SOP for Testing Benchmarks

- Latest update date: 2017/3/11

- Different benchmarks have their own relation thresholds.
- Even in the same benchmark, the threshold will change as the desired year vary.
- Please see senior's excel report. (Here is the web address: https://docs.google.com/spreadsheets/d/140nYICxbzfbPVGdMJ8hyNpXT60eBPewJ6TzLxGu5bAI/edit#gid=1939668270) Otherwise, please refer to the following table.
- Change the arguments in "Parameter.txt".

Original Arguments (Not Suitable for PV-Aware)			
Benchmark	Year	R^2 threshold	Threshold Error
vga	2	0.36	< 0.03
	3	0.36	< 0.03
	4	0.36	< 0.03
	5	0.36	< 0.03
	6	0.36	< 0.03
3mp	2	No	No
	3	0.80	< 0.01
	4	0.80	< 0.01
	5	0.80	< 0.01
	6	0.80	< 0.01
netcard	2	No	No
	3	No	No
	4	No	No
	5	0.80	< 0.03
	6	0.80	< 0.03
s38417	2	0.65	< 0.01
	3	0.50	< 0.02
	4	0.40	< 0.02
	5	0.36	< 0.03
	6	0.36	< 0.03
des	2	0.36	< 0.03
	3	0.36	< 0.03
	4	0.36	< 0.03
	5	0.36	< 0.03
	6	0.36	< 0.03

- In “Parameter.txt”, try to tune their arguments.

```
0.0039 0.5 0.2
thershold 0.03
edge error 0.03
PLUS fixed 7
TIGHT 1.000001
FINAL 2
MONTE YES
Global_Times 90
Global_Th 30
PVRange 0.025
R_Threshold 65
R_RunTime 100
L_Threshold 75
L_RunTime 100
Ref_Times 100
Ref_Threshold 75
Qual_Threshold 70
Qual_Times 100
Q_Monte Open
```

Tune their values in PV-Aware mode.

Tune their values.
Note: If “Q_Monte” is “Close”, they will be invalid. In other words, they will not work in original mode.

- When you change the argument of “Q_mode” in “Parameter.txt”, the following variables in corresponding functions will be modified, too.

```
R_RunTime 100
L_Threshold 75
L_RunTime 100
Ref_Times 100
Ref_Threshold 75
Qual_Threshold 70
Qual_Times 100
Q_Monte Open
```

Change it in different modes. When Q_Monte equal “Open”, the system is
in “PV-Aware mode”. Otherwise, when Q_Monte equal “Close”, the system is “Original mode”.

- Finally, execute it on terminal.

```
$ ./research vga 5 300 1 1001
```

1. vga : file name.
2. 5 : Desired year.
3. 1 : Refine times.
4. 1001 : Instance # for backend pv simulation.