

Guidelines for LUT/Delay Comparison

1. The LUT/Delay comparison is to be done for the three multipliers separately while your problem statement is such that all the three multipliers are part of a single design.
2. To get the LUT/Delay comparison for the three multipliers, you need to synthesize each of them separately. Let's say, your three multipliers are, M1, M2 and M3 and your top level design is lab6_multiplier.
 - a. Write click on M1 and select "Set as Top".
 - b. Click on Run synthesis and you will be able to see the "Utilization Report" in the Reports tab. You can find the number of slice LUTs in this report.
 - c. For getting the maximum frequency, click on "Open Synthesized Design" and then select "Report Timing Summary" in the pop-down list. This would give you the report of WNS,TNS (Worst negative slack, total negative slack).
 - d. To interpret these, please go through this webpage:
<http://billauer.co.il/blog/2017/01/vivado-minimal-period-timing/>
 - e. Repeat the above steps to get other (M2,M3) multipliers summary report.