is in 64 bit for this benchmark
2. It is a very heavy code. We always run it with --unwind 1. But for this to run in CUF we need to work much on the performance in Opensmt...
3. there are some issues with the SSA parsing of this code.
4. It works with heuristic 4 (that's why we did it hahaha)

No support for "big" (> 32 bit) integers so far.

```
Data -8(width 64) is not in between -4294967296 and 4294967295
; theory refiner query time so far: 0.000000
  Weak statement encodings (1) found
```

Refinement successful

(1 / 548 expressions bit-blasted)

Command-line options to double-check: --theoref --custom 1,

(Warning: Result holds **ONLY** in this bound (!) Initial unwinding bound: 10)

ASSERTION HOLDS

VERIFICATION SUCCESSFUL

TOTAL TIME FOR CHECKING THIS CLAIM: 6.518

Main Checked Assertion:

file ../../../../hi-bench/main-bench/Funfrog15_bench/disk.c line 4425 function IofCompleteRequest

assertion

byte_extract_little_endian(pirp->Tail, 0l, KAPC).ApclistEntry.Blink == (struct _LIST_ENTRY *)byte_extract_little_endian(pirp->Tail, 0l, KAPC).SystemArgument2

#X: Done.

karinek@karinek-VirtualBox:~/workspace/tools/hifrog_lra_lattice/hifrog/trunk/cprover/src/funfrog\$./hifrog

../../../../hi-bench/main-bench/Funfrog15_bench/disk.c --theoref --bitwidth 32 --type-byte-constraints 2 --unwind 10 --claim 15 --heuristic 4

#2 - 08/08/2017 15:09 - Karine Even Mendoza

- Status changed from New to Feedback

- Assignee changed from Sepideh Asadi to Antti Hyvärinen

- Can be a candidate for performance issues once using bithwidth 64 (4=>timeout, 5=>UNSAT)

Currently, there are few new changes from opensmt, but it seems to work fine with 32 or 64 bits (but the proper way to run it is still with 64 bits).

===== 32 bit

All SSA steps: 6637

Ignored SSA steps after slice: 4146

SLICER TIME: 0.007

CONVERSION TIME: 0.145

; theory refiner query time so far: 0.000000

; 0 | 0 0 | 6.368 s | 160.926 MB

SOLVER TIME: 0.518

RESULT: SAT - doesn't hold

Trying to refine with CUF+BitBlast
(driven by iterative CE-analysis)

; Warning: disabling SATElite preprocessing to track proof
; Forward dependency checker query time so far: 0.000000
; 0 | 0 0 | 6.608 s | 208.766 MB

No support for "big" (> 32 bit) integers so far.

~~Data 8 (width 64) is not in between 4294967296 and 4294967295
; Forward dependency checker query time so far: 0.000000~~

```

; STATISTICS FOR SAT SOLVER
; -----
; Restarts.....: 1
; Conflicts.....: 0
; Decisions.....: 34
; Propagations.....: 162
; Conflict literals.....: 0
; T-Lemmata learnt.....: 0
; T-Lemmata perm learnt....: 0
; Conflicts learnt.....: 0
; T-conflicts learnt.....: 0
; Average learnts size.....: nan
; Top level literals.....: 98
; Search time.....: 0 s
; TSolvers time.....: 0 s
; Init clauses.....: 64
; Variables.....: 162

```

```

; STATISTICS FOR EUF SOLVER
; -----
; Satisfiable calls.....: 0
; Unsatisfiable calls.....: 0
; egraph time.....: 0 s
; backtrack time.....: 0 s
; explain time.....: 0 s
; # eq classes at the end..: 0
; -----
; STATISTICS FOR LOGICS
; -----
; Substitutions.....: 0

```

No support for "big" (> 32 bit) integers so far.

Data -8 (width 64) is not in between -4294967296 and 4294967295
; Added 1 equalities for bind
; theory refiner query time so far: 0.000000
Weak statement encodings (1) found

Refinement successful
(1 / 548 expressions bit-blasted)
Command-line options to double-check: --theoref --custom 1,

(Warning: Result holds **ONLY** in this bound (!) Initial unwinding bound: 10)

ASSERTION HOLDS

VERIFICATION SUCCESSFUL
TOTAL TIME FOR CHECKING THIS CLAIM: 6.368

Main Checked Assertion:
file ../../../../hi-bench/main-bench/Funfrog15_bench/disk.c line 4425 function IofCompleteRequest
assertion
byte_extract_little_endian(pirp->Tail, 0l, KAPC).ApclistEntry.Blink (struct_LIST_ENTRY *)byte_extract_little_endian(pirp->Tail, 0l,
KAPC).SystemArgument2

=====
Added 15 equalities for bind
; theory refiner query time so far: 0.000000
Weak statement encodings (1) found
Weak statement encodings (5) found
Weak statement encodings (2) found

Refinement successful
(8 / 548 expressions bit-blasted)
Command-line options to double-check: --theoref --custom 525,531,532,533,534,535,536,542,

(Warning: Result holds **ONLY** in this bound (!) Initial unwinding bound: 10)

ASSERTION HOLDS

VERIFICATION SUCCESSFUL
TOTAL TIME FOR CHECKING THIS CLAIM: 7.914

Main Checked Assertion:

file ../../../../hi-bench/main-bench/Funfrog15_bench/disk.c line 4425 function IofCompleteRequest
assertion
byte_extract_little_endian(pirp->Tail, 0l, KAPC).ApclistEntry.Blink == (struct _LIST_ENTRY *)byte_extract_little_endian(pirp->Tail, 0l,
KAPC).SystemArgument2
./hifrog ../../../../hi-bench/main-bench/Funfrog15_bench/disk.c --theoref --bitwidth 32 --type-byte-constraints 2 --unwind 10 --claim 15 --heuristic 5