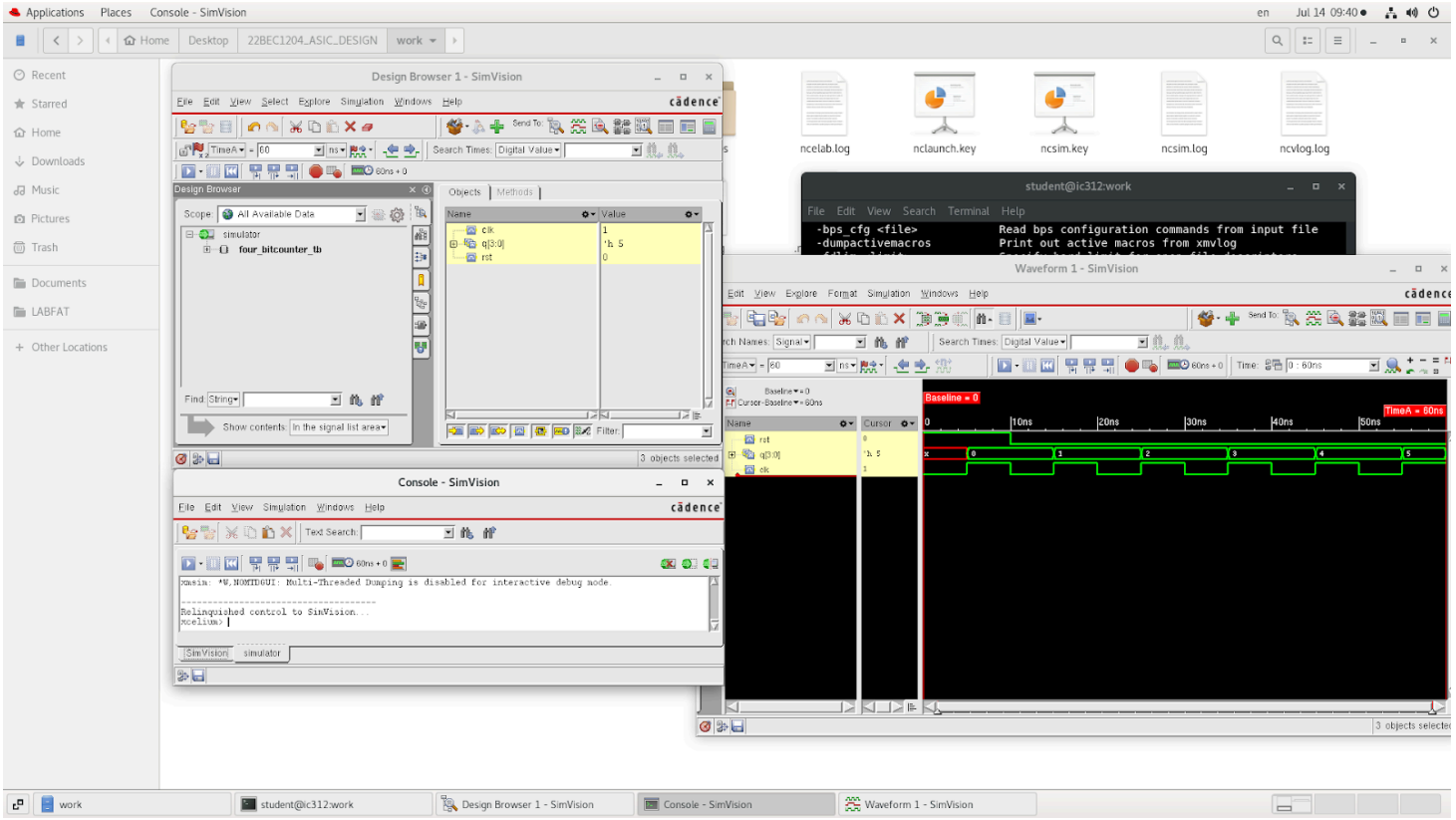
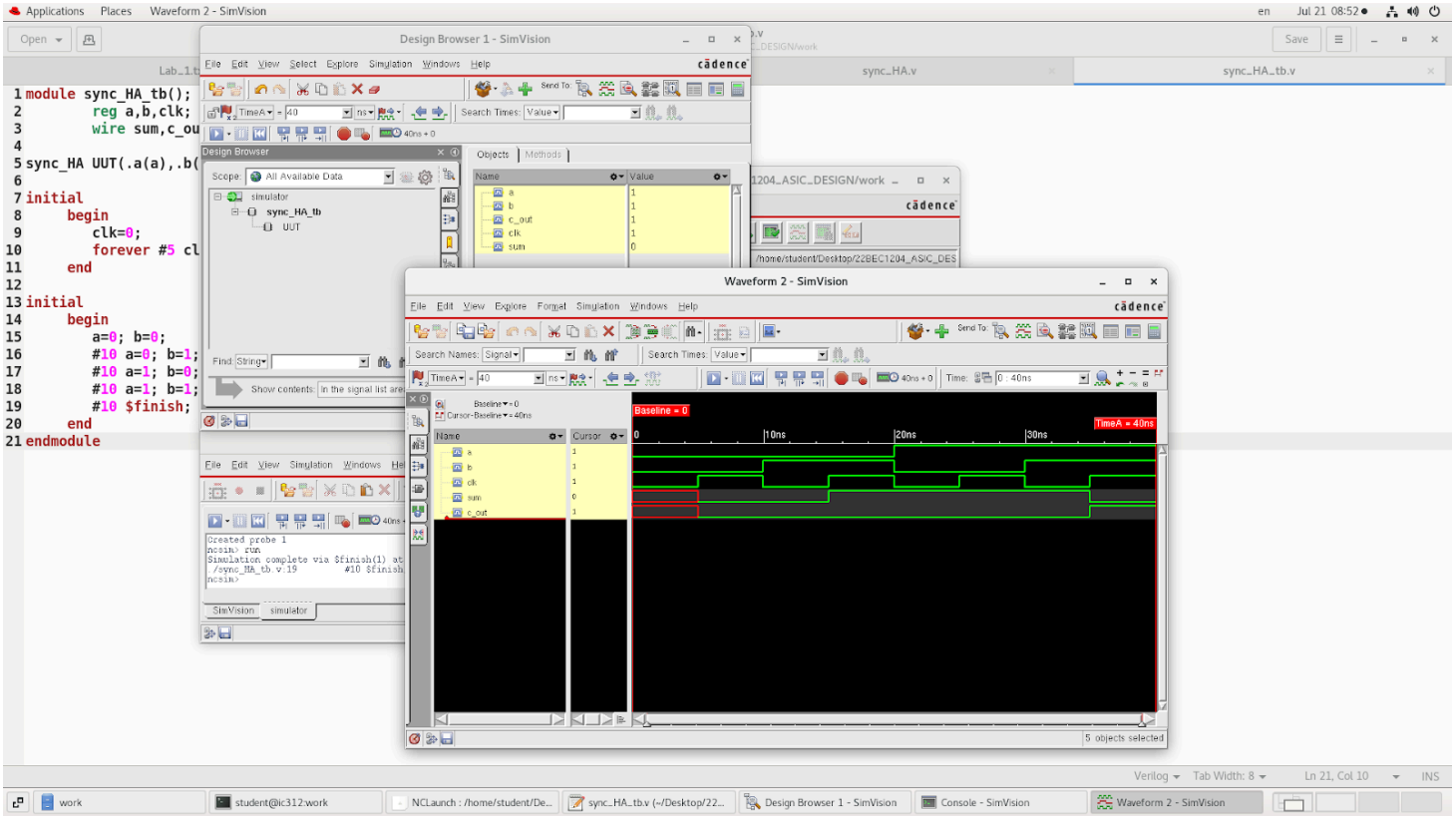
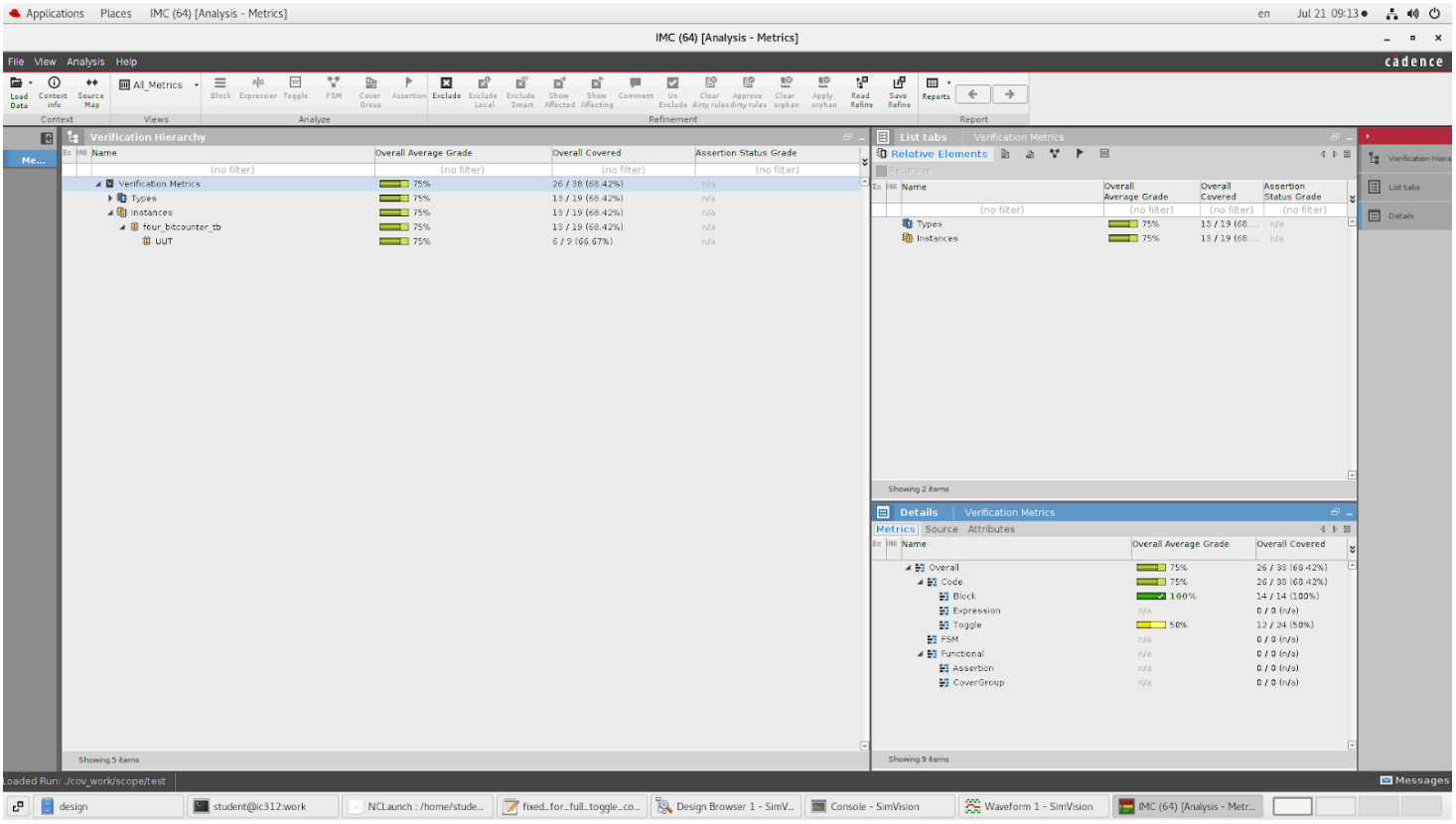
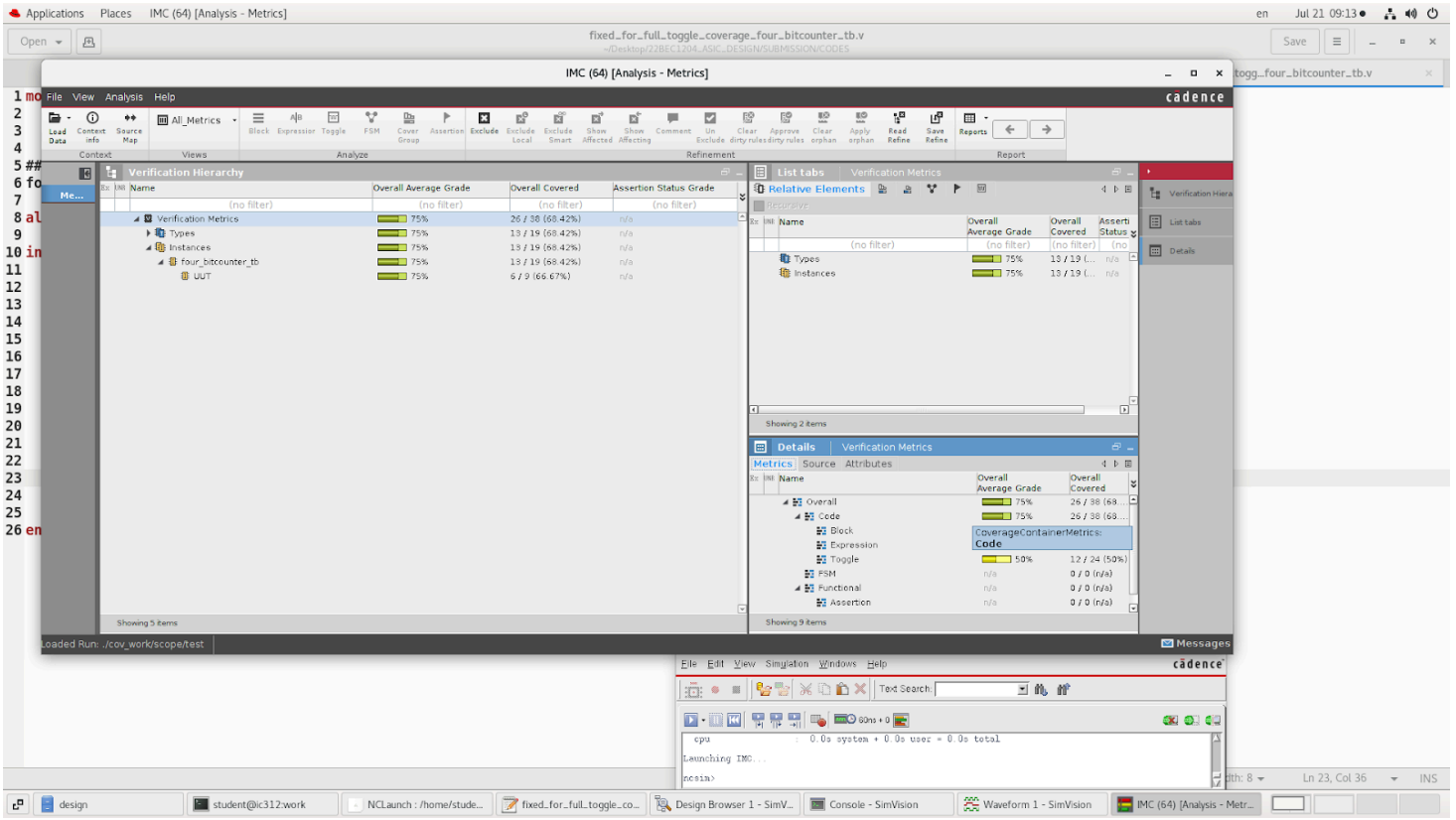
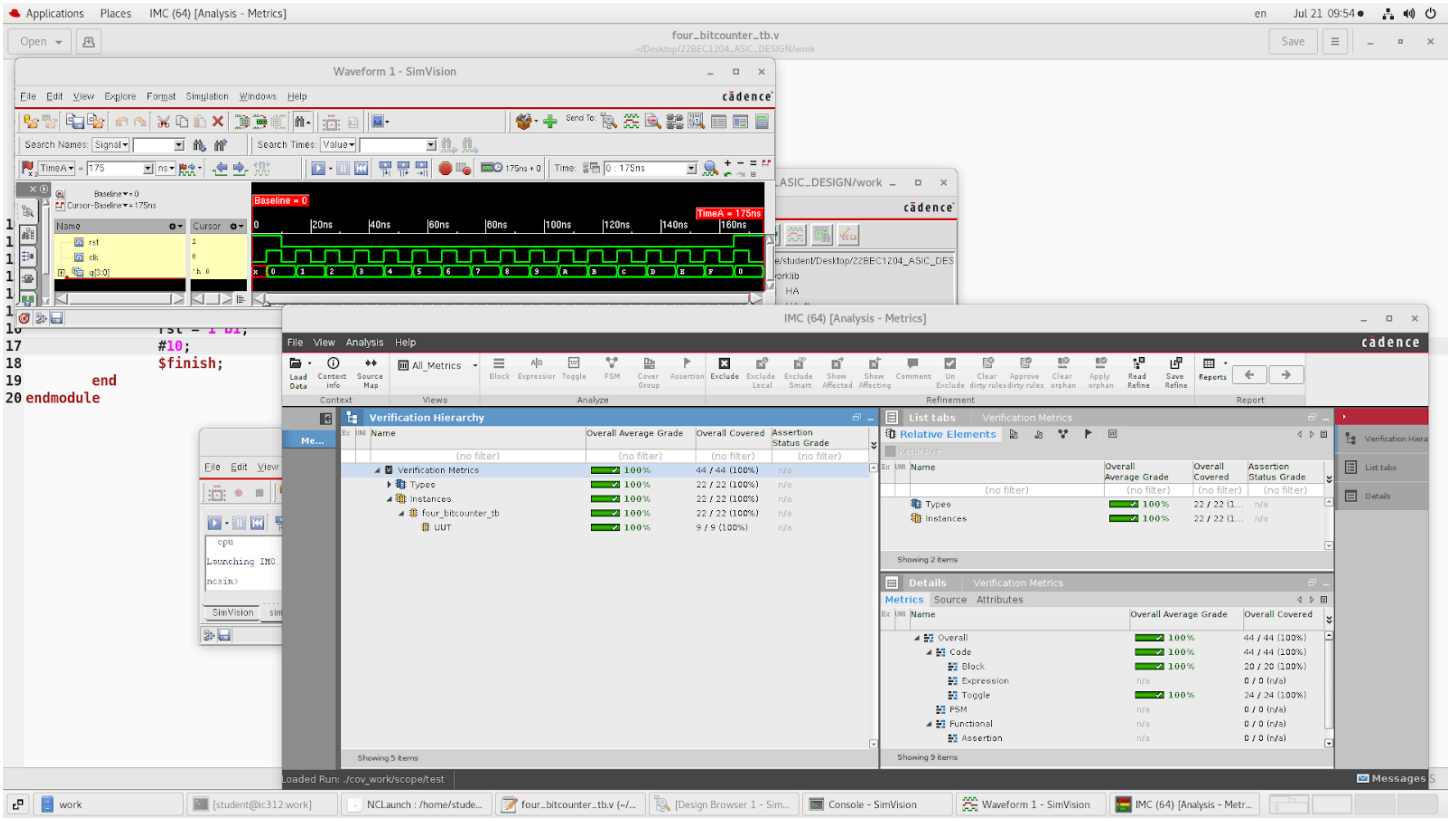
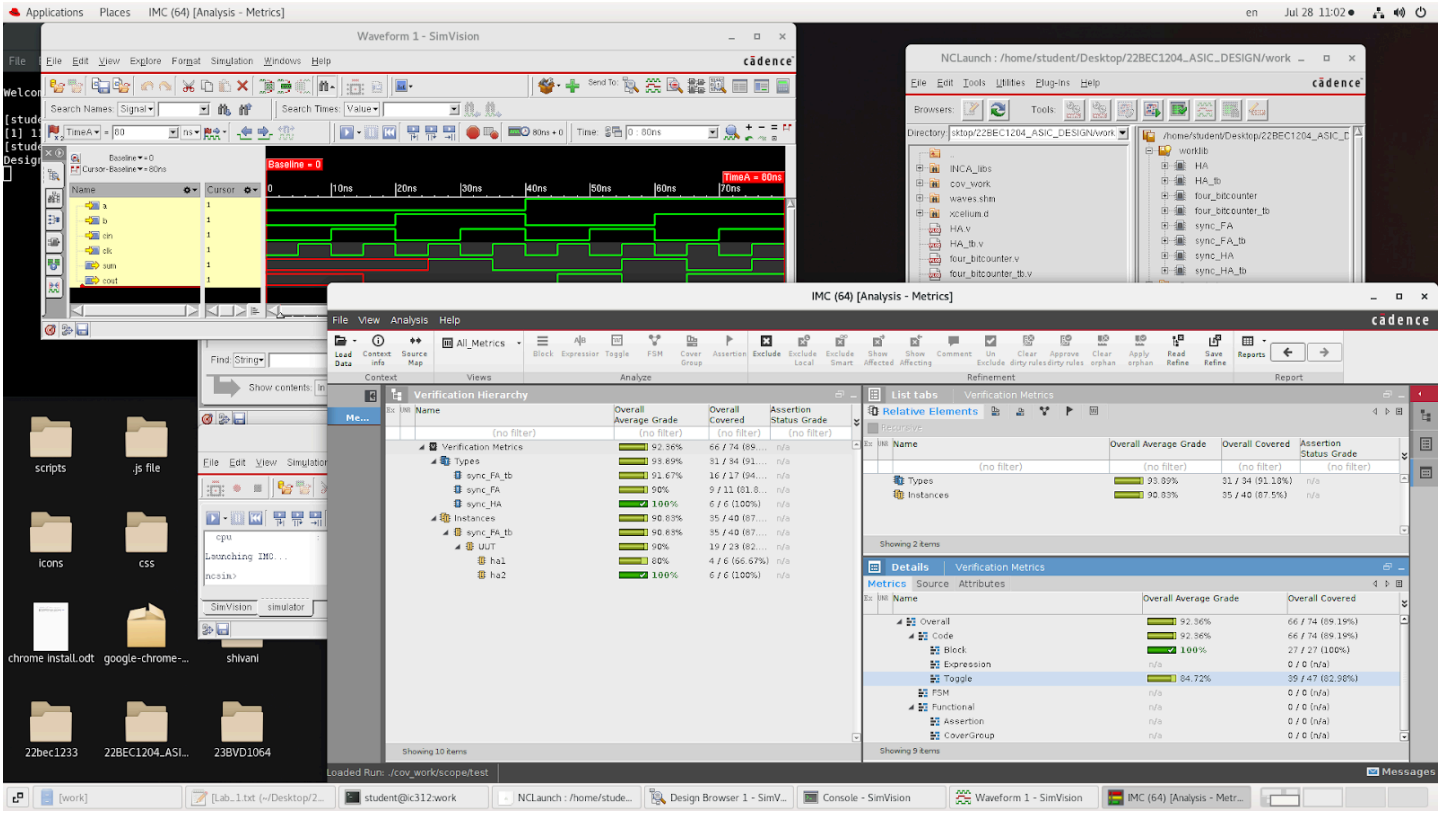

