

pt

PrimeTime 2019 Workshop Lab & Student Lab guide <http://bbs.eetop.cn/thread-916544-1-1.html> (出处: EETOP 创芯网论坛 (原名: 电子顶级开发网))

1. report_timing

```
string report_timing
  [-from from_list
    | -rise_from rise_from_list
    | -fall_from fall_from_list]
  [-to to_list
    | -rise_to rise_to_list
    | -fall_to fall_to_list]
  [-through through_list]
  [-rise_through rise_through_list]
  [-fall_through fall_through_list]
  [-exclude exclude_list
    | -rise_exclude rise_exclude_list
    | -fall_exclude fall_exclude_list]
  [-delay_type delay_type] #min(hold), max(setup)
  [-nworst paths_per_endpoint]
  [-max_paths max_path_count]
  [-group group_name]
  [-unique_pins]
  [-slack_greater_than minimum_slack]
  [-slack_lesser_than maximum_slack]
  [-ignore_register_feedback feedback_slack_cutoff]
  [-report_ignored_register_feedback]
  [-include_hierarchical_pins]
  [-trace_latch_borrow]
  [-trace_latch_forward]
  [-pba_mode none | path | exhaustive]
  [-start_end_type from_to_type]
  [-normalized_slack]
  [-start_end_pair]
  [-cover_design]
  [-cover_through through_list]
  [-dont_merge_duplicates]
  [-pre_commands pre_command_string]
  [-post_commands post_command_string]
  [-path_type format] #full, full_clock, full_clock_expanded
  [-input_pins]
  [-nets]
  [-nosplit]
  [-transition_time]
  [-capacitance]
```

```

[-significant_digits digits]
[-crosstalk_delta]
[-derate]
[-variation]
[-exceptions dominant | overridden | all]
[-voltage]
[-supply_net_group]
[-physical]
[-sort_by group | slack]
[-tag_paths_filtered_by_pba tag_name]
[path_collection]

```

加上-exceptions all可以报出unconstrained path

这样可以用一些special check,去检查这种异步路径的走线时延,比如用来检查FIFO

The unconstrained paths and their reason is reported for all three options if

timing_report_unconstrained_paths variable is set to true, otherwise unconstrained paths will not be reported.

```
set_app_var timing_report_unconstrained_paths true
```

2. report_clock

```

status report_clock
  [-attributes]
  [-skew]
  [-groups]
  [-map]
  [-map_of instance_list]
  [-cells hierarchical_cell_list]
  [-include internal | virtual]
  [-exclusivity]
  [-nosplit]
  [clock_names]

```

report_clock -exclusivity -groups可以报出设置了哪些clock group 是通过set_clock_groups命令。

3. set_clock_groups

```
status set_clock_groups
  -group clock_list
  [-exclusive]
  [-physically_exclusive]
  [-logically_exclusive]
  [-asynchronous]
  [-allow_paths]
  [-name name]
  [-comment comment_string]
```

set_clock_groups -physically_exclusive -group {CLK1 CLK3} -group {CLK2 CLK4}
 CLK1 & CLK3是一个group, CLK2 & CLK4是一个group, CLK1 CLK3 与CLK2 CLK4为不同group(异步)

4. create_generated_clock

```
string create_generated_clock
  [-name clock_name]
  -source master_pin
  [-divide_by divide_factor | -multiply_by multiply_factor |
  -edges edge_list ]
  [-combinational]
  [-duty_cycle percent]
  [-invert]
  [-preinvert]
  [-edge_shift edge_shift_list]
  [-add]
  [-master_clock clock]
  [-pll_output output_pin]
  [-pll_feedback feedback_pin]
  [-comment comment_string]
  source_objects
```

如果gen clk设置得不对的话,会导致其定义点定义不上时钟,并且之后的fanout也不会有时钟,这点有注意。

一般在update timing的时候会报gen clk不能expand[]这时候就要去检查下gen clk是否设置正确。

而且generated clock定义点如果原来有多个clock sources的话,需要对每个clock sources都给定义generated clock,而且还要设置好相应的clock group定义不全的话,会导致后续否则与相应source点之间没有timing path[] 可能会有timing风险。

5. set_sense

```
status set_sense
  [-type clock | data]
  [-non_unate]
  [-rise]
  [-fall]
  [-clock_fall]
  [-clock_rise]
  [-primary]
  [-generated]
  [-positive]
  [-negative]
  [-stop_propagation]
  [-clock_leaf]
  [-pulse pulse_type]
  [-clocks clock_list]
  object_list
```

6. report_sense

```
string report_sense
  [-type clock | data]
  [-clocks clock_list]
  [-nosplit]
  object_list
```

7. report_global_slack

Displays slack of specified pins or ports.

```
string report_global_slack
  [-significant_digits digits]
  [-nosplit]
  [-min]
  [-max]
  [-rise]
  [-fall]
  port_pin_list
```