

Weekly Report

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Week13

Summary:

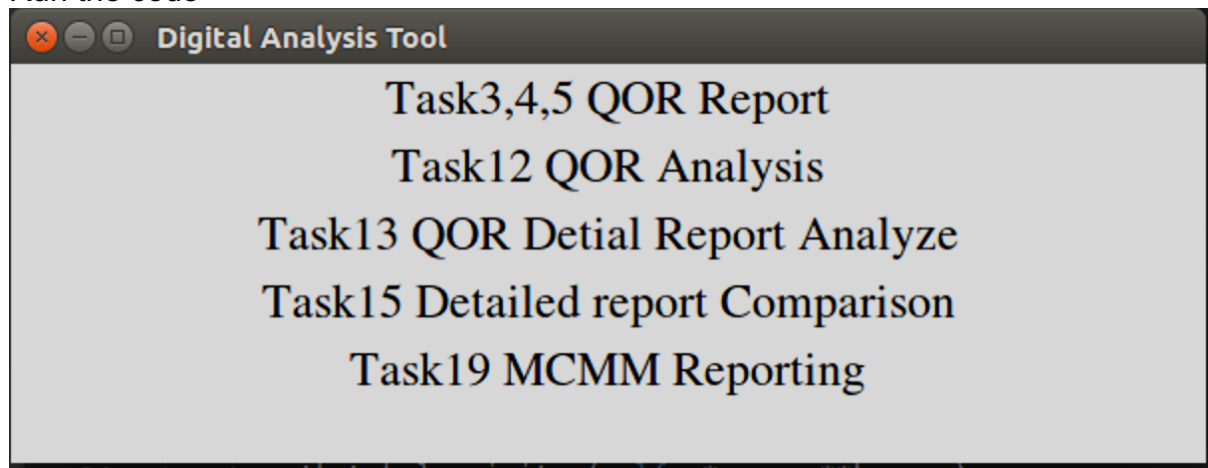
This week I was focus on combine partners' code. The folder will be uploaded only on git. My folder path is /u/linyi/Capstone. Prototype.py is the right one to run.

Issue:

There are some bugs in code but they will not affect to execute the codes.

Data:

Run the code



Task 3,4,5

The screenshot shows a window titled "QOR Report Compare". It features a search and filter interface at the top and a table of QOR metrics below.

Filter: Filter

Search: above

	INPUTS	OUTPUTS	rclk	wclk	INPUTS	OUTPUTS
Levels of Logic	2.000	1.000	9.000	5.000	2.000	1.000
Critical Path Length	0.338	0.108	0.643	0.946	0.338	0.108
Critical Path Slack	0.543	0.292	-0.166	0.035	0.543	0.292
Critical Path Clk Period	1.000	0.500	0.500	1.000	1.000	0.500
Total Negative Slack	0.000	0.000	-0.206	0.000	0.000	0.000
No. of Violating Paths	0.000	0.000	2.000	0.000	0.000	0.000
Worst Hold Violation	0.000	0.000	0.000	0.000	0.000	0.000
Total Hold Violation	0.000	0.000	0.000	0.000	0.000	0.000
No. of Hold Violations	0.000	0.000	0.000	0.000	0.000	0.000

Back to Raw

Add More Report

Show Report Number

Task 12

QOR report

Timing Path Group	INPUTS	OUTPUTS	clk	wclk
Levels of Logic	2.000	1.000	9.000	5.000
Critical Path Length	0.338	0.108	0.643	0.946
Critical Path Slack	0.543	0.292	-0.166	0.035
Critical Path Clk Period	1.000	0.500	0.500	1.000
Total Negative Slack	0.000	0.000	-0.206	0.000
No. of Violating Paths	0.000	0.000	2.000	0.000
Worst Hold Violation	0.000	0.000	0.000	0.000
Total Hold Violation	0.000	0.000	0.000	0.000
No. of Hold Violations	0.000	0.000	0.000	0.000

