

project_1 - [D:/digital design karem wassem/DSP/project_1/project_1.xpr] - Vivado 2018.2

File Edit Flow Tools Repgrts Window Layout View Help Quick Access

Ready

Flow Navigator

- PROJECT MANAGER
 - Settings
 - Add Sources
 - Language Templates
 - IP Catalog
- IP INTEGRATOR
 - Create Block Design
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- SIMULATION
 - Run Simulation
- RTL ANALYSIS
 - Open Elaborated Design
 - Report Methodology
 - Report DRC
 - Report Noise
 - Schematic
- SYNTHESIS
 - Run Synthesis
 - Open Synthesized Design
- IMPLEMENTATION

ELABORATED DESIGN - xc7a200tfg1156-3 (active)

Sources Netlist

- post_sum1 (49)
- post_sum2 (49)
- PRE_SUM (18)
- PRE_SUM0 (18)
- prod (36)
- X_mux (48)
- Z_mux (48)
- <const0>

Net Properties

Name: <const0>

General Properties Connectivity Aliases Cell Pin

Project Summary Schematic

23 Cells 346 IO Ports 858 Nets

Design Runs

Name	Constraints	Status	WNS	TNS	WHS	THS	TPWS	Total Power	Failed Routes	LUT	FF	BRAMS	URAM	DSP	Start	Elapsed	Run Strategy
synth_1	constrs_1	Not started															Vivado Synthesis Defaults (Vivado Synthesis)
impl_1	constrs_1	Not started															Vivado Implementation Defaults (Vivado Impl)

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Synthesis Complete

Debug

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 - Constraints Wizard
 - Edit Timing Constraints

SYNTHESIZED DESIGN - xc7a200tfg1156-3 (active)

Sources Netlist

- DSPP
 - Nets (834)
 - Leaf Cells (370)
 - A1_REG (reg_mux)
 - B1_REG (reg_mux_0)
 - C_REG (reg_mux_parameterized0)
 - CARRYIN_REG (reg_mux_parameterized3)
 - D_REG (reg_mux_1)

Properties

Select an object to see properties

Schematic

374 Cells 346 IO Ports 834 Nets

Debug

Tcl Console Messages Log Reports Design Runs Debug

Name	Driver Cell	Driver Pin	Probe Type
Unassigned Debug Nets (0)			

Debug Cores Debug Nets

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Synthesis Complete ✓

Debug

Flow Navigator

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SYNTHESIZED DESIGN - xc7a200tbg1156-3 (active)

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- CARRYIN_REG (reg_mux_parameterized3)
- D_REG (reg_mux_1)

Properties

Select an object to see properties

Schematic

374 Cells 346 IO Ports 834 Nets

Tcl Console Messages Log Reports Design Runs Debug

Name Driver Cell Driver Pin Probe Type

Unassigned Debug Nets (0)

Debug Cores Debug Nets

Name: M_OBUF16_inst (OBUF) Reference name: OBUF Type: IO

23 26°C 8:38 AM 8/2/2024

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Synthesis Complete ✓

Debug

Flow Navigator

Create Block Design

Open Block Design

Generate Block Design

SIMULATION

RTL ANALYSIS

- Open Elaborated Design

SYNTHESIS

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- Edit Timing Constraints
- Set Up Debug
- Report Timing Summary
- Report Clock Networks
- Report Clock Interaction
- Report Methodology
- Report DRC
- Report Noise
- Report Utilization
- Report Power
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SYNTHESIZED DESIGN - xc7a200tbg1156-3 (active)

Sources

Netlist

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- CARRYIN_REG (reg_mux_parameterized3)
- D_REG (reg_mux_1)

