SDL System Structure

- Dashboard
  - BeltControl
    - BeltMaster
    - Abort
    - BeltTimer

Other Documents

- Normal
System Dashboard

Signal BeltReset;
Signal Key(OnOff);
Signal BeltOn;
Signal Alarm(OnOff);

Newtype OnOff
Literals On, Off;
Endnewtype;

BeltControl

Supervision

Ignition [Key]

Belt [BeltOn]

Alarm [Alarm]
signal End5, End10;
signal ResetTimer;

Ignition

Belt

BeltMaster

BeltTimer

(0,1)

Timeout

Alarm

Supervision

Block BeltControl

BeltReset

1(1)
dcl status OnOff;

Abort

Formal parameters:
In KillTimer boolean
In KillAlarm boolean

BeltTimer

Wait

Key

(status)

BeltOn

BeltReset

End5

Alarm

Abort

(True,False)

Off

Alarm

Abort

(True,True)

Off

Process BeltMaster
Procedure Abort

FPAR
In KillTimer boolean;
In KillAlarm boolean;

Procedure Abort:

- If KillTimer is TRUE, then:
  - KillTimer is FALSE
  - ResetTimer
  - If KillAlarm is TRUE, then:
    - KillAlarm is FALSE
    - Alarm (Off)
  - KillAlarm is FALSE

- KillTimer is FALSE
Process BeltTimer

Timer T;

set (now+5, T)
Wait5
T
End5
set (now+5, T)
Wait10
T
End10

ResetTimer
Reset(T)
MSC Normal

Simulation trace generated by SDT Simulator 2.3

process BeltMaster

Key

process BeltTimer

Wait

T(5.0000)

Wait5

End5

T(5.0000)

Wait10

End10

Alarm

Alarm

Alarm

Off

On

Off