Report Details

Startpoint: rptr_empty/rempty_reg
Endpoint: rempty

Path Group: OUTPUTS
Path Type: max

Point	Cap	Trans	Incr	Path
clock clk (rise edge)			0.000	0.000
clock network delay (ideal)			0.000	0.000
rptr_empty/rempty_reg/CLK (DFFASX1)		0.000	0.000	0.000
rptr_empty/rempty_reg/QN (DFFASX1)	1.426	0.036	0.054	0.054
rptr_empty/U21/A (INVX0)		0.036	0.049	0.103
rptr_empty/U21/Y (INVX0)	0.004	0.018	0.005	0.108
rptr_empty/rempty (rptr_empty_ADDRISIZE2)			0.000	0.108
rempty (out)		0.018	0.000	0.108
data arrival time				0.108
clock clk (rise edge)			0.500	0.500
clock network delay (ideal)			0.000	0.500
output external delay			-0.100	0.400
data required time				0.400
data required time				0.400
data arrival time				-0.108
slack (MET)				0.292

PROBLEMS OUTPUT DEBUG CONSOLE

During handling of the above exception...

Traceback (most recent call last):
File "/usr/lib/python3.5/tkinter/return self.func(*args)
File "/home/parallels/Desktop/Caps...
task12 Build Detailed Table(self...
File "/home/parallels/Desktop/Caps...
self.Detailed data()
File "/home/parallels/Desktop/Caps...
self.Startpoint=re.search(r'Start...
AttributeError: 'NoneType' object has

Python 3.5.2

Capstone

Confirm

Task13

QOR Detail Report Analyze

gate_name_array	times	total_delay_array	total_s
fifomem/U10/Y (AO22X1)	2	0.053	-0.106
fifomem/U10/Y (AO22X1)	2	0.059	-0.106
fifomem/U11/Y (AO22X1)	2	0.053	-0.106
fifomem/U11/Y (AO22X1)	2	0.059	-0.106
fifomem/U12/Y (AO22X1)	2	0.053	-0.106
fifomem/U12/Y (AO22X1)	2	0.059	-0.106
fifomem/U13/Y (NAND3X0)	4	0.126	-0.106
fifomem/U13/Y (NAND3X0)	4	0.126	-0.106
fifomem/U13/Y (NAND3X0)	4	0.126	-0.106
fifomem/U13/Y (NAND3X0)	4	0.126	-0.106
fifomem/U14/Y (AO22X1)	2	0.056	-0.106
fifomem/U14/Y (AO22X1)	2	0.063	-0.106
fifomem/U15/Y (AO22X1)	2	0.056	-0.106
fifomem/U15/Y (AO22X1)	2	0.063	-0.106
fifomem/U16/Y (AO22X1)	2	0.056	-0.106
fifomem/U16/Y (AO22X1)	2	0.063	-0.106
fifomem/U17/Y (AO22X1)	2	0.056	-0.106
fifomem/U17/Y (AO22X1)	2	0.063	-0.106
fifomem/U19/Y (AO22X1)	2	0.056	-0.106
fifomem/U19/Y (AO22X1)	2	0.063	-0.106
fifomem/U2/Y (INVX1)	4	0.067	-0.106
fifomem/U2/Y (INVX1)	4	0.067	-0.106
fifomem/U2/Y (INVX1)	4	0.067	-0.106
fifomem/U2/Y (INVX1)	4	0.067	-0.106
fifomem/U20/Y (AO22X1)	2	0.056	-0.106
fifomem/U20/Y (AO22X1)	2	0.063	-0.106

Startpoint: \s(\S*)',selected report).group()
t has no attribute 'group'

Download

Task 15

Comparison Option

Startpoint: Endpoint:

Comparison Option:

PROBLEMS OUTPUT DEBUG CONSOLE

During handling of the above exception, a traceback (most recent call last):

```
File "/usr/lib/python3.5/tkinter/_init_.py", line 177, in __init__
    return self.func(*args)
File "/home/parallels/Desktop/Capstone/task12/Build_Detailed_Table(self.win
File "/home/parallels/Desktop/Capstone/task12/Build_Detailed_Table(self.win
File "/home/parallels/Desktop/Capstone/task12/Build_Detailed_Table(self.win
File "/home/parallels/Desktop/Capstone/task12/Build_Detailed_Table(self.win
AttributeError: 'NoneType' object has no attribute 'search'
```

Python 3.5.2

Digital Analysis Tool

1st report: QORs_Detailed_Timing_Report.txt 2nd report: QORs_Detailed_Timing_Report.txt