Properties

Select an object to see properties

Schematic

374 Cells 346 IO Ports 834 Nets

Tcl Console Messages Log Reports Design Runs Utilization Debug

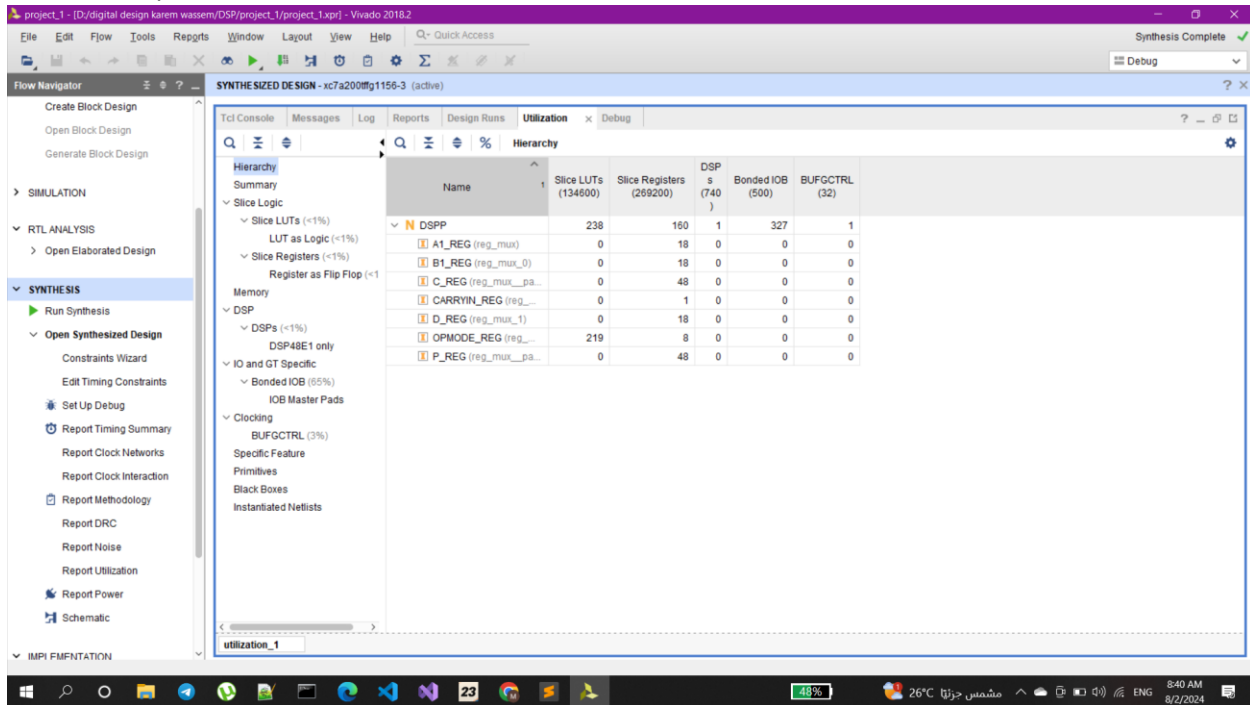
Hierarchy

Name	Slice LUTs (134500)	Slice Registers (269200)	DSP (740)	Bonded IOB (500)	BUFCTRL (32)
DSPP	238	160	1	327	1
A1_REG (reg_mux)	0	18	0	0	0
B1_REG (reg_mux_0)	0	18	0	0	0
C_REG (reg_mux_pa...	0	48	0	0	0

utilization_1

23 26°C 8:39 AM 8/2/2024

utilization report:

