



Points

Loc: filtre.c:14:6

4:6

main @ filtre.c:22:5

p @ filtre.c:25:2

ter >= 4

call # filtre2 @ filtre.c:27:4

invariant

p @ filtre.c:25:2

ter = 3

call # filtre2 @ filtre.c:27:4

invariant

p @ filtre.c:25:2

ter = 2

call # filtre2 @ filtre.c:27:4

invariant

```

filtre.c
typedef enum {FALSE = 0, TRUE = 1} BOOLEAN;
BOOLEAN INIT;
float P, X;
volatile float RANDOM_INPUT;
__ASTREE_volatile_input((RANDOM_INPUT [-10.0,10.0]));

void filtre2 () {
  static float E[2], S[2];
  if (INIT) {
    S[0] = X;
    P = X;
    E[0] = X;
  } else {
    P = ((((((0.4677826 * X) - (E[0] * 0.7700725)) + (E[1] * 0.4344376)) + (S[0] * 1.5419)) - (S[1] * 0.6740476)));
  }
  E[1] = E[0];
  E[0] = X;
  S[1] = S[0];
  S[0] = P;
}

```

Sources

filtre.c

location: filtre.c:14:6:[call#main@22:loop@25]>=4:call#filtre2@27:]

variables: E (6); INIT (3); P (2); RANDOM_INPUT (1); S (7); X (5)

invariant:

direct =

<interval: <INIT in {0}> <E[0] in [-10, 10], E[1] in [-10, 10], P in [-13.388, 13.388], RANDOM_INPUT in [-10, 10], S[0] in [-13.388, 13.388], S[1] in [-13.3905, 13.3905], X in [-10, 10]> >

errors info

filtre.c:30.1::[call#main@22:]

following code is dead