Applications Places Console - SimVision
Design Browser 1 - SimVision
Console - SimVision
Waveform 1 - SimVision
student@ic312:work
-bps_cfg <file> Read bps configuration commands from input file
-dumpactivemacros Print out active macros from xmvlog
ncelab.log
nclaunch.key
ncsim.key
ncsim.log
ncvlog.log
work
student@ic312:work
Design Browser 1 - SimVision
Console - SimVision
Waveform 1 - SimVision

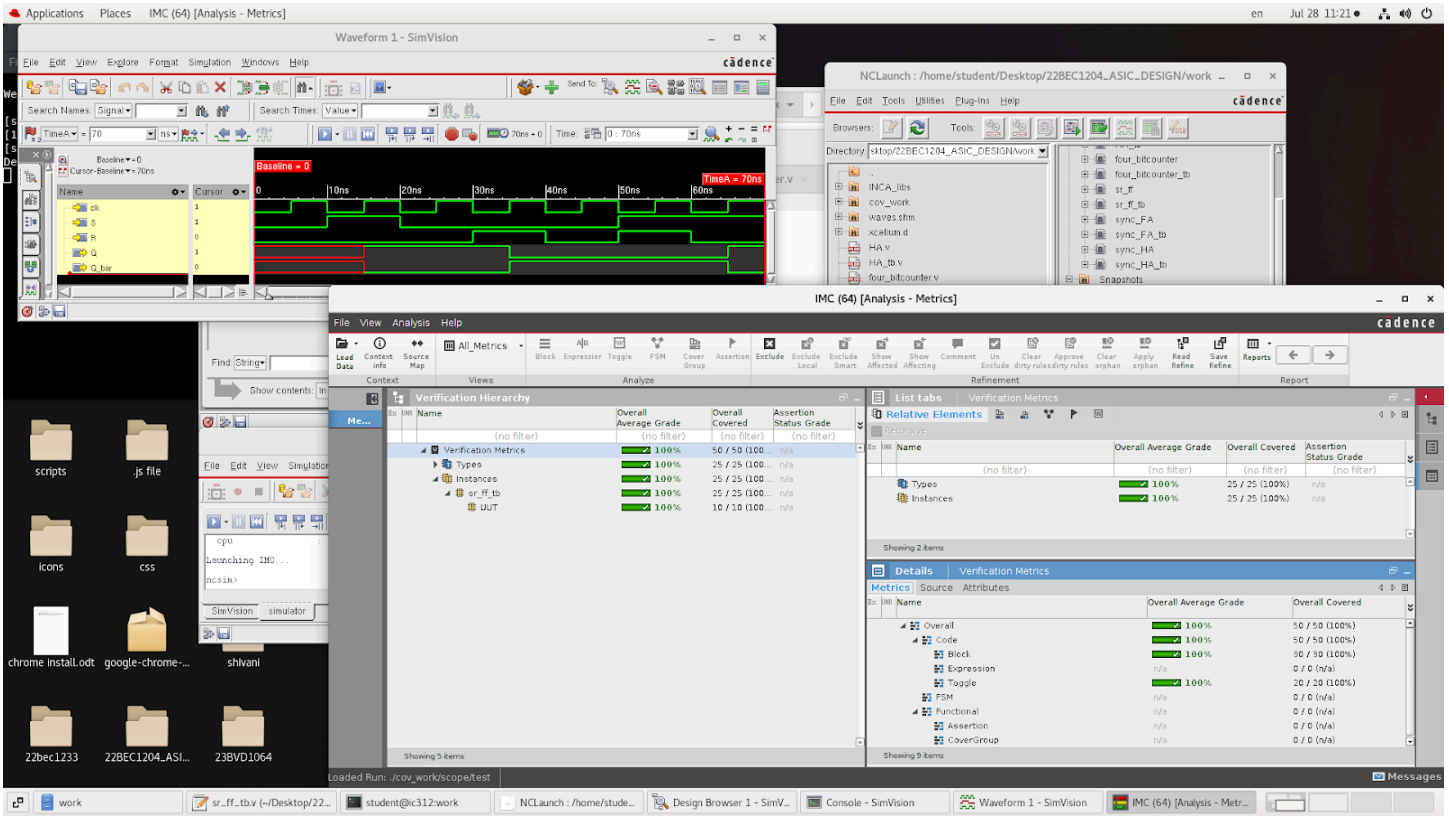

Applications Places Waveform 2 - SimVision
module sync_HA_tb();
reg a,b,clk;
wire sum,c_ou
sync_HA UUT(.a(a),.b(
initial
begin
clk=0;
forever #5 cl
end
initial
begin
a=0; b=0;
#10 a=0; b=1;
#10 a=1; b=0;
#10 a=1; b=1;
#10 $finish;
end
endmodule
Design Browser 1 - SimVision
Waveform 2 - SimVision
work
student@ic312:work
Design Browser 1 - SimVision
Console - SimVision
Waveform 2 - SimVision

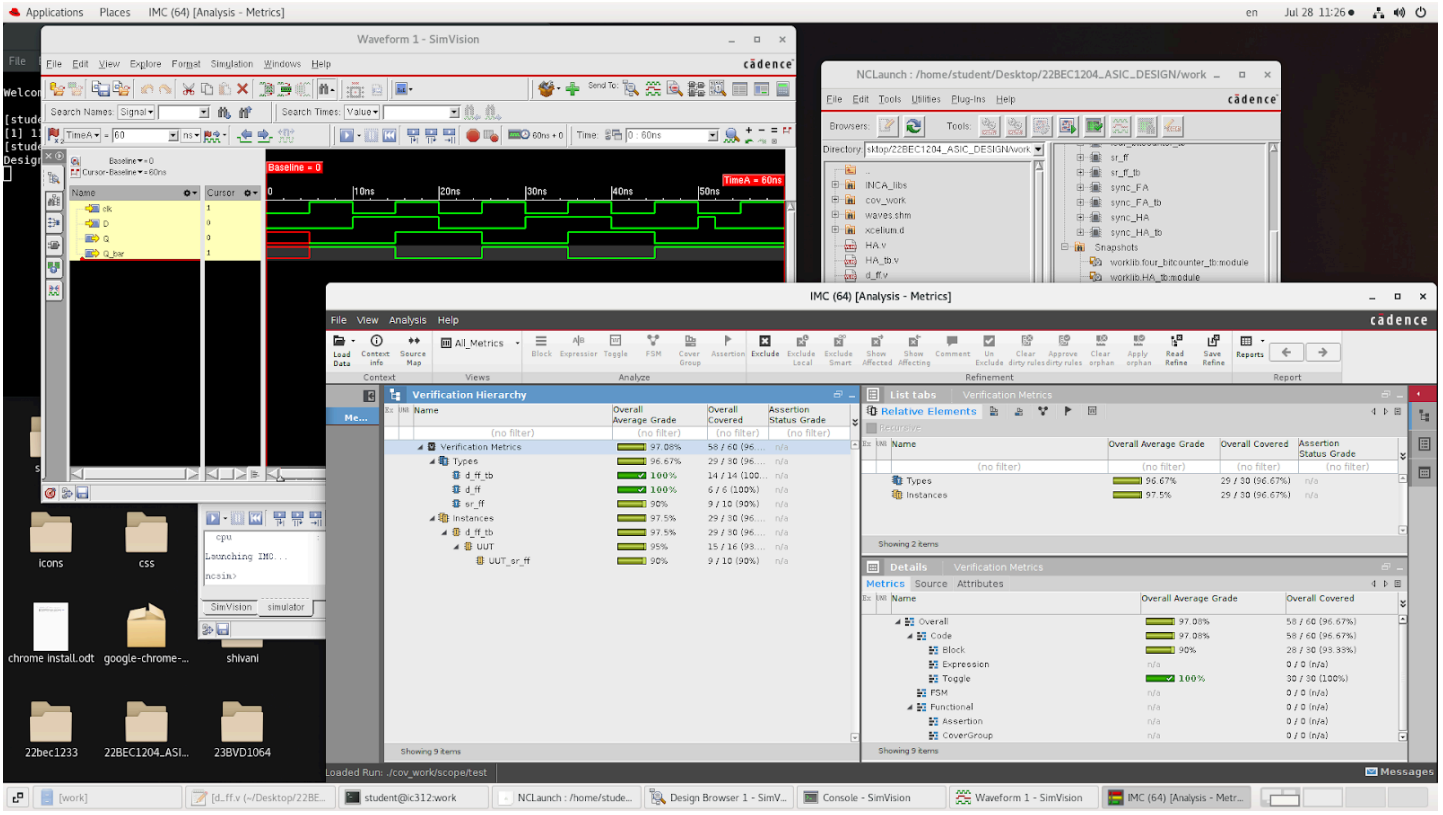

Applications Places IMC (64) [Analysis - Metrics]
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics
Types
Instances
four_bitcounter_tb
UUT
List tabs
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup
Showing 5 items
Showing 2 items
Showing 9 items
Messages