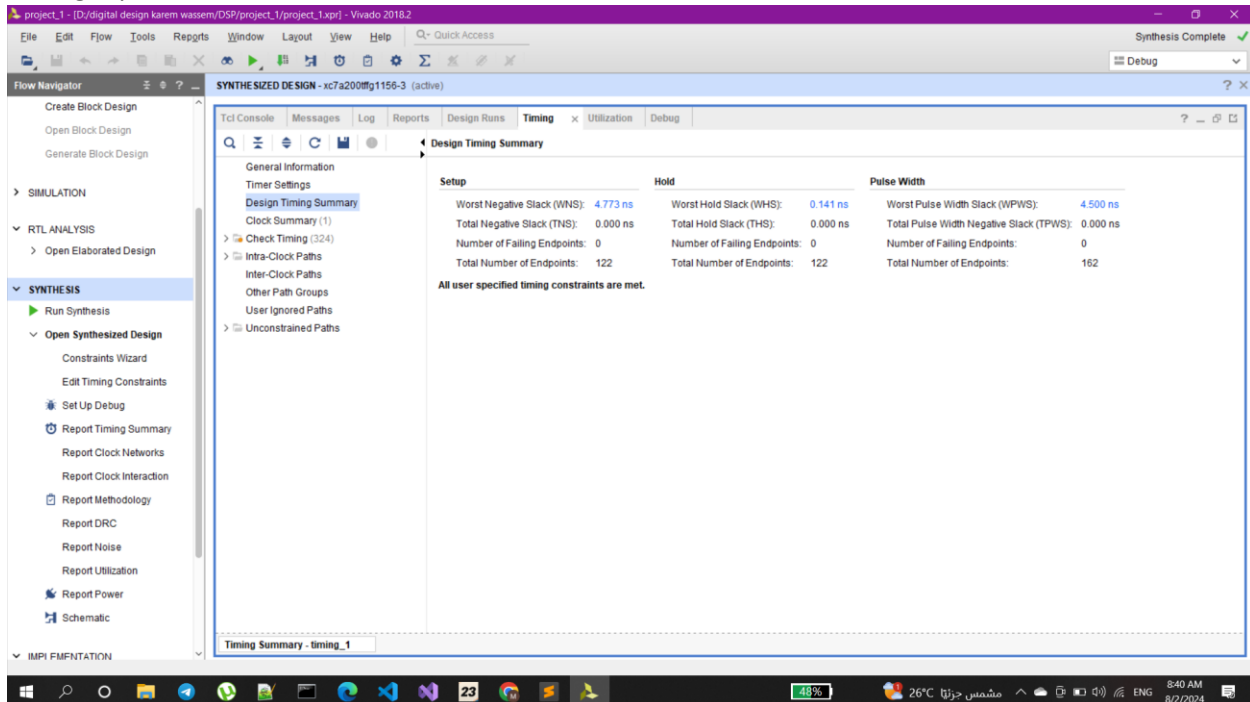


The screenshot shows the Vivado 2018.2 interface with the 'Utilization' report open. The report is titled 'SYNTHESIZED DESIGN - xc7a200tfg1156-3 (active)'. The left sidebar shows the 'SYNTHESIS' section expanded, with 'Run Synthesis' and 'Open Synthesized Design' options. The main window displays a table of utilization metrics for the design.

Name	Slice LUTs (134500)	Slice Registers (269200)	DSPs (740)	Bonded IOB (500)	BUFCTRL (32)
DSP	238	160	1	327	1
A1_REG (reg_max)	0	18	0	0	0
B1_REG (reg_max_0)	0	18	0	0	0
C_REG (reg_max_pa...	0	48	0	0	0
CARRYIN_REG (reg_...	0	1	0	0	0
D_REG (reg_max_1)	0	18	0	0	0
OPMODE_REG (reg_...	219	8	0	0	0
P_REG (reg_max_pa...	0	48	0	0	0

The bottom status bar shows the system temperature as 26°C and the date as 8/2/2024.

Timing report:



The screenshot shows the Vivado 2018.2 interface with the 'Timing' report open. The report is titled 'SYNTHESIZED DESIGN - xc7a200tfg1156-3 (active)'. The left sidebar shows the 'SYNTHESIS' section expanded, with 'Run Synthesis' and 'Open Synthesized Design' options. The main window displays a table of timing metrics for the design.

Setup	Hold	Pulse Width
Worst Negative Slack (WNS): 4.773 ns	Worst Hold Slack (WHS): 0.141 ns	Worst Pulse Width Slack (WPWS): 4.500 ns
Total Negative Slack (TNS): 0.000 ns	Total Hold Slack (THS): 0.000 ns	Total Pulse Width Negative Slack (TPWS): 0.000 ns
Number of Failing Endpoints: 0	Number of Failing Endpoints: 0	Number of Failing Endpoints: 0
Total Number of Endpoints: 122	Total Number of Endpoints: 122	Total Number of Endpoints: 162

The bottom status bar shows the system temperature as 26°C and the date as 8/2/2024.

