Report about safety probem `Trip_request.txt`

MCMT v. 2.0

June 17, 2024

Abstract

This report has been generated automatically. Variables `z1, z2, ...` *always* range over distinct elements.

List of reachable nodes

- **Inconsistent** node 0 at depth 0 labelled by

$$\exists \texttt{z1.}\ \ \texttt{(and false (ENTRY z1))}$$

- **Kept** node 1 at depth 0 labelled by

```
∃z1.  (and (sat true)(= p0 false)(= p1 false)(= p2 false)
        (= p3 false)(= p4 false)(= p5 false)(= p6 true) )
       (= dt1 true)(= dt2 true)(= dt3 true)(= dt4 true) )
        (ENTRY z1) )
```

- **Kept** node 2 at depth 1 generated by applying the transition τ_7(z1) on node 1 and labelled by

```
∃z1.  (and (sat true) (ENTRY z1) (= permanent (userstat user[z1]))
        (= dt1 true) (= dt2 true) (= dt3 true) (= ht4[z1] false) )
          (= p0 false) (= p1 false) (= p2 false) (= p3 false) )
               (= p6 false) (= ht3[z1] true) (= p4 true) )
         (= p5 true) (<= workload[z1] 70) (<= 0 workload[z1]) )
```

- **Kept** node 3 at depth 2 generated by applying the transition τ_4(z2) on node 2 and labelled by

```
∃z1,z2.  (and (ENTRY z1) (sat true) (ENTRY z2) (= intern (userstat user[z2]))
                 (= permanent (userstat user[z1] )) (= flag ThreeTwo) )
                    (= dt1 true) (= dt3 true) (= ht1[z2] false) )
                  (= ht2[z2] false) (= ht4[z1] false) (= p0 false) )
                 (= p1 false) (= p3 false) (= p4 false) (= p6 false) )
                       (= ht3[z1] true) (= p2 true) (= p5 true) )
                       (<= workload[z1] 70) (<= 0 workload[z1]) )
                       (<= workload[z2] 70) (<= 0 workload[z2]) )
```

- **Kept** node 4 at depth 2 generated by applying the transition τ_5(z1) on node 2 and labelled by

$\exists$z1. (and (sat true) (ENTRY z1) (= permanent (userstat user[z1]))
(= flag TwoThree) (= dt1 true) (= dt2 true))
(= ht3[z1] false) (= ht4[z1] false) (= p0 false))
(= p1 false) (= p2 false) (= p5 false) (= p6 false))
(= p3 true) (= p4 true) (<= workload[z1] 10))
(<= 0 workload[z1]))

- **Kept** node 5 at depth 3 generated by applying the transition τ_6(z1) on node 3 and labelled by

$\exists$z1, z2. (and (ENTRY z2) (sat true) (ENTRY z1) (= permanent (userstat user[z1]))
(= intern (userstat user[z2])) (= flag ThreeTwo))
(= dt1 true) (= ht1[z2] false) (= ht2[z2] false))
(= ht3[z1] false) (= ht4[z1] false) (= p0 false))
(= p1 false) (= p4 false) (= p5 false) (= p6 false))
(= p2 true) (= p3 true) (<= workload[z1] 10))
(<= 0 workload[z1]) (<= workload[z2] 70))
(<= 0 workload[z2]))

- **Kept** node 6 at depth 3 generated by applying the transition τ_3(z2) on node 4 and labelled by

$\exists$z1, z2. (and (ENTRY z1) (sat true) (ENTRY z2) (= intern (userstat user[z2]))
(= permanent (userstat user[z1])) (= flag TwoThree))
(= dt1 true) (= ht1[z2] false) (= ht2[z2] false))
(= ht3[z1] false) (= ht4[z1] false) (= p0 false))
(= p1 false) (= p4 false) (= p5 false) (= p6 false))
(= p2 true) (= p3 true) (<= workload[z1] 10))
(<= 0 workload[z1]) (<= workload[z2] 70))
(<= 0 workload[z2]))