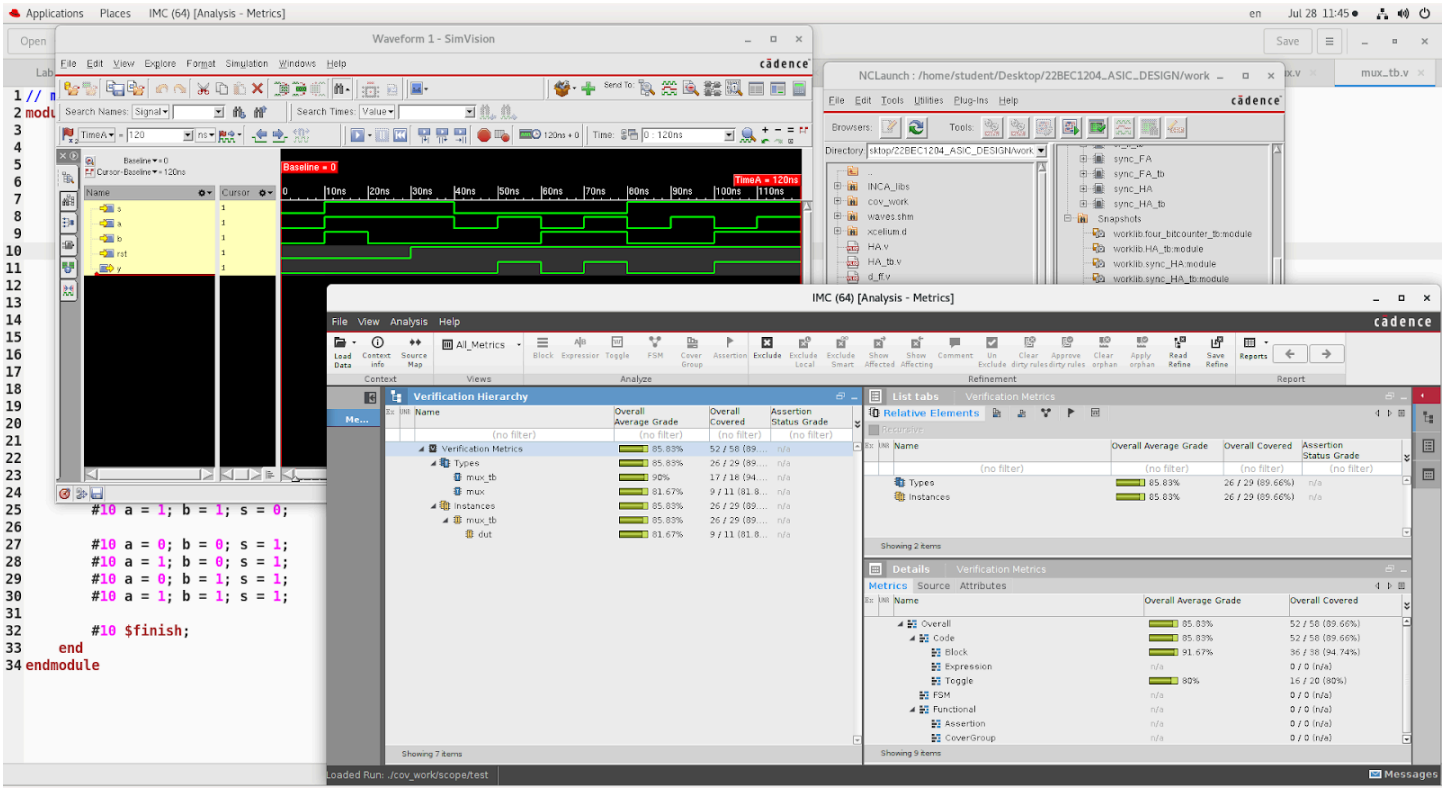

Applications Places IMC (64) [Analysis - Metrics]
fixed_for_full_toggle_coverage_four_bitcounter_tb.v
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
List tabs
Relative Elements
Details
Metrics
Source
Attributes
CoverageContainerMetrics: Code
Showing 5 items
Showing 2 items
Showing 9 items
Messages
Text Search:
cpu 0.0s system + 0.0s user = 0.0s total
Launching IMC...
ncsim>

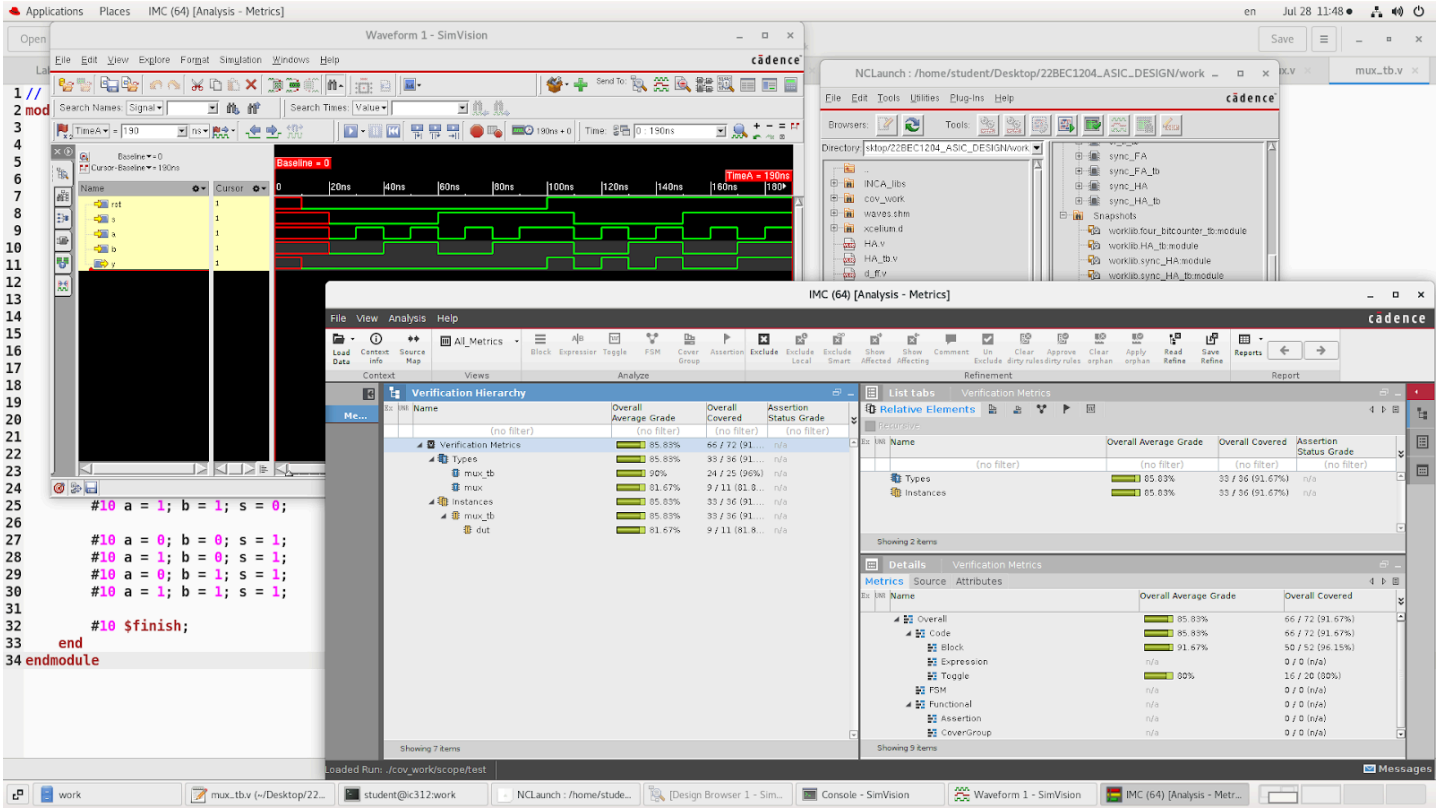

Applications Places IMC (64) [Analysis - Metrics]
four_bitcounter_tb.v
Waveform 1 - SimVision
cadence
Baseline = 0
TimeA = 175ns
#10;
$finish;
end
endmodule
IMC (64) [Analysis - Metrics]
File View Analysis Help
Verification Hierarchy
Verification Metrics
Relative Elements
Details
Metrics Source Attributes
Loaded Run: ./cov_work/scope/test
Messages

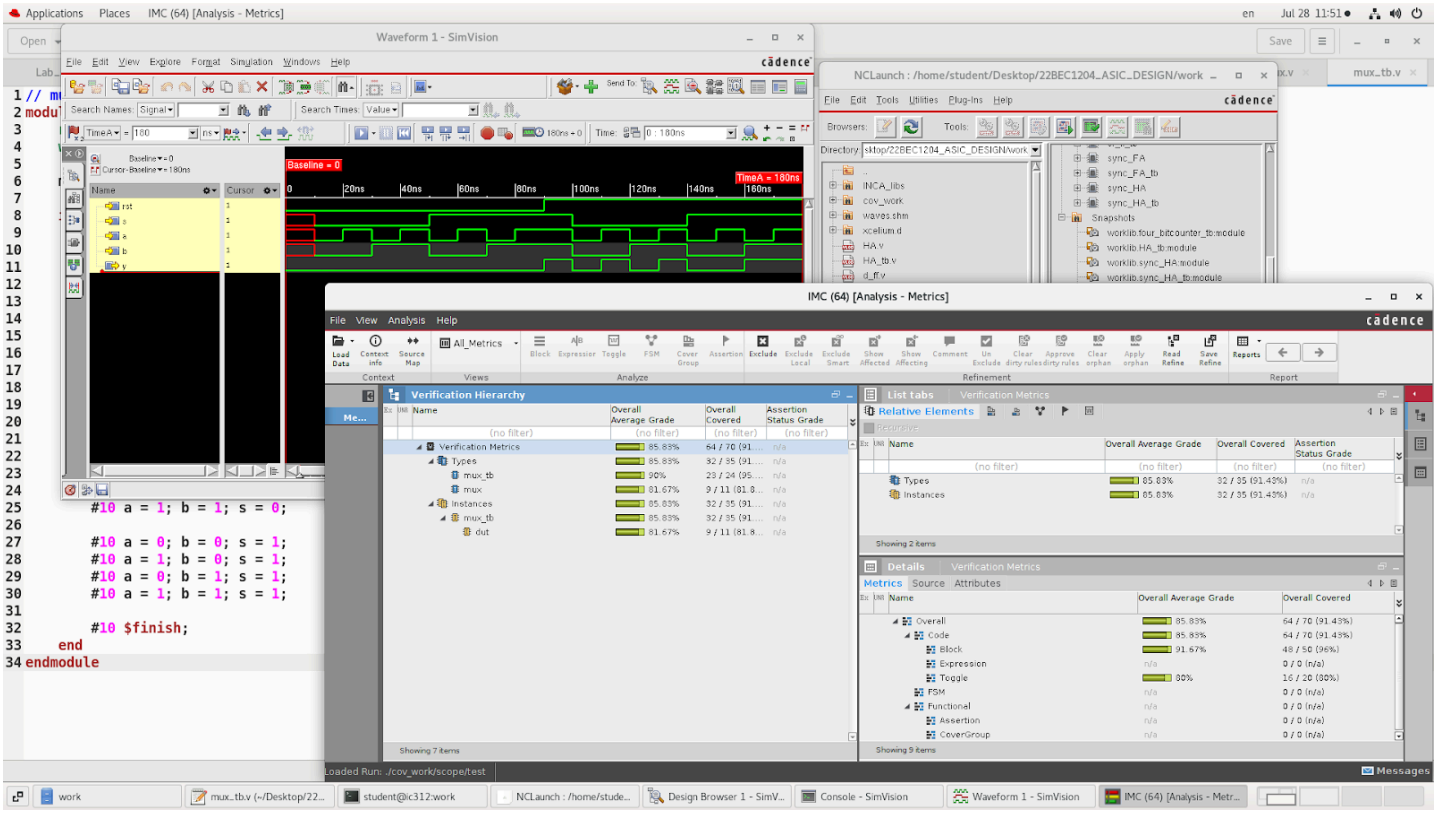

Applications Places IMC (64) [Analysis - Metrics]
Waveform 1 - SimVision
cadence
Baseline = 0
TimeA = 80ns
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
File View Analysis Help
Verification Hierarchy
Verification Metrics
Relative Elements
Details
Metrics Source Attributes
Loaded Run: ./cov_work/scope/test
Messages

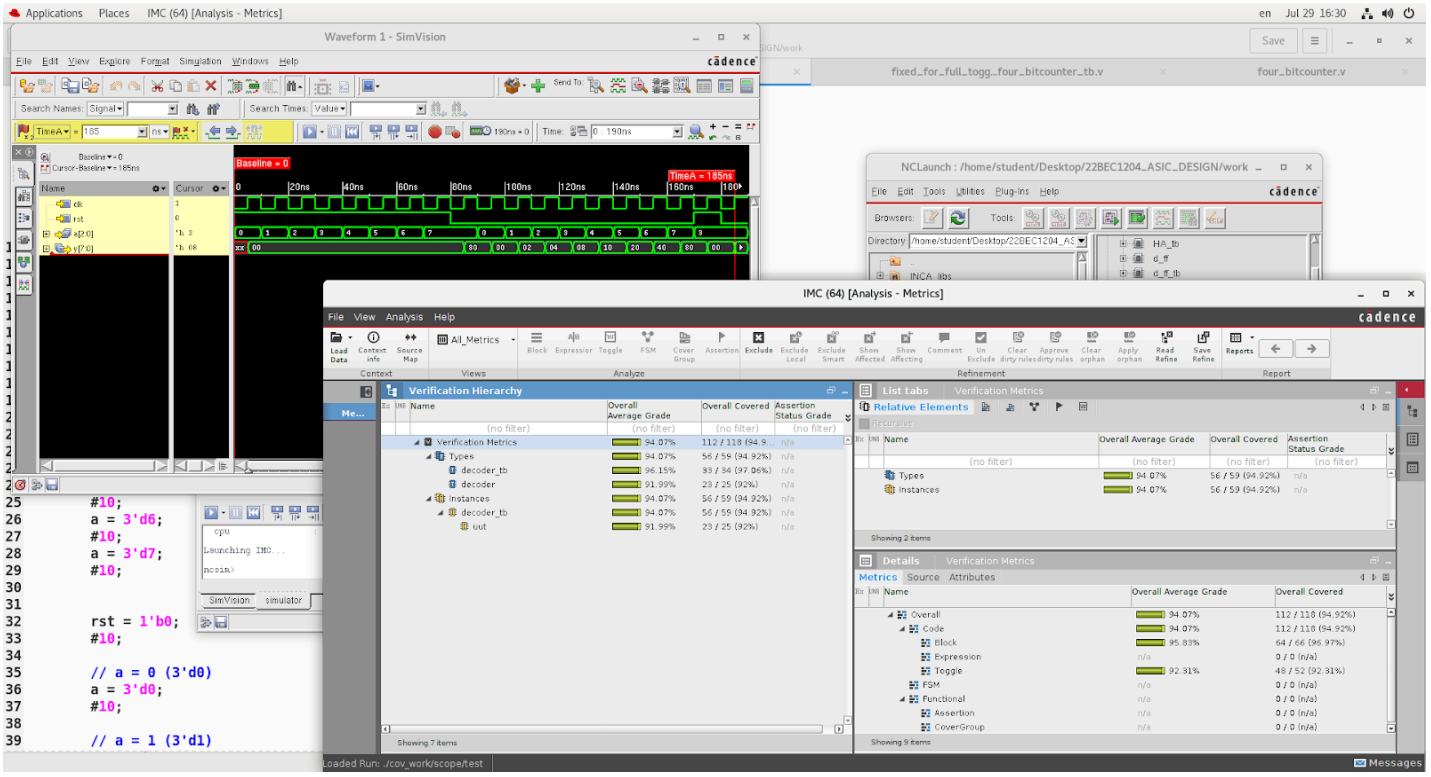

Applications Places IMC (64) [Analysis - Metrics]
Waveform 1 - SimVision
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
Verification Hierarchy
List tabs
Relative Elements
Details
Verification Metrics
Metrics
Source
Attributes
Loaded Run: ./cov_work/scope/test
Messages


Applications Places IMC (64) [Analysis - Metrics]
Waveform 1 - SimVision
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
Verification Hierarchy
List tabs
Relative Elements
Details
Verification Metrics
Metrics
Source
Attributes
Loaded Run: ./cov_work/scope/test
Messages

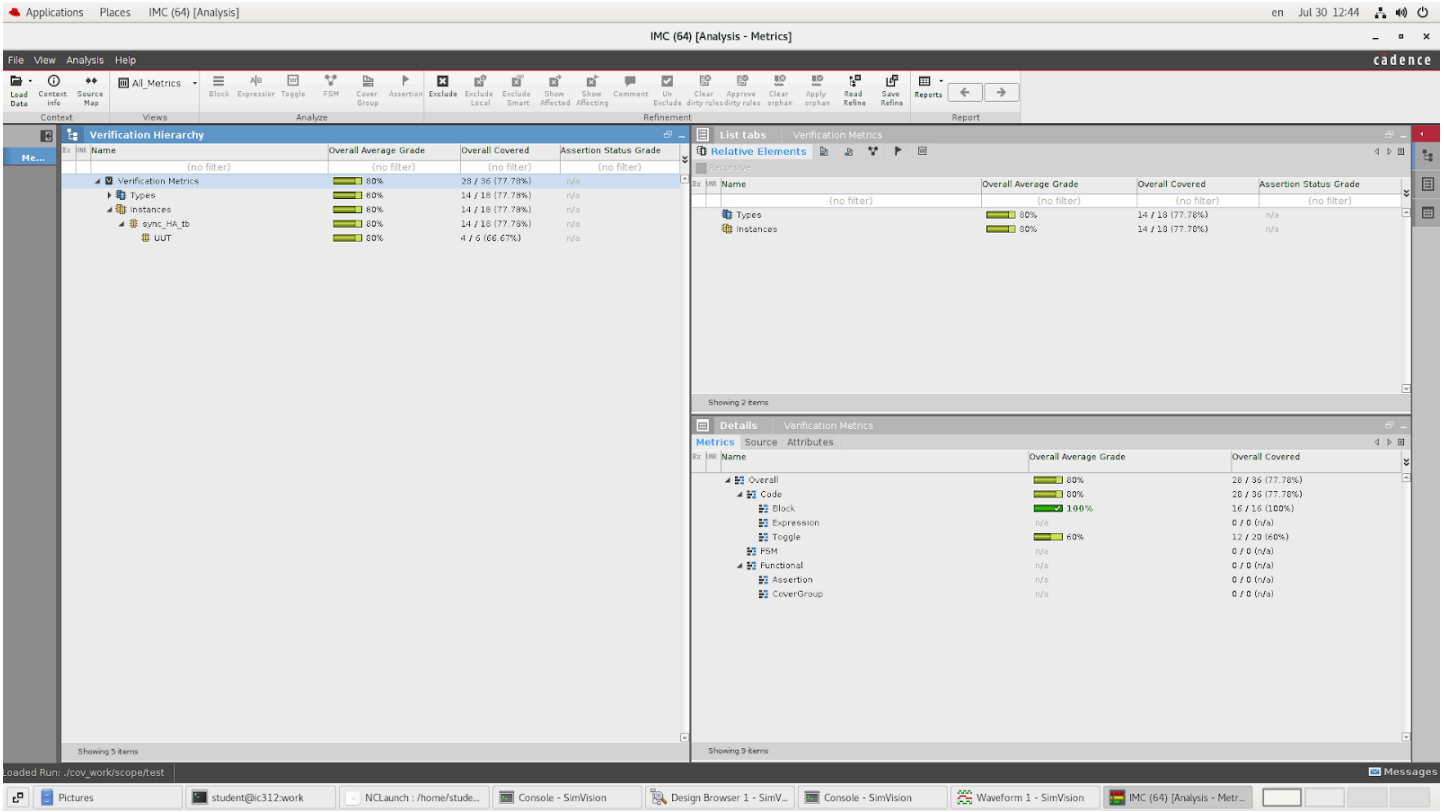

Applications Places IMC (64) [Analysis - Metrics]
Waveform 1 - SimVision
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
Verification Hierarchy
Relative Elements
Details
Loaded Run: ./cov_work/scope/test

