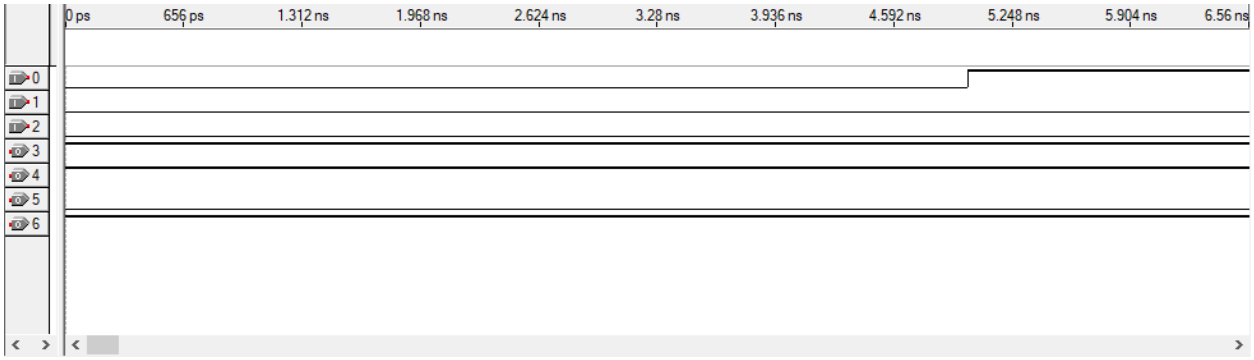
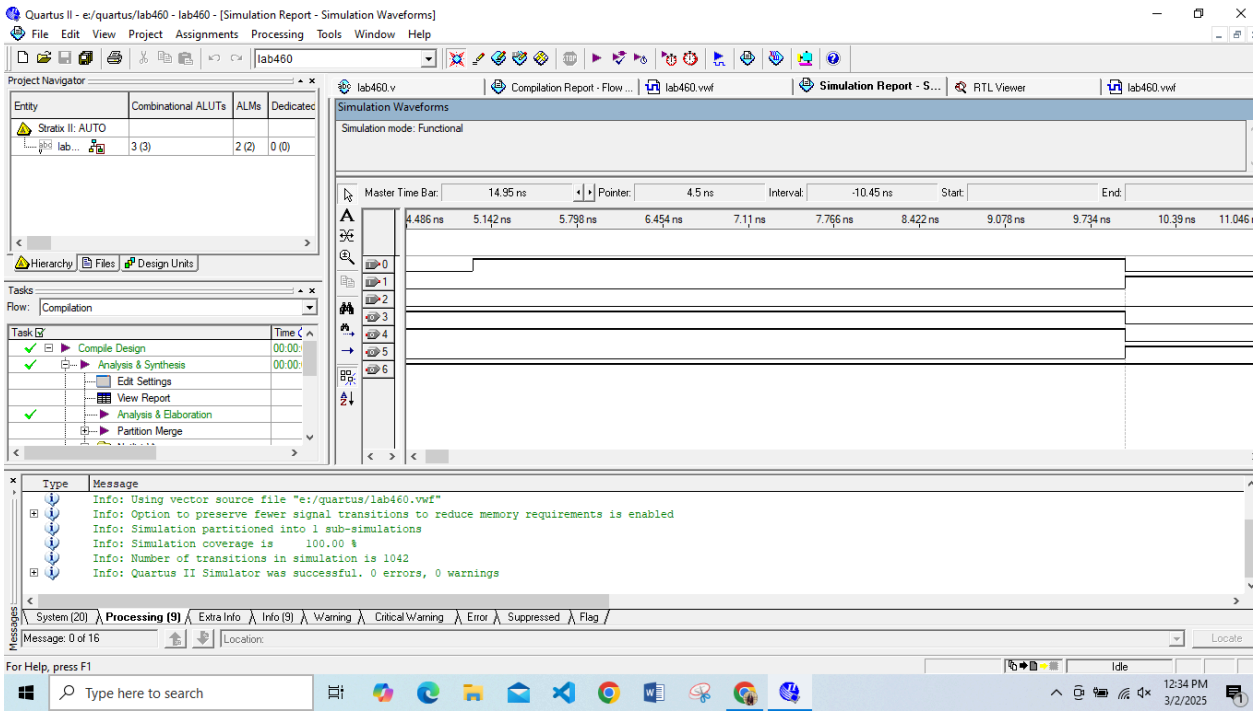
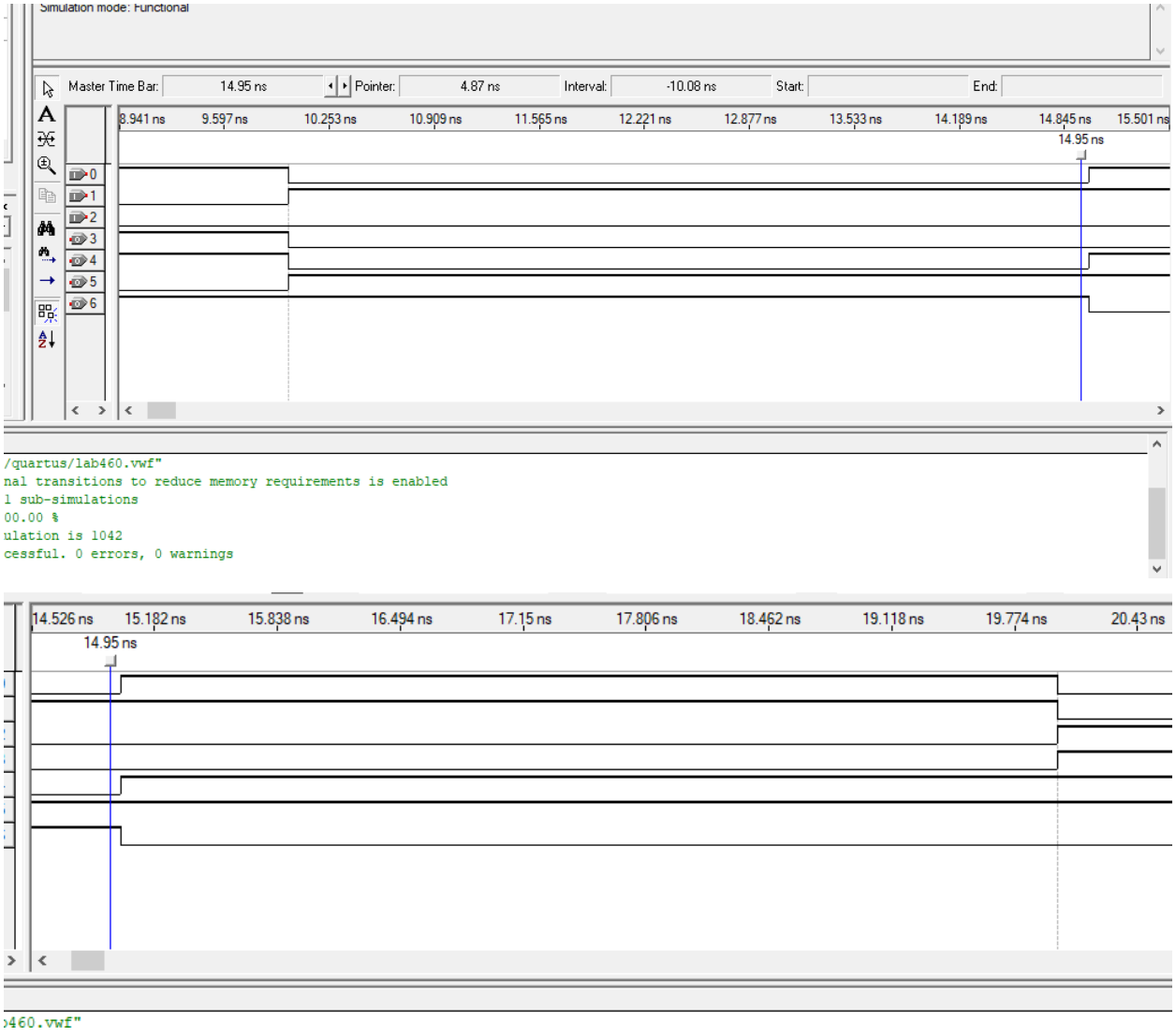
```
module lab460(a,b,c,f1,f2,f3,f4);
  input a,b,c;
  output f1,f2,f3,f4;
  assign f1=~(b);
  assign f2= (a|f1);
  assign f3= (b^c);
  assign f4=~(f2&f3);

endmodule
```

