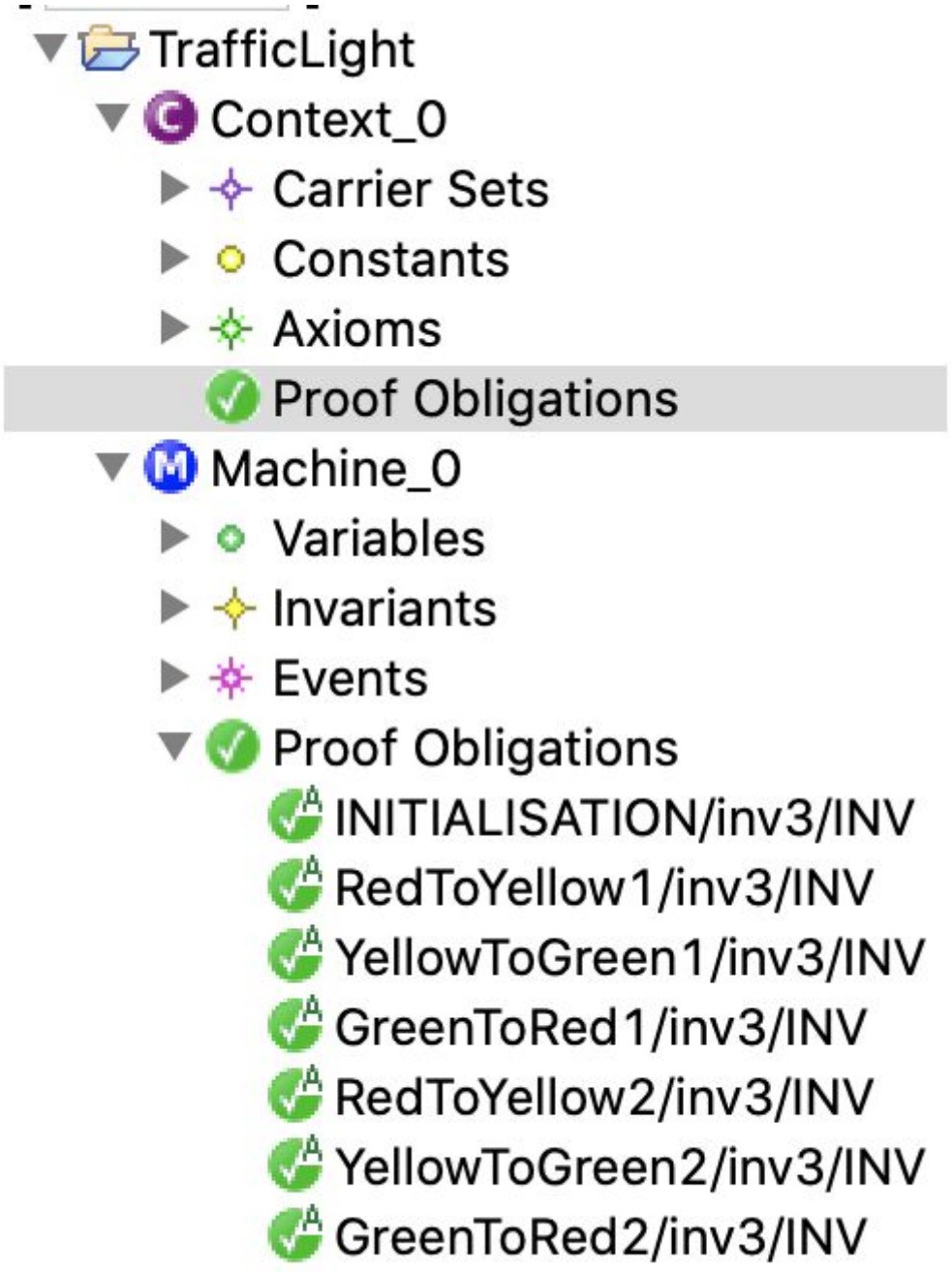
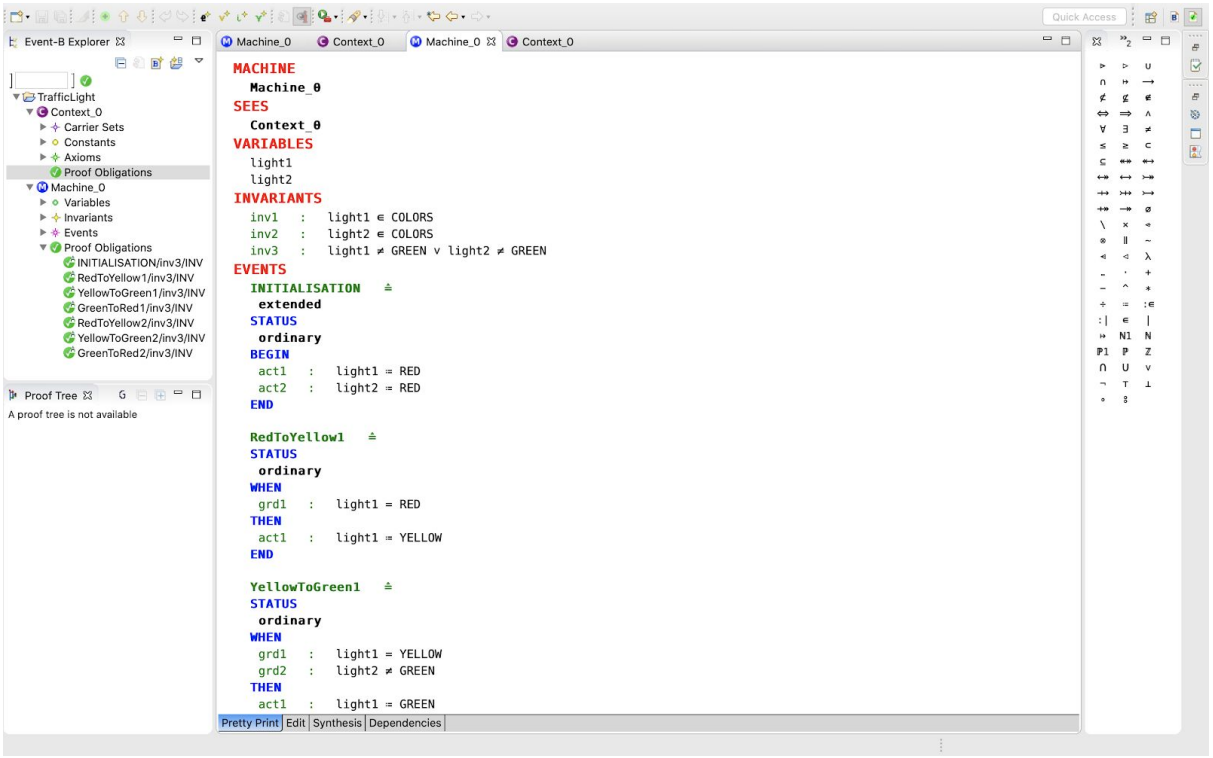
```
CONTEXT
  Context_0
SETS
  COLORS
CONSTANTS
  RED
  YELLOW
  GREEN
AXIOMS
  axm1   :   partition(COLORS, {RED}, {YELLOW}, {GREEN})
END
```

```
MACHINE
  Machine_0
SEES
  Context_0
VARIABLES
  light1
  light2
INVARIANTS
  inv1   :   light1 ∈ COLORS
  inv2   :   light2 ∈ COLORS
  inv3   :   light1 ≠ GREEN ∨ light2 ≠ GREEN
EVENTS
  INITIALISATION   ≙
   extended
  STATUS
   ordinary
  BEGIN
   act1   :   light1 ≔ RED
   act2   :   light2 ≔ RED
  END

  RedToYellow1   ≙
  STATUS
   ordinary
  WHEN
   grd1   :   light1 = RED
  THEN
   act1   :   light1 ≔ YELLOW
  END

  YellowToGreen1   ≙
  STATUS
   ordinary
  WHEN
   grd1   :   light1 = YELLOW
   grd2   :   light2 ≠ GREEN
  THEN
   act1   :   light1 ≔ GREEN
```

```
END

GreenToRed1   ≜
STATUS
 ordinary
WHEN
 grd1   :   light1 = GREEN
THEN
 act1   :   light1 ≔ RED
END

RedToYellow2   ≜
STATUS
 ordinary
WHEN
 grd1   :   light2 = RED
THEN
 act1   :   light2 ≔ YELLOW
END

YellowToGreen2   ≜
STATUS
 ordinary
WHEN
 grd1   :   light2 = YELLOW
 grd2   :   light1 ≠ GREEN
THEN
 act1   :   light2 ≔ GREEN
END

GreenToRed2   ≜
STATUS
 ordinary
WHEN
 grd1   :   light2 = GREEN