- **Kept** node 7 at depth 4 generated by applying the transition τ_1(z3) on node 5 and labelled by

$\exists$z1, z2, z3. (and (ENTRY z1) (sat true) (ENTRY z2) (ENTRY z3)
((userstat user[z3]) intern) (= permanent (userstat user[z1])))
(= intern (userstat user[z2])) (= flag ThreeTwo))
(= ht1[z3] false) (= ht2[z2] false) (= ht3[z1] false))
(= ht4[z1] false) (= p2 false) (= p3 false))
(= p4 false) (= p5 false) (= p6 false) (= p0 true))
(= p1 true) (<= workload[z1] 10) (<= 0 workload[z1]))

```
                    (<= workload[z2] 70) (<= 0 workload[z2]) )
                    (<= workload[z3] 70) (<= 0 workload[z3]) )
                (not (= NULLUserID user[z3])) )
```

- **Kept** node 8 at depth 4 generated by applying the transition $\tau_2(\mathsf{z3})$ on node 5 and labelled by

$\exists \mathsf{z1}, \mathsf{z2}, \mathsf{z3}.$

```
(and (ENTRY z1) (sat true) (ENTRY z2) (ENTRY z3)
((userstat user[z3]) permanent) (= permanent (userstat user[z1] )) )
        (= intern (userstat user[z2] )) (= flag ThreeTwo) )
      (= ht1[z3] false) (= ht2[z2] false) (= ht3[z1] false) )
          (= ht4[z1] false) (= p0 false) (= p2 false) )
       (= p3 false) (= p4 false) (= p5 false) (= p6 false) )
       (= p1 true) (<= workload[z1] 10) (<= 0 workload[z1]) )
            (<= workload[z2] 70) (<= 0 workload[z2]) )
            (<= workload[z3] 80) (<= 0 workload[z3]) )
       (not (= NULLUserID user[z3])) )
```

- **Kept** node 9 at depth 4 generated by applying the transition $\tau_1(\mathsf{z3})$ on node 6 and labelled by

$\exists \mathsf{z1}, \mathsf{z2}, \mathsf{z3}.$

```
(and (ENTRY z2) (sat true) (ENTRY z1) (ENTRY z3)
((userstat user[z3]) intern) (= permanent (userstat user[z1] )) )
        (= intern (userstat user[z2] )) (= flag TwoThree) )
      (= ht1[z3] false) (= ht2[z2] false) (= ht3[z1] false) )
          (= ht4[z1] false) (= p2 false) (= p3 false) )
       (= p4 false) (= p5 false) (= p6 false) (= p0 true) )
       (= p1 true) (<= workload[z1] 10) (<= 0 workload[z1]) )
            (<= workload[z2] 70) (<= 0 workload[z2]) )
            (<= workload[z3] 70) (<= 0 workload[z3]) )
       (not (= NULLUserID user[z3])) )
```

- **Kept** node 10 at depth 4 generated by applying the transition $\tau_2(\mathsf{z3})$ on node 6 and labelled by

$\exists \mathsf{z1}, \mathsf{z2}, \mathsf{z3}.$

```
(and (ENTRY z2) (sat true) (ENTRY z1) (ENTRY z3)
((userstat user[z3]) permanent) (= permanent (userstat user[z1] )) )
        (= intern (userstat user[z2] )) (= flag TwoThree) )
      (= ht1[z3] false) (= ht2[z2] false) (= ht3[z1] false) )
          (= ht4[z1] false) (= p0 false) (= p2 false) )
       (= p3 false) (= p4 false) (= p5 false) (= p6 false) )
       (= p1 true) (<= workload[z1] 10) (<= 0 workload[z1]) )
            (<= workload[z2] 70) (<= 0 workload[z2]) )
            (<= workload[z3] 80) (<= 0 workload[z3]) )
       (not (= NULLUserID user[z3])) )
```