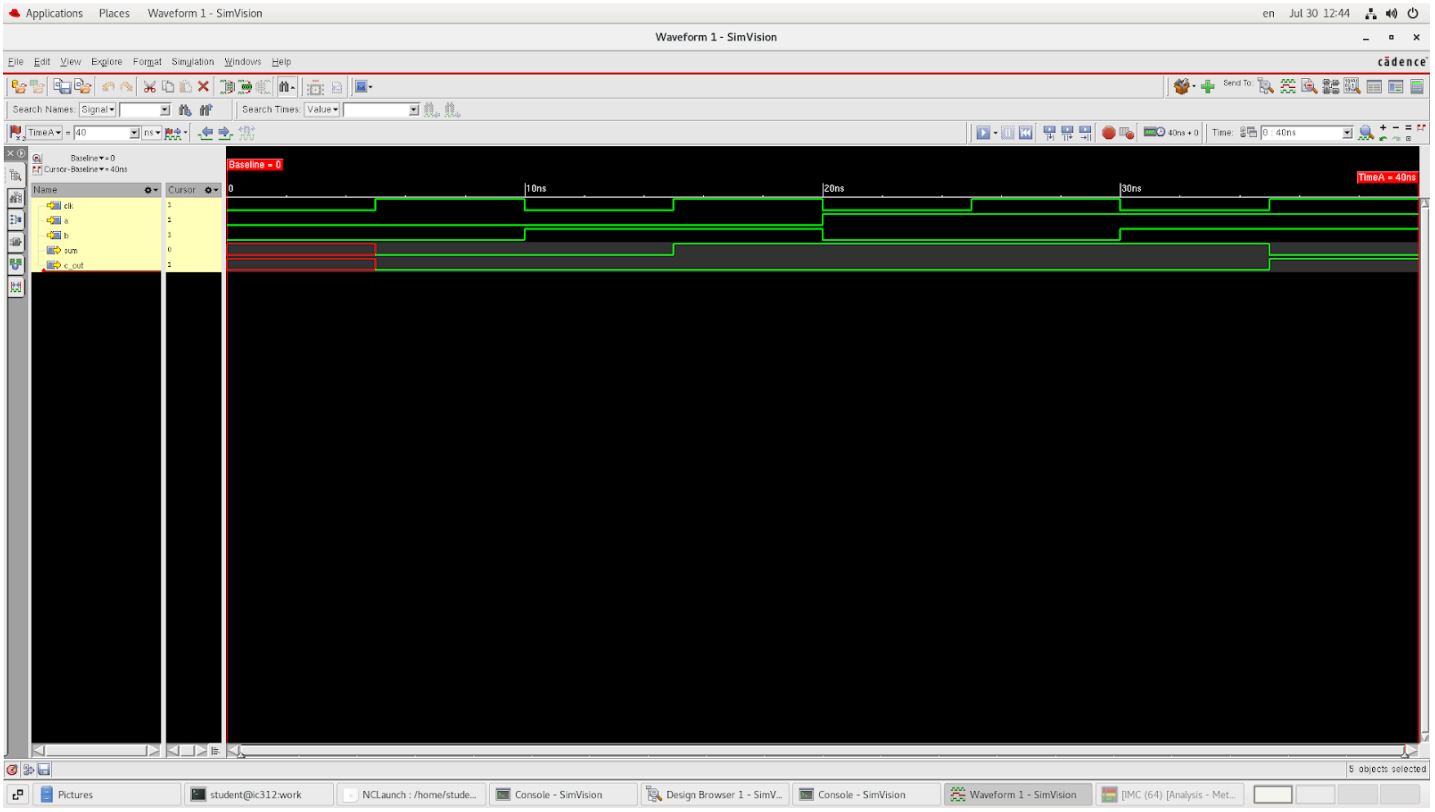

Applications Places IMC (64) [Analysis - Metrics]
Waveform 1 - SimVision
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
Verification Hierarchy
Relative Elements
Details
Loaded Run: ./cov_work/scope/test

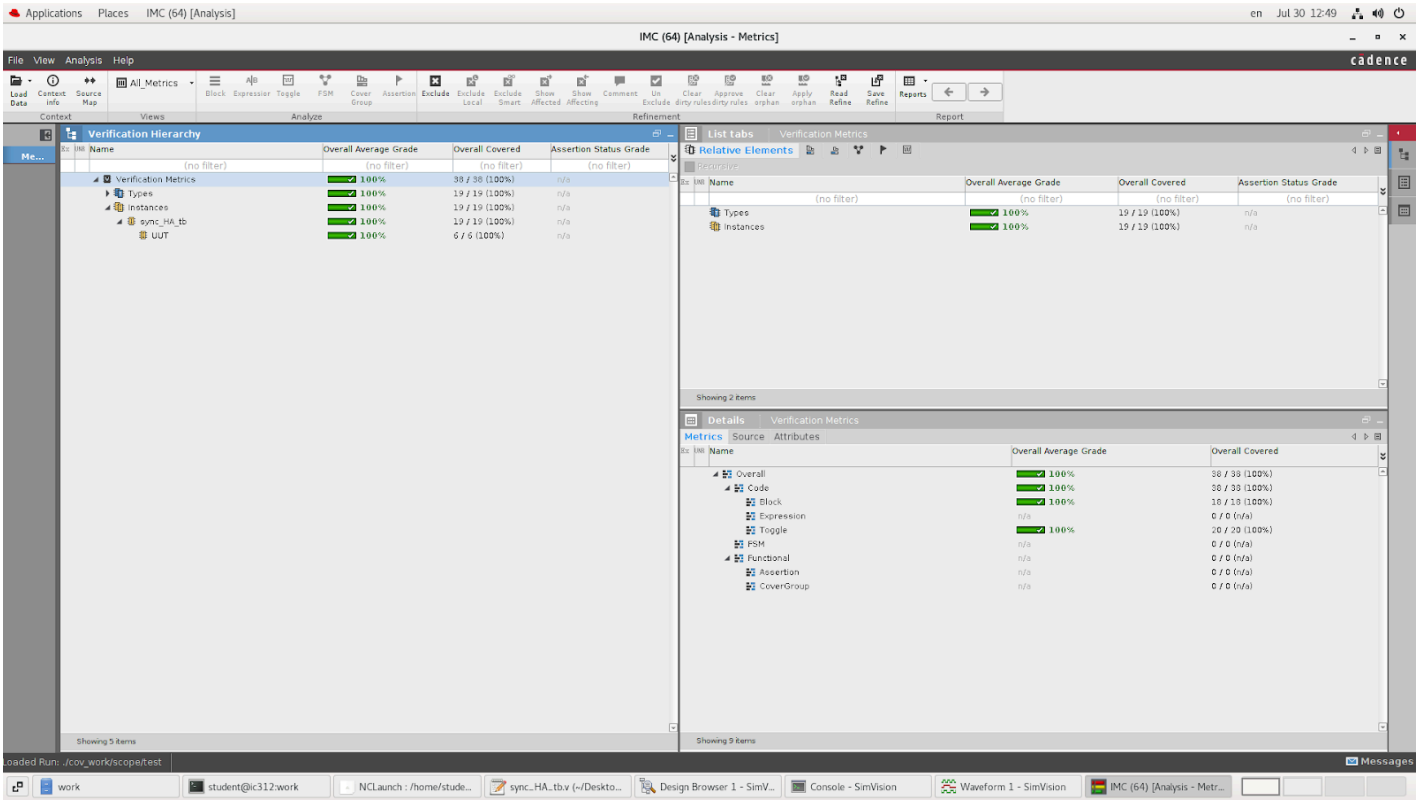

Waveform 1 - SimVision
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
Verification Hierarchy
Relative Elements
Details
#10 a = 1; b = 1; s = 0;
#10 a = 0; b = 0; s = 1;
#10 a = 1; b = 0; s = 1;
#10 a = 0; b = 1; s = 1;
#10 a = 1; b = 1; s = 1;
#10 $finish;
end
endmodule

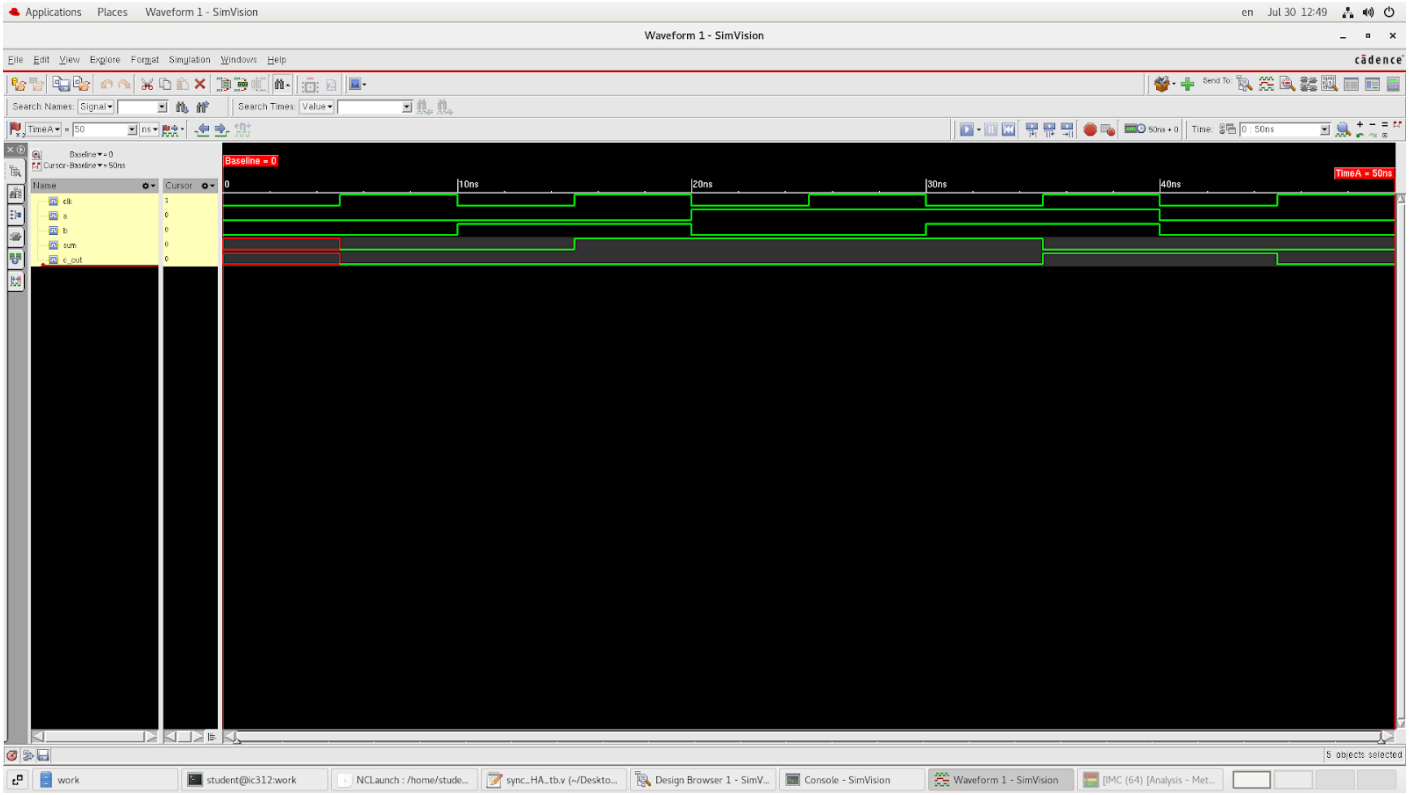

Waveform 1 - SimVision
NCLaunch : /home/student/Desktop/22BEC1204_ASIC_DESIGN/work
IMC (64) [Analysis - Metrics]
Verification Hierarchy
Relative Elements
Details
#10;
a = 3'd6;
#10;
a = 3'd7;
#10;
rst = 1'b0;
#10;
// a = 0 (3'd0)
a = 3'd0;
#10;
// a = 1 (3'd1)

Sync ha

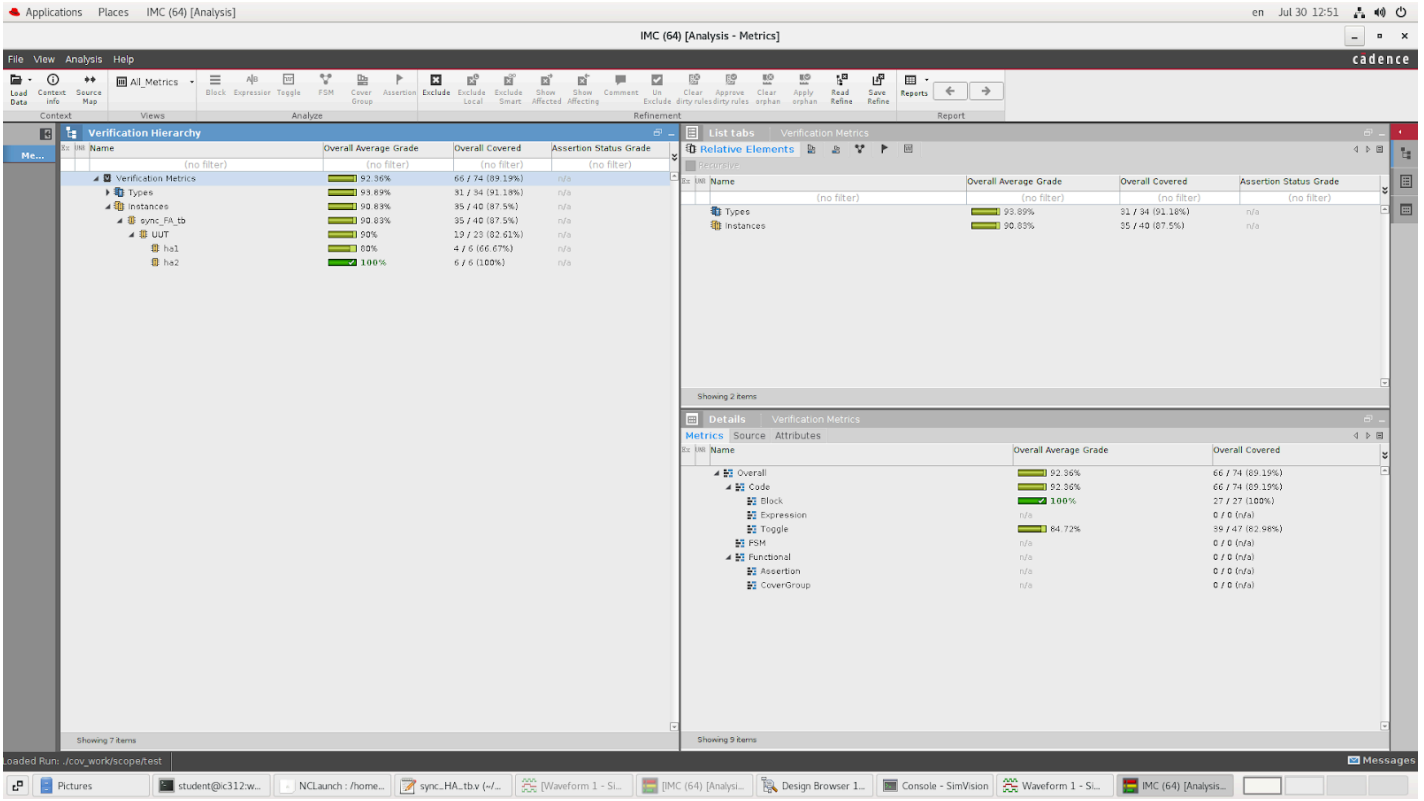

IMC (64) [Analysis - Metrics]
Verification Hierarchy
Verification Metrics
Types
Instances
sync_HA_tb
UUT
List tabs
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup

