

#### Lab 4 Critical Path Questions

The critical path of your design. You can find it by going to “Design Runs” then double clicking on the Worst Negative Slack (WNS). Then, click on the Worst Negative Slack value under “Setup.” This report lists the longest paths in your design, with the one with the least positive/most negative being the critical path.

Report the slack, source, and destination of the critical path.

Look at the list of locations the signal visits under 'Maximum Data Path'. Do you recognize from where in your logic this path comes from?

#### Critical Path

**Slack: -2.391**

**Source: music\_player/codec\_conditioner/next\_sample\_latch/q\_reg[1]/C**

**Destination: adau1761\_codec/i2c\_interface/Inst\_i2s\_data\_interface/sr\_out\_reg[49]/D**

**It seems that it comes from the codec\_conditioner communicating with the adau1761\_codec**