Cell or net name	Cap from 1st report	Cap from 2nd report	Diff_Cap
clock rclk (rise edge)			-
rptr_empty/rempty_reg/CLK (DFFASX1)			-
rptr_empty/rempty_reg/Q (DFFASX1)	0.862	0.862	0.000
rptr_empty/U10/A2 (NOR2X1)			-
rptr_empty/U10/Y (NOR2X1)	1.285	1.285	0.000
rptr_empty/U20/A2 (NAND2X0)			-
rptr_empty/U20/Y (NAND2X0)	1.068	1.068	0.000
rptr_empty/U4/A1 (XOR2X1)			-
rptr_empty/U4/Y (XOR2X1)	1.495	1.495	0.000
rptr_empty/U25/A (NBUFFX2)			-
rptr_empty/U25/Y (NBUFFX2)	1.719	1.719	0.000
rptr_empty/U15/A1 (XOR2X1)			-
rptr_empty/U15/Y (XOR2X1)	1.818	1.818	0.000
rptr_empty/U5/A1 (XOR2X1)			-
rptr_empty/U5/Y (XOR2X1)	0.654	0.654	0.000
rptr_empty/U12/A1 (AND3X1)			-
rptr_empty/U12/Y (AND3X1)	0.734	0.734	0.000
rptr_empty/rempty_reg/D (DFFASX1)			-
clock rclk (rise edge)			-
rptr_empty/rempty_reg/CLK (DFFASX1)			-

Task 19

Timing Report Details

Search

☐ Startpoint ☐ Endpoint

☐ Path Group ☐ Timing Slack

Keyword

Startpoint	Endpoint	Path Group	Timing Slack
wdata[0]	fifomem/mem_reg[0][0]	INPUTS	0.643
wdata[1]	fifomem/mem_reg[0][1]	INPUTS	0.643
wdata[2]	fifomem/mem_reg[0][2]	INPUTS	0.643
wdata[3]	fifomem/mem_reg[0][3]	INPUTS	0.643
wdata[0]	fifomem/mem_reg[1][0]	INPUTS	0.643
wdata[1]	fifomem/mem_reg[1][1]	INPUTS	0.643
wdata[2]	fifomem/mem_reg[1][2]	INPUTS	0.643
wdata[3]	fifomem/mem_reg[1][3]	INPUTS	0.643
wdata[0]	fifomem/mem_reg[2][0]	INPUTS	0.643
wdata[1]	fifomem/mem_reg[2][1]	INPUTS	0.643
wdata[2]	fifomem/mem_reg[2][2]	INPUTS	0.643
wdata[3]	fifomem/mem_reg[2][3]	INPUTS	0.643
wdata[0]	fifomem/mem_reg[3][0]	INPUTS	0.645
wdata[1]	fifomem/mem_reg[3][1]	INPUTS	0.645
wdata[2]	fifomem/mem_reg[3][2]	INPUTS	0.645
wdata[3]	fifomem/mem_reg[3][3]	INPUTS	0.645
rptr_empty/rempty_reg	rempty	OUTPUTS	0.292
wptr_full/wfull_reg	wfull	OUTPUTS	0.815
rptr_empty/rempty_reg	rptr_empty/rempty_reg	rclk	-0.066
rptr_empty/rempty_reg	rptr_empty/rptr_reg[1]	rclk	-0.040
rptr_empty/rempty_reg	rptr_empty/rbin_reg[1]	rclk	0.002
rptr_empty/rempty_reg	rptr_empty/rbin_reg[2]	rclk	0.013
rptr_empty/rempty_reg	rptr_empty/rptr_reg[2]	rclk	0.013
rptr_empty/rempty_reg	rptr_empty/rptr_reg[0]	rclk	0.055
rptr_empty/rbin_reg[0]	rptr_empty/rbin_reg[0]	rclk	0.208
wptr_full/wfull_reg	fifomem/mem_reg[3][0]	wclk	0.035
wptr_full/wfull_reg	fifomem/mem_reg[3][1]	wclk	0.035
wptr_full/wfull_reg	fifomem/mem_reg[3][2]	wclk	0.035
wptr_full/wfull_reg	fifomem/mem_reg[3][3]	wclk	0.035
wptr_full/wfull_reg	fifomem/mem_reg[1][0]	wclk	0.039
wptr_full/wfull_reg	fifomem/mem_reg[1][1]	wclk	0.039
wptr_full/wfull_reg	fifomem/mem_reg[1][2]	wclk	0.039
wptr_full/wfull_reg	fifomem/mem_reg[1][3]	wclk	0.039