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Synthesis Complete ✓

Debug

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 - Report Clock Networks
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 - Report Noise
 - Report Utilization

SYNTHESIZED DESIGN - xc7a200tfg1156-3 (active)

Sources Netlist

- A1_REG_n_4
- A1_REG_n_5
- A1_REG_n_6
- A1_REG_n_7
- A1_REG_n_8
- A1_REG_n_9
- A1_REG_n_10

Net Properties

A1_REG_n_10

General Properties Connectivity Power

Schematic

374 Cells 346 IO Ports 834 Nets

Tcl Console Messages Log Reports Design Runs Debug

Name	Driver Cell	Driver Pin	Probe Type
dbg_hub(labtools_xdbm_v3)			
u_ila_0(labtools_ila_v6)			
clk (1)			
probe0 (48)			Data and Trigger
probe1 (18)			Data and Trigger
probe2 (18)			Data and Trigger
probe3 (8)			Data and Trigger
probe4 (48)			Data and Trigger

Debug Cores Debug Nets

Name: opmode_IGUF7_inst (IGUF) Reference name: IGUF Type: IO

Windows Taskbar: 23 48% 26°C مشمس جزئيًا 8:44 AM 8/2/2024

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Synthesis Complete ✓

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SYNTHESIZED DESIGN - xc7a200tfg1156-3 (active)

Tcl Console Messages Log Reports Design Runs Debug

Name	Driver Cell	Driver Pin	Probe Type
dbg_hub(labtools_xdbm_v3)			
u_ila_0(labtools_ila_v6)			
clk (1)			
probe0 (48)			Data and Trigger
probe1 (18)			Data and Trigger
probe2 (18)			Data and Trigger
probe3 (8)			Data and Trigger
probe4 (48)			Data and Trigger
probe5 (18)			Data and Trigger
probe6 (1)			Data and Trigger
probe7 (1)			Data and Trigger
probe8 (1)			Data and Trigger
probe9 (1)			Data and Trigger
probe10 (1)			Data and Trigger
probe11 (1)			Data and Trigger
probe12 (1)			Data and Trigger
probe13 (1)			Data and Trigger
probe14 (1)			Data and Trigger
probe15 (1)			Data and Trigger
probe16 (1)			Data and Trigger
probe17 (1)			Data and Trigger
probe18 (1)			Data and Trigger
probe19 (1)			Data and Trigger
probe20 (1)			Data and Trigger

Debug Cores Debug Nets

Windows Taskbar: 23 48% 26°C مشمس جزئيًا 8:44 AM 8/2/2024

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Implementation Complete

Default Layout

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 - Report Methodology
 - Report DRC
 - Report Noise
 - Report Utilization
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- IMPLEMENTATION
 - Run Implementation
 - Open Implemented Design
 - Constraints Wizard
 - Edit Timing Constraints
 - Report Timing Summary

Sources Netlist

DSP

- Nets (906)
- Leaf Cells (370)
- A1_REG (reg_mux)
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- C_REG (reg_mux_parameterized0)
- CARRYIN_REG (reg_mux_parameterized3)
- D_REG (reg_mux_1)

Properties

Select an object to see properties

Project Summary Device

Timing

Design Timing Summary

General Information

Timer Settings

Design Timing Summary

Clock Summary (2)

- Check Timing (324)
- Intra-Clock Paths
- Inter-Clock Paths
- Other Paths Covered

Timing Summary - impl_1 (saved)

Setup	Hold	Pulse Width
Worst Negative Slack (WNS): 2.100 ns	Worst Hold Slack (WHS): 0.062 ns	Worst Pulse Width Slack (WPWS): 3.950 ns
Total Negative Slack (TNS): 0.000 ns	Total Hold Slack (THS): 0.000 ns	Total Pulse Width Negative Slack (TPWS): 0.000 ns
Number of Failing Endpoints: 0	Number of Failing Endpoints: 0	Number of Failing Endpoints: 0
Total Number of Endpoints: 6872	Total Number of Endpoints: 6856	Total Number of Endpoints: 4376

All user specified timing constraints are met.

37%

8:52 AM 8/2/2024