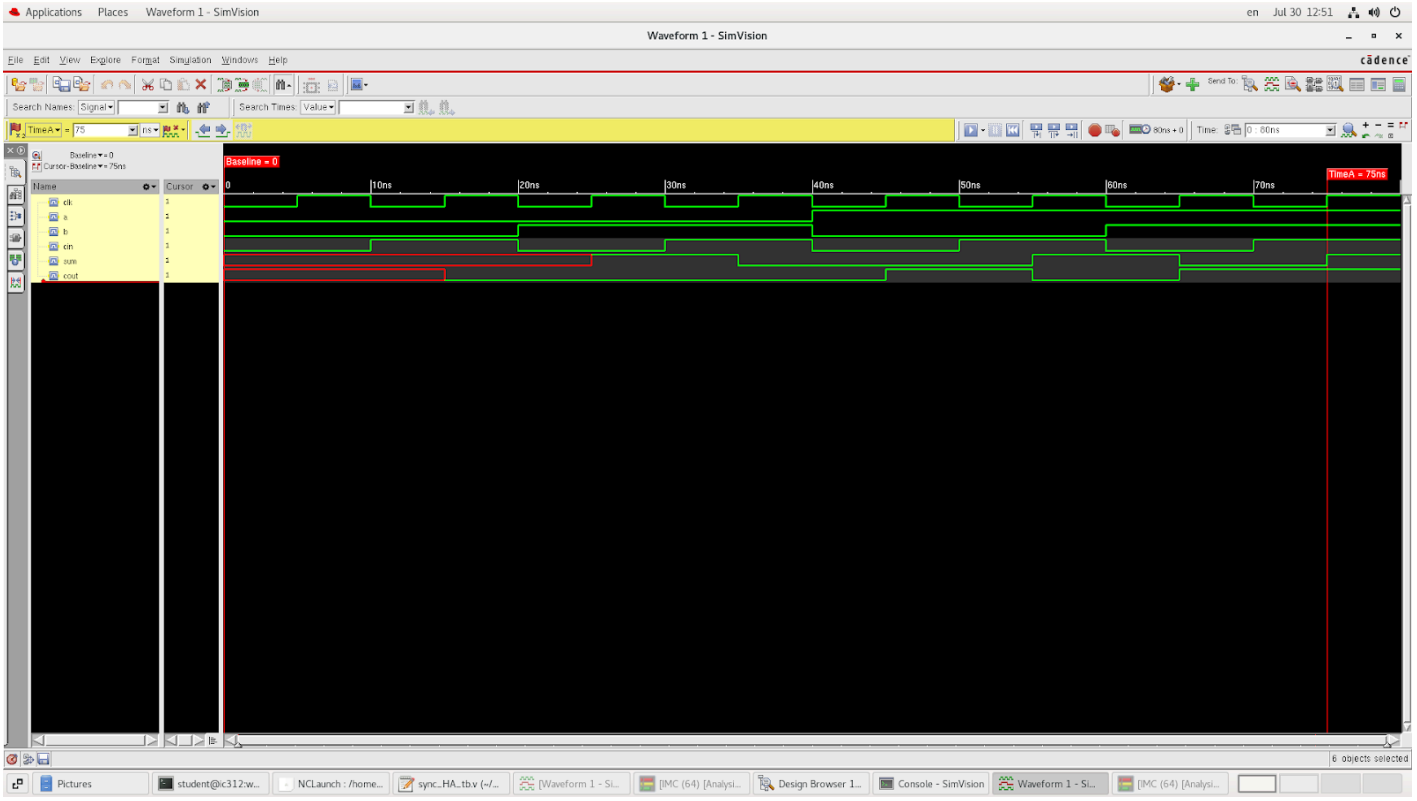

Waveform 1 - SimVision
Baseline = 0
TimeA = 40ns
0
10ns
20ns
30ns
clk
a
b
sum
c_out

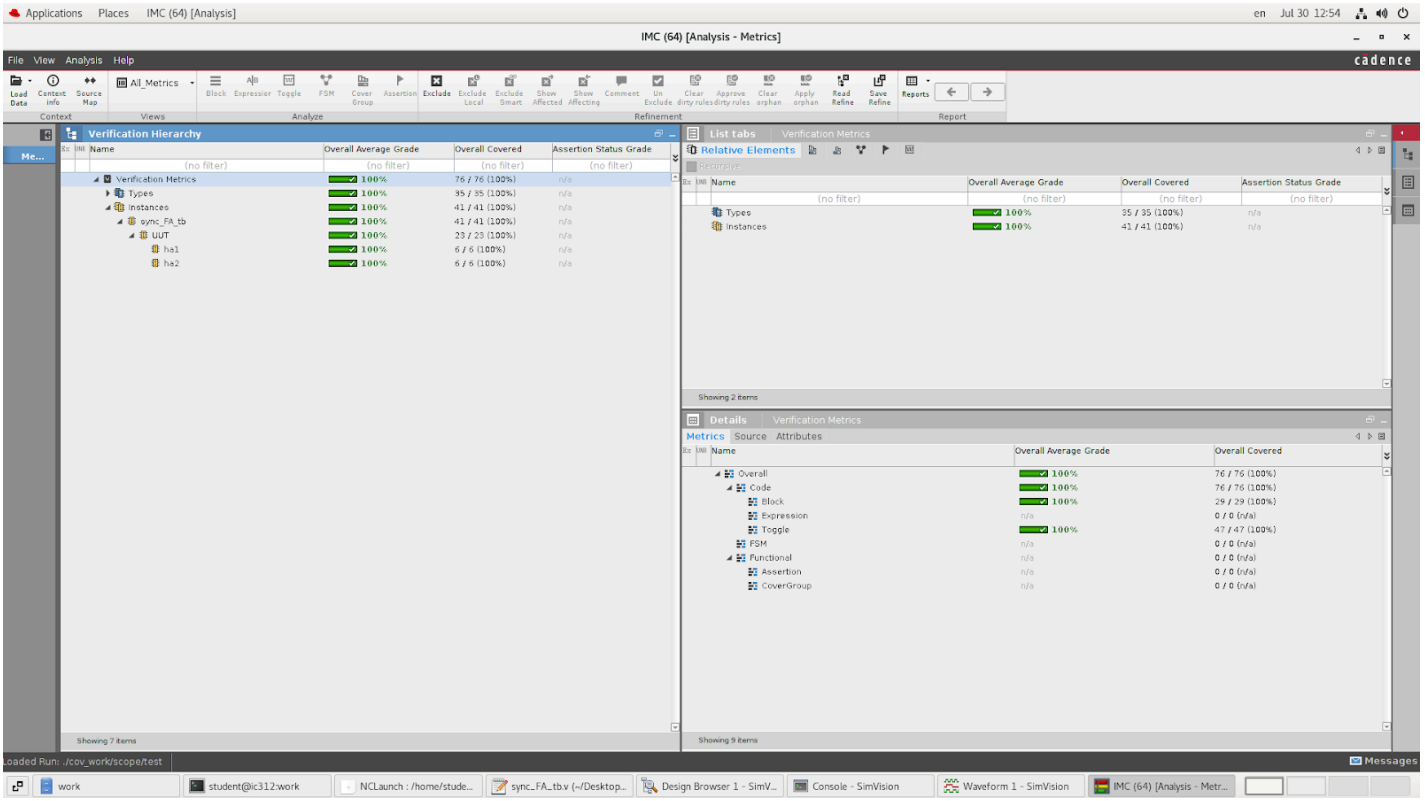

Applications Places IMC (64) [Analysis]
en Jul 30 12:49
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics
Types
Instances
sync_HA_tb
UUT
List tabs
Verification Metrics
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup
Showing 5 items
Showing 2 items
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages
work
student@ic312:work
NCLaunch : /home/stude...
sync_HA_tb.v (~/Deskto...
Design Browser 1 - SimV...
Console - SimVision
Waveform 1 - SimVision
IMC (64) [Analysis - Metr...

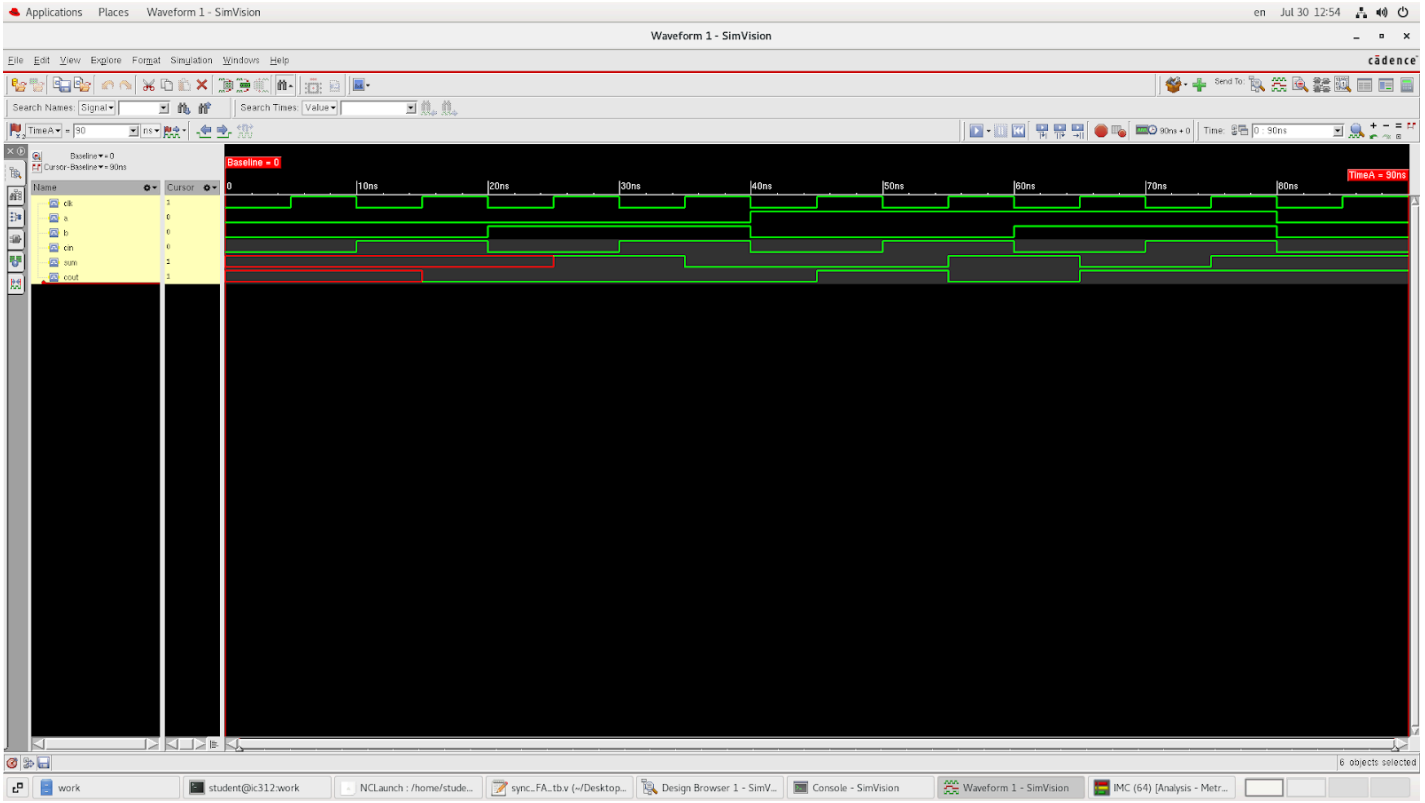

Applications Places Waveform 1 - SimVision
en Jul 30 12:49
Waveform 1 - SimVision
File Edit View Explore Format Simulation Windows Help
cadence
Baseline = 0
TimeA = 50ns
0
10ns
20ns
30ns
40ns
Name
Cursor
clk
a
b
sum
c_out
5 objects selected
work
student@ic312:work
NCLaunch : /home/stude...
sync_HA_tb.v (~/Deskto...
Design Browser 1 - SimV...
Console - SimVision
Waveform 1 - SimVision
IMC (64) [Analysis - Met...

Sync fa

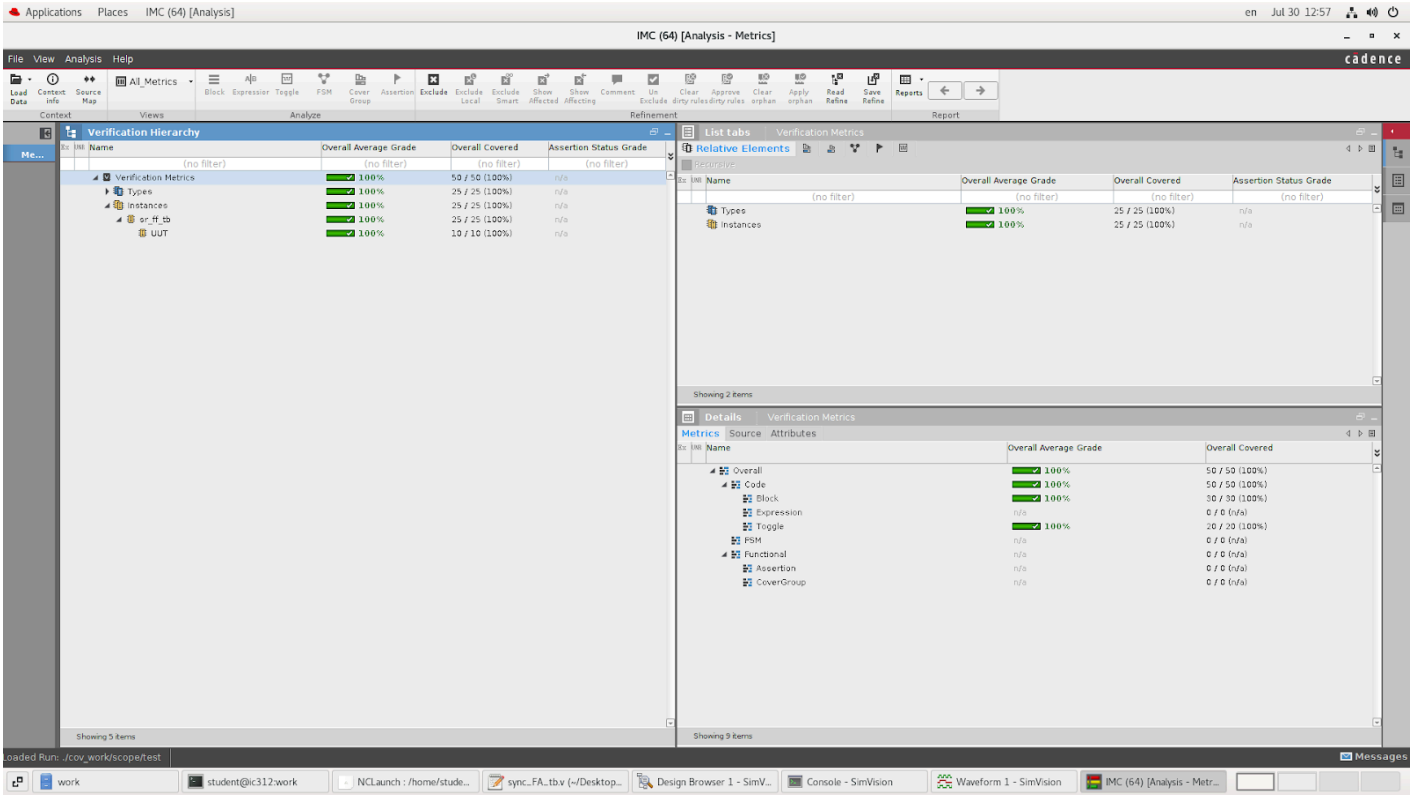

Applications Places IMC (64) [Analysis]
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics
Types
Instances
sync_FA_tb
UUT
ha1
ha2
List tabs
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup
Showing 7 items
Showing 2 items
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages

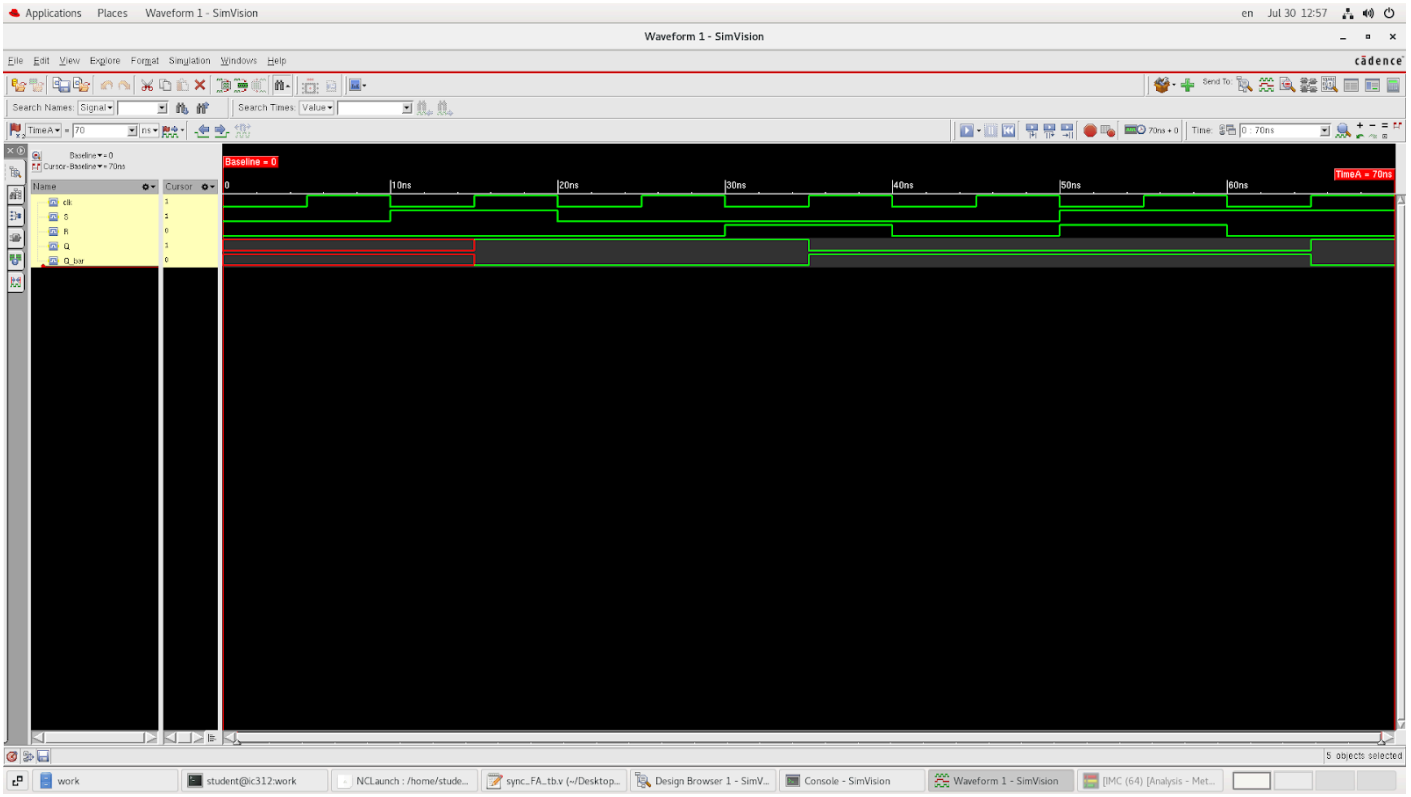

Applications Places Waveform 1 - SimVision
Waveform 1 - SimVision
File Edit View Explore Format Simulation Windows Help
cadence
Baseline = 0
TimeA = 75ns
0
10ns
20ns
30ns
40ns
50ns
60ns
70ns
Name
Cursor
clk
a
b
cin
sum
cout
6 objects selected


Applications Places IMC (64) [Analysis]
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics
Types
Instances
sync_FA_tb
UUT
ha1
ha2
Showing 7 items
List tabs
Verification Metrics
Relative Elements
Showing 2 items
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages

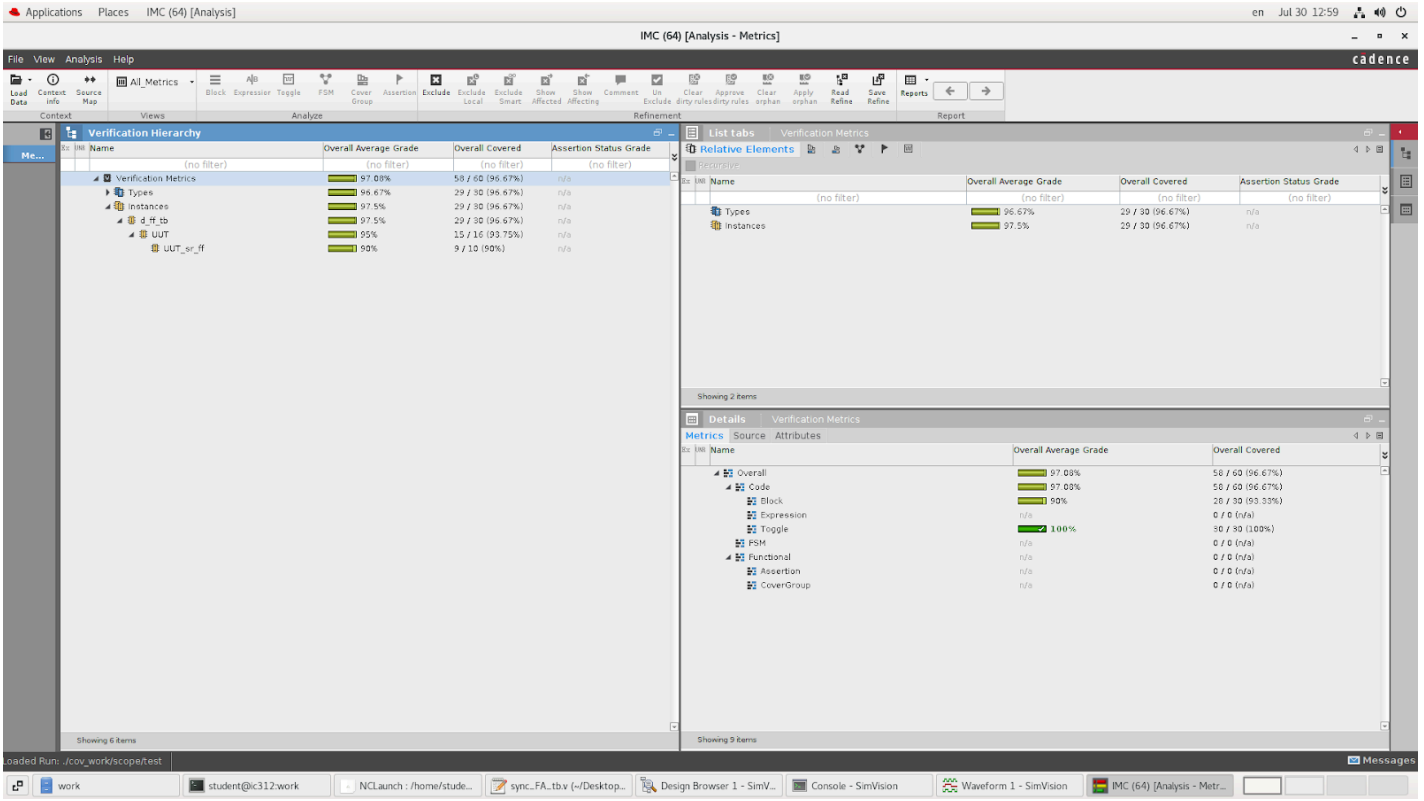

Applications Places Waveform 1 - SimVision
Waveform 1 - SimVision
File Edit View Explore Format Simulation Windows Help
cadence
Baseline = 0
TimeA = 90ns
Name
Cursor
clk
a
b
cin
sum
cout
0
10ns
20ns
30ns
40ns
50ns
60ns
70ns
80ns
6 objects selected

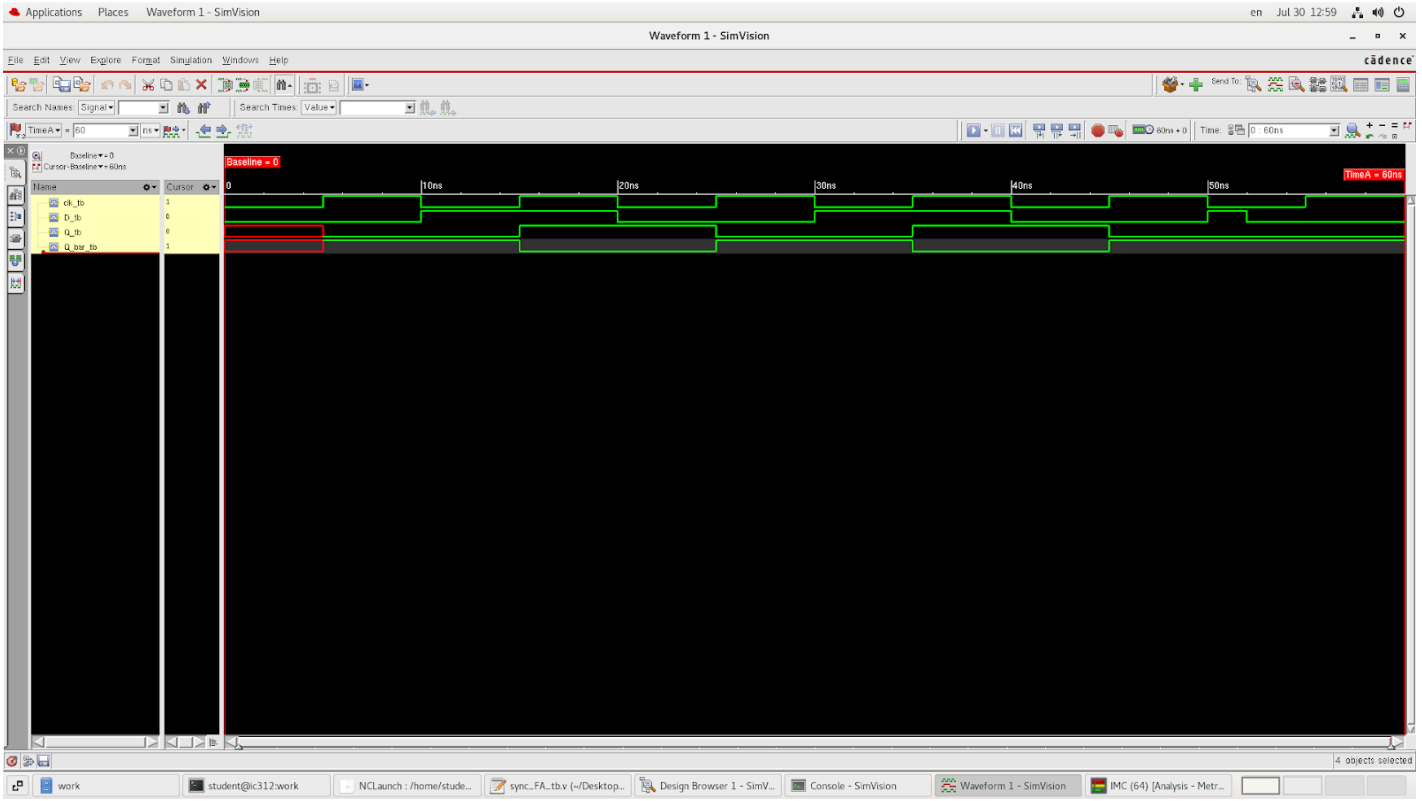
Sr ff


Applications Places IMC (64) [Analysis]
en Jul 30 12:57
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics
Types
Instances
sr_ff_tb
UUT
List tabs
Verification Metrics
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup
Showing 5 items
Showing 2 items
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages
work
student@ic312:work
NCLaunch : /home/stude...
sync_FA_tb.v (~/Desktop...
Design Browser 1 - SimV...
Console - SimVision
Waveform 1 - SimVision
IMC (64) [Analysis - Metr...

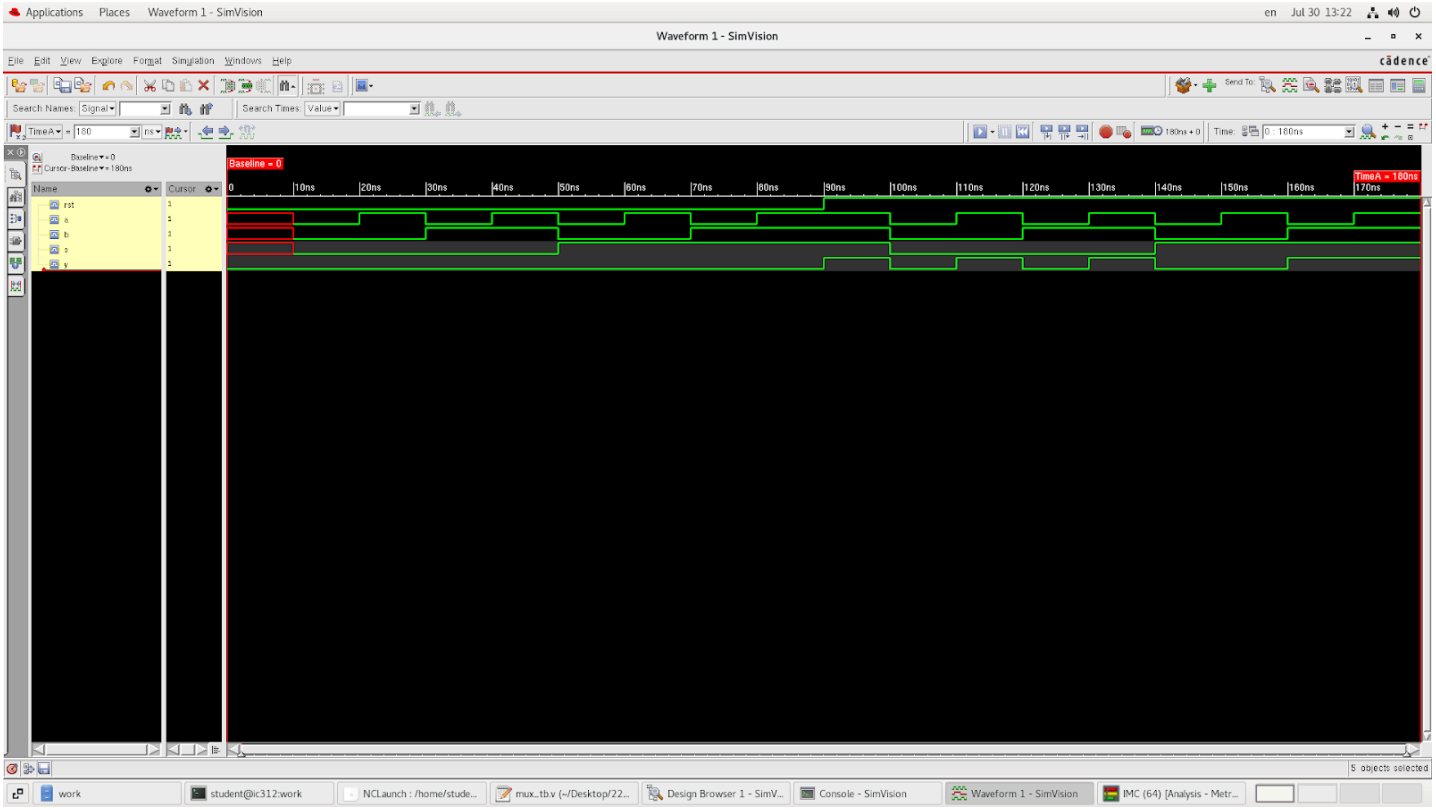

Applications Places Waveform 1 - SimVision
en Jul 30 12:57
Waveform 1 - SimVision
File Edit View Explore Format Simulation Windows Help
cadence
Search Names: Signal
Search Times: Value
Baseline = 0
TimeA = 70ns
0
10ns
20ns
30ns
40ns
50ns
60ns
Name
Cursor
clk
G
R
Q
Q_bar
5 objects selected
work
student@ic312:work
NCLaunch : /home/stude...
sync_FA_tb.v (~/Desktop...
Design Browser 1 - SimV...
Console - SimVision
Waveform 1 - SimVision
IMC (64) [Analysis - Met...

