

Multiplier Functional Unit Design

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1 Administrivia

Announcements

Assignment

From Last Time

Multiplier functional unit.

Outline

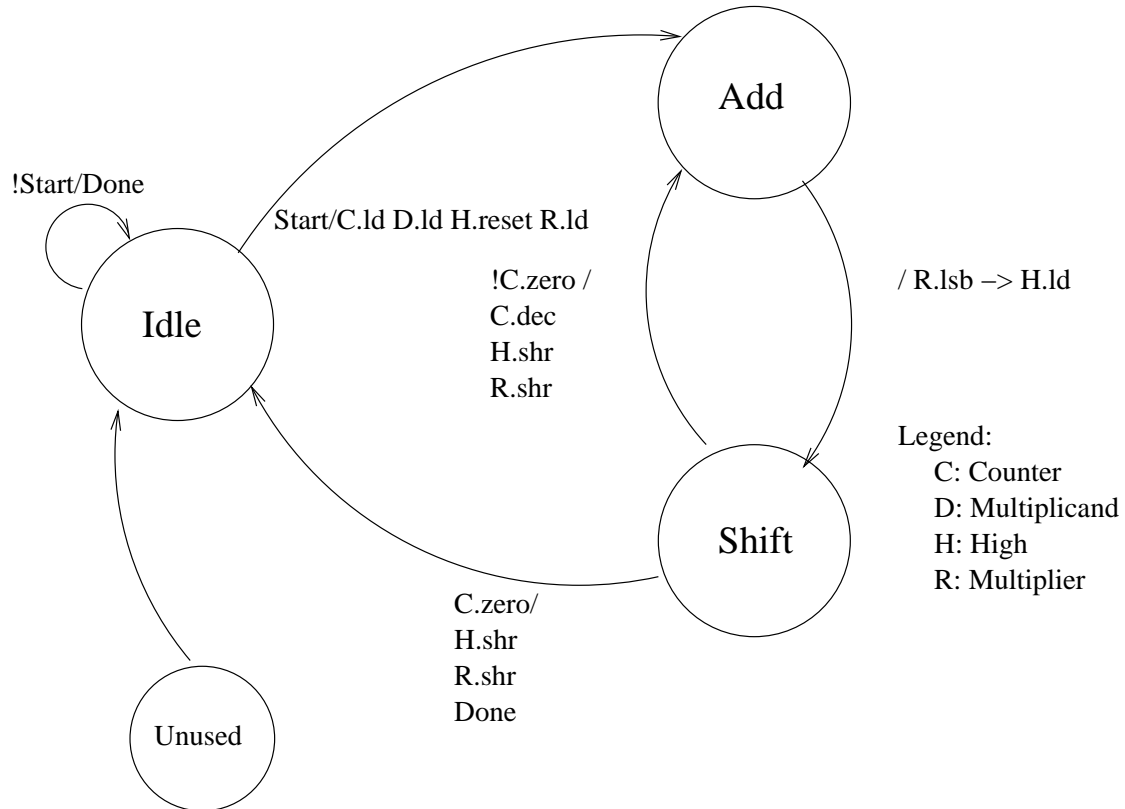
1. Review of controller's state diagram.
2. Determination of unique entities.
3. Team selection. High level entity design and review.

Coming Up

VHDL for multiplier.

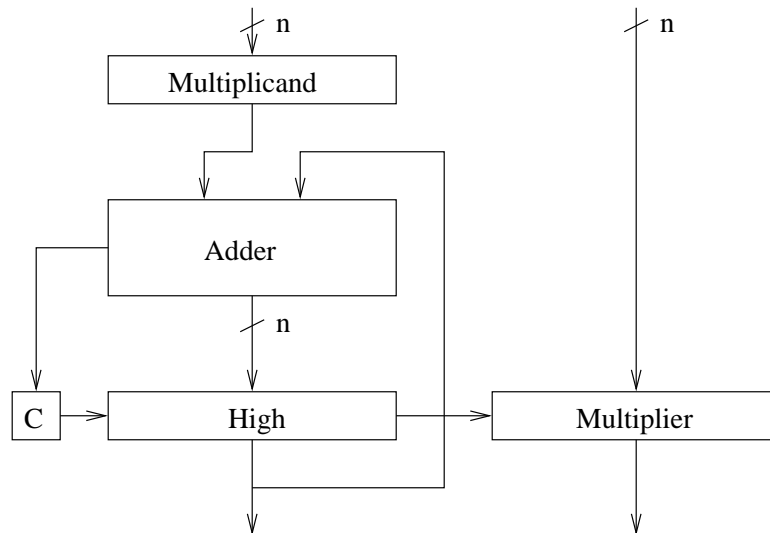
2 Controller's State Diagram

An improved state diagram:



3 Unique VHDL entities

The datapath:



Remember, $n = 16$.

How many unique entities will we need?

4 Teams, Design, Review

1. Split into teams to design the entities.
2. Write your entity declarations (*not* definitions), a verbal sketch of your entity's operation, and prepare to present a design review.