THEN
 act1   :   light2 ≔ RED
END

END
```


TrafficLight
Context_0
Carrier Sets
Constants
Axioms
Proof Obligations
Machine_0
Variables
Invariants
Events
Proof Obligations
INITIALISATION/inv3/INV
RedToYellow1/inv3/INV
YellowToGreen1/inv3/INV
GreenToRed1/inv3/INV
RedToYellow2/inv3/INV
YellowToGreen2/inv3/INV
GreenToRed2/inv3/INV


Event-B Explorer
TrafficLight
Context_0
Carrier Sets
Constants
Axioms
Proof Obligations
Machine_0
Variables
Invariants
Events
Proof Obligations
INITIALISATION/inv3/INV
RedToYellow1/inv3/INV
YellowToGreen1/inv3/INV
GreenToRed1/inv3/INV
RedToYellow2/inv3/INV
YellowToGreen2/inv3/INV
GreenToRed2/inv3/INV
Proof Tree
A proof tree is not available
Machine_0
Context_0
Machine_0
Context_0
Quick Access
MACHINE
Machine_0
SEES
Context_0
VARIABLES
light1
light2
INVARIANTS
inv1 : light1 ∈ COLORS
inv2 : light2 ∈ COLORS
inv3 : light1 ≠ GREEN ∨ light2 ≠ GREEN
EVENTS
INITIALISATION ≙
extended
STATUS
ordinary
BEGIN
act1 : light1 ≔ RED
act2 : light2 ≔ RED
END
RedToYellow1 ≙
STATUS
ordinary
WHEN
grd1 : light1 = RED
THEN
act1 : light1 ≔ YELLOW
END
YellowToGreen1 ≙
STATUS
ordinary
WHEN
grd1 : light1 = YELLOW
grd2 : light2 ≠ GREEN
THEN
act1 : light1 ≔ GREEN
Pretty Print
Edit
Synthesis
Dependencies