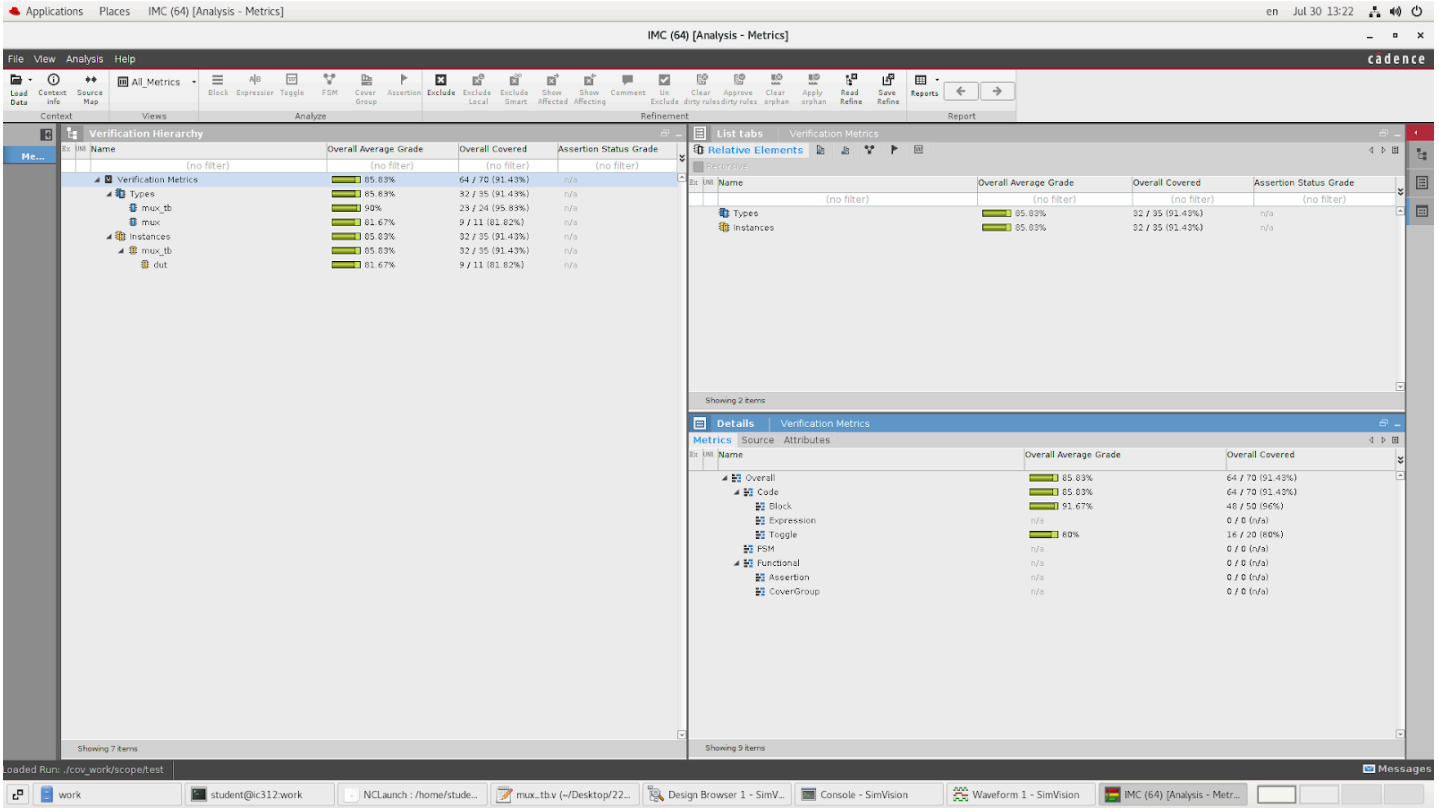
D ff


IMC (64) [Analysis - Metrics]
Verification Hierarchy
Verification Metrics
Types
Instances
d_ff_tb
UUT
UUT_sr_ff
Overall Average Grade
Overall Covered
Assertion Status Grade
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup


Waveform 1 - SimVision
Baseline = 0
TimeA = 60ns
clk_tb
D_tb
Q_tb
Q_bar_tb
10ns
20ns
30ns
40ns
50ns

Mux


Waveform 1 - SimVision
Baseline = 0
TimeA = 180ns
rst
a
b
s
y


IMC (64) [Analysis - Metrics]
Verification Hierarchy
Verification Metrics
Types
mux_tb
mux
Instances
mux_tb
dut
Relative Elements
Details
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup

Applications Places IMC (64) [Analysis - Code: dut] en Jul 30 13:35

IMC (64) [Analysis - Code: dut]

File View Analysis Help cadence

Load Data | Context Info | Source Map | Block | Recursive | Exclude | Exclude Local | Comment | Un Exclude | Clear dirty rules | Approve dirty rules | Clear orphan | Apply orphan | Read Refine | Save Refine | Report

Context | Views | Locality | Refinement | Report

Instance (default scope) : mux_tb ▸ dut

Overall Local Grade: 91.67% | Code Local Grade: 91.67% | Block Local Grade: 83.33% | Expression Local Grade: n/a | Toggle Local Grade: 100% | Edit...

Block | Expression | Toggle

Blocks

Ex	INI	Index	Block Type	Source Line	Score
		(no filter)		(no filter)	(no filter)
		1	code block	6	1
		2	true part of	7	1
		3	false part of	9	1
		4	a case item of	11	1
		5	a case item of	12	1
		6	a case item of	13	0

Showing 6 items

Source Block1

mux.v × mux_tb.v ×

```
1  // mux.v
2  module mux(a,b,s,clk,rst,y);
3    input a,b,s,clk,rst;
4    output reg y;
5
6    always @(posedge clk or posedge rst) begin
7      if(!rst) begin
8        y = 1'b0;
9      end else begin
10       case(s)
11         1'b0: y = a;
12         1'b1: y = b;
13         default: y = y;
14       endcase
15     end
16   end
17 endmodule
```

Match Case

Attributes Block1

Col #	Name	Value
	(no filter)	(no filter)
	Block Active	true
	Block Average Grade	100%
	Block Covered	1.0
	Block Excluded	0.0
	Block Total	1.0
	Block Total Weighted Coverage	1.0
	Block Total Weights	1.0
3	Block Type	code block
	Block Uncovered	0.0
	Code Average Grade	100%
	Code Covered	1.0
	Code Excluded	0.0
	Code Total	1.0

Loaded Run: ./cov_work/scope/test Messages

work | student@ic312:work | NCLaunch : /home/stude... | mux_tb.v (~/Desktop/22... | Design Browser 1 - SimV... | Console - SimVision | Waveform 1 - SimVision | IMC (64) [Analysis - Code...

Applications Places IMC (64) [Analysis - Code: dut] en Jul 30 13:35

IMC (64) [Analysis - Metrics]

File View Analysis Help cadence

Load Data | Context Info | Source Map | All_Metrics | Block | Expression | Toggle | FSM | Cover Group | Assertion | Exclude | Exclude Local | Exclude Smart | Show Affected | Show Affecting | Comment | Un Exclude | Clear dirty rules | Approve dirty rules | Clear orphan | Apply orphan | Read Refine | Save Refine | Reports

Context | Views | Analyze | Refinement | Report

Verification Hierarchy

Name	Overall Average Grade	Overall Covered	Assertion Status Grade
(no filter)	(no filter)	(no filter)	(no filter)
Verification Metrics	95.83%	78 / 80 (97.5%)	n/a
Types	95.83%	39 / 40 (97.5%)	n/a
mux_tb	100%	28 / 28 (100%)	n/a
mux	91.67%	11 / 12 (91.67%)	n/a
Instances	95.83%	39 / 40 (97.5%)	n/a
mux_tb	95.83%	39 / 40 (97.5%)	n/a
dut	91.67%	11 / 12 (91.67%)	n/a

Showing 7 items

List tabs mux

Relative Elements

Recursive

Name	Overall Average Grade	Overall Covered	Assertion Status Grade
(no filter)	(no filter)	(no filter)	(no filter)
dut	91.67%	11 / 12 (91.67%)	n/a

Showing 1 items

Details mux

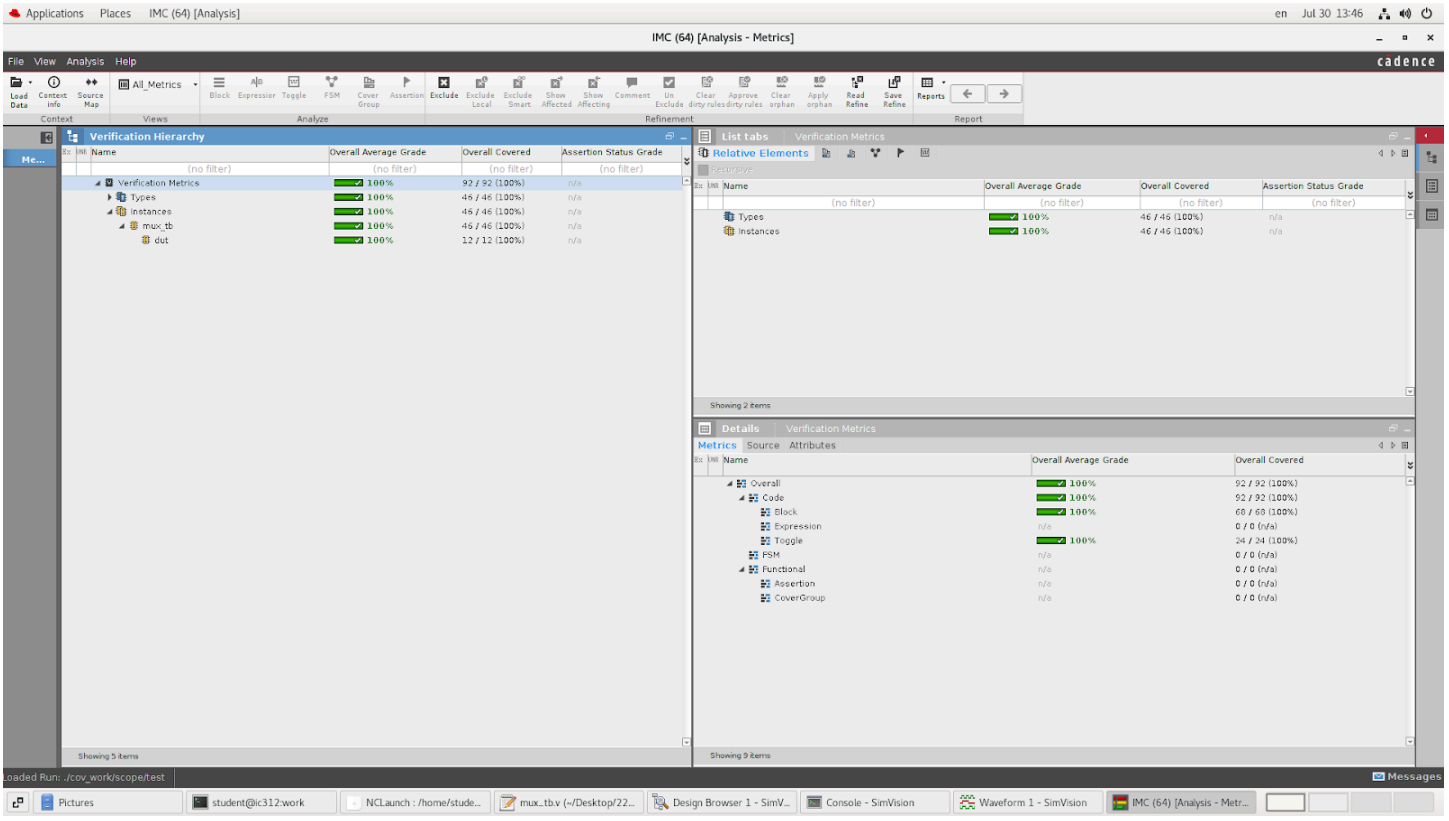
Metrics | Source | Attributes

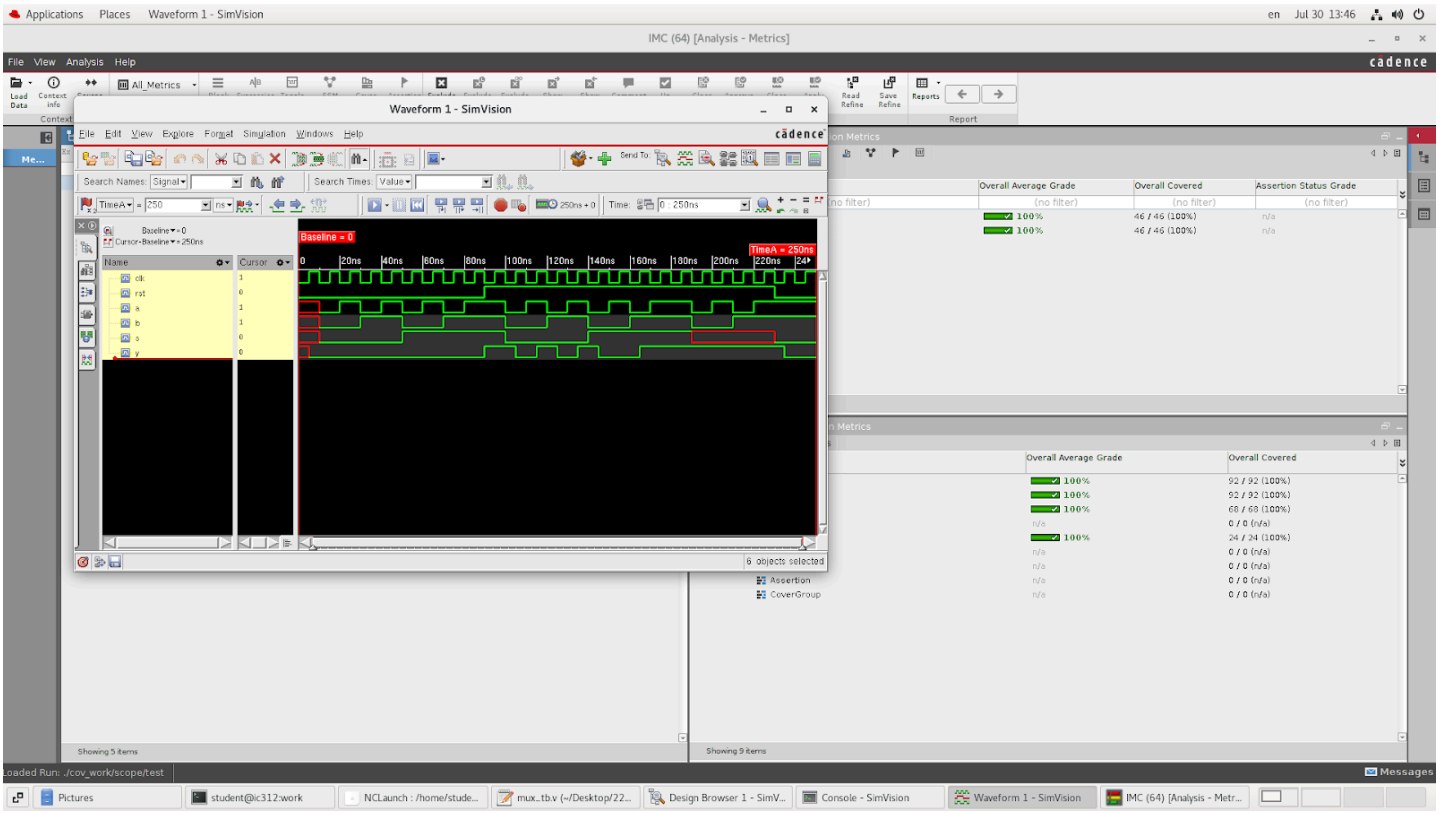
Name	Overall Average Grade	Overall Covered
Overall	91.67%	11 / 12 (91.67%)
Code	91.67%	11 / 12 (91.67%)
Block	83.33%	5 / 6 (83.33%)
Expression	n/a	0 / 0 (n/a)
Toggle	100%	6 / 6 (100%)
FSM	n/a	0 / 0 (n/a)
Functional	n/a	0 / 0 (n/a)
Assertion	n/a	0 / 0 (n/a)
CoverGroup	n/a	0 / 0 (n/a)