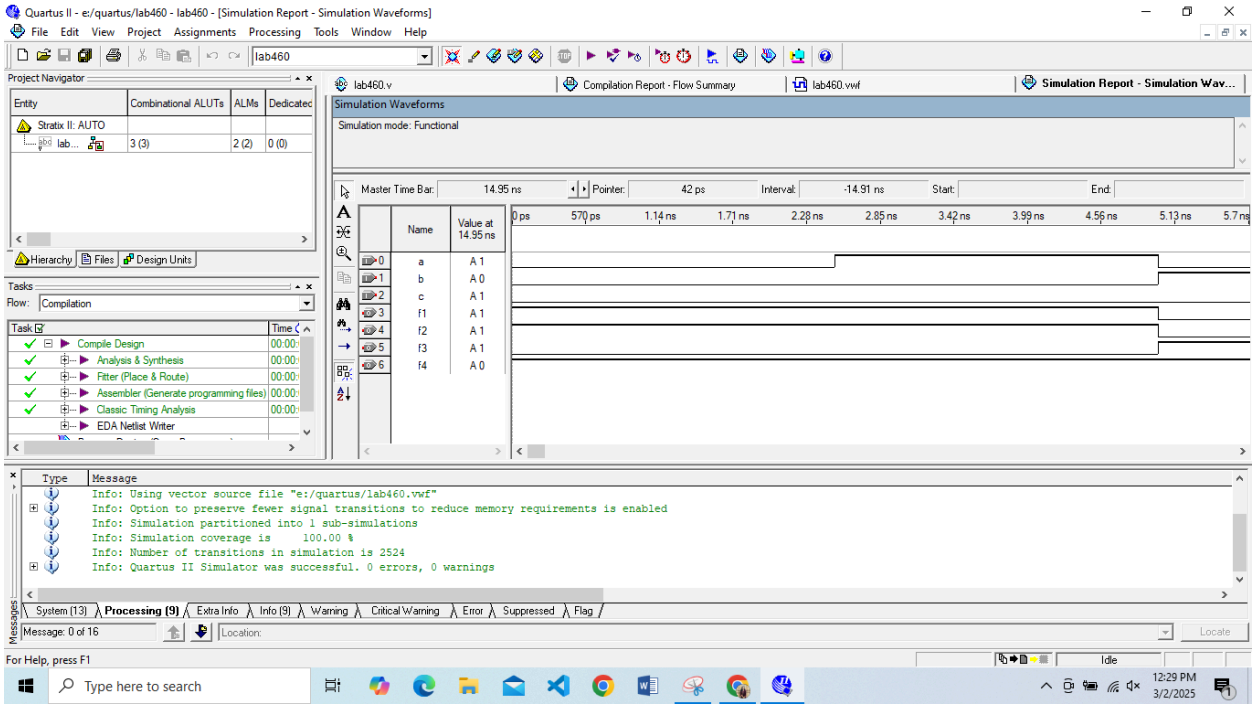
Input 10,20,40

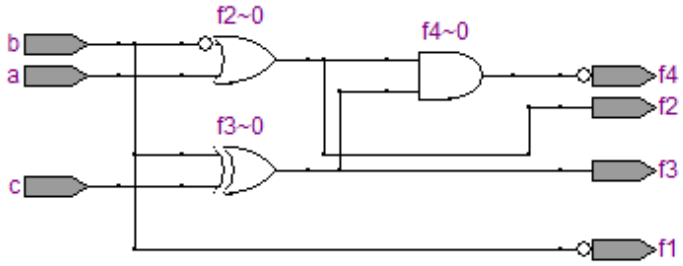


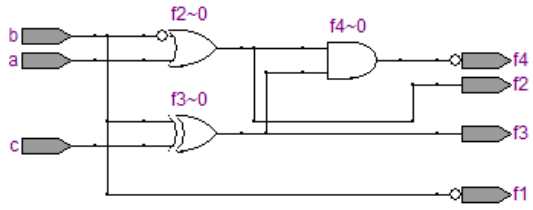



Simulation mode: Functional
Master Time Bar: 14.95 ns
Pointer: 4.87 ns
Interval: -10.08 ns
Start:
End:
8.941 ns
9.597 ns
10.253 ns
10.909 ns
11.565 ns
12.221 ns
12.877 ns
13.533 ns
14.189 ns
14.845 ns
15.501 ns
14.95 ns
0
1
2
3
4
5
6
/quartus/lab460.vwf"
nal transitions to reduce memory requirements is enabled
1 sub-simulations
00.00 %
ulation is 1042
cessful. 0 errors, 0 warnings
14.526 ns
15.182 ns
15.838 ns
16.494 ns
17.15 ns
17.806 ns
18.462 ns
19.118 ns
19.774 ns
20.43 ns
14.95 ns
>460.vwf"

Input 5,10,15


Quartus II - e:/quartus/lab460 - lab460 - [Simulation Report - Simulation Waveforms]
File Edit View Project Assignments Processing Tools Window Help
Project Navigator
Entity
Combinational ALUTs
ALMs
Stratix II: AUTO
lab460.v
Compilation Report - Flow Summary
lab460.vwf
Simulation Report - Simulation Wav...
Simulation Waveforms
Simulation mode: Functional
Master Time Bar: 14.95 ns
Pointer: 42 ps
Interval: -14.91 ns
Start:
End:
Name
Value at 14.95 ns
a
b
c
f1
f2
f3
f4
Tasks
Flow: Compilation
Compile Design
Analysis & Synthesis
Fitter (Place & Route)
Assembler (Generate programming files)
Classic Timing Analysis
EDA Netlist Writer
Type
Message
Info: Using vector source file "e:/quartus/lab460.vwf"
Info: Option to preserve fewer signal transitions to reduce memory requirements is enabled
Info: Simulation partitioned into 1 sub-simulations
Info: Simulation coverage is 100.00 %
Info: Number of transitions in simulation is 2524
Info: Quartus II Simulator was successful. 0 errors, 0 warnings
System (13)
Processing (9)
Extra Info
Info (9)
Warning
Critical Warning
Error
Suppressed
Flag
Message: 0 of 16
Location:
Locate
For Help, press F1
Idle
Type here to search
12:29 PM
3/2/2025


f2~0
f4~0
f3~0
b
a
c
f4
f2
f3
f1


b
a
c
f2~0
f3~0
f4~0
f4
f2
f3
f1