数字部分 实验二 逻辑综合与等价性检查

五、思考题

(1) 从2.4.4节生成的报告中，找出以下数据并填入表格中。

**report\_timing命令运行结果中的部分数据**

|  |  |
| --- | --- |
| **Critical Path** | **Value** |
| **Group** | clk |
| **Start Point** | count\_reg[0]/CK |
| **End Point** | count[0] |
| **Clock Edge (ps)** | capture+10000 launch0 |
| **Output Delay (ps)** | -1000 |
| **Require Time (ps)** | 9000 |
| **Data Path Delay (ps)** | -316 |
| **Slack (ps)** | 8684 |

**report\_power命令运行结果中的部分数据**

|  |  |
| --- | --- |
| **Item** | **Value** |
| **Instance** | counter |
| **Cells** | 21 |
| **Leakage Power (nW)** | 1.544 |
| **Dynamic Power (nW)** | 3921.389 |
| **Total Power (nW)** | 3922.933 |

**report\_qor命令运行结果中的部分数据**

|  |  |
| --- | --- |
| **Item** | **Value** |
| **Clock Period (ps)** | 10000.0 |
| **Critical Path Slack (ps)** | 8684.3 |
| **Total Negative Slack (TNS) (ps)** | 0 |
| **Sequential Instance Count** | 8 |
| **Combinational Instance Count** | 13 |
| **Total Area (um2)** | 72.504 |
| **Max Fanout** | 8(clk) |
| **Min Fanout** | 0(rst) |
| **Average Fanout** | 2.3 |

(2) 从4.4节生成的报告中，找出以下数据并填入表格中。

**set system mode lec命令运行结果**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mapped points: SYSTEM class** | | | | |
| **Mapped points** | **PI** | **PO** | **DFF** | **Total** |
| **Golden** | **2** | **8** | **8** | **18** |
| **Revised** | **2** | **8** | **8** | **18** |

**compare**命令运行结果

|  |  |  |  |
| --- | --- | --- | --- |
| **Compared points** | **PO** | **DFF** | **Total** |
| **Equivalent** | **8** | **8** | **16** |

**report verification**命令运行结果

|  |  |
| --- | --- |
| **Verification Report** | |
| **Category** | **Count** |
| **1.** **Non-standard modeling options used:** | **0** |
| **2.** **Incomplete verification:** | **0** |
| **3.** **User modification to design:** | **0** |
| **4.** **Conformal Constraint Designer clock domain crossing checks recommended:** | **0** |
| **5.** **Design ambiguity:** | **0** |
| **6.** **Compare Results:** | **PASS** |