HW#9

Problem #1

SN74LS273N D flip flop setup=20nS or 25nS propagation=27nS

SN74LS08N AND T\_p (Low 2 High) = 27nS

SN74LS32N OR T\_p (High 2 Low) = 22nS

SN74LS04N NOT T\_p (Low 2 High) = 22nS

T\_Total = 27nS + (27+22+22)nS + 20nS = 118nS = 8.47Mhz

8.47/100 = 8.47% as fast as 100Mhz FPGA

The AS series is the fastest with a 2nS propagation delay

T\_Total = 2nS + (2+2+2)nS + 2nS = 10nS = 100Mhz

Wow its equal!

Power, PCB area and ease of making changes are areas where an FPGA solution may be superior.

