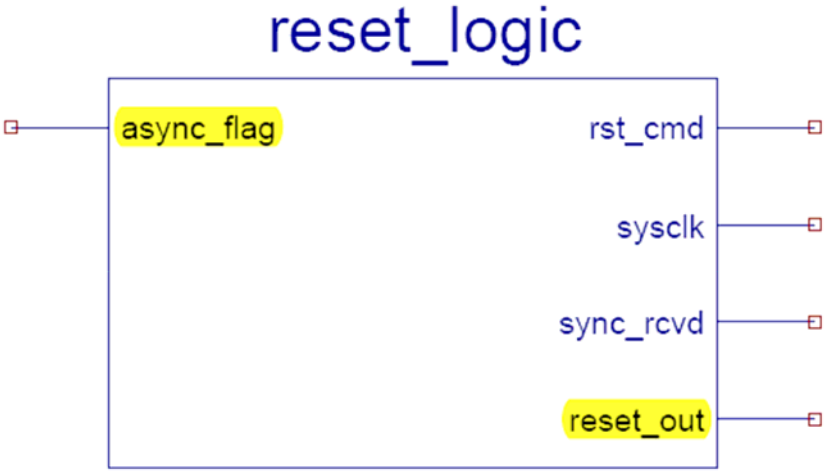
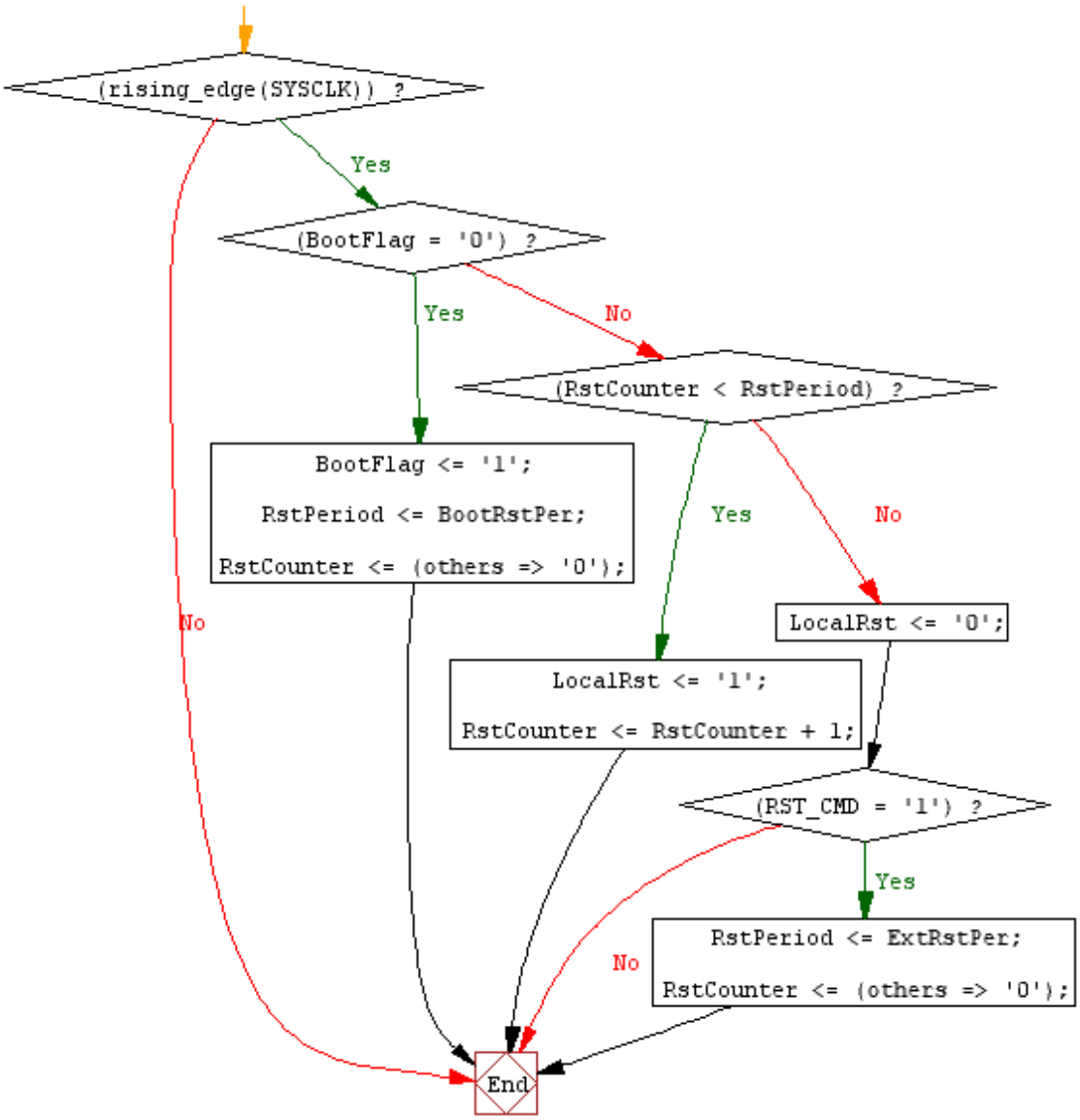
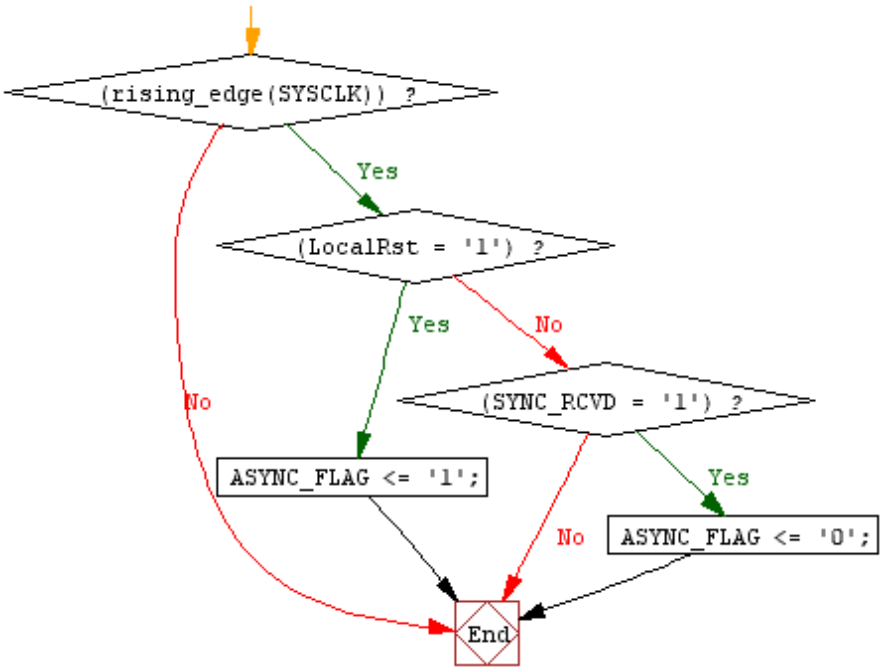
```
-----------------------------------------------------------------------
-- DESCRIPTION  :
-- TAKES AS INPUT THE SEQUENCER BUS RESET AND PRODUCES ONE RESET
-- PULSE LOCAL TO THE DEVICE + A FLAG TO INDICATE THAT RESET HAS OCCURED.
-- ALSO PROVIDES THE BOOT UP RESET PULSE.
-----------------------------------------------------------------------
-- IMPLEMENTATION NOTES :
-- RESET PULSE DURATION IS 15ms ON BOOT ELSE 1us FOR OTHER SOURCES
-- THE NOMINAL BOOT PERIOD IS 200MS WITH A CONFIG RATE OF 34.
-----------------------------------------------------------------------
```




```
SYSCLK      : in  std_logic;
RST_CMD     : in  std_logic;
SYNC_RCVD   : in  std_logic;
ASYNC_FLAG  : out std_logic;
RESET_OUT   : out std_logic

constant BootRstPer : std_logic_vector(19 downto 0) := x"00005";    -- Period of boot reset
pulse (15 ms = 927C0h).  test only.
constant ExtRstPer  : std_logic_vector(19 downto 0) := x"00008";    -- Period of normal reset
pulse (1 us = 28h)     test only.
signal RstPeriod    : std_logic_vector(19 downto 0);
signal RstCounter   : std_logic_vector(19 downto 0);
signal BootFlag     : std_logic := '0';
signal LocalRst     : std_logic;
```

```
RstTimerProc : process (SYSCLK)
```



```
AsynFlagProc : process (SYSCLK)
```