Showing 9 items

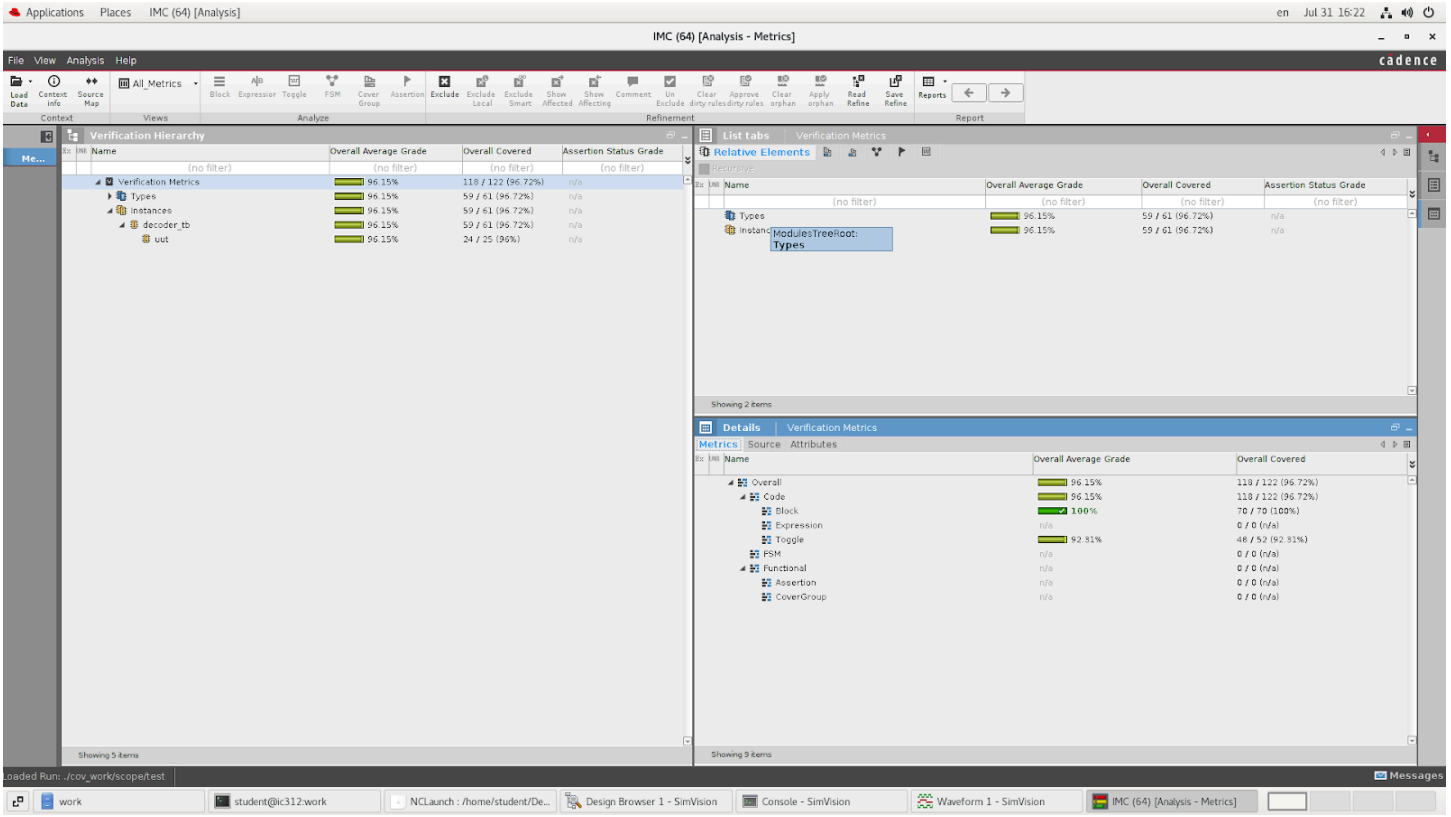
Loaded Run: ./cov_work/scope/test Messages

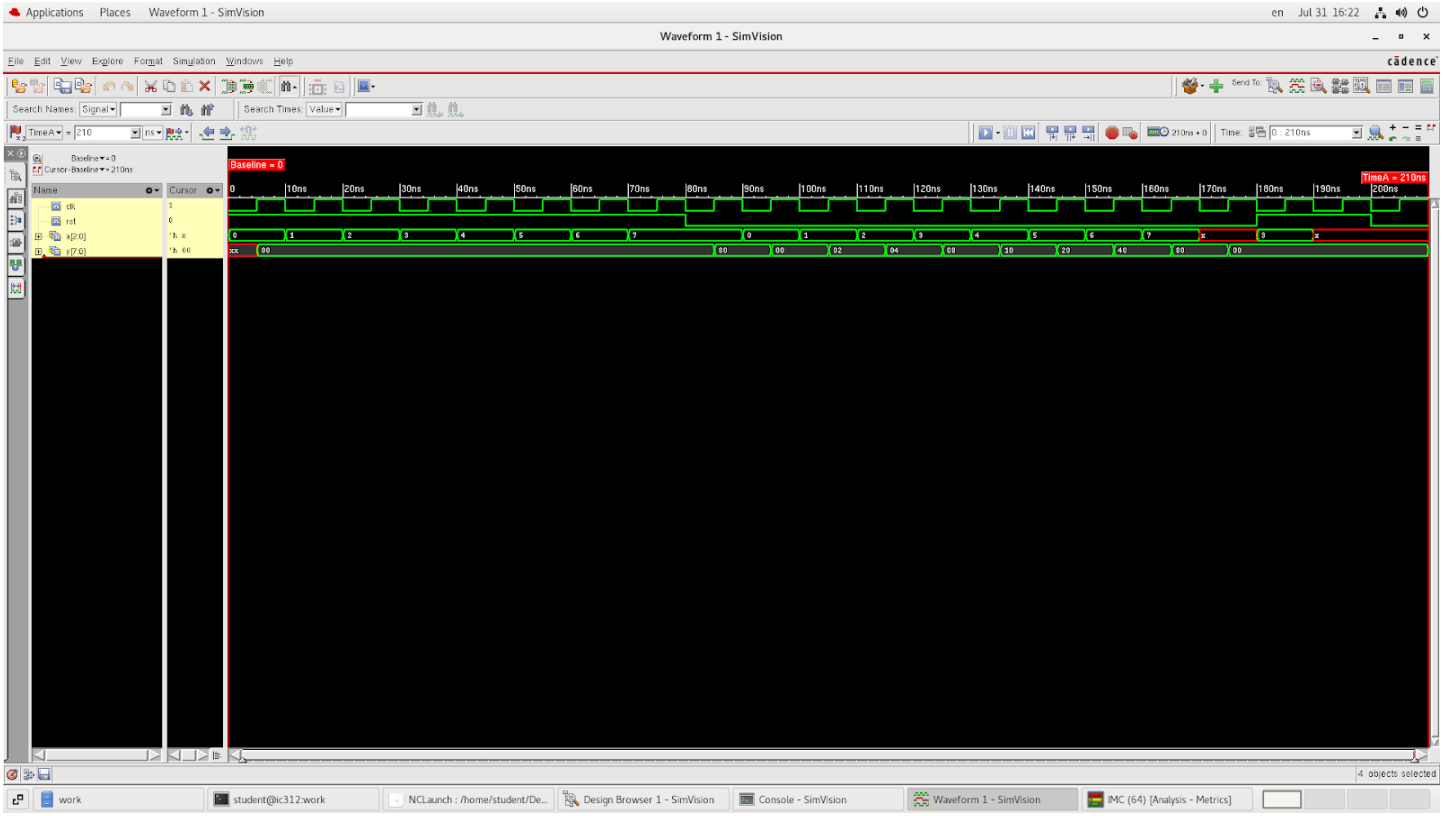
work | student@ic312:work | NCLaunch : /home/stude... | mux_tb.v (~/Desktop/22... | Design Browser 1 - SimV... | Console - SimVision | Waveform 1 - SimVision | IMC (64) [Analysis - Metr...

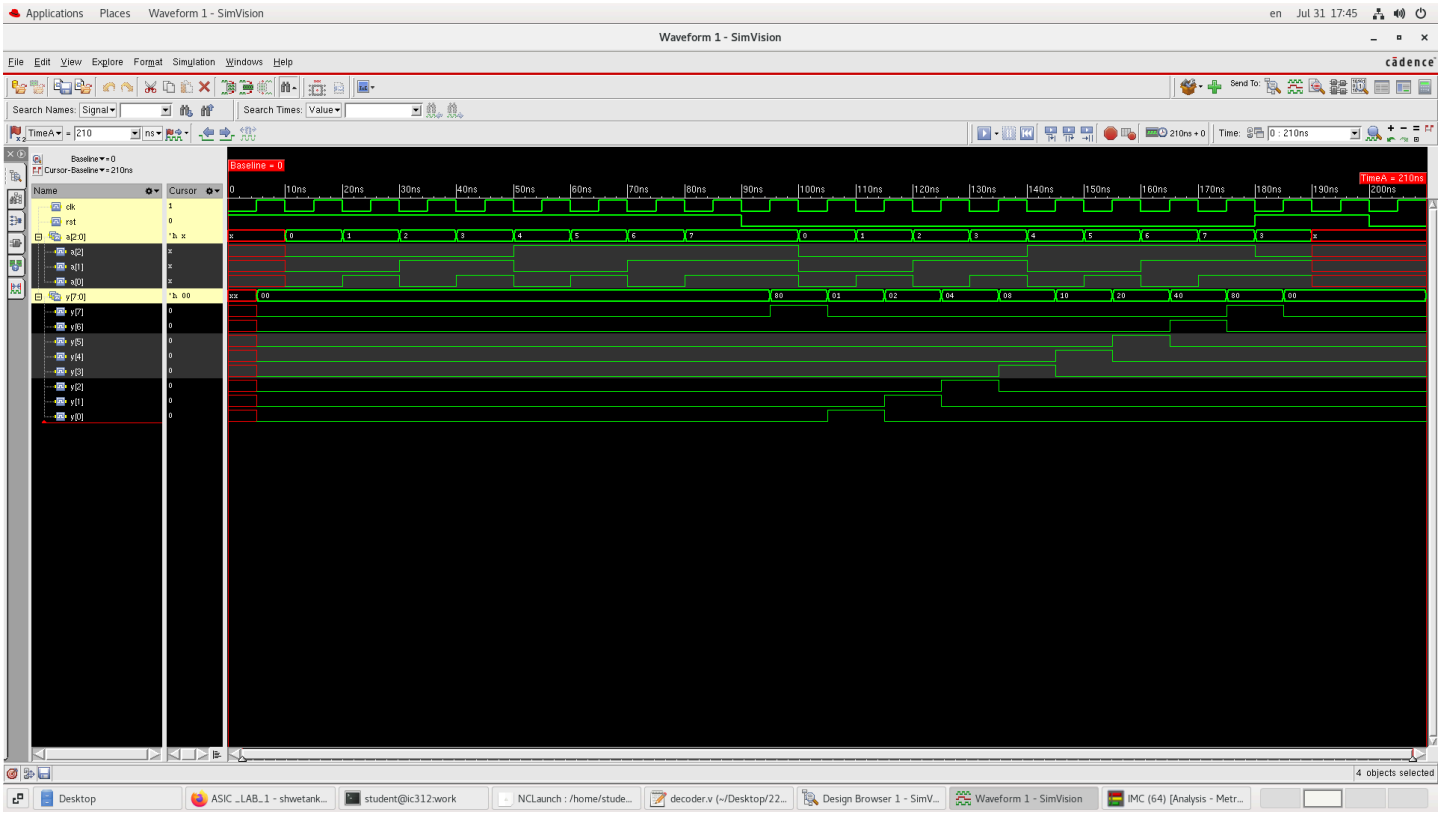

Applications Places IMC (64) [Analysis]
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics
Types
Instances
mux_tb
dut
List tabs
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
Expression
Toggle
FSM
Functional
Assertion
CoverGroup
Showing 5 items
Showing 2 items
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages

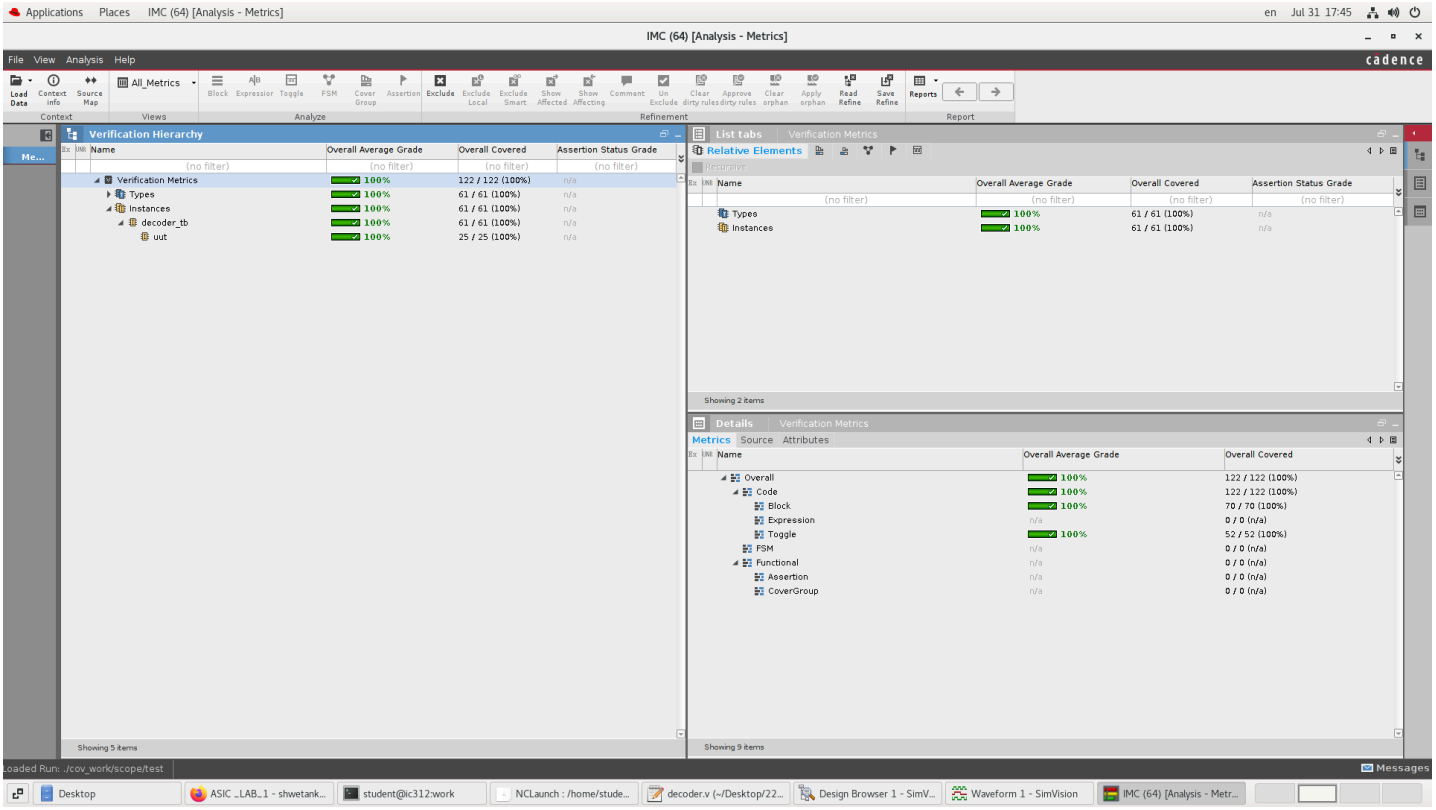

Applications Places Waveform 1 - SimVision
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
Waveform 1 - SimVision
File Edit View Explore Format Simulation Windows Help
Baseline = 0
TimeA = 250ns
clk
rst
a
b
s
y
6 objects selected
Showing 5 items
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages

Decoder:


IMC (64) [Analysis - Metrics]
Verification Hierarchy
Verification Metrics
Types
Instances
decoder_tb
uut
96.15%
118 / 122 (96.72%)
59 / 61 (96.72%)
24 / 25 (96%)
List tabs
Relative Elements
Details
Metrics
Source
Attributes
Overall
Code
Block
100%
Expression
Toggle
92.31%
48 / 52 (92.31%)
FSM
Functional
Assertion
CoverGroup
Showing 5 items
Showing 9 items
Loaded Run: ./cov_work/scope/test


Waveform 1 - SimVision
Baseline = 0
TimeA = 210ns
clk
rst
a[2:0]
y[7:0]
4 objects selected


Applications Places Waveform 1 - SimVision
Waveform 1 - SimVision
File Edit View Explore Format Simulation Windows Help
cadence
Search Names: Signal
Search Times: Value
Baseline = 0
TimeA = 210ns
Name
Cursor
clk
rst
a[2:0]
a[2]
a[1]
a[0]
y[7:0]
y[7]
y[6]
y[5]
y[4]
y[3]
y[2]
y[1]
y[0]
4 objects selected
Desktop
ASIC _LAB_1 - shwetank...
student@ic312:work
NCLaunch : /home/stude...
decoder.v (~/Desktop/22...
Design Browser 1 - SimV...
Waveform 1 - SimVision
IMC (64) [Analysis - Metr...


Applications Places IMC (64) [Analysis - Metrics]
IMC (64) [Analysis - Metrics]
File View Analysis Help
cadence
All_Metrics
Verification Hierarchy
Name
Overall Average Grade
Overall Covered
Assertion Status Grade
Verification Metrics 100% 122 / 122 (100%)
Types 100% 61 / 61 (100%)
Instances 100% 61 / 61 (100%)
decoder_tb 100% 61 / 61 (100%)
uut 100% 25 / 25 (100%)
Showing 5 items
List tabs
Relative Elements
Showing 2 items
Details
Metrics Source Attributes
Overall 100% 122 / 122 (100%)
Code 100% 122 / 122 (100%)
Block 100% 70 / 70 (100%)
Expression n/a 0 / 0 (n/a)
Toggle 100% 52 / 52 (100%)
FSM n/a 0 / 0 (n/a)
Functional n/a 0 / 0 (n/a)
Assertion n/a 0 / 0 (n/a)
CoverGroup n/a 0 / 0 (n/a)
Showing 9 items
Loaded Run: ./cov_work/scope/test
Messages
Desktop
ASIC _LAB_1 - shwetank...
student@ic312:work
NCLaunch : /home/stude...
decoder.v (~/Desktop/22...
Design Browser 1 - SimV...
Waveform 1 - SimVision
IMC (64) [Analysis - Metr...