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EECS150 Spring 2000 J. Wawrzynek E. Caspi

Quiz #10 – Solution

The carry-select scheme splits the 16-bit adder into four 4-bit quarters. Each quarter except the least-significant one is duplicated, computed once with a carry-in of 0 and once with a carry-in of 1. The critical path is 10 cycles: 4 cycles to the carry-out of the least-significant quarter, plus 2 cycles for each of 3 cascaded multiplexor pairs on the way to S[15:12] and C_{out}.

